23E-05197

Reclamation Closure

Todd 36 D State #002

32.2672234,-103.7389755

nAB1815052591

Prepared for:
Devon Energy

Prepared by:
Vertex Resource Services Inc.

Date:
July 2025

Reclamation Closure
Todd 36 D State #002

Prepared for:
Devon Energy
5315 Buena Vista Dr
Carlsbad, New Mexico 88220

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

Katrina Taylor
Katrina Taylor, B.Sc
ENVIRONMENTAL TECHNITIAN, REPORTING

July 24, 2025
Date

Sally Carttar
Sally Carttar, B.A.
PROJECT MANAGER, REPORT REVIEW

July 29, 2025
Date

Executive Summary

Devon Energy (Devon) retained Vertex Resource Services Inc. (Vertex) to complete a reclamation closure for the Todd 36 D State #002 located on federal land in Unit D, Section 36, Township 23 South, Range 31 East (hereafter referred to as "site"). The site visit was conducted on July 24, 2025.

The off pad area of incident was remediated to reclamation criteria at the time of the incident then backfilled with clean locally sourced material. The on-pad areas were remediated to standards set in NMAC 19.15.29.12 Table 1. A sample of the backfill was sent for laboratory analysis, analyzed for contaminates, and found to be below the strictest criteria. The soil quality of the backfill was tested and compared to the soil quality in the surrounding undisturbed pastureland. The soil samples were field tested for pH, nitrogen, phosphorous, and potassium. Results showed them to have comparable concentrations of the nutrients.

This document provides a description of the site, summary of the previous environmental work, and details of the fulfillment of the reclamation criteria for the incident NAB1815052591.

Site Evaluation

The site had been previously excavated to remediation standards on pad and reclamation criteria off pad. The Remediation Closure Report was accepted by NMOCD on June 26, 2025. The release area encompassed areas both on the production pad and in the pastureland.

Reclamation Compliance

Backfill Sample

The location was originally backfilled upon the completion of the remediation. One 5-point composite sample of the backfill caliche (SS25-01) and one 5-point composite sample of the backfill topsoil (SS25-02) was collected before backfilling the location on April 4, 2025 and analyzed for contaminants regulated in NMAC 19.15.29.12 Table 1 by Eurofins Laboratories. Analysis showed the backfill sample to be in compliance with reclamation standards (Attachment 6).

Backfill Quality in the Pastureland

A sample of the topsoil used to backfill the pastureland was analyzed for soil quality using nearby historically undisturbed pastureland as a control. The two samples were field analyzed for pH, nitrogen, phosphorous, and potassium. pH was assessed using a pH indicator to be alkaline, neutral, or acidic. The nitrogen, phosphorous, and potassium concentrations were assigned a qualitative ranking of very low, low, medium, or high based on the optical density and standardized by referencing a color chart against a white background. The opacities backfill and pastureland control were also directly compared to establish relative concentrations.

The pH of both the backfill and the pastureland was neutral. The nitrogen concentration of the backfill and pastureland was very low making them comparable. The phosphorous concentration of the backfill and pastureland was high making them comparable. The potassium concentration of the backfill and pastureland was low making them comparable. This establishes the backfill as a comparable quality to the surrounding pastureland (Attachment 5).

Regrowth in the Pastureland

The off-pad release area has approximately 5% of background vegetation coverage. The vegetation on the release area is primarily composed of lovegrass, caltrops, and prairie sunflowers. The undisturbed pastureland areas of the surrounding pastureland have nearly full vegetation coverage. Background vegetation cover is primarily composed of lovegrass and honey mesquite with interspersed daises. Both the release area and pastureland vegetation being composed of primarily lovegrass suggests the clean nutrient rich topsoil is being naturally revegetated by the undisturbed pastureland.

Backfill Compliance the Pastureland

The top foot of material contains clean locally sourced topsoil proven suitable for vegetation regrowth. Following the backfilling of the excavation, the topsoil was contoured flat to match the surrounding areas and

minimize erosion. The lay-flat and other production lines were returned to the area restoring it to the land use before the release occurred.

Production Pad

The northern area of the release occurred on an oil and gas pad still necessary for operations. The on-pad excavation walls were remediated to strictest criteria, while the 1-foot bgs base was remediated in accordance with NMAC 19.15.29.12 Table 1 depth to groundwater 51-100 feet bgs. Post excavation the area was backfilled and compacted with clean locally sourced caliche. Minimal plant growth is sanctioned on areas necessary for operations. Remediation to reclamation standards and restoration of the site will be completed at such time as all oil and gas activities are terminated and the site is reclaimed as per NMAC 19.15.29.13.

Revegetation Plan and Monitoring Program

Following pad reclamation, seeding will occur per the landowners' guidelines, and bi-annual inspections will be conducted during the growing season to monitor site progression and assess the need for any additional best management practices (BMPs). Inspections will include photographs of the site and BMPs implemented.

Final Assessment

During the bi-annual inspections, if site conditions are at or nearing background conditions, a final report will be completed. The report will provide a summary of reclamation work performed, a summary and interpretation of monitoring data collected, and interpretation of historical monitoring data, if applicable.

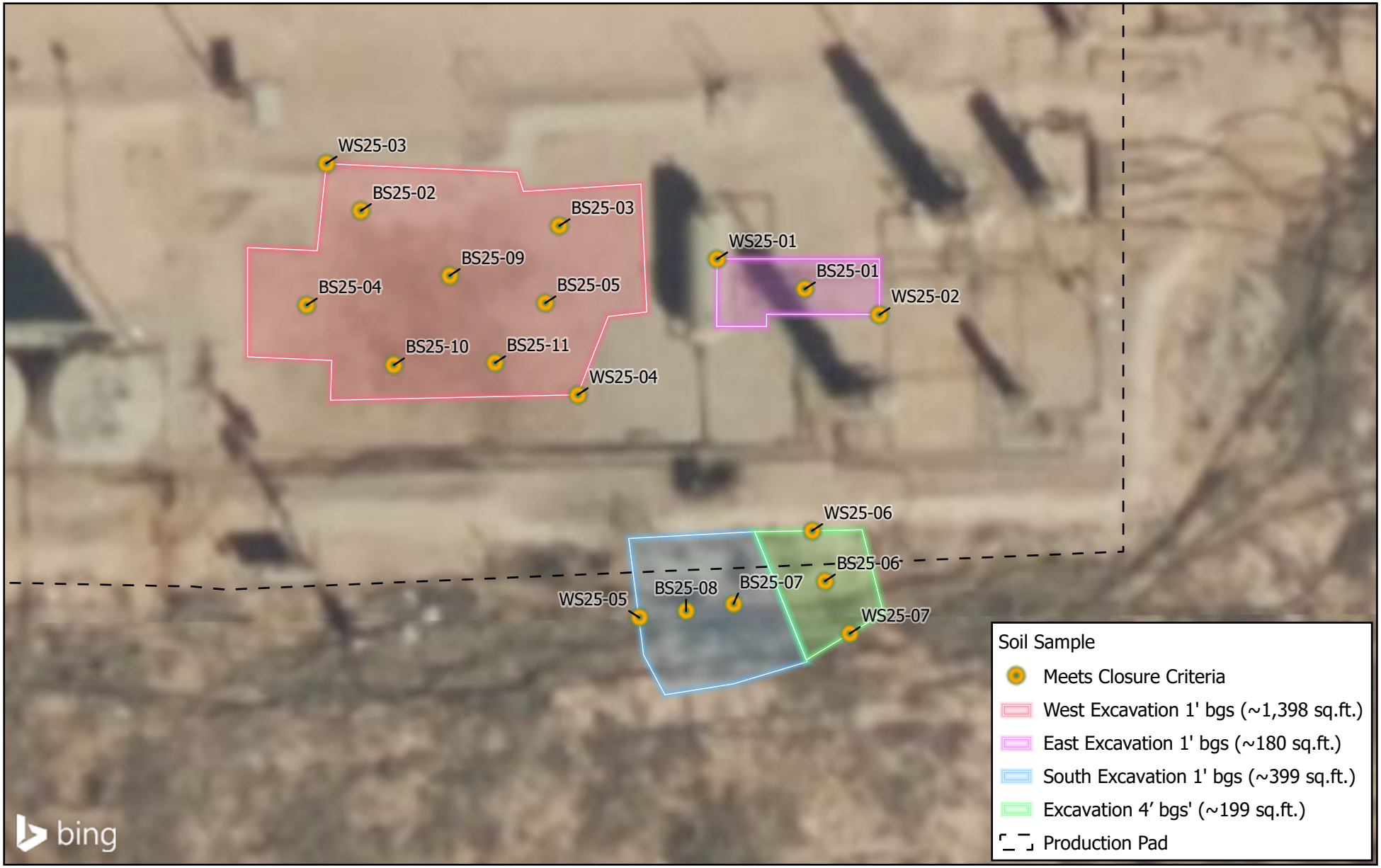
Reclamation Closure Request

Vertex Resource Group requests on behalf of Devon Energy that Reclamation Closure is accepted for the off-pad area of the release with the understanding that an additional Reclamation Report and Revegetation Report will be submitted once oil and gas operations have ceased.

List of Attachments

Attachment 1. Confirmation Sampling Site Schematic Figure
Attachment 2. Backfill Samples Laboratory Results Table
Attachment 3. On-Pad Confirmation Sample Laboratory Results Table
Attachment 4. Off-Pad Confirmation Sample Laboratory Results Table
Attachment 5. Daily Site Visit and Site Photographs
Attachment 6. Laboratory Analysis of Backfill and Confirmation Samples

ATTACHMENT 1



VERTEX

0 10 20 ft

NAD 1983 StatePlane New Mexico East FIPS 3001 Feet

Map Center:
Lat/Long: 32.266878°N, 103.738701°W

Date: Apr 17/25

N

Confirmation Sampling Site Schematic
Todd 36 D State #002

FIGURE: 1

devon

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.

ATTACHMENT 2

Client Name: Devon Energy Production Company, LP
Site Name: Todd 36 D State #002
NMOCD Tracking #: nAB1815052591
Project #: 23E-05197
Lab Reports: 885-22760-1

Table 1. Backfill 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)	(mg/kg)
			Depth to Groundwater 51-100ft							
SS25-01	-	April 4, 2025	ND	ND	ND	22	ND	22	22	360
SS25-02	-	April 4, 2025	ND	ND	ND	ND	ND	ND	ND	ND

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed
Bold and green shaded indicates exceedance outside of NMOCD Reclamation Closure Criteria

VERTEX

ATTACHMENT 3

Client Name: Devon Energy Production Company, LP
Site Name: Todd 36 D State #002
NMOCD Tracking #: nAB1815052591
Project #: 23E-05197
Lab Reports: 885-22760-1, 885-23045-1, 885-23300-1, and 885-23304-1

Table 2. On-Pad 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)	(mg/kg)
			On-Pad Depth to Groundwater 51-100ft							
BS25-01	1	April 4, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BS25-02	1	April 4, 2025	ND	ND	ND	380	380	380	760	ND
BS25-03	1	April 4, 2025	ND	ND	ND	66	73	66	139	290
BS25-04	1	April 4, 2025	ND	ND	ND	160	140	160	300	ND
BS25-05	1	April 4, 2025	ND	ND	ND	170	130	170	300	310
BS25-09	1	April 8, 2025	ND	ND	ND	190	180	190	370	ND
BS25-10	1	April 11, 2025	ND	ND	ND	60	63	60	123	ND
BS25-11	1	April 11, 2025	ND	ND	ND	240	190	240	430	ND
WS25-01	0-1	April 11, 2025	ND	ND	ND	ND	ND	ND	ND	ND
WS25-02	0-1	April 8, 2025	ND	ND	ND	ND	ND	ND	ND	97
WS25-03	0-1	April 4, 2025	ND	ND	ND	55	59	55	**114**	120
	0-1	April 4, 2025	ND	ND	ND	ND	ND	ND	**ND**	190
WS25-04	0-1	April 11, 2025	ND	ND	ND	ND	ND	ND	ND	110

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed
Bold and green shaded indicates exceedance outside of NMOCD Reclamation Closure Criteria
Bold and blue shaded indicates re-collected sample results inside NMOCD Reclamation Closure Criteria

ATTACHMENT 4

Client Name: Devon Energy Production Company, LP
Site Name: Todd 36 D State #002
NMOCD Tracking #: nAB1815052591
Project #: 23E-05197
Lab Reports: 885-22760-1, 885-23045-1, 885-23300-1, and 885-23304-1

Table 3. Off-Pad 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)	(mg/kg)
			Off Pad - Depth to Groundwater 51-100ft							
BS25-06	4	April 8, 2025	ND	ND	ND	54	130	54	184	72
BS25-07	1	April 8, 2025	ND	ND	ND	ND	ND	ND	ND	ND
BS25-08	1	April 8, 2025	ND	ND	ND	ND	ND	ND	ND	ND
WS25-05	0-1	April 8, 2025	ND	ND	ND	ND	ND	ND	ND	ND
WS25-06	0-4	April 11, 2025	ND	ND	ND	ND	ND	ND	ND	ND
WS25-07	0-4	April 11, 2025	ND	ND	ND	ND	ND	ND	ND	ND

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed
Bold and green shaded indicates exceedance outside of NMOCD Reclamation Closure Criteria

ATTACHMENT 5

Daily Site Visit Report

Client:	Devon Energy Corporation	Incident ID #:	nAB1815052591
Site Location Name:	Todd 36 D State #002	API #:	30-015-27365
Inspection Date:	7/24/2025		

Summary of Times	
Arrived at Site	7/24/2025 10:15 AM
Departed Site	7/24/2025 11:56 AM

Daily Site Visit Report

Field Notes

10:41 Completed safety paperwork upon arrival

10:41 Took site wide photographs of the backfilled area

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: Southwest

Western on pad area backfilled to return it to on pad conditions

Viewing Direction: West

Eastern on pad area backfilled to return it to on pad conditions

Viewing Direction: Northeast

Western on pad area backfilled to return it to on pad conditions

Viewing Direction: East

Pastureland area backfilled and contoured to match the surrounding area

Daily Site Visit Report

Viewing Direction: Northwest	**Viewing Direction**: East
	
Pastureland area backfilled and contoured	Native grasses, caltrops, and prairie sunflowers have begun growing in the edges of the former excavation. Backfill sample taken from this area

Daily Site Visit Report

Viewing Direction: East

Layflats and other lines for oil and gas production were put back after the excavation was completed

Viewing Direction: Southwest

Pastureland control sample was taken approximately 50ft south of the excavation. The pastureland is composed of love-grasses and honey mesquites with interspersed daisies

Viewing Direction: Southeast

The pastureland is composed of love-grasses and honey mesquites with interspersed daisies

Viewing Direction: North

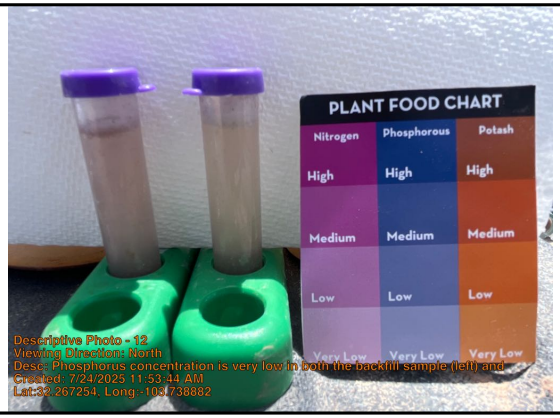
PH is neutral in both the backfill sample (left) and the pastureland control (right)

Daily Site Visit Report

Viewing Direction: North

Phosphorus concentration is high in both the backfill sample (left) and the pastureland control (right)

Viewing Direction: North



Phosphorus concentration is very low in both the backfill sample (left) and the pastureland control (right)

Viewing Direction: North

Phosphorus concentration is low in both the backfill sample (left) and the pastureland control (right)

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Katrina Taylor

Signature: 
Signature

ATTACHMENT 6

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Kent Stallings
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 4/14/2025 3:00:12 PM

JOB DESCRIPTION

Todd 36D State 002

JOB NUMBER

885-22760-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

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

Authorization

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4/14/2025 3:00:12 PM

Authorized for release by
Andy Freeman, Business Unit Manager
andy.freeman@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Todd 36D State 002

Laboratory Job ID: 885-22760-1

Table of Contents

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Definitions/Glossary

Client: Vertex Job ID: 885-22760-1
Project/Site: Todd 36D State 002

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: Todd 36D State 002

Job ID: 885-22760-1

Job ID: 885-22760-1 Eurofins Albuquerque

Job Narrative
885-22760-1

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

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

Client Sample Results

Client: Vertex
Job ID: 885-22760-1
Project/Site: Todd 36D State 002

Client Sample ID: BS25-01 1
Lab Sample ID: 885-22760-1
Date Collected: 04/04/25 09:00
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 (GRO)-C6-C10	ND		4.9		mg/Kg		04/09/25 10:08	04/11/25 16:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*35 - 166*	*04/09/25 10:08*	*04/11/25 16:36*	*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 16:36	1
Ethylbenzene	ND		0.049		mg/Kg		04/09/25 10:08	04/11/25 16:36	1
Toluene	ND		0.049		mg/Kg		04/09/25 10:08	04/11/25 16:36	1
Xylenes, Total	ND		0.099		mg/Kg		04/09/25 10:08	04/11/25 16:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*48 - 145*	*04/09/25 10:08*	*04/11/25 16:36*	*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]	ND		9.8		mg/Kg		04/10/25 10:50	04/10/25 15:25	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		04/10/25 10:50	04/10/25 15:25	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 15:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		61		mg/Kg		04/09/25 14:12	04/09/25 22:42	20

Client Sample Results

Client: Vertex
Project/Site: Todd 36D State 002

Job ID: 885-22760-1

Client Sample ID: BS25-02 1

Date Collected: 04/04/25 09:10
Date Received: 04/08/25 08:05

Lab Sample ID: 885-22760-2

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		04/09/25 10:08	04/11/25 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*35 - 166*	*04/09/25 10:08*	*04/11/25 17:00*	*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 17:00	1
Ethylbenzene	ND		0.049		mg/Kg		04/09/25 10:08	04/11/25 17:00	1
Toluene	ND		0.049		mg/Kg		04/09/25 10:08	04/11/25 17:00	1
Xylenes, Total	ND		0.098		mg/Kg		04/09/25 10:08	04/11/25 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*48 - 145*	*04/09/25 10:08*	*04/11/25 17:00*	*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]	**380**		19		mg/Kg		04/10/25 10:50	04/10/25 15:37	2
Motor Oil Range Organics [C28-C40]	**380**		96		mg/Kg		04/10/25 10:50	04/10/25 15:37	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*110*		*62 - 134*	*04/10/25 10:50*	*04/10/25 15:37*	*2*

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 22:56	20

Client Sample Results

Client: Vertex
Project/Site: Todd 36D State 002

Job ID: 885-22760-1

Client Sample ID: BS25-03 1

Date Collected: 04/04/25 09:20
Date Received: 04/08/25 08:05

Lab Sample ID: 885-22760-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		04/09/25 10:08	04/11/25 17:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*35 - 166*	*04/09/25 10:08*	*04/11/25 17:24*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/09/25 10:08	04/11/25 17:24	1
Ethylbenzene	ND		0.050		mg/Kg		04/09/25 10:08	04/11/25 17:24	1
Toluene	ND		0.050		mg/Kg		04/09/25 10:08	04/11/25 17:24	1
Xylenes, Total	ND		0.099		mg/Kg		04/09/25 10:08	04/11/25 17:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*04/09/25 10:08*	*04/11/25 17:24*	*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]	**66**		9.2		mg/Kg		04/10/25 10:50	04/10/25 15:49	1
Motor Oil Range Organics [C28-C40]	**73**		46		mg/Kg		04/10/25 10:50	04/10/25 15:49	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 15:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**290**		60		mg/Kg		04/09/25 14:12	04/09/25 23:10	20

Client Sample Results

Client: Vertex
Project/Site: Todd 36D State 002

Job ID: 885-22760-1

Client Sample ID: BS25-04 1

Date Collected: 04/04/25 09:30
Date Received: 04/08/25 08:05

Lab Sample ID: 885-22760-4

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		04/09/25 10:08	04/11/25 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*35 - 166*	*04/09/25 10:08*	*04/11/25 17:47*	*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 17:47	1
Ethylbenzene	ND		0.049		mg/Kg		04/09/25 10:08	04/11/25 17:47	1
Toluene	ND		0.049		mg/Kg		04/09/25 10:08	04/11/25 17:47	1
Xylenes, Total	ND		0.098		mg/Kg		04/09/25 10:08	04/11/25 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*04/09/25 10:08*	*04/11/25 17:47*	*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]	**160**		18		mg/Kg		04/10/25 10:50	04/10/25 16:13	2
Motor Oil Range Organics [C28-C40]	**140**		92		mg/Kg		04/10/25 10:50	04/10/25 16:13	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*124*		*62 - 134*	*04/10/25 10:50*	*04/10/25 16:13*	*2*

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 23:24	20

Client Sample Results

Client: Vertex
Project/Site: Todd 36D State 002

Job ID: 885-22760-1

Client Sample ID: BS25-05 1

Date Collected: 04/04/25 09:40
Date Received: 04/08/25 08:05

Lab Sample ID: 885-22760-5

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		04/09/25 10:08	04/11/25 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*35 - 166*	*04/09/25 10:08*	*04/11/25 18:11*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/09/25 10:08	04/11/25 18:11	1
Ethylbenzene	ND		0.049		mg/Kg		04/09/25 10:08	04/11/25 18:11	1
Toluene	ND		0.049		mg/Kg		04/09/25 10:08	04/11/25 18:11	1
Xylenes, Total	ND		0.099		mg/Kg		04/09/25 10:08	04/11/25 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*48 - 145*	*04/09/25 10:08*	*04/11/25 18:11*	*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]	**170**		19		mg/Kg		04/10/25 10:50	04/10/25 16:25	2
Motor Oil Range Organics [C28-C40]	**130**		97		mg/Kg		04/10/25 10:50	04/10/25 16:25	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*04/10/25 10:50*	*04/10/25 16:25*	*2*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**310**		60		mg/Kg		04/09/25 14:12	04/09/25 23:38	20

Client Sample Results

Client: Vertex
Project/Site: Todd 36D State 002

Job ID: 885-22760-1

Client Sample ID: WS25-03 0-1

Date Collected: 04/04/25 09:50
Date Received: 04/08/25 08:05

Lab Sample ID: 885-22760-6

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		04/09/25 10:08	04/11/25 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*35 - 166*	*04/09/25 10:08*	*04/11/25 18:35*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/09/25 10:08	04/11/25 18:35	1
Ethylbenzene	ND		0.049		mg/Kg		04/09/25 10:08	04/11/25 18:35	1
Toluene	ND		0.049		mg/Kg		04/09/25 10:08	04/11/25 18:35	1
Xylenes, Total	ND		0.099		mg/Kg		04/09/25 10:08	04/11/25 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*48 - 145*	*04/09/25 10:08*	*04/11/25 18:35*	*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]	**55**		9.3		mg/Kg		04/10/25 10:50	04/10/25 16:37	1
Motor Oil Range Organics [C28-C40]	**59**		46		mg/Kg		04/10/25 10:50	04/10/25 16:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*114*		*62 - 134*	*04/10/25 10:50*	*04/10/25 16:37*	*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	04/10/25 00:21	20

Client Sample Results

Client: Vertex
Project/Site: Todd 36D State 002

Job ID: 885-22760-1

Client Sample ID: WS25-06 0-3

Date Collected: 04/04/25 10:00
Date Received: 04/08/25 08:05

Lab Sample ID: 885-22760-7

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		04/09/25 10:08	04/11/25 19:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*35 - 166*	*04/09/25 10:08*	*04/11/25 19:46*	*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 19:46	1
Ethylbenzene	ND		0.050		mg/Kg		04/09/25 10:08	04/11/25 19:46	1
Toluene	ND		0.050		mg/Kg		04/09/25 10:08	04/11/25 19:46	1
Xylenes, Total	ND		0.099		mg/Kg		04/09/25 10:08	04/11/25 19:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*04/09/25 10:08*	*04/11/25 19:46*	*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]	ND		9.2		mg/Kg		04/10/25 10:50	04/10/25 16:49	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		04/10/25 10:50	04/10/25 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*113*		*62 - 134*	*04/10/25 10:50*	*04/10/25 16:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**140**		60		mg/Kg		04/09/25 14:12	04/10/25 00:35	20

Client Sample Results

Client: Vertex
Job ID: 885-22760-1
Project/Site: Todd 36D State 002

Client Sample ID: SS 25-01
Lab Sample ID: 885-22760-8
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 (GRO)-C6-C10	ND		5.0		mg/Kg		04/09/25 10:08	04/11/25 20:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*35 - 166*	*04/09/25 10:08*	*04/11/25 20:10*	*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 20:10	1
Ethylbenzene	ND		0.050		mg/Kg		04/09/25 10:08	04/11/25 20:10	1
Toluene	ND		0.050		mg/Kg		04/09/25 10:08	04/11/25 20:10	1
Xylenes, Total	ND		0.099		mg/Kg		04/09/25 10:08	04/11/25 20:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*48 - 145*	*04/09/25 10:08*	*04/11/25 20:10*	*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]	**22**		9.9		mg/Kg		04/10/25 10:50	04/10/25 17:01	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		04/10/25 10:50	04/10/25 17:01	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 17:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**360**		60		mg/Kg		04/10/25 09:45	04/10/25 13:04	20

Client Sample Results

Client: Vertex
Project/Site: Todd 36D State 002

Job ID: 885-22760-1

Client Sample ID: SS 25-02
Date Collected: 04/04/25 10:20
Date Received: 04/08/25 08:05

Lab Sample ID: 885-22760-9
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		04/09/25 10:08	04/11/25 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*35 - 166*	*04/09/25 10:08*	*04/11/25 20:34*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/09/25 10:08	04/11/25 20:34	1
Ethylbenzene	ND		0.049		mg/Kg		04/09/25 10:08	04/11/25 20:34	1
Toluene	ND		0.049		mg/Kg		04/09/25 10:08	04/11/25 20:34	1
Xylenes, Total	ND		0.098		mg/Kg		04/09/25 10:08	04/11/25 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*48 - 145*	*04/09/25 10:08*	*04/11/25 20:34*	*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		9.7		mg/Kg		04/10/25 10:50	04/10/25 17:13	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		04/10/25 10:50	04/10/25 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*04/10/25 10:50*	*04/10/25 17:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		04/10/25 09:45	04/10/25 16:31	20

QC Sample Results

Client: Vertex
Project/Site: Todd 36D State 002

Job ID: 885-22760-1

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 (GRO)-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 (GRO)-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-Xylene & 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		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*48 - 145*

QC Sample Results

Client: Vertex
Project/Site: Todd 36D State 002

Job ID: 885-22760-1

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

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*

Method: 300.0 - Anions, Ion Chromatography

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: MB 885-23989/1-A
Matrix: Solid
Analysis Batch: 24001

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23989

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5		mg/Kg		04/10/25 09:45	04/10/25 11:36	1

Lab Sample ID: LCS 885-23989/3-A
Matrix: Solid
Analysis Batch: 24001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23989

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			15.0	15.0		mg/Kg		100	90 - 110		

QC Sample Results

Client: Vertex
Project/Site: Todd 36D State 002

Job ID: 885-22760-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LLCS 885-23989/2-A
Matrix: Solid
Analysis Batch: 24001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23989

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			1.50	1.55		mg/Kg		103	50 - 150		

QC Association Summary

Client: Vertex
Project/Site: Todd 36D State 002

Job ID: 885-22760-1

GC VOA

Prep Batch: 23910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22760-1	BS25-01 1	Total/NA	Solid	5030C	
885-22760-2	BS25-02 1	Total/NA	Solid	5030C	
885-22760-3	BS25-03 1	Total/NA	Solid	5030C	
885-22760-4	BS25-04 1	Total/NA	Solid	5030C	
885-22760-5	BS25-05 1	Total/NA	Solid	5030C	
885-22760-6	WS25-03 0-1	Total/NA	Solid	5030C	
885-22760-7	WS25-06 0-3	Total/NA	Solid	5030C	
885-22760-8	SS 25-01	Total/NA	Solid	5030C	
885-22760-9	SS 25-02	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
885-22760-1	BS25-01 1	Total/NA	Solid	8015M/D	23910
885-22760-2	BS25-02 1	Total/NA	Solid	8015M/D	23910
885-22760-3	BS25-03 1	Total/NA	Solid	8015M/D	23910
885-22760-4	BS25-04 1	Total/NA	Solid	8015M/D	23910
885-22760-5	BS25-05 1	Total/NA	Solid	8015M/D	23910
885-22760-6	WS25-03 0-1	Total/NA	Solid	8015M/D	23910
885-22760-7	WS25-06 0-3	Total/NA	Solid	8015M/D	23910
885-22760-8	SS 25-01	Total/NA	Solid	8015M/D	23910
885-22760-9	SS 25-02	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
885-22760-1	BS25-01 1	Total/NA	Solid	8021B	23910
885-22760-2	BS25-02 1	Total/NA	Solid	8021B	23910
885-22760-3	BS25-03 1	Total/NA	Solid	8021B	23910
885-22760-4	BS25-04 1	Total/NA	Solid	8021B	23910
885-22760-5	BS25-05 1	Total/NA	Solid	8021B	23910
885-22760-6	WS25-03 0-1	Total/NA	Solid	8021B	23910
885-22760-7	WS25-06 0-3	Total/NA	Solid	8021B	23910
885-22760-8	SS 25-01	Total/NA	Solid	8021B	23910
885-22760-9	SS 25-02	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: 23979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22760-1	BS25-01 1	Total/NA	Solid	8015M/D	24003
885-22760-2	BS25-02 1	Total/NA	Solid	8015M/D	24003
885-22760-3	BS25-03 1	Total/NA	Solid	8015M/D	24003
885-22760-4	BS25-04 1	Total/NA	Solid	8015M/D	24003
885-22760-5	BS25-05 1	Total/NA	Solid	8015M/D	24003
885-22760-6	WS25-03 0-1	Total/NA	Solid	8015M/D	24003

QC Association Summary

Client: Vertex
Job ID: 885-22760-1
Project/Site: Todd 36D State 002

GC Semi VOA (Continued)

Analysis Batch: 23979 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22760-7	WS25-06 0-3	Total/NA	Solid	8015M/D	24003
885-22760-8	SS 25-01	Total/NA	Solid	8015M/D	24003
885-22760-9	SS 25-02	Total/NA	Solid	8015M/D	24003
MB 885-24003/1-A	Method Blank	Total/NA	Solid	8015M/D	24003
LCS 885-24003/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24003

Prep Batch: 24003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22760-1	BS25-01 1	Total/NA	Solid	SHAKE	
885-22760-2	BS25-02 1	Total/NA	Solid	SHAKE	
885-22760-3	BS25-03 1	Total/NA	Solid	SHAKE	
885-22760-4	BS25-04 1	Total/NA	Solid	SHAKE	
885-22760-5	BS25-05 1	Total/NA	Solid	SHAKE	
885-22760-6	WS25-03 0-1	Total/NA	Solid	SHAKE	
885-22760-7	WS25-06 0-3	Total/NA	Solid	SHAKE	
885-22760-8	SS 25-01	Total/NA	Solid	SHAKE	
885-22760-9	SS 25-02	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	

HPLC/IC

Prep Batch: 23901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22760-1	BS25-01 1	Total/NA	Solid	300_Prep	
885-22760-2	BS25-02 1	Total/NA	Solid	300_Prep	
885-22760-3	BS25-03 1	Total/NA	Solid	300_Prep	
885-22760-4	BS25-04 1	Total/NA	Solid	300_Prep	
885-22760-5	BS25-05 1	Total/NA	Solid	300_Prep	
885-22760-6	WS25-03 0-1	Total/NA	Solid	300_Prep	
885-22760-7	WS25-06 0-3	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	

Analysis Batch: 23904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22760-1	BS25-01 1	Total/NA	Solid	300.0	23901
885-22760-2	BS25-02 1	Total/NA	Solid	300.0	23901
885-22760-3	BS25-03 1	Total/NA	Solid	300.0	23901
885-22760-4	BS25-04 1	Total/NA	Solid	300.0	23901
885-22760-5	BS25-05 1	Total/NA	Solid	300.0	23901
885-22760-6	WS25-03 0-1	Total/NA	Solid	300.0	23901
885-22760-7	WS25-06 0-3	Total/NA	Solid	300.0	23901
MB 885-23901/1-A	Method Blank	Total/NA	Solid	300.0	23901
LCS 885-23901/2-A	Lab Control Sample	Total/NA	Solid	300.0	23901

Prep Batch: 23989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22760-8	SS 25-01	Total/NA	Solid	300_Prep	
885-22760-9	SS 25-02	Total/NA	Solid	300_Prep	
MB 885-23989/1-A	Method Blank	Total/NA	Solid	300_Prep	

QC Association Summary

Client: Vertex
Project/Site: Todd 36D State 002

Job ID: 885-22760-1

HPLC/IC (Continued)

Prep Batch: 23989 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 885-23989/3-A	Lab Control Sample	Total/NA	Solid	300_Prep	
LLCS 885-23989/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 24001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-22760-8	SS 25-01	Total/NA	Solid	300.0	23989
885-22760-9	SS 25-02	Total/NA	Solid	300.0	23989
MB 885-23989/1-A	Method Blank	Total/NA	Solid	300.0	23989
LCS 885-23989/3-A	Lab Control Sample	Total/NA	Solid	300.0	23989
LLCS 885-23989/2-A	Lab Control Sample	Total/NA	Solid	300.0	23989

Lab Chronicle

Client: Vertex
Job ID: 885-22760-1
Project/Site: Todd 36D State 002

Client Sample ID: BS25-01 1
Lab Sample ID: 885-22760-1
Date Collected: 04/04/25 09:00
Matrix: Solid
Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	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 16:36
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 16:36
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 15:25
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 22:42

Client Sample ID: BS25-02 1
Lab Sample ID: 885-22760-2
Date Collected: 04/04/25 09:10
Matrix: Solid
Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	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 17:00
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 17:00
Total/NA	Prep	SHAKE			24003	MI	EET ALB	04/10/25 10:50
Total/NA	Analysis	8015M/D		2	23979	MI	EET ALB	04/10/25 15:37
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 22:56

Client Sample ID: BS25-03 1
Lab Sample ID: 885-22760-3
Date Collected: 04/04/25 09:20
Matrix: Solid
Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	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 17:24
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 17:24
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 15:49
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 23:10

Client Sample ID: BS25-04 1
Lab Sample ID: 885-22760-4
Date Collected: 04/04/25 09:30
Matrix: Solid
Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	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 17:47

Lab Chronicle

Client: Vertex
Job ID: 885-22760-1
Project/Site: Todd 36D State 002

Client Sample ID: BS25-04 1
Lab Sample ID: 885-22760-4
Date Collected: 04/04/25 09:30
Matrix: Solid
Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
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 17:47
Total/NA	Prep	SHAKE			24003	MI	EET ALB	04/10/25 10:50
Total/NA	Analysis	8015M/D		2	23979	MI	EET ALB	04/10/25 16:13
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 23:24

Client Sample ID: BS25-05 1
Lab Sample ID: 885-22760-5
Date Collected: 04/04/25 09:40
Matrix: Solid
Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	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 18:11
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 18:11
Total/NA	Prep	SHAKE			24003	MI	EET ALB	04/10/25 10:50
Total/NA	Analysis	8015M/D		2	23979	MI	EET ALB	04/10/25 16:25
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 23:38

Client Sample ID: WS25-03 0-1
Lab Sample ID: 885-22760-6
Date Collected: 04/04/25 09:50
Matrix: Solid
Date Received: 04/08/25 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	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 18:35
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 18:35
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 16:37
Total/NA	Prep	300_Prep			23901	DL	EET ALB	04/09/25 14:12
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/10/25 00:21

Client Sample ID: WS25-06 0-3
Lab Sample ID: 885-22760-7
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	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 19:46
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 19:46

Lab Chronicle

Client: Vertex
Job ID: 885-22760-1
Project/Site: Todd 36D State 002

Client Sample ID: WS25-06 0-3
Lab Sample ID: 885-22760-7
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	Analyst	Lab	Prepared or Analyzed
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 16:49
Total/NA	Prep	300_Prep			23901	DL	EET ALB	04/09/25 14:12
Total/NA	Analysis	300.0		20	23904	RC	EET ALB	04/10/25 00:35

Client Sample ID: SS 25-01
Lab Sample ID: 885-22760-8
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	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 20:10
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 20:10
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 17:01
Total/NA	Prep	300_Prep			23989	DL	EET ALB	04/10/25 09:45
Total/NA	Analysis	300.0		20	24001	DL	EET ALB	04/10/25 13:04

Client Sample ID: SS 25-02
Lab Sample ID: 885-22760-9
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	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 20:34
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 20:34
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 17:13
Total/NA	Prep	300_Prep			23989	DL	EET ALB	04/10/25 09:45
Total/NA	Analysis	300.0		20	24001	DL	EET ALB	04/10/25 16:31

Laboratory References:

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

Accreditation/Certification Summary

Client: Vertex Job ID: 885-22760-1
Project/Site: Todd 36D State 002

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 (GRO)-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

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

885-22760 COC

Client: Vertex (bill to Devon)
Mailing Address: 3101 Boyd dr, Carlsbad NM, 88220
Phone #:
email or Fax#:
QA/QC Package: ☐ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: ☒ Standard ☒ Rush 5 Day
Project Name: Todd 36 D state #002
Project #: 23E-05197
Project Manager: Sally Carttar
SCarttar@vertex.ca
KStallings@vertex.ca, Kent Stallings
Sampler: Katrina Taylor
On Ice: ☒ Yes ☐ No
# of Coolers: 1
Cooler Temp (including CF): 2.6 +0.2 = 2.8 (°C)

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						
4/14	9:00	Soil	BS25-01 1	4oz	Ice		X	X					X									
↓	9:10	↓	BS25-02 1	↓	↓		↓	↓					↓									
↓	9:20	↓	BS25-03 1	↓	↓		↓	↓					↓									
↓	9:30	↓	BS25-04 1	↓	↓		↓	↓					↓									
↓	9:40	↓	BS25-05 1	↓	↓		↓	↓					↓									
↓	9:50	↓	WS25-03 0-1	↓	↓		↓	↓					↓									
↓	10:08	↓	WS25-06 0-3	↓	↓		↓	↓					↓									
↓	10:10	↓	SS25-01	↓	↓		↓	↓					↓									
↓	10:20	↓	SS25-02	↓	↓		↓	↓					↓									

Date	Time	Relinquished by	Received by	Via	Date	Time
4/14	5pm	Katrina Taylor	[signature]		4/7/25	1000
4/7/25	1900	[signature]	[signature]	courier	4-8-25	8:05

Remarks: please bill to devon
ATTN: i
cc: SCarttar@vertex.ca, kstallings@vertex.ca
Katrina.Taylor@vertex.ca

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

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-22760-1

Login Number: 22760 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Alderette, Joseph

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Kent Stallings
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 4/22/2025 12:33:38 PM

JOB DESCRIPTION

Todd 36D State #002

JOB NUMBER

885-23045-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

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

Authorization

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4/22/2025 12:33:38 PM

Authorized for release by
Andy Freeman, Business Unit Manager
andy.freeman@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Todd 36D State #002

Laboratory Job ID: 885-23045-1

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Definitions/Glossary

Client: Vertex Job ID: 885-23045-1
Project/Site: Todd 36D State #002

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
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: Todd 36D State #002

Job ID: 885-23045-1

Job ID: 885-23045-1 Eurofins Albuquerque

Job Narrative
885-23045-1

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 4/11/2025 8:30 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 1.4°C.

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

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

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

Diesel Range Organics
Method 8015D_DRO: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 885-24238 and analytical batch 885-24267 recovered outside control limits for the following analytes: Diesel Range Organics [C10-C28]. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8015D_DRO: Surrogate recovery for the following sample is outside the upper control limit: BS25-08 1' (885-23045-4). Despite this high bias, samples were discovered to be non-detect for target analytes; therefore data has been reported.

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

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

Client Sample Results

Client: Vertex
Project/Site: Todd 36D State #002

Job ID: 885-23045-1

Client Sample ID: WS25-05 0-1'
Date Collected: 04/08/25 09:00
Date Received: 04/11/25 08:30

Lab Sample ID: 885-23045-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.6		mg/Kg		04/11/25 12:06	04/15/25 02:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*35 - 166*	*04/11/25 12:06*	*04/15/25 02:29*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		04/11/25 12:06	04/15/25 02:29	1
Ethylbenzene	ND		0.046		mg/Kg		04/11/25 12:06	04/15/25 02:29	1
Toluene	ND		0.046		mg/Kg		04/11/25 12:06	04/15/25 02:29	1
Xylenes, Total	ND		0.093		mg/Kg		04/11/25 12:06	04/15/25 02:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*04/11/25 12:06*	*04/15/25 02:29*	*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	*+	20		mg/Kg		04/14/25 14:40	04/15/25 12:16	2
Motor Oil Range Organics [C28-C40]	ND		100		mg/Kg		04/14/25 14:40	04/15/25 12:16	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*126*		*62 - 134*	*04/14/25 14:40*	*04/15/25 12:16*	*2*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		04/13/25 13:44	04/13/25 21:17	20

Client Sample Results

Client: Vertex
Project/Site: Todd 36D State #002

Job ID: 885-23045-1

Client Sample ID: BS25-06 4'
Date Collected: 04/08/25 09:10
Date Received: 04/11/25 08:30

Lab Sample ID: 885-23045-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		04/13/25 13:53	04/14/25 19:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*04/13/25 13:53*	*04/14/25 19:21*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/13/25 13:53	04/14/25 19:21	1
Ethylbenzene	ND		0.050		mg/Kg		04/13/25 13:53	04/14/25 19:21	1
Toluene	ND		0.050		mg/Kg		04/13/25 13:53	04/14/25 19:21	1
Xylenes, Total	ND		0.10		mg/Kg		04/13/25 13:53	04/14/25 19:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*48 - 145*	*04/13/25 13:53*	*04/14/25 19:21*	*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]	**54**		9.9		mg/Kg		04/21/25 11:59	04/21/25 14:45	1
Motor Oil Range Organics [C28-C40]	**130**		50		mg/Kg		04/21/25 11:59	04/21/25 14:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*116*		*62 - 134*	*04/21/25 11:59*	*04/21/25 14:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**72**		60		mg/Kg		04/14/25 13:56	04/15/25 00:01	20

Client Sample Results

Client: Vertex
Project/Site: Todd 36D State #002

Job ID: 885-23045-1

Client Sample ID: BS25-07 1'
Date Collected: 04/08/25 09:20
Date Received: 04/11/25 08:30

Lab Sample ID: 885-23045-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.8		mg/Kg		04/13/25 13:53	04/14/25 19:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*04/13/25 13:53*	*04/14/25 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		04/13/25 13:53	04/14/25 19:42	1
Ethylbenzene	ND		0.048		mg/Kg		04/13/25 13:53	04/14/25 19:42	1
Toluene	ND		0.048		mg/Kg		04/13/25 13:53	04/14/25 19:42	1
Xylenes, Total	ND		0.097		mg/Kg		04/13/25 13:53	04/14/25 19:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*48 - 145*	*04/13/25 13:53*	*04/14/25 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	*+	9.4		mg/Kg		04/14/25 14:40	04/15/25 13:04	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		04/14/25 14:40	04/15/25 13:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*133*		*62 - 134*	*04/14/25 14:40*	*04/15/25 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		04/14/25 13:56	04/15/25 00:12	20

Client Sample Results

Client: Vertex
Project/Site: Todd 36D State #002

Job ID: 885-23045-1

Client Sample ID: BS25-08 1'
Date Collected: 04/08/25 09:30
Date Received: 04/11/25 08:30

Lab Sample ID: 885-23045-4
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.7		mg/Kg		04/13/25 13:53	04/14/25 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*04/13/25 13:53*	*04/14/25 20:04*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		04/13/25 13:53	04/14/25 20:04	1
Ethylbenzene	ND		0.047		mg/Kg		04/13/25 13:53	04/14/25 20:04	1
Toluene	ND		0.047		mg/Kg		04/13/25 13:53	04/14/25 20:04	1
Xylenes, Total	ND		0.093		mg/Kg		04/13/25 13:53	04/14/25 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*48 - 145*	*04/13/25 13:53*	*04/14/25 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		04/14/25 14:40	04/15/25 13:16	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		04/14/25 14:40	04/15/25 13:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*167*	*S1+*	*62 - 134*	*04/14/25 14:40*	*04/15/25 13:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		04/14/25 13:56	04/15/25 00:22	20

Client Sample Results

Client: Vertex
Project/Site: Todd 36D State #002

Job ID: 885-23045-1

Client Sample ID: BS25-09 1'
Date Collected: 04/08/25 09:40
Date Received: 04/11/25 08:30

Lab Sample ID: 885-23045-5
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.8		mg/Kg		04/13/25 13:53	04/14/25 20:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*04/13/25 13:53*	*04/14/25 20:26*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/13/25 13:53	04/14/25 20:26	1
Ethylbenzene	ND		0.048		mg/Kg		04/13/25 13:53	04/14/25 20:26	1
Toluene	ND		0.048		mg/Kg		04/13/25 13:53	04/14/25 20:26	1
Xylenes, Total	ND		0.096		mg/Kg		04/13/25 13:53	04/14/25 20:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*48 - 145*	*04/13/25 13:53*	*04/14/25 20:26*	*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]	**190**		9.8		mg/Kg		04/21/25 11:59	04/21/25 14:57	1
Motor Oil Range Organics [C28-C40]	**180**		49		mg/Kg		04/21/25 11:59	04/21/25 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*112*		*62 - 134*	*04/21/25 11:59*	*04/21/25 14:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		04/14/25 13:56	04/15/25 00:32	20

Client Sample Results

Client: Vertex
Project/Site: Todd 36D State #002

Job ID: 885-23045-1

Client Sample ID: WS25-02 0-1'
Date Collected: 04/08/25 10:10
Date Received: 04/11/25 08:30

Lab Sample ID: 885-23045-6
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.8		mg/Kg		04/13/25 13:53	04/14/25 20:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*35 - 166*	*04/13/25 13:53*	*04/14/25 20:47*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/13/25 13:53	04/14/25 20:47	1
Ethylbenzene	ND		0.048		mg/Kg		04/13/25 13:53	04/14/25 20:47	1
Toluene	ND		0.048		mg/Kg		04/13/25 13:53	04/14/25 20:47	1
Xylenes, Total	ND		0.096		mg/Kg		04/13/25 13:53	04/14/25 20:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*04/13/25 13:53*	*04/14/25 20:47*	*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	*+	19		mg/Kg		04/14/25 14:40	04/15/25 13:40	2
Motor Oil Range Organics [C28-C40]	ND		93		mg/Kg		04/14/25 14:40	04/15/25 13:40	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*127*		*62 - 134*	*04/14/25 14:40*	*04/15/25 13:40*	*2*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**97**		60		mg/Kg		04/14/25 13:56	04/15/25 00:43	20

QC Sample Results

Client: Vertex
Project/Site: Todd 36D State #002

Job ID: 885-23045-1

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

Lab Sample ID: MB 885-24119/1-A
Matrix: Solid
Analysis Batch: 24236

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24119

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		04/11/25 12:06	04/14/25 16:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*35 - 166*	*04/11/25 12:06*	*04/14/25 16:34*	*1*

Lab Sample ID: LCS 885-24119/2-A
Matrix: Solid
Analysis Batch: 24236

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24119

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			25.0	30.4		mg/Kg		122	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*222*		*35 - 166*

Lab Sample ID: MB 885-24167/1-A
Matrix: Solid
Analysis Batch: 24205

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24167

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		04/13/25 13:53	04/14/25 13:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*04/13/25 13:53*	*04/14/25 13:31*	*1*

Lab Sample ID: LCS 885-24167/2-A
Matrix: Solid
Analysis Batch: 24205

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24167

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			25.0	27.4		mg/Kg		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*213*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-24119/1-A
Matrix: Solid
Analysis Batch: 24235

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24119

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/11/25 12:06	04/14/25 16:34	1
Ethylbenzene	ND		0.050		mg/Kg		04/11/25 12:06	04/14/25 16:34	1
Toluene	ND		0.050		mg/Kg		04/11/25 12:06	04/14/25 16:34	1

QC Sample Results

Client: Vertex
Project/Site: Todd 36D State #002

Job ID: 885-23045-1

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

Lab Sample ID: MB 885-24119/1-A
Matrix: Solid
Analysis Batch: 24235

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24119

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10		mg/Kg		04/11/25 12:06	04/14/25 16:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*	*04/11/25 12:06*	*04/14/25 16:34*	*1*

Lab Sample ID: LCS 885-24119/3-A
Matrix: Solid
Analysis Batch: 24235

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24119

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	1.08		mg/Kg		108	70 - 130		
m-Xylene & p-Xylene			2.00	2.29		mg/Kg		115	70 - 130		
o-Xylene			1.00	1.11		mg/Kg		111	70 - 130		
Toluene			1.00	1.07		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*48 - 145*

Lab Sample ID: MB 885-24167/1-A
Matrix: Solid
Analysis Batch: 24206

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24167

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/13/25 13:53	04/14/25 13:31	1
Ethylbenzene	ND		0.050		mg/Kg		04/13/25 13:53	04/14/25 13:31	1
Toluene	ND		0.050		mg/Kg		04/13/25 13:53	04/14/25 13:31	1
Xylenes, Total	ND		0.10		mg/Kg		04/13/25 13:53	04/14/25 13:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*04/13/25 13:53*	*04/14/25 13:31*	*1*

Lab Sample ID: LCS 885-24167/3-A
Matrix: Solid
Analysis Batch: 24206

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24167

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.951		mg/Kg		95	70 - 130		
Ethylbenzene			1.00	0.988		mg/Kg		99	70 - 130		
m-Xylene & p-Xylene			2.00	2.02		mg/Kg		101	70 - 130		
o-Xylene			1.00	1.00		mg/Kg		100	70 - 130		
Toluene			1.00	0.965		mg/Kg		97	70 - 130		

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

QC Sample Results

Client: Vertex
Project/Site: Todd 36D State #002

Job ID: 885-23045-1

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

Lab Sample ID: MB 885-24238/1-A
Matrix: Solid
Analysis Batch: 24267

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24238

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		04/14/25 14:40	04/15/25 11:52	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		04/14/25 14:40	04/15/25 11:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*118*		*62 - 134*	*04/14/25 14:40*	*04/15/25 11:52*	*1*

Lab Sample ID: LCS 885-24238/2-A
Matrix: Solid
Analysis Batch: 24267

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24238

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	80.8	*+	mg/Kg		162	51 - 148		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*151*	*S1+*	*62 - 134*

Lab Sample ID: 885-23045-1 MS
Matrix: Solid
Analysis Batch: 24267

Client Sample ID: WS25-05 0-1'
Prep Type: Total/NA
Prep Batch: 24238

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND	*+	46.9	67.9	F1	mg/Kg		145	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*116*		*62 - 134*

Lab Sample ID: 885-23045-1 MSD
Matrix: Solid
Analysis Batch: 24267

Client Sample ID: WS25-05 0-1'
Prep Type: Total/NA
Prep Batch: 24238

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	*+	47.0	58.1		mg/Kg		124	44 - 136	15	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*127*		*62 - 134*

Lab Sample ID: MB 885-24650/1-A
Matrix: Solid
Analysis Batch: 24616

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24650

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		04/21/25 11:56	04/21/25 14:09	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		04/21/25 11:56	04/21/25 14:09	1

QC Sample Results

Client: Vertex
Project/Site: Todd 36D State #002

Job ID: 885-23045-1

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

Lab Sample ID: MB 885-24650/1-A
Matrix: Solid
Analysis Batch: 24616

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24650

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	105		62 - 134	04/21/25 11:56	04/21/25 14:09	1

Lab Sample ID: LCS 885-24650/2-A
Matrix: Solid
Analysis Batch: 24616

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24650

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	48.4		mg/Kg		97	51 - 148

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	93		62 - 134

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-24166/1-A
Matrix: Solid
Analysis Batch: 24163

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24166

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	mg/Kg		04/13/25 13:44	04/13/25 14:33	1

Lab Sample ID: LCS 885-24166/2-A
Matrix: Solid
Analysis Batch: 24163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24166

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	30.0	31.3		mg/Kg		104	90 - 110

Lab Sample ID: MB 885-24226/1-A
Matrix: Solid
Analysis Batch: 24228

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24226

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5	mg/Kg		04/14/25 13:56	04/14/25 15:34	1

Lab Sample ID: LCS 885-24226/3-A
Matrix: Solid
Analysis Batch: 24228

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24226

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15.0	14.3		mg/Kg		95	90 - 110

Lab Sample ID: LLCS 885-24226/2-A
Matrix: Solid
Analysis Batch: 24228

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24226

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1.50	ND		mg/Kg		97	50 - 150

QC Association Summary

Client: Vertex
Project/Site: Todd 36D State #002

Job ID: 885-23045-1

GC VOA

Prep Batch: 24119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23045-1	WS25-05 0-1'	Total/NA	Solid	5030C	
MB 885-24119/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-24119/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-24119/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 24167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23045-2	BS25-06 4'	Total/NA	Solid	5030C	
885-23045-3	BS25-07 1'	Total/NA	Solid	5030C	
885-23045-4	BS25-08 1'	Total/NA	Solid	5030C	
885-23045-5	BS25-09 1'	Total/NA	Solid	5030C	
885-23045-6	WS25-02 0-1'	Total/NA	Solid	5030C	
MB 885-24167/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-24167/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-24167/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 24205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23045-2	BS25-06 4'	Total/NA	Solid	8015M/D	24167
885-23045-3	BS25-07 1'	Total/NA	Solid	8015M/D	24167
885-23045-4	BS25-08 1'	Total/NA	Solid	8015M/D	24167
885-23045-5	BS25-09 1'	Total/NA	Solid	8015M/D	24167
885-23045-6	WS25-02 0-1'	Total/NA	Solid	8015M/D	24167
MB 885-24167/1-A	Method Blank	Total/NA	Solid	8015M/D	24167
LCS 885-24167/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24167

Analysis Batch: 24206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23045-2	BS25-06 4'	Total/NA	Solid	8021B	24167
885-23045-3	BS25-07 1'	Total/NA	Solid	8021B	24167
885-23045-4	BS25-08 1'	Total/NA	Solid	8021B	24167
885-23045-5	BS25-09 1'	Total/NA	Solid	8021B	24167
885-23045-6	WS25-02 0-1'	Total/NA	Solid	8021B	24167
MB 885-24167/1-A	Method Blank	Total/NA	Solid	8021B	24167
LCS 885-24167/3-A	Lab Control Sample	Total/NA	Solid	8021B	24167

Analysis Batch: 24235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23045-1	WS25-05 0-1'	Total/NA	Solid	8021B	24119
MB 885-24119/1-A	Method Blank	Total/NA	Solid	8021B	24119
LCS 885-24119/3-A	Lab Control Sample	Total/NA	Solid	8021B	24119

Analysis Batch: 24236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23045-1	WS25-05 0-1'	Total/NA	Solid	8015M/D	24119
MB 885-24119/1-A	Method Blank	Total/NA	Solid	8015M/D	24119
LCS 885-24119/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24119

QC Association Summary

Client: Vertex
Project/Site: Todd 36D State #002

Job ID: 885-23045-1

GC Semi VOA

Prep Batch: 24238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23045-1	WS25-05 0-1'	Total/NA	Solid	SHAKE	
885-23045-3	BS25-07 1'	Total/NA	Solid	SHAKE	
885-23045-4	BS25-08 1'	Total/NA	Solid	SHAKE	
885-23045-6	WS25-02 0-1'	Total/NA	Solid	SHAKE	
MB 885-24238/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-24238/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-23045-1 MS	WS25-05 0-1'	Total/NA	Solid	SHAKE	
885-23045-1 MSD	WS25-05 0-1'	Total/NA	Solid	SHAKE	

Analysis Batch: 24267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23045-1	WS25-05 0-1'	Total/NA	Solid	8015M/D	24238
885-23045-3	BS25-07 1'	Total/NA	Solid	8015M/D	24238
885-23045-4	BS25-08 1'	Total/NA	Solid	8015M/D	24238
885-23045-6	WS25-02 0-1'	Total/NA	Solid	8015M/D	24238
MB 885-24238/1-A	Method Blank	Total/NA	Solid	8015M/D	24238
LCS 885-24238/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24238
885-23045-1 MS	WS25-05 0-1'	Total/NA	Solid	8015M/D	24238
885-23045-1 MSD	WS25-05 0-1'	Total/NA	Solid	8015M/D	24238

Analysis Batch: 24616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23045-2	BS25-06 4'	Total/NA	Solid	8015M/D	24650
885-23045-5	BS25-09 1'	Total/NA	Solid	8015M/D	24650
MB 885-24650/1-A	Method Blank	Total/NA	Solid	8015M/D	24650
LCS 885-24650/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24650

Prep Batch: 24650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23045-2	BS25-06 4'	Total/NA	Solid	SHAKE	
885-23045-5	BS25-09 1'	Total/NA	Solid	SHAKE	
MB 885-24650/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-24650/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

HPLC/IC

Analysis Batch: 24163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23045-1	WS25-05 0-1'	Total/NA	Solid	300.0	24166
MB 885-24166/1-A	Method Blank	Total/NA	Solid	300.0	24166
LCS 885-24166/2-A	Lab Control Sample	Total/NA	Solid	300.0	24166

Prep Batch: 24166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23045-1	WS25-05 0-1'	Total/NA	Solid	300_Prep	
MB 885-24166/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-24166/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Prep Batch: 24226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23045-2	BS25-06 4'	Total/NA	Solid	300_Prep	

QC Association Summary

Client: Vertex
Project/Site: Todd 36D State #002

Job ID: 885-23045-1

HPLC/IC (Continued)

Prep Batch: 24226 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23045-3	BS25-07 1'	Total/NA	Solid	300_Prep	
885-23045-4	BS25-08 1'	Total/NA	Solid	300_Prep	
885-23045-5	BS25-09 1'	Total/NA	Solid	300_Prep	
885-23045-6	WS25-02 0-1'	Total/NA	Solid	300_Prep	
MB 885-24226/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-24226/3-A	Lab Control Sample	Total/NA	Solid	300_Prep	
LLCS 885-24226/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 24228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23045-2	BS25-06 4'	Total/NA	Solid	300.0	24226
885-23045-3	BS25-07 1'	Total/NA	Solid	300.0	24226
885-23045-4	BS25-08 1'	Total/NA	Solid	300.0	24226
885-23045-5	BS25-09 1'	Total/NA	Solid	300.0	24226
885-23045-6	WS25-02 0-1'	Total/NA	Solid	300.0	24226
MB 885-24226/1-A	Method Blank	Total/NA	Solid	300.0	24226
LCS 885-24226/3-A	Lab Control Sample	Total/NA	Solid	300.0	24226
LLCS 885-24226/2-A	Lab Control Sample	Total/NA	Solid	300.0	24226

Lab Chronicle

Client: Vertex
Job ID: 885-23045-1
Project/Site: Todd 36D State #002

Client Sample ID: WS25-05 0-1'
Lab Sample ID: 885-23045-1
Date Collected: 04/08/25 09:00
Matrix: Solid
Date Received: 04/11/25 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24119	JP	EET ALB	04/11/25 12:06
Total/NA	Analysis	8015M/D		1	24236	JP	EET ALB	04/15/25 02:29
Total/NA	Prep	5030C			24119	JP	EET ALB	04/11/25 12:06
Total/NA	Analysis	8021B		1	24235	JP	EET ALB	04/15/25 02:29
Total/NA	Prep	SHAKE			24238	MI	EET ALB	04/14/25 14:40
Total/NA	Analysis	8015M/D		2	24267	MI	EET ALB	04/15/25 12:16
Total/NA	Prep	300_Prep			24166	JT	EET ALB	04/13/25 13:44
Total/NA	Analysis	300.0		20	24163	DL	EET ALB	04/13/25 21:17

Client Sample ID: BS25-06 4'
Lab Sample ID: 885-23045-2
Date Collected: 04/08/25 09:10
Matrix: Solid
Date Received: 04/11/25 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24167	AT	EET ALB	04/13/25 13:53
Total/NA	Analysis	8015M/D		1	24205	AT	EET ALB	04/14/25 19:21
Total/NA	Prep	5030C			24167	AT	EET ALB	04/13/25 13:53
Total/NA	Analysis	8021B		1	24206	AT	EET ALB	04/14/25 19:21
Total/NA	Prep	SHAKE			24650	MI	EET ALB	04/21/25 11:59
Total/NA	Analysis	8015M/D		1	24616	MI	EET ALB	04/21/25 14:45
Total/NA	Prep	300_Prep			24226	DL	EET ALB	04/14/25 13:56
Total/NA	Analysis	300.0		20	24228	DL	EET ALB	04/15/25 00:01

Client Sample ID: BS25-07 1'
Lab Sample ID: 885-23045-3
Date Collected: 04/08/25 09:20
Matrix: Solid
Date Received: 04/11/25 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24167	AT	EET ALB	04/13/25 13:53
Total/NA	Analysis	8015M/D		1	24205	AT	EET ALB	04/14/25 19:42
Total/NA	Prep	5030C			24167	AT	EET ALB	04/13/25 13:53
Total/NA	Analysis	8021B		1	24206	AT	EET ALB	04/14/25 19:42
Total/NA	Prep	SHAKE			24238	MI	EET ALB	04/14/25 14:40
Total/NA	Analysis	8015M/D		1	24267	MI	EET ALB	04/15/25 13:04
Total/NA	Prep	300_Prep			24226	DL	EET ALB	04/14/25 13:56
Total/NA	Analysis	300.0		20	24228	DL	EET ALB	04/15/25 00:12

Client Sample ID: BS25-08 1'
Lab Sample ID: 885-23045-4
Date Collected: 04/08/25 09:30
Matrix: Solid
Date Received: 04/11/25 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24167	AT	EET ALB	04/13/25 13:53
Total/NA	Analysis	8015M/D		1	24205	AT	EET ALB	04/14/25 20:04

Lab Chronicle

Client: Vertex
Project/Site: Todd 36D State #002

Job ID: 885-23045-1

Client Sample ID: BS25-08 1'
Date Collected: 04/08/25 09:30
Date Received: 04/11/25 08:30

Lab Sample ID: 885-23045-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24167	AT	EET ALB	04/13/25 13:53
Total/NA	Analysis	8021B		1	24206	AT	EET ALB	04/14/25 20:04
Total/NA	Prep	SHAKE			24238	MI	EET ALB	04/14/25 14:40
Total/NA	Analysis	8015M/D		1	24267	MI	EET ALB	04/15/25 13:16
Total/NA	Prep	300_Prep			24226	DL	EET ALB	04/14/25 13:56
Total/NA	Analysis	300.0		20	24228	DL	EET ALB	04/15/25 00:22

Client Sample ID: BS25-09 1'
Date Collected: 04/08/25 09:40
Date Received: 04/11/25 08:30

Lab Sample ID: 885-23045-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24167	AT	EET ALB	04/13/25 13:53
Total/NA	Analysis	8015M/D		1	24205	AT	EET ALB	04/14/25 20:26
Total/NA	Prep	5030C			24167	AT	EET ALB	04/13/25 13:53
Total/NA	Analysis	8021B		1	24206	AT	EET ALB	04/14/25 20:26
Total/NA	Prep	SHAKE			24650	MI	EET ALB	04/21/25 11:59
Total/NA	Analysis	8015M/D		1	24616	MI	EET ALB	04/21/25 14:57
Total/NA	Prep	300_Prep			24226	DL	EET ALB	04/14/25 13:56
Total/NA	Analysis	300.0		20	24228	DL	EET ALB	04/15/25 00:32

Client Sample ID: WS25-02 0-1'
Date Collected: 04/08/25 10:10
Date Received: 04/11/25 08:30

Lab Sample ID: 885-23045-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			24167	AT	EET ALB	04/13/25 13:53
Total/NA	Analysis	8015M/D		1	24205	AT	EET ALB	04/14/25 20:47
Total/NA	Prep	5030C			24167	AT	EET ALB	04/13/25 13:53
Total/NA	Analysis	8021B		1	24206	AT	EET ALB	04/14/25 20:47
Total/NA	Prep	SHAKE			24238	MI	EET ALB	04/14/25 14:40
Total/NA	Analysis	8015M/D		2	24267	MI	EET ALB	04/15/25 13:40
Total/NA	Prep	300_Prep			24226	DL	EET ALB	04/14/25 13:56
Total/NA	Analysis	300.0		20	24228	DL	EET ALB	04/15/25 00:43

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

Accreditation/Certification Summary

Client: Vertex
Job ID: 885-23045-1
Project/Site: Todd 36D State #002

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 (GRO)-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 devon)

Mailing Address: on file

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☒ Rush 5 Day

Project Name: Todd 36 D State #002

Project #: 23E-05197

Project Manager: Sally Carttar SCarttar@vertex.ca & Kent Stallings KStallings@vertex.Ca

Sampler:

On Ice: ☒ Yes ☐ No mgc

# of Coolers: 1

Cooler Temp(including CF): 1.2+0.2=1.4 (°C)

HALL ENVIRONMENTAL ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 8710
Tel. 505-345-3975 Fax 505-345-4107

885-23045 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
4/8	9:00	Soil	WS25-05 0-1'	4oz	ice		X	X					X			
	9:10		BS25-06 4'													
	9:20		BS25-07 1'													
	9:30		BS25-08 1'													
	9:40		BS25-09 1'													
	9:50		~~~													
↓	10:10	↓	WS25-02 0-1'	↓	↓		↓						↓			

Date	Time	Relinquished by	Received by	Via	Date	Time
4/9	12	Katrina Taylor			4/10/25	915
4/10/25	1900			courier	4/11/25	8:30

Remarks: Bill to devon
ATTN: Jim Raley - jim.raley@dvn.com
cc: SCarttar@vertex.ca, KStallings@vertex.ca
Katrina.Taylor@vertex.ca

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

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-23045-1

Login Number: 23045 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Kent Stallings
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 4/21/2025 3:23:07 PM

JOB DESCRIPTION

Todd 36 D State #002

JOB NUMBER

885-23300-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

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

Authorization

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4/21/2025 3:23:07 PM

Authorized for release by
Andy Freeman, Business Unit Manager
andy.freeman@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Todd 36 D State #002

Laboratory Job ID: 885-23300-1

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Definitions/Glossary

Client: Vertex Job ID: 885-23300-1
Project/Site: Todd 36 D State #002

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
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: Todd 36 D State #002

Job ID: 885-23300-1

Job ID: 885-23300-1 Eurofins Albuquerque

Job Narrative
885-23300-1

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

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

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

Receipt
The sample was received on 4/16/2025 7:55 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 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
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 885-24560 recovered above the upper control limit for Di-n-octyl phthalate (Surr) and 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 sample is:WS25-03 0-1' (885-23300-1).

Method 8015D_DRO: Surrogate recovery for the following samples were outside the upper control limit: WS25-03 0-1' (885-23300-1) and (MB 885-24476/1-A). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

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

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

Client Sample Results

Client: Vertex
Job ID: 885-23300-1
Project/Site: Todd 36 D State #002

Client Sample ID: WS25-03 0-1'
Lab Sample ID: 885-23300-1
Date Collected: 04/04/25 09:50
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		3.7		mg/Kg		04/16/25 13:31	04/18/25 12:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*35 - 166*	*04/16/25 13:31*	*04/18/25 12:53*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.018		mg/Kg		04/16/25 13:31	04/18/25 12:53	1
Ethylbenzene	ND		0.037		mg/Kg		04/16/25 13:31	04/18/25 12:53	1
Toluene	ND		0.037		mg/Kg		04/16/25 13:31	04/18/25 12:53	1
Xylenes, Total	ND		0.074		mg/Kg		04/16/25 13:31	04/18/25 12:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*48 - 145*	*04/16/25 13:31*	*04/18/25 12:53*	*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]	ND		9.9		mg/Kg		04/17/25 13:51	04/18/25 13:58	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		04/17/25 13:51	04/18/25 13:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*142*	*S1+*	*62 - 134*	*04/17/25 13:51*	*04/18/25 13:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**190**		60		mg/Kg		04/18/25 08:41	04/18/25 12:14	20

QC Sample Results

Client: Vertex
Project/Site: Todd 36 D State #002

Job ID: 885-23300-1

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

Lab Sample ID: MB 885-24400/1-A
Matrix: Solid
Analysis Batch: 24549

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24400

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 13:31	04/18/25 12:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*35 - 166*	*04/16/25 13:31*	*04/18/25 12:29*	*1*

Lab Sample ID: LCS 885-24400/2-A
Matrix: Solid
Analysis Batch: 24549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24400

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 885-24400/1-A
Matrix: Solid
Analysis Batch: 24550

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24400

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/16/25 13:31	04/18/25 12:29	1
Ethylbenzene	ND		0.050		mg/Kg		04/16/25 13:31	04/18/25 12:29	1
Toluene	ND		0.050		mg/Kg		04/16/25 13:31	04/18/25 12:29	1
Xylenes, Total	ND		0.10		mg/Kg		04/16/25 13:31	04/18/25 12:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*48 - 145*	*04/16/25 13:31*	*04/18/25 12:29*	*1*

Lab Sample ID: LCS 885-24400/3-A
Matrix: Solid
Analysis Batch: 24550

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24400

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*

QC Sample Results

Client: Vertex
Project/Site: Todd 36 D State #002

Job ID: 885-23300-1

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

Lab Sample ID: MB 885-24476/1-A
Matrix: Solid
Analysis Batch: 24560

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24476

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		04/17/25 12:32	04/18/25 13:33	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		04/17/25 12:32	04/18/25 13:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*170*	*S1+*	*62 - 134*	*04/17/25 12:32*	*04/18/25 13:33*	*1*

Lab Sample ID: LCS 885-24476/2-A
Matrix: Solid
Analysis Batch: 24560

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24476

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	57.5		mg/Kg		115	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*121*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MRL 885-24530/3
Matrix: Solid
Analysis Batch: 24530

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

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			0.500	0.522		mg/L		104	50 - 150		

Lab Sample ID: MB 885-24532/1-A
Matrix: Solid
Analysis Batch: 24530

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24532

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5		mg/Kg		04/18/25 08:41	04/18/25 10:21	1

Lab Sample ID: LCS 885-24532/3-A
Matrix: Solid
Analysis Batch: 24530

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24532

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			15.0	15.2		mg/Kg		101	90 - 110		

Lab Sample ID: LLCS 885-24532/2-A
Matrix: Solid
Analysis Batch: 24530

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24532

Analyte			Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			1.50	1.56		mg/Kg		104	50 - 150		

QC Association Summary

Client: Vertex
Job ID: 885-23300-1
Project/Site: Todd 36 D State #002

GC VOA

Prep Batch: 24400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23300-1	WS25-03 0-1'	Total/NA	Solid	5035	
MB 885-24400/1-A	Method Blank	Total/NA	Solid	5035	
LCS 885-24400/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCS 885-24400/3-A	Lab Control Sample	Total/NA	Solid	5035	

Analysis Batch: 24549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23300-1	WS25-03 0-1'	Total/NA	Solid	8015M/D	24400
MB 885-24400/1-A	Method Blank	Total/NA	Solid	8015M/D	24400
LCS 885-24400/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24400

Analysis Batch: 24550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23300-1	WS25-03 0-1'	Total/NA	Solid	8021B	24400
MB 885-24400/1-A	Method Blank	Total/NA	Solid	8021B	24400
LCS 885-24400/3-A	Lab Control Sample	Total/NA	Solid	8021B	24400

GC Semi VOA

Prep Batch: 24476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23300-1	WS25-03 0-1'	Total/NA	Solid	SHAKE	
MB 885-24476/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-24476/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 24560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23300-1	WS25-03 0-1'	Total/NA	Solid	8015M/D	24476
MB 885-24476/1-A	Method Blank	Total/NA	Solid	8015M/D	24476
LCS 885-24476/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	24476

HPLC/IC

Analysis Batch: 24530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23300-1	WS25-03 0-1'	Total/NA	Solid	300.0	24532
MB 885-24532/1-A	Method Blank	Total/NA	Solid	300.0	24532
LCS 885-24532/3-A	Lab Control Sample	Total/NA	Solid	300.0	24532
LLCS 885-24532/2-A	Lab Control Sample	Total/NA	Solid	300.0	24532
MRL 885-24530/3	Lab Control Sample	Total/NA	Solid	300.0	

Prep Batch: 24532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23300-1	WS25-03 0-1'	Total/NA	Solid	300_Prep	
MB 885-24532/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-24532/3-A	Lab Control Sample	Total/NA	Solid	300_Prep	
LLCS 885-24532/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Lab Chronicle

Client: Vertex
Job ID: 885-23300-1
Project/Site: Todd 36 D State #002

Client Sample ID: WS25-03 0-1'
Lab Sample ID: 885-23300-1

Date Collected: 04/04/25 09:50
Matrix: Solid
Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			24400	JE	EET ALB	04/16/25 13:31
Total/NA	Analysis	8015M/D		1	24549	JP	EET ALB	04/18/25 12:53
Total/NA	Prep	5035			24400	JE	EET ALB	04/16/25 13:31
Total/NA	Analysis	8021B		1	24550	JP	EET ALB	04/18/25 12:53
Total/NA	Prep	SHAKE			24476	MI	EET ALB	04/17/25 13:51
Total/NA	Analysis	8015M/D		1	24560	JE	EET ALB	04/18/25 13:58
Total/NA	Prep	300_Prep			24532	DL	EET ALB	04/18/25 08:41
Total/NA	Analysis	300.0		20	24530	RC	EET ALB	04/18/25 12:14

Laboratory References:

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

Accreditation/Certification Summary

Client: Vertex Job ID: 885-23300-1
Project/Site: Todd 36 D State #002

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	5035	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	5035	Solid	Benzene
8021B	5035	Solid	Ethylbenzene
8021B	5035	Solid	Toluene
8021B	5035	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-26

Chain-of-Custody Record

Client: **Vertex**

(direct bill to Devon, work order 1006092001)

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: X 48-hour Rush

Project Name: **Todd 36 D State #002**

Project #: **23E-05197**

Project Manager: Kent Stallings

kstallings@vertexresource.com

Sampler: K. Taylor

On Ice: ☒ Yes ☐ No mcju

# of Coolers: 1

Cooler Temp(including CF): 4.4 +0.2 = 4.6°c

HALL ENVIRONMENTAL ANALYSIS LABORA

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

885-23300 COC

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
04.04.25	9:50	Soil	WS25-03 0-1'	1, 4oz jar			X	X					X			

Analysis Request

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
~~4/5/25~~	10:30				4/15/25	1030
4/16/25	1950			courier	4/16/25	7:55

Remarks: ATTN Jim Raley
Direct bill to Devon work order 1006092001 Jim Raley
cc. permain@vertexresource.com, SCarttar@vertexresource.com, kstallings@vertexresource.com, SMcCarty@vertexresource.com, and LPullman@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: 885-23300-1

Login Number: 23300 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Kent Stallings
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 4/21/2025 11:06:18 AM

JOB DESCRIPTION

Todd 36 D State #002

JOB NUMBER

885-23304-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

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

Authorization

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4/21/2025 11:06:18 AM

Authorized for release by
Andy Freeman, Business Unit Manager
andy.freeman@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Todd 36 D State #002

Laboratory Job ID: 885-23304-1

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Definitions/Glossary

Client: Vertex Job ID: 885-23304-1
Project/Site: Todd 36 D State #002

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: Todd 36 D State #002

Job ID: 885-23304-1

Job ID: 885-23304-1 Eurofins Albuquerque

Job Narrative
885-23304-1

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
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.

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

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

Client Sample Results

Client: Vertex
Job ID: 885-23304-1
Project/Site: Todd 36 D State #002

Client Sample ID: BS25-10 1'
Lab Sample ID: 885-23304-1
Date Collected: 04/11/25 11:05
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 (GRO)-C6-C10	ND		4.8		mg/Kg		04/16/25 15:49	04/17/25 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*04/16/25 15:49*	*04/17/25 23:23*	*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	04/17/25 23:23	1
Ethylbenzene	ND		0.048		mg/Kg		04/16/25 15:49	04/17/25 23:23	1
Toluene	ND		0.048		mg/Kg		04/16/25 15:49	04/17/25 23:23	1
Xylenes, Total	ND		0.095		mg/Kg		04/16/25 15:49	04/17/25 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*48 - 145*	*04/16/25 15:49*	*04/17/25 23:23*	*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**		10		mg/Kg		04/17/25 10:25	04/18/25 07:54	1
Motor Oil Range Organics [C28-C40]	**63**		50		mg/Kg		04/17/25 10:25	04/18/25 07:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*117*		*62 - 134*	*04/17/25 10:25*	*04/18/25 07:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		04/17/25 09:22	04/17/25 21:50	20

Client Sample Results

Client: Vertex
Job ID: 885-23304-1
Project/Site: Todd 36 D State #002

Client Sample ID: BS25-11 1'
Lab Sample ID: 885-23304-2
Date Collected: 04/11/25 11:10
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 (GRO)-C6-C10	ND		4.6		mg/Kg		04/16/25 15:49	04/18/25 00:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*04/16/25 15:49*	*04/18/25 00:28*	*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 00:28	1
Ethylbenzene	ND		0.046		mg/Kg		04/16/25 15:49	04/18/25 00:28	1
Toluene	ND		0.046		mg/Kg		04/16/25 15:49	04/18/25 00:28	1
Xylenes, Total	ND		0.091		mg/Kg		04/16/25 15:49	04/18/25 00:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*	*04/16/25 15:49*	*04/18/25 00:28*	*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]	**240**		9.9		mg/Kg		04/17/25 10:25	04/18/25 08:06	1
Motor Oil Range Organics [C28-C40]	**190**		49		mg/Kg		04/17/25 10:25	04/18/25 08:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*127*		*62 - 134*	*04/17/25 10:25*	*04/18/25 08:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		04/17/25 09:22	04/17/25 22:04	20

Client Sample Results

Client: Vertex
Job ID: 885-23304-1
Project/Site: Todd 36 D State #002

Client Sample ID: WS25-01 0-1'
Lab Sample ID: 885-23304-3
Date Collected: 04/11/25 11:20
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 (GRO)-C6-C10	ND		4.8		mg/Kg		04/16/25 15:49	04/18/25 00:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*04/16/25 15:49*	*04/18/25 00:50*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/16/25 15:49	04/18/25 00:50	1
Ethylbenzene	ND		0.048		mg/Kg		04/16/25 15:49	04/18/25 00:50	1
Toluene	ND		0.048		mg/Kg		04/16/25 15:49	04/18/25 00:50	1
Xylenes, Total	ND		0.097		mg/Kg		04/16/25 15:49	04/18/25 00:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*04/16/25 15:49*	*04/18/25 00:50*	*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		10		mg/Kg		04/17/25 10:25	04/18/25 08:17	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		04/17/25 10:25	04/18/25 08:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*106*		*62 - 134*	*04/17/25 10:25*	*04/18/25 08:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		04/17/25 09:22	04/17/25 22:47	20

Client Sample Results

Client: Vertex
Job ID: 885-23304-1
Project/Site: Todd 36 D State #002

Client Sample ID: WS25-04 0-1'
Lab Sample ID: 885-23304-4
Date Collected: 04/11/25 11:35
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 (GRO)-C6-C10	ND		4.7		mg/Kg		04/16/25 15:49	04/18/25 01:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*04/16/25 15:49*	*04/18/25 01:12*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/16/25 15:49	04/18/25 01:12	1
Ethylbenzene	ND		0.047		mg/Kg		04/16/25 15:49	04/18/25 01:12	1
Toluene	ND		0.047		mg/Kg		04/16/25 15:49	04/18/25 01:12	1
Xylenes, Total	ND		0.094		mg/Kg		04/16/25 15:49	04/18/25 01:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*04/16/25 15:49*	*04/18/25 01:12*	*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		9.9		mg/Kg		04/17/25 10:25	04/18/25 08:29	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		04/17/25 10:25	04/18/25 08:29	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 08:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		60		mg/Kg		04/17/25 09:22	04/17/25 23:01	20

Client Sample Results

Client: Vertex
Job ID: 885-23304-1
Project/Site: Todd 36 D State #002

Client Sample ID: WS25-06 0-4'
Lab Sample ID: 885-23304-5
Date Collected: 04/11/25 13:00
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 (GRO)-C6-C10	ND		4.8		mg/Kg		04/16/25 15:49	04/18/25 01:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*04/16/25 15:49*	*04/18/25 01:33*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/16/25 15:49	04/18/25 01:33	1
Ethylbenzene	ND		0.048		mg/Kg		04/16/25 15:49	04/18/25 01:33	1
Toluene	ND		0.048		mg/Kg		04/16/25 15:49	04/18/25 01:33	1
Xylenes, Total	ND		0.097		mg/Kg		04/16/25 15:49	04/18/25 01:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*	*04/16/25 15:49*	*04/18/25 01:33*	*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		9.8		mg/Kg		04/17/25 10:25	04/18/25 08:41	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		04/17/25 10:25	04/18/25 08:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*113*		*62 - 134*	*04/17/25 10:25*	*04/18/25 08:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		04/17/25 09:22	04/17/25 23:15	20

Client Sample Results

Client: Vertex
Job ID: 885-23304-1
Project/Site: Todd 36 D State #002

Client Sample ID: WS25-07 0-4'
Lab Sample ID: 885-23304-6
Date Collected: 04/11/25 13:05
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 (GRO)-C6-C10	ND		4.8		mg/Kg		04/16/25 15:49	04/18/25 01:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*35 - 166*	*04/16/25 15:49*	*04/18/25 01:55*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/16/25 15:49	04/18/25 01:55	1
Ethylbenzene	ND		0.048		mg/Kg		04/16/25 15:49	04/18/25 01:55	1
Toluene	ND		0.048		mg/Kg		04/16/25 15:49	04/18/25 01:55	1
Xylenes, Total	ND		0.097		mg/Kg		04/16/25 15:49	04/18/25 01:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*04/16/25 15:49*	*04/18/25 01:55*	*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		9.9		mg/Kg		04/17/25 10:25	04/18/25 08:52	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		04/17/25 10:25	04/18/25 08:52	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 08:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		04/17/25 09:22	04/17/25 23:29	20

QC Sample Results

Client: Vertex
Project/Site: Todd 36 D State #002

Job ID: 885-23304-1

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 (GRO)-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 (GRO)-C6-C10			25.0	29.2		mg/Kg		117	70 - 130		

Surrogate			*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)			*222*		*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

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-Xylene & 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		

Surrogate			*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)			*96*		*48 - 145*

QC Sample Results

Client: Vertex
Project/Site: Todd 36 D State #002

Job ID: 885-23304-1

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 885-24447/1-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		

QC Association Summary

Client: Vertex
Job ID: 885-23304-1
Project/Site: Todd 36 D State #002

GC VOA

Prep Batch: 24415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23304-1	BS25-10 1'	Total/NA	Solid	5030C	
885-23304-2	BS25-11 1'	Total/NA	Solid	5030C	
885-23304-3	WS25-01 0-1'	Total/NA	Solid	5030C	
885-23304-4	WS25-04 0-1'	Total/NA	Solid	5030C	
885-23304-5	WS25-06 0-4'	Total/NA	Solid	5030C	
885-23304-6	WS25-07 0-4'	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	

Analysis Batch: 24571

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23304-1	BS25-10 1'	Total/NA	Solid	8015M/D	24415
885-23304-2	BS25-11 1'	Total/NA	Solid	8015M/D	24415
885-23304-3	WS25-01 0-1'	Total/NA	Solid	8015M/D	24415
885-23304-4	WS25-04 0-1'	Total/NA	Solid	8015M/D	24415
885-23304-5	WS25-06 0-4'	Total/NA	Solid	8015M/D	24415
885-23304-6	WS25-07 0-4'	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
885-23304-1	BS25-10 1'	Total/NA	Solid	8021B	24415
885-23304-2	BS25-11 1'	Total/NA	Solid	8021B	24415
885-23304-3	WS25-01 0-1'	Total/NA	Solid	8021B	24415
885-23304-4	WS25-04 0-1'	Total/NA	Solid	8021B	24415
885-23304-5	WS25-06 0-4'	Total/NA	Solid	8021B	24415
885-23304-6	WS25-07 0-4'	Total/NA	Solid	8021B	24415
MB 885-24415/1-A	Method Blank	Total/NA	Solid	8021B	24415
LCS 885-24415/3-A	Lab Control Sample	Total/NA	Solid	8021B	24415

GC Semi VOA

Analysis Batch: 24440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23304-1	BS25-10 1'	Total/NA	Solid	8015M/D	24457
885-23304-2	BS25-11 1'	Total/NA	Solid	8015M/D	24457
885-23304-3	WS25-01 0-1'	Total/NA	Solid	8015M/D	24457
885-23304-4	WS25-04 0-1'	Total/NA	Solid	8015M/D	24457
885-23304-5	WS25-06 0-4'	Total/NA	Solid	8015M/D	24457
885-23304-6	WS25-07 0-4'	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
885-23304-1	BS25-10 1'	Total/NA	Solid	SHAKE	
885-23304-2	BS25-11 1'	Total/NA	Solid	SHAKE	
885-23304-3	WS25-01 0-1'	Total/NA	Solid	SHAKE	
885-23304-4	WS25-04 0-1'	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Vertex Job ID: 885-23304-1
Project/Site: Todd 36 D State #002

GC Semi VOA (Continued)

Prep Batch: 24457 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23304-5	WS25-06 0-4'	Total/NA	Solid	SHAKE	
885-23304-6	WS25-07 0-4'	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	

HPLC/IC

Prep Batch: 24447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23304-1	BS25-10 1'	Total/NA	Solid	300_Prep	
885-23304-2	BS25-11 1'	Total/NA	Solid	300_Prep	
885-23304-3	WS25-01 0-1'	Total/NA	Solid	300_Prep	
885-23304-4	WS25-04 0-1'	Total/NA	Solid	300_Prep	
885-23304-5	WS25-06 0-4'	Total/NA	Solid	300_Prep	
885-23304-6	WS25-07 0-4'	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	

Analysis Batch: 24448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23304-1	BS25-10 1'	Total/NA	Solid	300.0	24447
885-23304-2	BS25-11 1'	Total/NA	Solid	300.0	24447
885-23304-3	WS25-01 0-1'	Total/NA	Solid	300.0	24447
885-23304-4	WS25-04 0-1'	Total/NA	Solid	300.0	24447
885-23304-5	WS25-06 0-4'	Total/NA	Solid	300.0	24447
885-23304-6	WS25-07 0-4'	Total/NA	Solid	300.0	24447
MB 885-24447/1-A	Method Blank	Total/NA	Solid	300.0	24447
LCS 885-24447/2-A	Lab Control Sample	Total/NA	Solid	300.0	24447

Lab Chronicle

Client: Vertex
Job ID: 885-23304-1
Project/Site: Todd 36 D State #002

Client Sample ID: BS25-10 1'
Lab Sample ID: 885-23304-1
Date Collected: 04/11/25 11:05
Matrix: Solid
Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	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	04/17/25 23:23
Total/NA	Prep	5030C			24415	JP	EET ALB	04/16/25 15:49
Total/NA	Analysis	8021B		1	24572	AT	EET ALB	04/17/25 23:23
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 07:54
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 21:50

Client Sample ID: BS25-11 1'
Lab Sample ID: 885-23304-2
Date Collected: 04/11/25 11:10
Matrix: Solid
Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	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 00:28
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 00:28
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 08:06
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 22:04

Client Sample ID: WS25-01 0-1'
Lab Sample ID: 885-23304-3
Date Collected: 04/11/25 11:20
Matrix: Solid
Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	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 00:50
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 00:50
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 08:17
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 22:47

Client Sample ID: WS25-04 0-1'
Lab Sample ID: 885-23304-4
Date Collected: 04/11/25 11:35
Matrix: Solid
Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	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 01:12

Lab Chronicle

Client: Vertex
Job ID: 885-23304-1
Project/Site: Todd 36 D State #002

Client Sample ID: WS25-04 0-1'
Lab Sample ID: 885-23304-4
Date Collected: 04/11/25 11:35
Matrix: Solid
Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	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 01:12
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 08:29
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 23:01

Client Sample ID: WS25-06 0-4'
Lab Sample ID: 885-23304-5
Date Collected: 04/11/25 13:00
Matrix: Solid
Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	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 01:33
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 01:33
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 08:41
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 23:15

Client Sample ID: WS25-07 0-4'
Lab Sample ID: 885-23304-6
Date Collected: 04/11/25 13:05
Matrix: Solid
Date Received: 04/16/25 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	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 01:55
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 01:55
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 08:52
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 23:29

Laboratory References:

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

Accreditation/Certification Summary

Client: Vertex Job ID: 885-23304-1
Project/Site: Todd 36 D State #002

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 (GRO)-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**

(direct bill to Devon, work order 1006092001)

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: X 72-hour Rush

Project Name: **Todd 36 D State #002**

Project #: **23E-05197**

Project Manager: Kent Stallings
kstallings@vertexresource.com

Sampler: L. Pullman

On Ice: ☒ Yes ☐ No mg.

# of Coolers: 1

Cooler Temp(including CF): 4.4 +0.2 = 4.6 °C

HALL ENVIRONMENTAL ANALYSIS LABORA
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 8710
Tel. 505-345-3975 Fax 505-345-4107

885-23304 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						
04.11.25	11:05	Soil	BS25-10 1'	1, 4oz jar			X	X					X									
04.11.25	11:10	Soil	BS25-11 1'	1, 4oz jar			X	X					X									
04.11.25	11:20	Soil	WS25-01 0-1'	1, 4oz jar			X	X					X									
04.11.25	11:35	Soil	WS25-04 0-1'	1, 4oz jar			X	X					X									
04.11.25	13:00	Soil	WS25-06 0-4'	1, 4oz jar			X	X					X									
04.11.25	13:05	Soil	WS25-07 0-4'	1, 4oz jar			X	X					X									

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
4-14-25	07:00	Jake Pullman				
4/15/25	1900				4/15/25	710
4/15/25	1900			courier	4/16/25	7:55

Remarks: ATTN Jim Raley
Direct bill to Devon work order 1006092001 Jim Raley
cc. permain@vertexresource.com, SCarttar@vertexresource.com, kstallings@vertexresource.com, SMcCarty@vertexresource.com, and LPullman@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: 885-23304-1

Login Number: 23304 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

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

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 490780

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 490780
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAB1815052591**
Incident Name	**NAB1815052591 TODD 36 D STATE #002 @ 30-015-27365**
Incident Type	**Produced Water Release**
Incident Status	**Reclamation Report Received**
Incident Well	**[30-015-27365] TODD 36 D STATE #002**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	TODD 36 D STATE #002
Date Release Discovered	05/10/2018
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: Equipment Failure | Separator | Crude Oil | Released: 1 BBL | Recovered: 0 BBL | Lost: 1 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure | Separator | Produced Water | Released: 8 BBL | Recovered: 7 BBL | Lost: 1 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 (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 490780
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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

I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dvn.com Date: 04/28/2025

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 (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 490780
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (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 ½ and 1 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	2400
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	43000
GRO+DRO (EPA SW-846 Method 8015M)	26000
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed 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	03/24/2025
On what date will (or did) the final sampling or liner inspection occur	06/24/2025
On what date will (or was) the remediation complete(d)	06/24/2025
What is the estimated surface area (in square feet) that will be reclaimed	431
What is the estimated volume (in cubic yards) that will be reclaimed	28
What is the estimated surface area (in square feet) that will be remediated	1900
What is the estimated volume (in cubic yards) that will be remediated	90
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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Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 490780
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
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	No
OR is the **off-site** disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed 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: James Raley Title: EHS Professional Email: jim.raley@dvn.com Date: 01/27/2025
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 (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 490780
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Deferral Requests Only *Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.*	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 490780
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**450285**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**04/11/2025**
What was the (estimated) number of samples that were to be gathered	**16**
What was the sampling surface area in square feet	**1500**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	981
What was the total volume (cubic yards) remediated	1578
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	598
What was the total volume (in cubic yards) reclaimed	45
Summarize any additional remediation activities not included by answers (above)	Material on pad within closure criteria was not remediated.

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

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

I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dvn.com Date: 04/28/2025

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QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 490780
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	538
What was the total volume of replacement material (in cubic yards) for this site	42
Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseeding commence(d)	04/29/2025
Summarize any additional reclamation activities not included by answers (above)	As detailed in attached report
The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseeding plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 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: James Raley Title: EHS Professional Email: jim.raley@dvn.com Date: 07/31/2025

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QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 490780
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Revegetation Report	
Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.	
Requesting a restoration complete approval with this submission	No
Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.	

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CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 490780
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	The reclamation report has been approved pursuant to 19.15.29.13 E. NMAC. The acceptance of this 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; or if the location fails to revegetate properly. In addition, the OCD approval does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.	8/5/2025