Terracon
4518 W. Pierce St. Carlsbad NM, 88220

July 23, 2025

Devon Energy Corp
5315 Buena Bista Dr.
Carlsbad NM,88220

Attn: New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico, NM 87505

RE: **Release Investigation and Closure Report**
Devon Energy Corp.
Hognose Viper 23 Fed 1H
Unit M, Section 23, Township 23 South, Range 33 East
32.2833489°, -103.5489202°
Work Order No. 21453154
NMOCD Incident No. nAPP2432652685
Lea County, New Mexico
Terracon Project No. KH247059

To Whom It May Concern:

Terracon Consultants, Inc. (Terracon) is submitting this Release Investigation and Closure Report on behalf of Devon Energy Production Company, LP (Devon) for the above-referenced site. Prepared in line with New Mexico Oil Conservation Division (NMOCD) regulations, this report addresses the environmental actions taken in response to a release of produced water due to corrosion on a flow line. Detailed assessment and remedial actions by Terracon are outlined in the following sections.

Completed Actions

1)	Conducted an initial site assessment and a series of sampling events.
2)	Prepared maps, and associated data tables which are provided for review.
3)	Collected soil samples from the inferred release area and submitted the samples to an approved laboratory for analysis to determine levels of impact vertically and horizontally.
4)	Remedial activities were terminated when a confirmation sample was collected below the NMOCD RALs from Oil and Gas impacted soils.

Site Information

A notice of the Release was provided to the NMOCD District 2 Artesia Office by Jordan Villarreal on November 21, 2024, with the submission of the initial C-141 (NMOCD Reference ID: nAPP2432652685). The cause of the release was corrosion in a flow line resulting in a release of 6-barrels of produced water. Five barrels were recovered during the initial response action.

The site is located within Unit M, Section 23, Township 23 South, Range 33 East, approximately 24 miles northwest of Jal, New Mexico. A Topographic Map and Site Location Map are included in Appendix A, as Exhibit 1 and Exhibit 2, respectively.

Regulatory Criteria

Review of the NMOSE Pod website did not identify a water well within 0.5 miles of the site. Therefore, a boring/well was installed on February 12, 2025, to a depth of 55 feet below ground surface (bgs). The well was allowed to recover for 72 hours and was found to be "dry" with no water in the well, indicating the depth to water is greater than 55 feet bgs. The well was then plugged in accordance with New Mexico Office of State Engineer (NMOSE) rules and regulations. A Boring-Well Location Map is included in Appendix A, Exhibit 3. On this basis it appears the depth to water is greater than 50 feet bgs.

There is no known lakebed, sinkhole or Playa Lake within 200 feet, no known occupied permanent residence, school, hospital or church within 300 feet, no known freshwater sources within 1,000 feet and no known wetland within 300 feet of the site. Review of the Federal Emergency Management Agency (FEMA) flood maps, identify the site is within Zone D indicating the flood hazards are undetermined but possible, and a flood hazard analysis hasn't been conducted for that area, and the flood risk is uncertain. Therefore, Zone D is not part of a Special Flood Hazard Area (SFHA) and is outside the 100-year floodplain. The site is not overlying a subsurface mine or unstable area. A review of the U.S. Fish and Wildlife Service, National Wetlands Inventory website indicates there is a Riverine located approximately 0.73 miles northeast of the site as indicated in the Regulatory Criteria Map included in Appendix A, Exhibit 4. A review of geospatial data obtained from the BLM Carlsbad Field Office website indicated that the site is within an area of low risk for Karst formations, as indicated in the Cave Karst Public UCP Map in Appendix A, Exhibit 5.

Remediation Standards (Surface to 4 ft. bgs)

The RAL's for the site are based on the remedial requirements for an on-pad release consisting of the removal of the affected soil from the surface to 4 feet below grade surface (bgs) in an area with depth to groundwater 51' to 100' bgs. The below remediation limits for BTEX (includes benzene, toluene, ethylbenzene, and xylenes), and benzene, chlorides and TPH (GRO+DRO+MRO), are defined within New Mexico Administration Code (NMAC) 19.15.29.12 and in the NMOCD guidance document "Procedures for Implementation of the Spill Rule" dated September 6, 2019.:

Parameters	Closure Criteria	Analytical Method
Total Benzene, Toluene, Ethylbenzene and Xylenes (Total BTEX)	50 mg/kg	EPA Method 8021B
Benzene	10 mg/kg	EPA Method 8021B
Chlorides	10,000 mg/kg	EPA Method 300
Total Petroleum Hydrocarbons (TPH) GRO, DRO and MRO	2,500 mg/kg	EPA Method 8015M
TPH (GRO+DRO)	1,000 mg/kg	EPA Method 8015M

Release Assessment / Delineation Activities

Terracon conducted release assessment activities at the site from November 25, 2024, and December 2, 2024. An area of approximately 2,555 square feet was affected by the release. A total of 20 delineation samples from 16 locations were collected and submitted for analysis of BTEX, Chlorides, and TPH. Delineation sample results for BTEX and TPH were below applicable NMOCD RAL's. Two delineation samples exceeded the RAL's for Chloride with results of 23,800 mg/kg in DSV-04 (0.0'-0.5') and 29,200 mg/kg in DSV-02 (0.0'-0.5'). These two areas were subsequently excavated during remedial activities as described in the following section. A Delineation Sample Map depicting the sample locations, and the inferred release extent are included in Appendix A, Exhibit 6. Delineation sample results are included in Appendix B, Table 1.

Remediation / Confirmation / Closure Activities

Remediation activities were conducted at the site from March 31, 2025, to July 14, 2025. This work consisted of excavation and removal of soil that exceeded NMOCD RAL's. The material remaining in place does not exceed NMOCD RAL's.

A total area of approximately 2,917 square feet was excavated to a depth of between 1-foot to 1.5-feet bgs. The excavated material was stockpiled on site, then was hauled off-site and disposed of at Delaware Basin Landfill disposal facility. In compliance with NMOCD 48-hour sample notification requirement, Devon submitted 48-hour sample notification. In compliance with NMOCD closure requirements, five-point composite closure soil samples were collected from the excavation on 200 square foot intervals. On June 20, 2025, Terracon collected a total of 14 confirmation floor samples, CFS-1 (1.0-1.5 ft) through CFS-14 (1.0-1.5 ft). The soil samples collected were submitted for analysis of BTEX, Chloride, TPH, the results for these floor samples were below the NMOCD RAL's.

A total of 8 five-point composite confirmation wall samples, CWS-1 (0.0'-1.5') through CWS-8 (0.0'-1.5') and CWS-8.1 (0.0'-1.5') were collected on 200 linier foot intervals. One confirmation wall sample CWS-8.1 (0.0-1.5 ft) exceeded the NMOCD RAL's for Chloride at a concentration of 18,800 mg/kg.

The exceedance area was excavated an additional 4-feet horizontally to a depth of 1.5-feet bgs and on June 3, 2025, one composite floor sample CFS-15 (1.0-1.5 ft) and one composite wall sample CWS-8.1 (0.0-1.5 ft) were collected. The BTEX, Chloride and TPH results for these samples were below NMOCD RAL's.

A total volume of approximately 180 cubic yards of affected soil was excavated and disposed of at the Delaware Basin Disposal Facility. Once the closure criteria were attained, the excavation was backfilled with approximately 180 cubic yards of suitable non-waste containing backfill material. A composite sample of the backfill material (BFS-1) was collected and analyzed by a laboratory for BTEX, Chloride and TPH to evaluate suitability. The laboratory sample results of the backfill indicate BTEX and TPH were below the laboratory detection limits, and Chloride was detected at a concentration of 364 mg/kg, which is below the NMOCD RAL. A Confirmation Sample Map depicting the floor and wall sample locations is included in Appendix A, Exhibit 7. Floor and wall confirmation sample analytical results are included in Appendix B, Table 2. Photographs of the project site are included in Appendix C. The analytical reports and Chain of Custody (COC) are included in Appendix D. Terracon's Standard of Care, Limitation, and Reliance is included in Appendix E.

Conclusion

In accordance with NMAC 19.15.29.12, remediation of the impacted material is complete, and Devon Energy Production Company, LP respectfully requests closure of the reportable incident that occurred on November 21, 2024, at the NMOCD Reference # nAPP2432652685 – Hognose Viper 23 Federal 1H location.

Terracon appreciates this opportunity to provide environmental consulting services to Devon Energy Production Company, LP. Should you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,

Terracon

Prepared by:

Charles F. Smith
Senior Project Manager

Reviewed by:

For:

John Grams, P.G. (TX)
Senior Geologist

Attachments:

Appendix A – Exhibits
- Exhibit 1 – Topographic Map
- Exhibit 2 – Site Location Map
- Exhibit 3 – NMOSE POD Location Map
- Exhibit 4 – Regulatory Criteria Map
- Exhibit 5 – Cave Karst Public UCP Map
- Exhibit 6 – Delineation Sample Map
- Exhibit 7 – Confirmation Sample Location Map

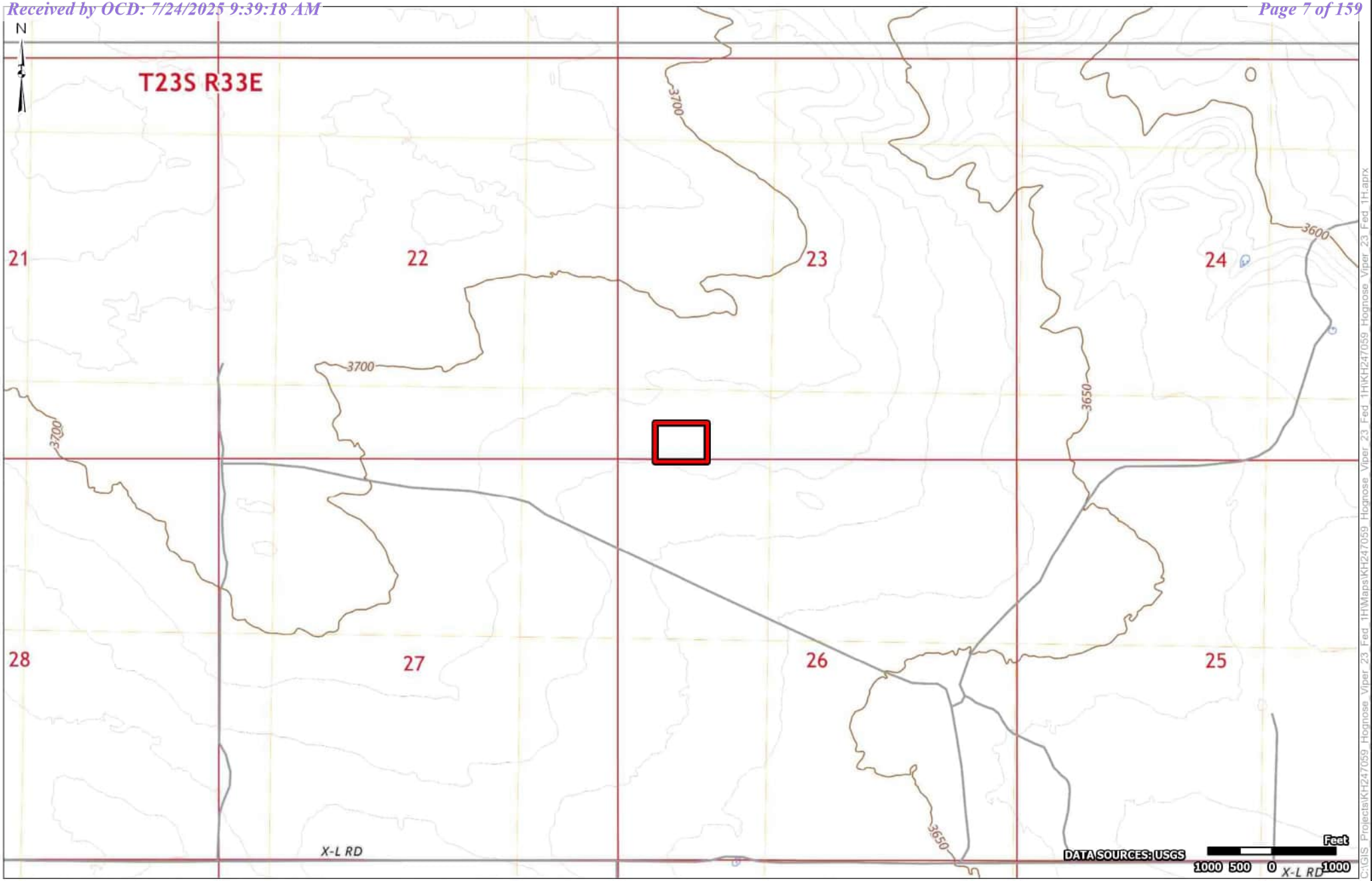
Appendix B – Tables and Well Data
- Table 1 – Delineation Sample Results
- Table 2 – Confirmation Sample Results
- Attachment 1 – Well Log Data

Appendix C – Photographic Log

Appendix D – Analytical Report and Chain of Custody

Appendix E – Terracon Standard of Care, Limitation, and Reliance

APPENDIX A – EXHIBITS



Site Boundary

Project No.:	KH247059
Date:	Jan 16 2025
Drawn By:	JWL
Reviewed By:	JRG

terracon
4526 W Pierce St
Carlsbad, NM
PH. 806-300-0140 terracon.com

Topographic Map

Hognose Viper 23 Fed 1H
32.2833489, 103.5489202
Devon Energy Corp
Lea County, New Mexico

Exhibit

1

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Site Boundary

Project No.:	KH247059
Date:	Jan 16 2025
Drawn By:	JWL
Reviewed By:	JRG

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Site Location Map

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32.2833489, 103.5489202
Devon Energy Corp
Lea County, New Mexico

Exhibit

2

Inferred Release

NMOSE POD Location

Project No.:	KH247059
Date:	Mar 12 2025
Drawn By:	JWL
Reviewed By:	JRG

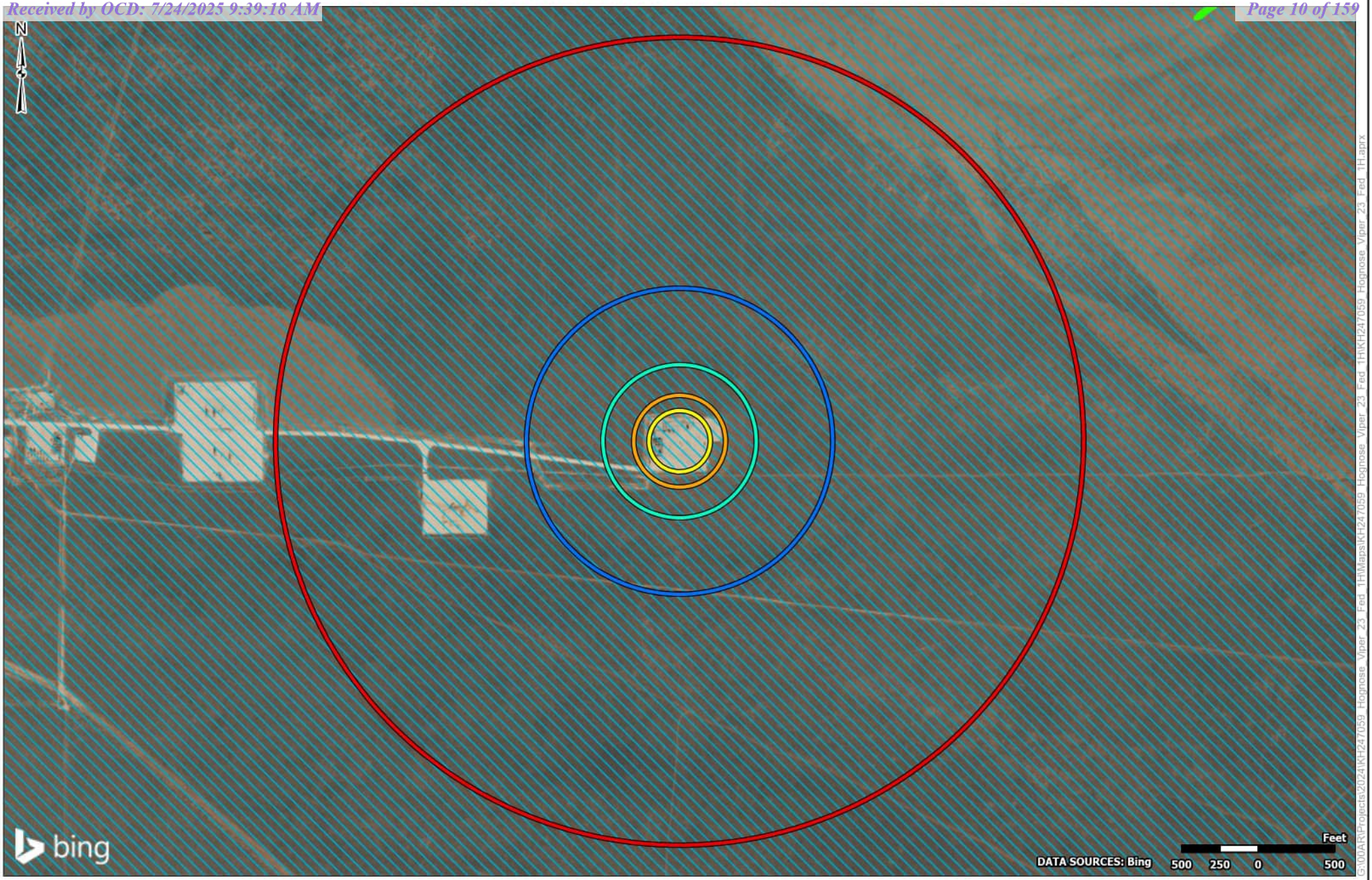
Terracon
4526 W Pierce St
Carlsbad, NM
PH. 806-300-0140 terracon.com

NMOSE POD Location Map

Hognose Viper 23 Fed 1H
32.2833489, 103.5489202
Devon Energy Corp
Lea County, New Mexico

Exhibit

4



- Riverine
- Flood Zone "D"
- 200' Radius
- 300' Radius
- 500' Radius
- 1000' Radius
- 0.5-mi Radius

Project No.:	KH247059
Date:	Jul 23 2025
Drawn By:	JWL
Reviewed By:	JRG

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Lubbock, TX
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Regulatory Criteria Map

Hognose Viper 23 Fed 1H
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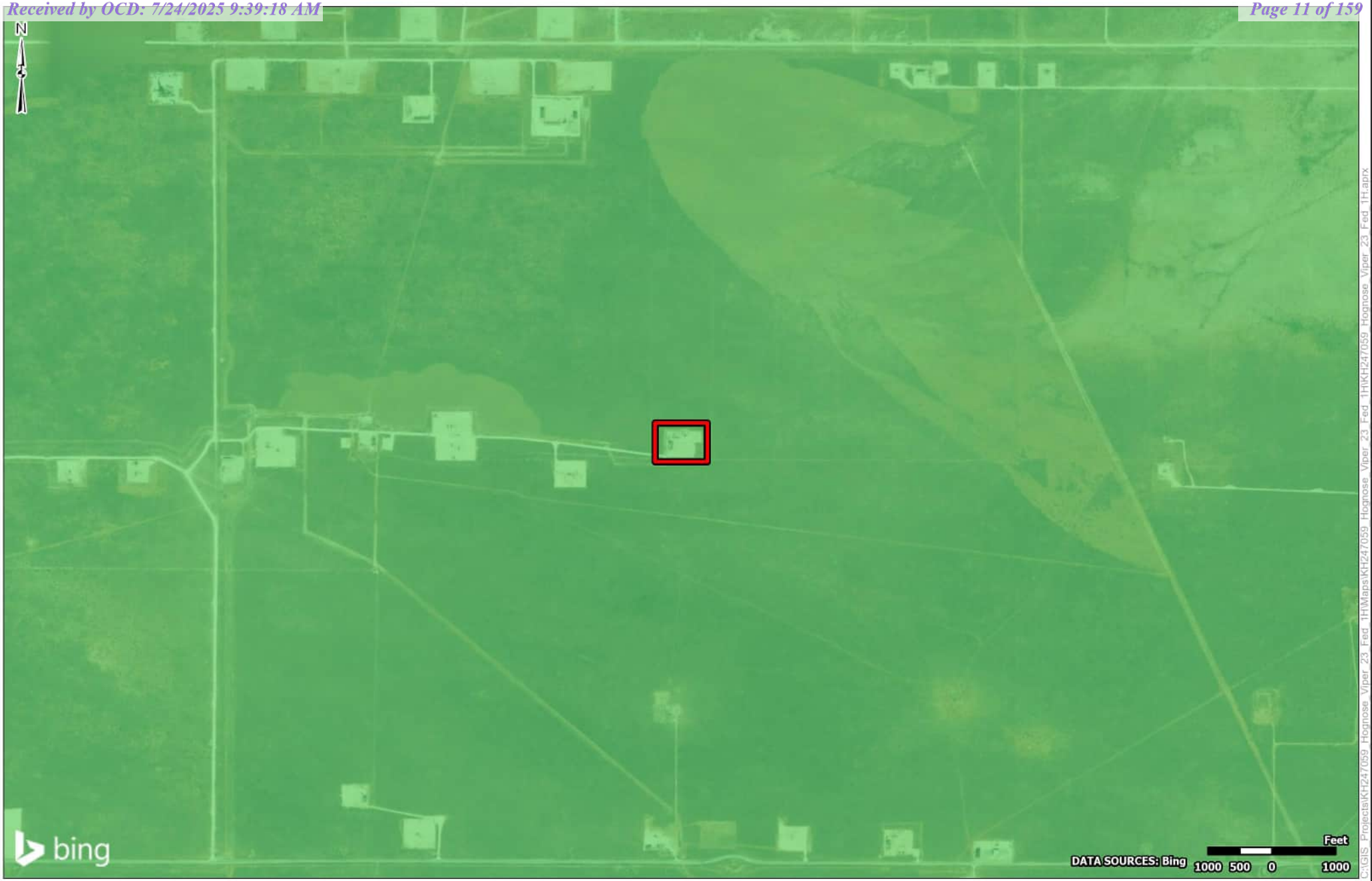
Devon Energy Corp
Lea County, New Mexico

Exhibit

4



Site Boundary

Karst Potential

Low

Medium

High

Project No.:	KH247059
Date:	Jan 16 2025
Drawn By:	JWL
Reviewed By:	JRG

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Carlsbad, NM
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Cave Karst Public UCP Map

Hognose Viper 23 Fed 1H
32.2833489, 103.5489202
Devon Energy Corp
Lea County, New Mexico

Exhibit

6

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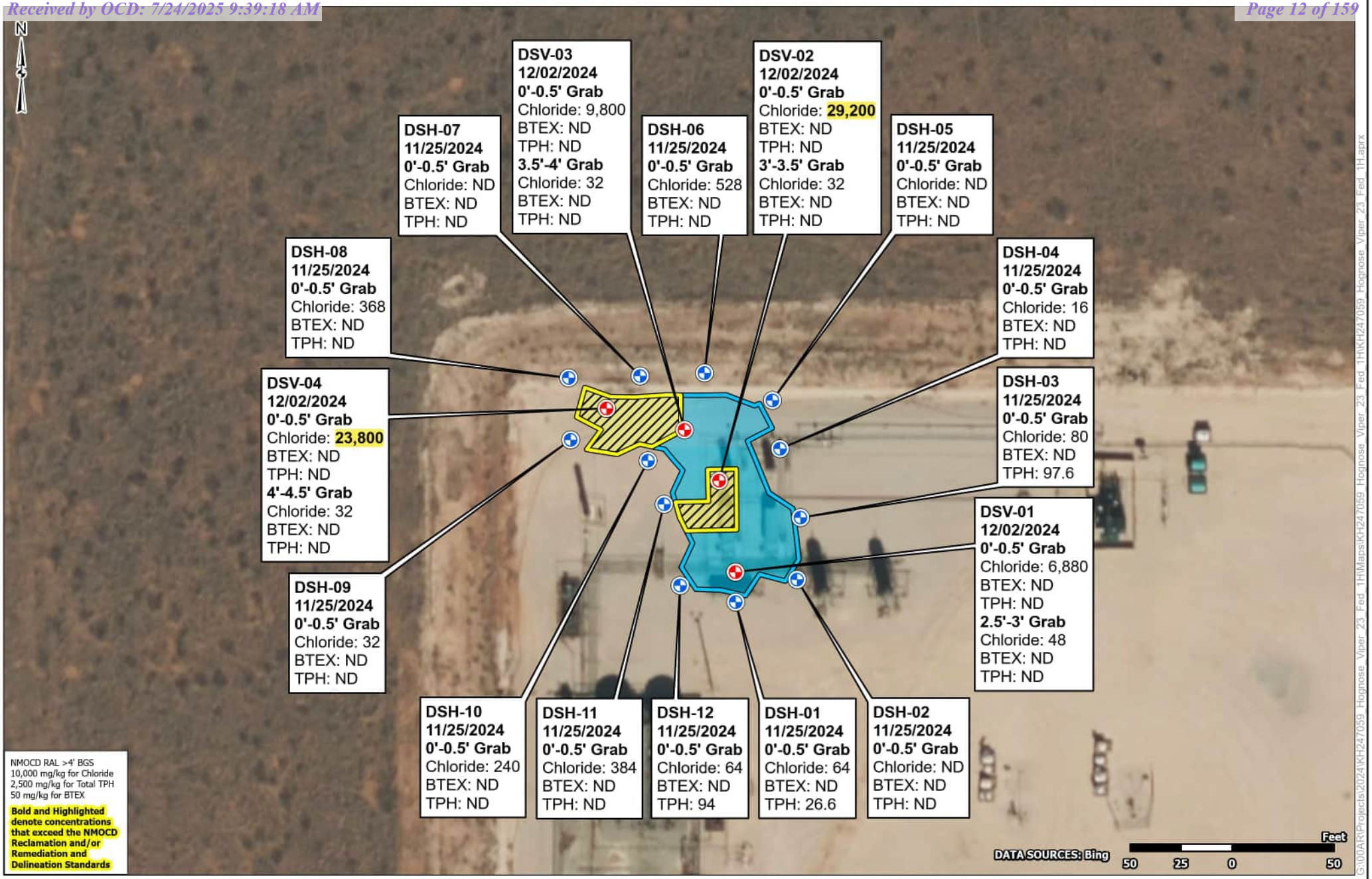

Vertical Delineation Sample

Horizontal Delineation Sample

Inferred Release Area (2,555 Sq Ft)

Exceeds NMOSE Standards (1,200 Sq Ft)

Project No.:	KH247059
Date:	Jul 08 2025
Drawn By:	JWL
Reviewed By:	JRG

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5847 50th St
Lubbock, TX
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Delineation Sample Map

Hognose Viper 23 Fed 1H
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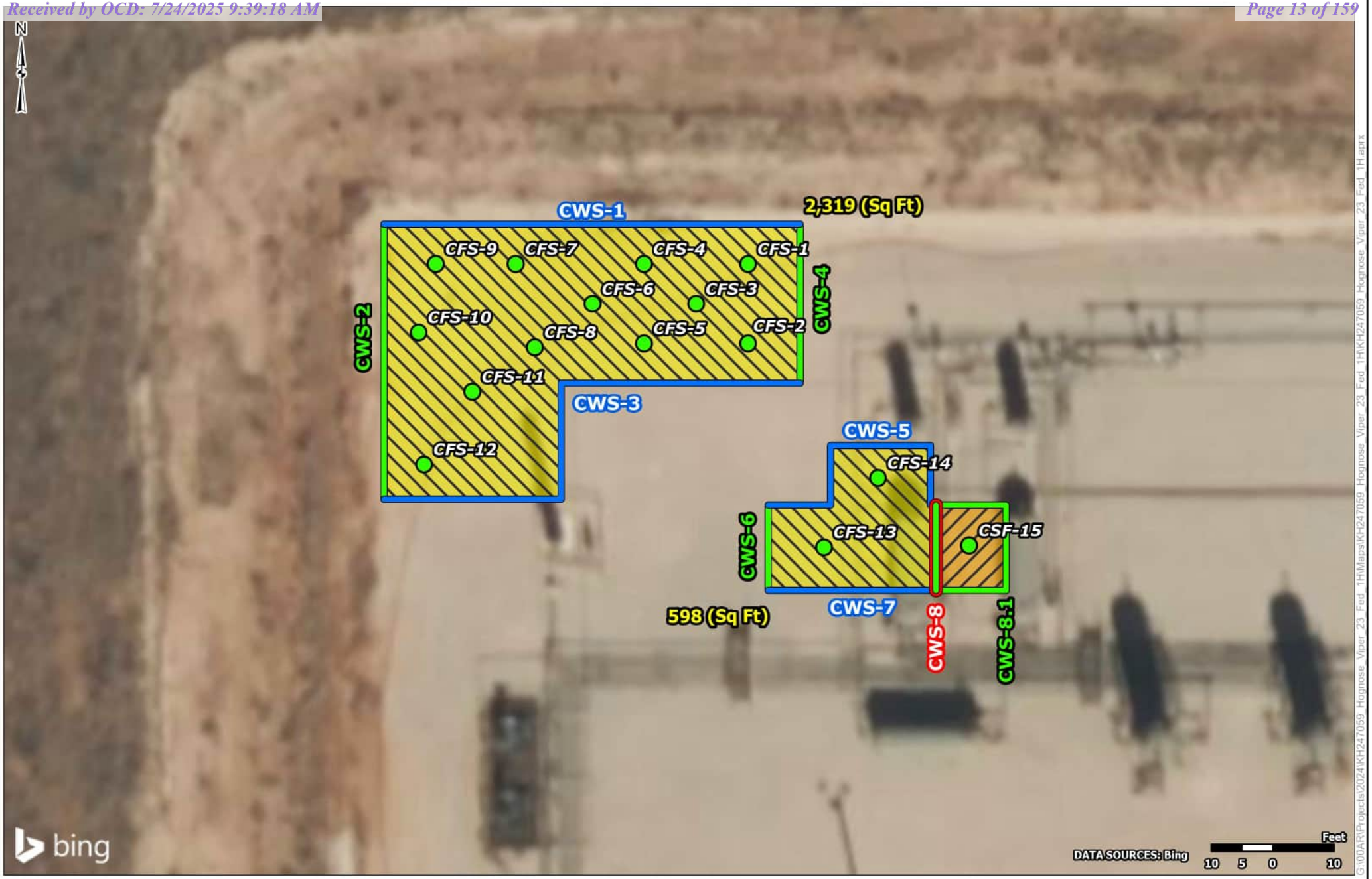
Devon Energy Corp
Lea County, New Mexico

Exhibit



- Confirmation Floor Sample
- Wall Sample - North/South
- Wall Sample - East/West
- Wall Sample with Concentrations Exceeding Closure Criteria
- Additional Excavated Area
- Excavation Limits

Project No.:	KH247059
Date:	Jul 09 2025
Drawn By:	JWL
Reviewed By:	JRG

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5847 50th St
Lubbock, TX
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terracon.com

Confirmation Sample Location Map

Hognose Viper 23 Fed 1H
32.2833489, 103.5489202
Devon Energy Corp
Lea County, New Mexico

Exhibit

7

APPENDIX B – TABLES AND WELL DATA

Table 1
Soil Analytical Results Summary - Delineation Sample Results
Project Number: KH247059 - Hognose Viper 23 Fed 1H
NMOCD Reference No. nAPP2432652685

Sample ID	Sample Date	Sample Depth (ft bgs)	Sample Type	Sample Status	Chloride (mg/Kg)	Benzene (mg/Kg)	Total BTEX[1] (mg/Kg)	Total TPH[2] (mg/Kg)	Gasoline Range Organics (C6-C10) (mg/Kg)	Diesel Range Organics (Over C10-C28) (mg/Kg)	Oil Range Organics (Over C28-C36) (mg/Kg)
					EPA Method 300	EPA Method 8021B	EPA Method 8021B	EPA Method 8015M	EPA Method 8015M	EPA Method 8015M	EPA Method 8015M
Release Assessment											
Horizontal Delineation Samples											
DSH-01	11/25/2024	0 - 0.5	HA-Grab	In-Situ	64	ND	ND	26.6	ND	26.6	ND
DSH-02	11/25/2024	0 - 0.5	HA-Grab	In-Situ	ND	ND	ND	0	ND	ND	ND
DSH-03	11/25/2024	0 - 0.5	HA-Grab	In-Situ	80	ND	ND	97.6	ND	67.8	29.8
DSH-04	11/25/2024	0 - 0.5	HA-Grab	In-Situ	16	ND	ND	ND	ND	ND	ND
DSH-05	11/25/2024	0 - 0.5	HA-Grab	In-Situ	ND	ND	ND	ND	ND	ND	ND
DSH-06	11/25/2024	0 - 0.5	HA-Grab	In-Situ	528	ND	ND	ND	ND	ND	ND
DSH-07	11/25/2024	0 - 0.5	HA-Grab	In-Situ	ND	ND	ND	ND	ND	ND	ND
DSH-08	11/25/2024	0 - 0.5	HA-Grab	In-Situ	368	ND	ND	ND	ND	ND	ND
DSH-09	11/25/2024	0 - 0.5	HA-Grab	In-Situ	32	ND	ND	ND	ND	ND	ND
DSH-10	11/25/2024	0 - 0.5	HA-Grab	In-Situ	240	ND	ND	ND	ND	ND	ND
DSH-11	11/25/2024	0 - 0.5	HA-Grab	In-Situ	384	ND	ND	ND	ND	ND	ND
DSH-12	11/25/2024	0 - 0.5	HA-Grab	In-Situ	64	ND	ND	94	ND	53.7	40.3
Vertical Delineation Samples											
DSV-01	12/2/2024	0 - 0.5	HA-Grab	In-Situ	6,880	ND	ND	ND	ND	ND	ND
	12/2/2024	2.5 - 3	HA-Grab	In-Situ	48	ND	ND	ND	ND	ND	ND
DSV-02	12/2/2024	0 - 0.5	HA-Grab	In-Situ	**29,200**	ND	ND	ND	ND	ND	ND
	12/2/2024	3 - 3.5	HA-Grab	In-Situ	32	ND	ND	ND	ND	ND	ND
DSV-03	12/2/2024	0 - 0.5	HA-Grab	In-Situ	9,800	ND	ND	ND	ND	ND	ND
	12/2/2024	3.5 - 4	HA-Grab	In-Situ	32	ND	ND	ND	ND	ND	ND
DSV-04	12/2/2024	0 - 0.5	HA-Grab	In-Situ	**23,800**	ND	ND	ND	ND	ND	ND
	12/2/2024	4 - 4.5	HA-Grab	In-Situ	32	ND	ND	ND	ND	ND	ND
NMOCD Reclamation Standards[3] (Surface to 4 ft bgs)					10,000	10	50	2,500	1,000		NA
NMOCD Remediation Standards[4] (Greater than Depths of 4 ft bgs)					10,000	10	50	2,500	1,000		NA

1. BTEX = Benzene, Toluene, Ethylbenzene, and total Xylenes
2. TPH = Total Petroleum Hydrocarbons
3. New Mexico Administration Code (NMAC) Restoration, Reclamation and Re-vegetation (19.15.29.13), NMAC-D (Reclamation of Areas No Longer in Use) for Soils Extending to 4 ft. bgs
4. New Mexico Oil Conservation Division (NMOCD) Remediation and Delineation Standards (19.15.29.12) NMAC-N, 8/14/2018

ND = Constituent was not detected above the indicated laboratory sample detection limit (SDL).
NA = Not Applicable
Bold and Highlighted values exceed the NMOCD Reclamation and/or Remediation and Delineation Standards.
In-situ = Sample is representative of material which remains in-place at the site.
Excavated = Sample is representative of materials which was excavated and disposed of at a permitted disposal facility.

Data Entry:	cfs
Reviewed By:	jrg

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Table 2
Soil Analytical Results Summary - Confirmation Floor, Wall & Backfill Samples
Project Number: KH247059 - Hognose Viper 23 Fed 1H
NMOCD Reference No. nAPP2432652685

Sample ID	Sample Date	Sample Depth (ft bgs)	Sample Type	Sample Status	Chloride (mg/Kg)	Benzene (mg/Kg)	Total BTEX[1] (mg/Kg)	Total TPH[2] (mg/Kg)	Gasoline Range Organics (C6-C10) (mg/Kg)	Diesel Range Organics (Over C10-C28) (mg/Kg)	Oil Range Organics (Over C28-C36) (mg/Kg)
					EPA Method 300	EPA Method 8021B	EPA Method 8021B	EPA Method 8015M	EPA Method 8015M	EPA Method 8015M	EPA Method 8015M
Confirmation Floor Samples											
CFS-1	6/20/2025	1.0-1.5	Composite	In-Situ	399	ND	ND	ND	ND	ND	ND
CFS-2	6/20/2025	1.0-1.5	Composite	In-Situ	1,480	ND	ND	ND	ND	ND	ND
CFS-3	6/20/2025	1.0-1.5	Composite	In-Situ	262	ND	ND	ND	ND	ND	ND
CFS-4	6/20/2025	1.0-1.5	Composite	In-Situ	186	ND	ND	ND	ND	ND	ND
CFS-5	6/20/2025	1.0-1.5	Composite	In-Situ	198	ND	ND	ND	ND	ND	ND
CFS-6	6/20/2025	1.0-1.5	Composite	In-Situ	863	ND	ND	ND	ND	ND	ND
CFS-7	6/20/2025	1.0-1.5	Composite	In-Situ	213	ND	ND	ND	ND	ND	ND
CFS-8	6/20/2025	1.0-1.5	Composite	In-Situ	789	ND	ND	ND	ND	ND	ND
CFS-9	6/20/2025	1.0-1.5	Composite	In-Situ	653	ND	ND	ND	ND	ND	ND
CFS-10	6/20/2025	1.0-1.5	Composite	In-Situ	448	ND	ND	ND	ND	ND	ND
CFS-11	6/20/2025	1.0-1.5	Composite	In-Situ	712	ND	ND	ND	ND	ND	ND
CFS-12	6/20/2025	1.0-1.5	Composite	In-Situ	1,490	ND	ND	ND	ND	ND	ND
CFS-13	6/20/2025	1.0-1.5	Composite	In-Situ	302	ND	ND	ND	ND	ND	ND
CFS-14	6/20/2025	1.0-1.5	Composite	In-Situ	6,440	ND	ND	ND	ND	ND	ND
CFS-15	7/3/2025	1.0-1.5	Composite	In-Situ	2,980	ND	ND	ND	ND	ND	ND
Confirmation Wall Samples											
CWS-1	6/20/2025	0.0-1.5	Composite	In-Situ	524	ND	ND	ND	ND	ND	ND
CWS-2	6/20/2025	0.0-1.5	Composite	In-Situ	96.8	ND	ND	ND	ND	ND	ND
CWS-3	6/20/2025	0.0-1.5	Composite	In-Situ	1,440	ND	ND	ND	ND	ND	ND
CWS-4	6/20/2025	0.0-1.5	Composite	In-Situ	5,140	ND	ND	ND	ND	ND	ND
CWS-5	6/20/2025	0.0-1.5	Composite	In-Situ	2,090	ND	ND	ND	ND	ND	ND
CWS-6	6/20/2025	0.0-1.5	Composite	In-Situ	1,480	ND	ND	ND	ND	ND	ND
CWS-7	6/20/2025	0.0-1.5	Composite	In-Situ	3,930	ND	ND	ND	ND	ND	ND
CWS-8	6/20/2025	0.0-1.5	Composite	Excavated	18,800	ND	ND	237	ND	237	ND
CWS-8.1	7/3/2025	0.0-1.5	Composite	In-Situ	824	ND	ND	ND	ND	ND	ND
Backfill Sample											
BFS-1	7/14/2025	NA	Composite	In-Situ	364	ND	ND	ND	ND	ND	ND
NMOCD Reclamation Standards3 (Surface to 4 ft bgs)					10,000	10	50	2,500	1,000		NA
NMOCD Remediation Standards[4] (Greater than Depths of 4 ft bgs)					10,000	10	50	2,500	1,000		NA

1. BTEX = Benzene, toluene, ethylbenzene, and total xylenes
2. TPH = Total Petroleum Hydrocarbons
3. New Mexico Administration Code (NMAC) Restoration, Reclamation and Re-vegetation (19.15.29.13), NMAC-D (Reclamation of Areas No Longer in Use) for Soils Extending to 4 ft. bgs
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Excavated = Sample is representative of materials which was excavated and disposed of at a permitted disposal facility.

Data Entry:	cfs
Reviewed By:	jrg

Terracon
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Atkins ENGINEERING ASSOCIATES INC.
2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

March 11, 2025

DII-NMOSE
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Well Record C-4929 Pod-1

To whom it may concern:

Attached please find a well log & record and a plugging record, in duplicate, for a one (1) soil borings, C-4929 Pod-1.

If you have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

Lucas Middleton

Enclosures: as noted above

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD 1 (TW-1)	N/A	C-4929

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Devon Energy Production Company LP	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
5315 Buena Vista	Carlsbad	NM	88220

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	16	59.1	N
	LONGITUDE	103	32	54.6	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

Hognose Viper 23 Federal,SE SW SW Sec.23 T23SR33E, NMPM

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
2/11/25	2/11/25	Temporary Well Material	±55	N/A

COMPLETED WELL IS: ☐ ARTESIAN *add Centralizer info below ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DATE STATIC MEASURED: 03/04/2025

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Hollow Stem Auger

CHECK HERE IF PITLESS ADAPTER IS INSTALLED ☐

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	55	±6.25	Soil Boring	--	--	--	--

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL *(if using Centralizers for Artesian wells- indicate the spacing below)	AMOUNT (cubic feet)	METHOD OF PLACEMENT
			N/A		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	24	24	Sand/Caliche, fine-grained ,Tan	Y ✓ N	
24	49	25	Sand/Slight Caliche, fine-grained ,Brown	Y ✓ N	
49	55	6	Sand, Brown	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm):

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: Temporary well material removed and soil boring backfilled using drill cuttings from total depth to ten feet below ground surface(bgs), then hydrated bentonite chips ten feet bgs to surface. . See attach plugging record. Logs adapted from onsite Terracon Personal

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Shane Eldridge, Cameron Pruitt

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins (Mar 10, 2025 15:39 MDT) — Jackie D. Atkins — 03/10/2025

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2

PLUGGING RECORD

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

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4929 POD 1

Well owner: Devon Energy Production Company LP Phone No.: _____

Mailing address: 5315 Buena Vista

City: Carlsbad State: NM Zip code: 88220

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: Jackie D. Atkins (Atkins Engineering Associates Inc.)

2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/25

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): _____
Cameron Pruitt

4) Date well plugging began: 03/04/2025 Date well plugging concluded: 03/04/2025

5) GPS Well Location: Latitude: 32 deg, 16 min, 59.1 sec
Longitude: 103 deg, 32 min, 54.6 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 55 ft below ground level (bgl),
by the following manner: Water level probe

7) Static water level measured at initiation of plugging: n/a ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 01/14/2025

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

Version: September 8, 2009
Page 1 of 2

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

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-10' Hydrated Bentonite	Approx. 15 gallons	15 gallons	Boring	
	10'-55' Drill Cuttings	Approx. 72 gallons	72 gallons	Boring	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

I, Jackie D. Atkins, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Jack Atkins (Mar 10, 2025 15:39 MDT)

Signature of Well Driller

03/10/2025

Date

Version: September 8, 2009
Page 2 of 2

WR-20 Well Record and Log-packet-forsign

Final Audit Report 2025-03-10

Created:	2025-03-10
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAI7-bO0I2MocFiOjmkWZeh26K7Xc_s44U

"WR-20 Well Record and Log-packet-forsign" History

Document created by Lucas Middleton (lucas@atkinseng.com)
2025-03-10 - 9:33:58 PM GMT

Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2025-03-10 - 9:34:22 PM GMT

Email viewed by Jack Atkins (jack@atkinseng.com)
2025-03-10 - 9:38:08 PM GMT

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2025-03-10 - 9:39:54 PM GMT - Time Source: server

Agreement completed.
2025-03-10 - 9:39:54 PM GMT

Adobe Acrobat Sign

APPENDIX C – PHOTOGRAPHIC LOG

PHOTO 1: View of sign near southwest corner of location.

PHOTO 2: View facing northeast of site location sign and facility.

PHOTO 3: View facing west of the release area near the northwest corner of the site.

PHOTO 4: View facing west of the excavated area near the northwest corner of the site.

PHOTO 5: View facing west of backfilling the excavation area near the northwest corner of site.

PHOTO 6: View facing east of backfilling the excavation area near the northwest corner of the site.

PHOTO 7: View facing north of release area near horizontal tanks.

PHOTO 8: View facing northwest of excavation area near horizontal tanks.

PHOTO 9: View facing west of excavation area near horizontal tanks.

PHOTO 10: View facing northwest of excavation area after backfilling near horizontal tanks.

APPENDIX D – ANALYTICAL REPORT AND CHAIN OF CUSTODY

CARDINAL Laboratories

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

December 05, 2024

TRAVIS CASEY

TERRACON CONSULTANTS

5827 50TH ST. SUITE 1

LUBBOCK, TX 79424

RE: HOGNOSE VIPER 23 FED 1H

Enclosed are the results of analyses for samples received by the laboratory on 11/27/24 9:24.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	11/27/2024	Sampling Date:	11/25/2024
Reported:	12/05/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Alyssa Parras
Project Location:	DEVON		

Sample ID: DSH - 01 0-0.5' (H247280-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/02/2024	ND	1.99	99.3	2.00	3.75	
Toluene*	<0.050	0.050	12/02/2024	ND	1.90	95.2	2.00	7.40	
Ethylbenzene*	<0.050	0.050	12/02/2024	ND	1.90	94.8	2.00	10.6	
Total Xylenes*	<0.150	0.150	12/02/2024	ND	5.63	93.9	6.00	11.8	
Total BTEX	<0.300	0.300	12/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.9 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	12/03/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2024	ND	180	89.9	200	6.72	
DRO >C10-C28*	**26.6**	10.0	12/02/2024	ND	171	85.4	200	7.46	
EXT DRO >C28-C36	<10.0	10.0	12/02/2024	ND					

Surrogate: 1-Chlorooctane *98.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *89.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	11/27/2024	Sampling Date:	11/25/2024
Reported:	12/05/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Alyssa Parras
Project Location:	DEVON		

Sample ID: DSH - 02 0-0.5' (H247280-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/02/2024	ND	1.99	99.3	2.00	3.75	
Toluene*	<0.050	0.050	12/02/2024	ND	1.90	95.2	2.00	7.40	
Ethylbenzene*	<0.050	0.050	12/02/2024	ND	1.90	94.8	2.00	10.6	
Total Xylenes*	<0.150	0.150	12/02/2024	ND	5.63	93.9	6.00	11.8	
Total BTEX	<0.300	0.300	12/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.1 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/03/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2024	ND	180	89.9	200	6.72	
DRO >C10-C28*	<10.0	10.0	12/02/2024	ND	171	85.4	200	7.46	
EXT DRO >C28-C36	<10.0	10.0	12/02/2024	ND					

Surrogate: 1-Chlorooctane *100 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *85.4 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	11/27/2024	Sampling Date:	11/25/2024
Reported:	12/05/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Alyssa Parras
Project Location:	DEVON		

Sample ID: DSH - 03 0-0.5' (H247280-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/02/2024	ND	1.99	99.3	2.00	3.75	
Toluene*	<0.050	0.050	12/02/2024	ND	1.90	95.2	2.00	7.40	
Ethylbenzene*	<0.050	0.050	12/02/2024	ND	1.90	94.8	2.00	10.6	
Total Xylenes*	<0.150	0.150	12/02/2024	ND	5.63	93.9	6.00	11.8	
Total BTEX	<0.300	0.300	12/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.9 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	12/03/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2024	ND	180	89.9	200	6.72	
DRO >C10-C28*	**67.8**	10.0	12/02/2024	ND	171	85.4	200	7.46	
EXT DRO >C28-C36	**29.8**	10.0	12/02/2024	ND					

Surrogate: 1-Chlorooctane *101 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *89.4 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	11/27/2024	Sampling Date:	11/25/2024
Reported:	12/05/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Alyssa Parras
Project Location:	DEVON		

Sample ID: DSH - 04 0-0.5' (H247280-04)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/02/2024	ND	1.99	99.3	2.00	3.75	
Toluene*	<0.050	0.050	12/02/2024	ND	1.90	95.2	2.00	7.40	
Ethylbenzene*	<0.050	0.050	12/02/2024	ND	1.90	94.8	2.00	10.6	
Total Xylenes*	<0.150	0.150	12/02/2024	ND	5.63	93.9	6.00	11.8	
Total BTEX	<0.300	0.300	12/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *88.3 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	12/03/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2024	ND	180	89.9	200	6.72	
DRO >C10-C28*	<10.0	10.0	12/02/2024	ND	171	85.4	200	7.46	
EXT DRO >C28-C36	<10.0	10.0	12/02/2024	ND					

Surrogate: 1-Chlorooctane *111 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *95.2 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	11/27/2024	Sampling Date:	11/25/2024
Reported:	12/05/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Alyssa Parras
Project Location:	DEVON		

Sample ID: DSH - 05 0-0.5' (H247280-05)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/02/2024	ND	1.99	99.3	2.00	3.75	
Toluene*	<0.050	0.050	12/02/2024	ND	1.90	95.2	2.00	7.40	
Ethylbenzene*	<0.050	0.050	12/02/2024	ND	1.90	94.8	2.00	10.6	
Total Xylenes*	<0.150	0.150	12/02/2024	ND	5.63	93.9	6.00	11.8	
Total BTEX	<0.300	0.300	12/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *87.1 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/03/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2024	ND	180	89.9	200	6.72	
DRO >C10-C28*	<10.0	10.0	12/02/2024	ND	171	85.4	200	7.46	
EXT DRO >C28-C36	<10.0	10.0	12/02/2024	ND					

Surrogate: 1-Chlorooctane *102 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *90.0 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	11/27/2024	Sampling Date:	11/25/2024
Reported:	12/05/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Alyssa Parras
Project Location:	DEVON		

Sample ID: DSH - 06 0-0.5' (H247280-06)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/02/2024	ND	1.99	99.3	2.00	3.75	
Toluene*	<0.050	0.050	12/02/2024	ND	1.90	95.2	2.00	7.40	
Ethylbenzene*	<0.050	0.050	12/02/2024	ND	1.90	94.8	2.00	10.6	
Total Xylenes*	<0.150	0.150	12/02/2024	ND	5.63	93.9	6.00	11.8	
Total BTEX	<0.300	0.300	12/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *92.4 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**528**	16.0	12/03/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2024	ND	180	89.9	200	6.72	
DRO >C10-C28*	<10.0	10.0	12/02/2024	ND	171	85.4	200	7.46	
EXT DRO >C28-C36	<10.0	10.0	12/02/2024	ND					

Surrogate: 1-Chlorooctane *88.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *75.3 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	11/27/2024	Sampling Date:	11/25/2024
Reported:	12/05/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Alyssa Parras
Project Location:	DEVON		

Sample ID: DSH - 07 0-0.5' (H247280-07)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/02/2024	ND	1.99	99.3	2.00	3.75	
Toluene*	<0.050	0.050	12/02/2024	ND	1.90	95.2	2.00	7.40	
Ethylbenzene*	<0.050	0.050	12/02/2024	ND	1.90	94.8	2.00	10.6	
Total Xylenes*	<0.150	0.150	12/02/2024	ND	5.63	93.9	6.00	11.8	
Total BTEX	<0.300	0.300	12/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *88.0 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/03/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2024	ND	180	89.9	200	6.72	
DRO >C10-C28*	<10.0	10.0	12/02/2024	ND	171	85.4	200	7.46	
EXT DRO >C28-C36	<10.0	10.0	12/02/2024	ND					

Surrogate: 1-Chlorooctane *92.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *78.7 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	11/27/2024	Sampling Date:	11/25/2024
Reported:	12/05/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Alyssa Parras
Project Location:	DEVON		

Sample ID: DSH - 08 0-0.5' (H247280-08)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/02/2024	ND	1.99	99.3	2.00	3.75	
Toluene*	<0.050	0.050	12/02/2024	ND	1.90	95.2	2.00	7.40	
Ethylbenzene*	<0.050	0.050	12/02/2024	ND	1.90	94.8	2.00	10.6	
Total Xylenes*	<0.150	0.150	12/02/2024	ND	5.63	93.9	6.00	11.8	
Total BTEX	<0.300	0.300	12/02/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.2 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**368**	16.0	12/03/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2024	ND	202	101	200	0.167	
DRO >C10-C28*	<10.0	10.0	12/02/2024	ND	199	99.4	200	1.94	
EXT DRO >C28-C36	<10.0	10.0	12/02/2024	ND					

Surrogate: 1-Chlorooctane *98.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *94.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	11/27/2024	Sampling Date:	11/25/2024
Reported:	12/05/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Alyssa Parras
Project Location:	DEVON		

Sample ID: DSH - 09 0-0.5' (H247280-09)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2024	ND	1.99	99.3	2.00	3.75	
Toluene*	<0.050	0.050	12/03/2024	ND	1.90	95.2	2.00	7.40	
Ethylbenzene*	<0.050	0.050	12/03/2024	ND	1.90	94.8	2.00	10.6	
Total Xylenes*	<0.150	0.150	12/03/2024	ND	5.63	93.9	6.00	11.8	
Total BTEX	<0.300	0.300	12/03/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *90.7 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/03/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2024	ND	202	101	200	0.167	
DRO >C10-C28*	<10.0	10.0	12/02/2024	ND	199	99.4	200	1.94	
EXT DRO >C28-C36	<10.0	10.0	12/02/2024	ND					

Surrogate: 1-Chlorooctane *98.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *96.9 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	11/27/2024	Sampling Date:	11/25/2024
Reported:	12/05/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Alyssa Parras
Project Location:	DEVON		

Sample ID: DSH - 10 0-0.5' (H247280-10)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2024	ND	1.99	99.3	2.00	3.75	
Toluene*	<0.050	0.050	12/03/2024	ND	1.90	95.2	2.00	7.40	
Ethylbenzene*	<0.050	0.050	12/03/2024	ND	1.90	94.8	2.00	10.6	
Total Xylenes*	<0.150	0.150	12/03/2024	ND	5.63	93.9	6.00	11.8	
Total BTEX	<0.300	0.300	12/03/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *93.7 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	12/03/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2024	ND	202	101	200	0.167	
DRO >C10-C28*	<10.0	10.0	12/02/2024	ND	199	99.4	200	1.94	
EXT DRO >C28-C36	<10.0	10.0	12/02/2024	ND					

Surrogate: 1-Chlorooctane *105 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *102 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	11/27/2024	Sampling Date:	11/25/2024
Reported:	12/05/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Alyssa Parras
Project Location:	DEVON		

Sample ID: DSH - 11 0-0.5' (H247280-11)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2024	ND	1.99	99.3	2.00	3.75	
Toluene*	<0.050	0.050	12/03/2024	ND	1.90	95.2	2.00	7.40	
Ethylbenzene*	<0.050	0.050	12/03/2024	ND	1.90	94.8	2.00	10.6	
Total Xylenes*	<0.150	0.150	12/03/2024	ND	5.63	93.9	6.00	11.8	
Total BTEX	<0.300	0.300	12/03/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *85.9 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**384**	16.0	12/03/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2024	ND	202	101	200	0.167	
DRO >C10-C28*	<10.0	10.0	12/02/2024	ND	199	99.4	200	1.94	
EXT DRO >C28-C36	<10.0	10.0	12/02/2024	ND					

Surrogate: 1-Chlorooctane *95.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *93.2 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	11/27/2024	Sampling Date:	11/25/2024
Reported:	12/05/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Alyssa Parras
Project Location:	DEVON		

Sample ID: DSH - 12 0-0.5' (H247280-12)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2024	ND	1.99	99.3	2.00	3.75	
Toluene*	<0.050	0.050	12/03/2024	ND	1.90	95.2	2.00	7.40	
Ethylbenzene*	<0.050	0.050	12/03/2024	ND	1.90	94.8	2.00	10.6	
Total Xylenes*	<0.150	0.150	12/03/2024	ND	5.63	93.9	6.00	11.8	
Total BTEX	<0.300	0.300	12/03/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *94.7 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	12/03/2024	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/02/2024	ND	202	101	200	0.167	
DRO >C10-C28*	**53.7**	10.0	12/02/2024	ND	199	99.4	200	1.94	
EXT DRO >C28-C36	**40.3**	10.0	12/02/2024	ND					

Surrogate: 1-Chlorooctane *106 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *106 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Terracon
Project Manager: Travis Casey
Address: 4526 W. Perice Street
City: Carlsbad State: NM Zip: 88220
Phone #: 5756895949 Fax #:
Project #: KH247059 Project Owner: Devon
Project Name: Hognose Viper 23 Fed 1H
Project Location:
Sampler Name: Travis Casey

BILL TO:
P.O. #:
Company: Devon
Attn: Jim Raley
Address:
City:
State:
Phone #:
Fax #:

ANALYS REQUEST

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	Depth Start	Depth End	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING DATE	SAMPLING TIME	Chloride (EPA Method4500)	TPH Extended 8015	BTEX (EPA Method 8021B)
H247280																			
1	DSH-01	0	0.5	G	1			X					X		11/25/2024	13:00	X	X	X
2	DSH-02	0	0.5	G	1			X					X		11/25/2024	13:10	X	X	X
3	DSH-03	0	0.5	G	1			X					X		11/25/2024	13:15	X	X	X
4	DSH-04	0	0.5	G	1			X					X		11/25/2024	13:20	X	X	X
5	DSH-05	0	0.5	G	1			X					X		11/25/2024	13:30	X	X	X
6	DSH-06	0	0.5	G	1			X					X		11/25/2024	13:35	X	X	X
7	DSH-07	0	0.5	G	1			X					X		11/25/2024	13:40	X	X	X
8	DSH-08	0	0.5	G	1			X					X		11/25/2024	13:55	X	X	X
9	DSH-09	0	0.5	G	1			X					X		11/25/2024	14:10	X	X	X
10	DSH-10	0	0.5	G	1			X					X		11/25/2024	14:20	X	X	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Date: 11-27-24 Time: 924 Received By:
Relinquished By: Date: Time: Received By:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 1.9
Corrected Temp. °C 1.3
Sample Condition: Cool Yes / Intact Yes
No / No
CHECKED BY: (Initials)

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
REMARKS:
joesph.guesnier@terracon.com;travis.casey@terracon.com;chuck.smith@terracon.com; beckysue.miller@terracon.com gus.sanchez@terracon.com

Turnaround Time: Standard ☑ Bacteria (only) Sample Condition
Rush ☐ Cool ☐ Yes ☐ No
Thermometer ID #113 #140
Correction Factor -0.5°C -0.6
Observed Temp. °C
Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

FORM-006 R 3.2 10/07/21

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Terracon
Project Manager: Travis Casey
Address: 4526 W. Perice Street
City: Carlsbad State: NM Zip: 88220
Phone #: 5756895949 Fax #:
Project #: KH247059 Project Owner: Devon
Project Name: Hognose Viper 23 Fed 1H
Project Location:
Sampler Name: Travis Casey

BILL TO:
P.O. #:
Company: Devon
Attn: Jim Raley
Address:
City:
State:
Phone #:
Fax #:

ANALYS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth Start	Depth End	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Chloride (EPA Method4500)	TPH Extended 8015	BTEX (EPA Method 8021B)
H247280																			
11	DSH-11	0	0.5	G	1			X					X		11/25/2024	14:25	X	X	X
12	DSH-12	0	0.5	G	1			X					X		11/25/2024	14:35	X	X	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: Date: 11.27.24 Time: 924 Received By:
Relinquished By: Date: Time: Received By:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:
Observed Temp. °C 1.9
Corrected Temp. °C 1.8
Sample Condition: Cool Yes No / Intact Yes No
CHECKED BY: (Initials)

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:
REMARKS:
joesph.guesnier@terracon.com;travis.casey@terracon.com;chuck.smith@terracon.com; beckysue.miller@terracon.com gus.sanchez@terracon.com

Turnaround Time: Standard ☑ Bacteria (only) Sample Condition
Rush ☐ Cool ☐ Yes ☐ No
Thermometer ID #113 #140
Correction Factor -0.5°C -0.6
Observed Temp. °C
Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

FORM-006 R 3.2 10/07/21

CARDINAL Laboratories

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

December 09, 2024

TRAVIS CASEY

TERRACON CONSULTANTS

5827 50TH ST. SUITE 1

LUBBOCK, TX 79424

RE: HOGNOSE VIPER 23 FED 1H

Enclosed are the results of analyses for samples received by the laboratory on 12/03/24 14:17.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	12/03/2024	Sampling Date:	12/02/2024
Reported:	12/09/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Shalyn Rodriguez
Project Location:	DEVON		

Sample ID: DSV - 01 0.5' (H247350-01)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/05/2024	ND	2.11	105	2.00	4.03	
Toluene*	<0.050	0.050	12/05/2024	ND	2.04	102	2.00	2.66	
Ethylbenzene*	<0.050	0.050	12/05/2024	ND	2.04	102	2.00	1.85	
Total Xylenes*	<0.150	0.150	12/05/2024	ND	6.11	102	6.00	1.67	
Total BTEX	<0.300	0.300	12/05/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.2 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: KV

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6880**	16.0	12/04/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	101	200	2.41	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	205	102	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane *111 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *123 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	12/03/2024	Sampling Date:	12/02/2024
Reported:	12/09/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Shalyn Rodriguez
Project Location:	DEVON		

Sample ID: DSV - 01 3' (H247350-02)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/05/2024	ND	2.11	105	2.00	4.03	
Toluene*	<0.050	0.050	12/05/2024	ND	2.04	102	2.00	2.66	
Ethylbenzene*	<0.050	0.050	12/05/2024	ND	2.04	102	2.00	1.85	
Total Xylenes*	<0.150	0.150	12/05/2024	ND	6.11	102	6.00	1.67	
Total BTEX	<0.300	0.300	12/05/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.2 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: KV

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	12/04/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	101	200	2.41	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	205	102	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane *85.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *96.6 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	12/03/2024	Sampling Date:	12/02/2024
Reported:	12/09/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Shalyn Rodriguez
Project Location:	DEVON		

Sample ID: DSV - 02 0.5' (H247350-03)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/05/2024	ND	2.11	105	2.00	4.03	
Toluene*	<0.050	0.050	12/05/2024	ND	2.04	102	2.00	2.66	
Ethylbenzene*	<0.050	0.050	12/05/2024	ND	2.04	102	2.00	1.85	
Total Xylenes*	<0.150	0.150	12/05/2024	ND	6.11	102	6.00	1.67	
Total BTEX	<0.300	0.300	12/05/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.0 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: KV

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**29200**	16.0	12/04/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	101	200	2.41	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	205	102	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane *112 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *127 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	12/03/2024	Sampling Date:	12/02/2024
Reported:	12/09/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Shalyn Rodriguez
Project Location:	DEVON		

Sample ID: DSV - 02 3.5' (H247350-04)

BTEX 8021B mg/kg **Analyzed By: JH**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/05/2024	ND	2.27	113	2.00	1.30	
Toluene*	<0.050	0.050	12/05/2024	ND	2.25	113	2.00	0.00604	
Ethylbenzene*	<0.050	0.050	12/05/2024	ND	2.16	108	2.00	1.28	
Total Xylenes*	<0.150	0.150	12/05/2024	ND	6.77	113	6.00	0.849	
Total BTEX	<0.300	0.300	12/05/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg **Analyzed By: KV**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/04/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	101	200	2.41	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	205	102	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane *103 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *119 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	12/03/2024	Sampling Date:	12/02/2024
Reported:	12/09/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Shalyn Rodriguez
Project Location:	DEVON		

Sample ID: DSV - 03 0.5' (H247350-05)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/05/2024	ND	2.27	113	2.00	1.30	
Toluene*	<0.050	0.050	12/05/2024	ND	2.25	113	2.00	0.00604	
Ethylbenzene*	<0.050	0.050	12/05/2024	ND	2.16	108	2.00	1.28	
Total Xylenes*	<0.150	0.150	12/05/2024	ND	6.77	113	6.00	0.849	
Total BTEX	<0.300	0.300	12/05/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: KV

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**9800**	16.0	12/04/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	101	200	2.41	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	205	102	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane *111 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *126 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	12/03/2024	Sampling Date:	12/02/2024
Reported:	12/09/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Shalyn Rodriguez
Project Location:	DEVON		

Sample ID: DSV - 03 4' (H247350-06)

BTEX 8021B mg/kg **Analyzed By: JH**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/05/2024	ND	2.27	113	2.00	1.30	
Toluene*	<0.050	0.050	12/05/2024	ND	2.25	113	2.00	0.00604	
Ethylbenzene*	<0.050	0.050	12/05/2024	ND	2.16	108	2.00	1.28	
Total Xylenes*	<0.150	0.150	12/05/2024	ND	6.77	113	6.00	0.849	
Total BTEX	<0.300	0.300	12/05/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg **Analyzed By: KV**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/04/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	101	200	2.41	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	205	102	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane *101 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *113 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	12/03/2024	Sampling Date:	12/02/2024
Reported:	12/09/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Shalyn Rodriguez
Project Location:	DEVON		

Sample ID: DSV - 04 0.5' (H247350-07)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/05/2024	ND	2.27	113	2.00	1.30	
Toluene*	<0.050	0.050	12/05/2024	ND	2.25	113	2.00	0.00604	
Ethylbenzene*	<0.050	0.050	12/05/2024	ND	2.16	108	2.00	1.28	
Total Xylenes*	<0.150	0.150	12/05/2024	ND	6.77	113	6.00	0.849	
Total BTEX	<0.300	0.300	12/05/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: KV

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**23800**	16.0	12/04/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	101	200	2.41	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	205	102	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane *109 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *124 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TERRACON CONSULTANTS
TRAVIS CASEY
5827 50TH ST. SUITE 1
LUBBOCK TX, 79424
Fax To:

Received:	12/03/2024	Sampling Date:	12/02/2024
Reported:	12/09/2024	Sampling Type:	Soil
Project Name:	HOGNOSE VIPER 23 FED 1H	Sampling Condition:	Cool & Intact
Project Number:	KH247059	Sample Received By:	Shalyn Rodriguez
Project Location:	DEVON		

Sample ID: DSV - 04 4.5' (H247350-08)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/05/2024	ND	2.27	113	2.00	1.30	
Toluene*	<0.050	0.050	12/05/2024	ND	2.25	113	2.00	0.00604	
Ethylbenzene*	<0.050	0.050	12/05/2024	ND	2.16	108	2.00	1.28	
Total Xylenes*	<0.150	0.150	12/05/2024	ND	6.77	113	6.00	0.849	
Total BTEX	<0.300	0.300	12/05/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: KV

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	12/04/2024	ND	416	104	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/04/2024	ND	203	101	200	2.41	
DRO >C10-C28*	<10.0	10.0	12/04/2024	ND	205	102	200	1.45	
EXT DRO >C28-C36	<10.0	10.0	12/04/2024	ND					

Surrogate: 1-Chlorooctane *88.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *96.2 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: Terracon	BILL TO:
Project Manager: Travis Casey	P.O. #:
Address: 4526 W. Perice Street	Company: Devon
City: Carlsbad State: NM Zip: 88220	Attn: Jim Raley
Phone #: 5756895949 Fax #:	Address:
Project #: KH247059 Project Owner: Devon	City:
Project Name: Hognose Viper 23 Fed 1H	State:
Project Location:	Phone #:
Sampler Name: Travis Casey	Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Depth Start	Depth End	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING DATE	SAMPLING TIME	ANALYS REQUEST: Chloride (EPA Method4500)	TPH Extended 8015	BTEX (EPA Method 8021B)
H247347-1	DSV-01		0.5	G	1			X					X		12/2/2024	10:00	X	X	X
-2	DSV-01		3	G	1			X					X		12/2/2024	10:30	X	X	X
-3	DSV-02		0.5	G	1			X					X		12/2/2024	11:15	X	X	X
-4	DSV-02		3.5	G	1			X					X		12/2/2024	11:40	X	X	X
-5	DSV-03		0.5	G	1			X					X		12/2/2024	11:55	X	X	X
-6	DSV-03		4	G	1			X					X		12/2/2024	12:30	X	X	X
-7	DSV-04		0.5	G	1			X					X		12/2/2024	12:50	X	X	X
-8	DSV-04		4.5	G	1			X					X		12/2/2024	13:20	X	X	X

Relinquished By:	Date: 12.3.24	Received By: SRodriguez	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 14:17		All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	REMARKS: joesph.guesnier@terracon.com;travis.casey@terracon.com;chuck.smith@terracon.com; beckysue.miller@terracon.com gus.sanchez@terracon.com
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C -1.9 Corrected Temp. °C -2.5	Sample Condition: Cool Yes / Intact Yes; No / No; CHECKED BY: (Initials) SR	Turnaround Time: Standard ~~Rush~~ ☐ Bacteria (only) Sample Condition: Cool Yes ☐ / No ☐; Observed Temp. °C; Thermometer ID ~~#113~~ #140; Correction Factor ~~-0.5°C~~ -0.6; Corrected Temp. °C

FORM-006 R 3.2 10/07/21

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Chuck Smith
Terracon Consulting Eng & Scientists
5847 50th St
Lubbock, Texas 79424

Generated 6/30/2025 8:48:48 AM

JOB DESCRIPTION

Hognose Viper 23 Fed 1H
KH247059

JOB NUMBER

820-19526-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.

Eurofins Lubbock

Job Notes

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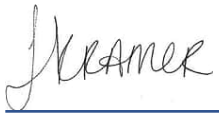
Authorization



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

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Laboratory Job ID: 820-19526-1
SDG: KH247059

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Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	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: Terracon Consulting Eng & Scientists Job ID: 820-19526-1
Project: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1 Eurofins Lubbock

Job Narrative
820-19526-1

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

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

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

Receipt
The samples were received on 6/23/2025 12:07 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C.

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-112847 and analytical batch 880-112842 was outside the upper control limits.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-112847 and analytical batch 880-112842 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-112934 and analytical batch 880-112978 was outside the upper control limits.

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

Diesel Range Organics
Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-112940 and analytical batch 880-113145 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-113003 and analytical batch 880-113081 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-113000 and analytical batch 880-113076 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.

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CFS-1 (1.0'-1.5')

Date Collected: 06/20/25 10:36
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 16:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 16:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 16:29	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		06/24/25 15:02	06/25/25 16:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 16:29	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/24/25 15:02	06/25/25 16:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*06/24/25 15:02*	*06/25/25 16:29*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*06/24/25 15:02*	*06/25/25 16:29*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			06/25/25 16:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			06/26/25 12:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/24/25 15:31	06/26/25 12:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		06/24/25 15:31	06/26/25 12:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/24/25 15:31	06/26/25 12:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*85*		*70 - 130*	*06/24/25 15:31*	*06/26/25 12:27*	*1*
o-Terphenyl (Surr)	*92*		*70 - 130*	*06/24/25 15:31*	*06/26/25 12:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**399**	**F1**	10.1		mg/Kg			06/26/25 00:38	1

Client Sample ID: CFS-2 (1.0'-1.5')

Date Collected: 06/20/25 10:40
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		06/24/25 15:02	06/25/25 16:50	1
Toluene	<0.00201	U	0.00201		mg/Kg		06/24/25 15:02	06/25/25 16:50	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		06/24/25 15:02	06/25/25 16:50	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		06/24/25 15:02	06/25/25 16:50	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		06/24/25 15:02	06/25/25 16:50	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		06/24/25 15:02	06/25/25 16:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*06/24/25 15:02*	*06/25/25 16:50*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*06/24/25 15:02*	*06/25/25 16:50*	*1*

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CFS-2 (1.0'-1.5')

Date Collected: 06/20/25 10:40
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-2
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			06/25/25 16:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			06/26/25 13:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/24/25 15:31	06/26/25 13:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		06/24/25 15:31	06/26/25 13:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/24/25 15:31	06/26/25 13:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*83*		*70 - 130*	*06/24/25 15:31*	*06/26/25 13:12*	*1*
o-Terphenyl (Surr)	*91*		*70 - 130*	*06/24/25 15:31*	*06/26/25 13:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1480**		9.92		mg/Kg			06/26/25 00:55	1

Client Sample ID: CFS-3 (1.0'-1.5')

Date Collected: 06/20/25 10:45
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		06/24/25 15:02	06/25/25 17:10	1
Toluene	<0.00202	U	0.00202		mg/Kg		06/24/25 15:02	06/25/25 17:10	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/24/25 15:02	06/25/25 17:10	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		06/24/25 15:02	06/25/25 17:10	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/24/25 15:02	06/25/25 17:10	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		06/24/25 15:02	06/25/25 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*06/24/25 15:02*	*06/25/25 17:10*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*06/24/25 15:02*	*06/25/25 17:10*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			06/25/25 17:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			06/26/25 13:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/24/25 15:31	06/26/25 13:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		06/24/25 15:31	06/26/25 13:27	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CFS-3 (1.0'-1.5')

Lab Sample ID: 820-19526-3
Matrix: Solid
Date Collected: 06/20/25 10:45
Date Received: 06/23/25 12:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/24/25 15:31	06/26/25 13:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*85*		*70 - 130*	*06/24/25 15:31*	*06/26/25 13:27*	*1*
o-Terphenyl (Surr)	*93*		*70 - 130*	*06/24/25 15:31*	*06/26/25 13:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**262**		9.96		mg/Kg			06/26/25 01:01	1

Client Sample ID: CFS-4 (1.0'-1.5')

Lab Sample ID: 820-19526-4
Matrix: Solid
Date Collected: 06/20/25 10:50
Date Received: 06/23/25 12:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		06/24/25 15:02	06/25/25 17:30	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/24/25 15:02	06/25/25 17:30	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/24/25 15:02	06/25/25 17:30	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		06/24/25 15:02	06/25/25 17:30	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/24/25 15:02	06/25/25 17:30	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		06/24/25 15:02	06/25/25 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*06/24/25 15:02*	*06/25/25 17:30*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*06/24/25 15:02*	*06/25/25 17:30*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			06/25/25 17:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			06/26/25 13:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		06/24/25 15:31	06/26/25 13:42	1
Diesel Range Organics (Over C10-C28)	<49.7	U *1	49.7		mg/Kg		06/24/25 15:31	06/26/25 13:42	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		06/24/25 15:31	06/26/25 13:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*84*		*70 - 130*	*06/24/25 15:31*	*06/26/25 13:42*	*1*
o-Terphenyl (Surr)	*90*		*70 - 130*	*06/24/25 15:31*	*06/26/25 13:42*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**186**		9.92		mg/Kg			06/26/25 01:06	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CFS-5 (1.0'-1.5')

Date Collected: 06/20/25 10:55
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-5
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 17:51	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 17:51	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 17:51	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		06/24/25 15:02	06/25/25 17:51	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 17:51	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/24/25 15:02	06/25/25 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*06/24/25 15:02*	*06/25/25 17:51*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*06/24/25 15:02*	*06/25/25 17:51*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/25/25 17:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			06/26/25 13:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/24/25 15:31	06/26/25 13:58	1
Diesel Range Organics (Over C10-C28)	<49.8	U *1	49.8		mg/Kg		06/24/25 15:31	06/26/25 13:58	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/24/25 15:31	06/26/25 13:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*84*		*70 - 130*	*06/24/25 15:31*	*06/26/25 13:58*	*1*
o-Terphenyl (Surr)	*94*		*70 - 130*	*06/24/25 15:31*	*06/26/25 13:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**198**		10.0		mg/Kg			06/26/25 01:12	1

Client Sample ID: CFS-6 (1.0'-1.5')

Date Collected: 06/20/25 11:00
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-6
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		06/24/25 15:02	06/25/25 18:11	1
Toluene	<0.00202	U	0.00202		mg/Kg		06/24/25 15:02	06/25/25 18:11	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/24/25 15:02	06/25/25 18:11	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		06/24/25 15:02	06/25/25 18:11	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/24/25 15:02	06/25/25 18:11	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		06/24/25 15:02	06/25/25 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*06/24/25 15:02*	*06/25/25 18:11*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*06/24/25 15:02*	*06/25/25 18:11*	*1*

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CFS-6 (1.0'-1.5')

Date Collected: 06/20/25 11:00
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-6
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			06/25/25 18:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			06/26/25 14:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/24/25 15:31	06/26/25 14:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		06/24/25 15:31	06/26/25 14:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/24/25 15:31	06/26/25 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*80*		*70 - 130*	*06/24/25 15:31*	*06/26/25 14:13*	*1*
o-Terphenyl (Surr)	*86*		*70 - 130*	*06/24/25 15:31*	*06/26/25 14:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**863**		9.94		mg/Kg			06/26/25 01:29	1

Client Sample ID: CFS-7 (1.0'-1.5')

Date Collected: 06/20/25 11:05
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-7
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		06/24/25 15:02	06/25/25 18:32	1
Toluene	<0.00201	U	0.00201		mg/Kg		06/24/25 15:02	06/25/25 18:32	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		06/24/25 15:02	06/25/25 18:32	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		06/24/25 15:02	06/25/25 18:32	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		06/24/25 15:02	06/25/25 18:32	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		06/24/25 15:02	06/25/25 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*06/24/25 15:02*	*06/25/25 18:32*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*06/24/25 15:02*	*06/25/25 18:32*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			06/25/25 18:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			06/26/25 14:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/24/25 15:31	06/26/25 14:28	1
Diesel Range Organics (Over C10-C28)	<49.8	U *1	49.8		mg/Kg		06/24/25 15:31	06/26/25 14:28	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CFS-7 (1.0'-1.5')

Lab Sample ID: 820-19526-7
Matrix: Solid
Date Collected: 06/20/25 11:05
Date Received: 06/23/25 12:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/24/25 15:31	06/26/25 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*83*		*70 - 130*	*06/24/25 15:31*	*06/26/25 14:28*	*1*
o-Terphenyl (Surr)	*90*		*70 - 130*	*06/24/25 15:31*	*06/26/25 14:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**213**		9.92		mg/Kg			06/26/25 01:35	1

Client Sample ID: CFS-8 (1.0'-1.5')

Lab Sample ID: 820-19526-8
Matrix: Solid
Date Collected: 06/20/25 11:10
Date Received: 06/23/25 12:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		06/24/25 15:02	06/25/25 18:52	1
Toluene	<0.00201	U	0.00201		mg/Kg		06/24/25 15:02	06/25/25 18:52	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		06/24/25 15:02	06/25/25 18:52	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		06/24/25 15:02	06/25/25 18:52	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		06/24/25 15:02	06/25/25 18:52	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		06/24/25 15:02	06/25/25 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*06/24/25 15:02*	*06/25/25 18:52*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*06/24/25 15:02*	*06/25/25 18:52*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			06/25/25 18:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			06/26/25 14:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/24/25 15:31	06/26/25 14:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		06/24/25 15:31	06/26/25 14:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/24/25 15:31	06/26/25 14:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*84*		*70 - 130*	*06/24/25 15:31*	*06/26/25 14:43*	*1*
o-Terphenyl (Surr)	*92*		*70 - 130*	*06/24/25 15:31*	*06/26/25 14:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**789**		9.94		mg/Kg			06/26/25 01:40	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CFS-9 (1.0'-1.5')

Lab Sample ID: 820-19526-9
Matrix: Solid
Date Collected: 06/20/25 11:15
Date Received: 06/23/25 12:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 19:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 19:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 19:13	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		06/24/25 15:02	06/25/25 19:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 19:13	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/24/25 15:02	06/25/25 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*06/24/25 15:02*	*06/25/25 19:13*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*06/24/25 15:02*	*06/25/25 19:13*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			06/25/25 19:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			06/26/25 14:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		06/24/25 15:31	06/26/25 14:58	1
Diesel Range Organics (Over C10-C28)	<49.7	U *1	49.7		mg/Kg		06/24/25 15:31	06/26/25 14:58	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		06/24/25 15:31	06/26/25 14:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*81*		*70 - 130*	*06/24/25 15:31*	*06/26/25 14:58*	*1*
o-Terphenyl (Surr)	*89*		*70 - 130*	*06/24/25 15:31*	*06/26/25 14:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**653**		9.96		mg/Kg			06/26/25 01:46	1

Client Sample ID: CFS-10 (1.0'-1.5')

Lab Sample ID: 820-19526-10
Matrix: Solid
Date Collected: 06/20/25 11:20
Date Received: 06/23/25 12:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 19:33	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 19:33	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 19:33	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		06/24/25 15:02	06/25/25 19:33	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 19:33	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/24/25 15:02	06/25/25 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*06/24/25 15:02*	*06/25/25 19:33*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*06/24/25 15:02*	*06/25/25 19:33*	*1*

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CFS-10 (1.0'-1.5')

Lab Sample ID: 820-19526-10
Matrix: Solid
Date Collected: 06/20/25 11:20
Date Received: 06/23/25 12:07

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/25/25 19:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			06/26/25 15:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/24/25 15:31	06/26/25 15:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		06/24/25 15:31	06/26/25 15:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/24/25 15:31	06/26/25 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*86*		*70 - 130*	*06/24/25 15:31*	*06/26/25 15:13*	*1*
o-Terphenyl (Surr)	*92*		*70 - 130*	*06/24/25 15:31*	*06/26/25 15:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**448**		9.92		mg/Kg			06/26/25 01:52	1

Client Sample ID: CFS-11 (1.0'-1.5')

Lab Sample ID: 820-19526-11
Matrix: Solid
Date Collected: 06/20/25 11:25
Date Received: 06/23/25 12:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 21:23	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 21:23	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 21:23	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		06/24/25 15:02	06/25/25 21:23	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 21:23	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/24/25 15:02	06/25/25 21:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*06/24/25 15:02*	*06/25/25 21:23*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*06/24/25 15:02*	*06/25/25 21:23*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/25/25 21:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			06/26/25 15:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/24/25 15:31	06/26/25 15:44	1
Diesel Range Organics (Over C10-C28)	<49.8	U *1	49.8		mg/Kg		06/24/25 15:31	06/26/25 15:44	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CFS-11 (1.0'-1.5')

Lab Sample ID: 820-19526-11
Matrix: Solid
Date Collected: 06/20/25 11:25
Date Received: 06/23/25 12:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/24/25 15:31	06/26/25 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*81*		*70 - 130*	*06/24/25 15:31*	*06/26/25 15:44*	*1*
o-Terphenyl (Surr)	*86*		*70 - 130*	*06/24/25 15:31*	*06/26/25 15:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**712**		9.94		mg/Kg			06/26/25 01:57	1

Client Sample ID: CFS-12 (1.0'-1.5')

Lab Sample ID: 820-19526-12
Matrix: Solid
Date Collected: 06/20/25 11:30
Date Received: 06/23/25 12:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 21:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 21:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 21:44	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		06/24/25 15:02	06/25/25 21:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 21:44	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/24/25 15:02	06/25/25 21:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*06/24/25 15:02*	*06/25/25 21:44*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*06/24/25 15:02*	*06/25/25 21:44*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			06/25/25 21:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			06/26/25 15:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/24/25 15:31	06/26/25 15:59	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		06/24/25 15:31	06/26/25 15:59	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/24/25 15:31	06/26/25 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*80*		*70 - 130*	*06/24/25 15:31*	*06/26/25 15:59*	*1*
o-Terphenyl (Surr)	*84*		*70 - 130*	*06/24/25 15:31*	*06/26/25 15:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1490**		9.94		mg/Kg			06/26/25 02:14	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CWS-1 (0'-1.5')

Lab Sample ID: 820-19526-13
Matrix: Solid
Date Collected: 06/20/25 11:35
Date Received: 06/23/25 12:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 22:04	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 22:04	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 22:04	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		06/24/25 15:02	06/25/25 22:04	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 22:04	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/24/25 15:02	06/25/25 22:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*06/24/25 15:02*	*06/25/25 22:04*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*06/24/25 15:02*	*06/25/25 22:04*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/25/25 22:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			06/26/25 16:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/24/25 15:31	06/26/25 16:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		06/24/25 15:31	06/26/25 16:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/24/25 15:31	06/26/25 16:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*76*		*70 - 130*	*06/24/25 15:31*	*06/26/25 16:14*	*1*
o-Terphenyl (Surr)	*79*		*70 - 130*	*06/24/25 15:31*	*06/26/25 16:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**524**		9.92		mg/Kg			06/26/25 02:20	1

Client Sample ID: CWS-2 (0'-1.5')

Lab Sample ID: 820-19526-14
Matrix: Solid
Date Collected: 06/20/25 11:40
Date Received: 06/23/25 12:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 22:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 22:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 22:25	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		06/24/25 15:02	06/25/25 22:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 22:25	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/24/25 15:02	06/25/25 22:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*06/24/25 15:02*	*06/25/25 22:25*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*06/24/25 15:02*	*06/25/25 22:25*	*1*

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CWS-2 (0'-1.5')

Lab Sample ID: 820-19526-14
Matrix: Solid
Date Collected: 06/20/25 11:40
Date Received: 06/23/25 12:07

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			06/25/25 22:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			06/26/25 16:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/24/25 15:31	06/26/25 16:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		06/24/25 15:31	06/26/25 16:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/24/25 15:31	06/26/25 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*77*		*70 - 130*	*06/24/25 15:31*	*06/26/25 16:30*	*1*
o-Terphenyl (Surr)	*80*		*70 - 130*	*06/24/25 15:31*	*06/26/25 16:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**96.8**		10.0		mg/Kg			06/26/25 02:37	1

Client Sample ID: CWS-3 (0'-1.5')

Lab Sample ID: 820-19526-15
Matrix: Solid
Date Collected: 06/20/25 11:45
Date Received: 06/23/25 12:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		06/24/25 15:02	06/25/25 22:45	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/24/25 15:02	06/25/25 22:45	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/24/25 15:02	06/25/25 22:45	1
m,p-Xylenes	<0.00397	U	0.00397		mg/Kg		06/24/25 15:02	06/25/25 22:45	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/24/25 15:02	06/25/25 22:45	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		06/24/25 15:02	06/25/25 22:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*06/24/25 15:02*	*06/25/25 22:45*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*06/24/25 15:02*	*06/25/25 22:45*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			06/25/25 22:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			06/26/25 16:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		06/24/25 15:31	06/26/25 16:45	1
Diesel Range Organics (Over C10-C28)	<49.7	U *1	49.7		mg/Kg		06/24/25 15:31	06/26/25 16:45	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CWS-3 (0'-1.5')

Date Collected: 06/20/25 11:45
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-15
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		06/24/25 15:31	06/26/25 16:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*81*		*70 - 130*	*06/24/25 15:31*	*06/26/25 16:45*	*1*
o-Terphenyl (Surr)	*87*		*70 - 130*	*06/24/25 15:31*	*06/26/25 16:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1440**		9.96		mg/Kg			06/26/25 02:43	1

Client Sample ID: CWS-4 (0'-1.5')

Date Collected: 06/20/25 11:50
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-16
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 23:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 23:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 23:05	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		06/24/25 15:02	06/25/25 23:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 23:05	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/24/25 15:02	06/25/25 23:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*06/24/25 15:02*	*06/25/25 23:05*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*06/24/25 15:02*	*06/25/25 23:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			06/25/25 23:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			06/26/25 17:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/24/25 15:31	06/26/25 17:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		06/24/25 15:31	06/26/25 17:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/24/25 15:31	06/26/25 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*82*		*70 - 130*	*06/24/25 15:31*	*06/26/25 17:00*	*1*
o-Terphenyl (Surr)	*90*		*70 - 130*	*06/24/25 15:31*	*06/26/25 17:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5140**		99.2		mg/Kg			06/26/25 02:48	10

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CFS-13 (1.0'-1.5')

Date Collected: 06/20/25 11:55
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-17
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 23:26	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 23:26	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 23:26	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		06/24/25 15:02	06/25/25 23:26	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 23:26	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/24/25 15:02	06/25/25 23:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*06/24/25 15:02*	*06/25/25 23:26*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*06/24/25 15:02*	*06/25/25 23:26*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/25/25 23:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			06/26/25 17:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/24/25 15:31	06/26/25 17:15	1
Diesel Range Organics (Over C10-C28)	<49.8	U *1	49.8		mg/Kg		06/24/25 15:31	06/26/25 17:15	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/24/25 15:31	06/26/25 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*79*		*70 - 130*	*06/24/25 15:31*	*06/26/25 17:15*	*1*
o-Terphenyl (Surr)	*83*		*70 - 130*	*06/24/25 15:31*	*06/26/25 17:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**302**		10.1		mg/Kg			06/26/25 02:54	1

Client Sample ID: CFS-14 (1.0'-1.5')

Date Collected: 06/20/25 12:00
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-18
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 23:46	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 23:46	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 23:46	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		06/24/25 15:02	06/25/25 23:46	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/25/25 23:46	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/24/25 15:02	06/25/25 23:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*06/24/25 15:02*	*06/25/25 23:46*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*06/24/25 15:02*	*06/25/25 23:46*	*1*

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CFS-14 (1.0'-1.5')

Lab Sample ID: 820-19526-18
Matrix: Solid
Date Collected: 06/20/25 12:00
Date Received: 06/23/25 12:07

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/25/25 23:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			06/26/25 17:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/24/25 15:31	06/26/25 17:30	1
Diesel Range Organics (Over C10-C28)	<49.8	U *1	49.8		mg/Kg		06/24/25 15:31	06/26/25 17:30	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/24/25 15:31	06/26/25 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*80*		*70 - 130*	*06/24/25 15:31*	*06/26/25 17:30*	*1*
o-Terphenyl (Surr)	*86*		*70 - 130*	*06/24/25 15:31*	*06/26/25 17:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6440**		100		mg/Kg			06/26/25 03:00	10

Client Sample ID: CWS-5 (0'-1.5')

Lab Sample ID: 820-19526-19
Matrix: Solid
Date Collected: 06/20/25 12:05
Date Received: 06/23/25 12:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/26/25 00:07	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/26/25 00:07	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/26/25 00:07	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		06/24/25 15:02	06/26/25 00:07	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:02	06/26/25 00:07	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/24/25 15:02	06/26/25 00:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*06/24/25 15:02*	*06/26/25 00:07*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*06/24/25 15:02*	*06/26/25 00:07*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/26/25 00:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			06/26/25 17:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/24/25 15:31	06/26/25 17:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		06/24/25 15:31	06/26/25 17:45	1

Eurofins Lubbock

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CWS-5 (0'-1.5')

Lab Sample ID: 820-19526-19
Matrix: Solid
Date Collected: 06/20/25 12:05
Date Received: 06/23/25 12:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/24/25 15:31	06/26/25 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*81*		*70 - 130*	*06/24/25 15:31*	*06/26/25 17:45*	*1*
o-Terphenyl (Surr)	*87*		*70 - 130*	*06/24/25 15:31*	*06/26/25 17:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2090**		49.5		mg/Kg			06/26/25 03:05	5

Client Sample ID: CWS-6 (0'-1.5')

Lab Sample ID: 820-19526-20
Matrix: Solid
Date Collected: 06/20/25 12:10
Date Received: 06/23/25 12:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/26/25 00:27	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/26/25 00:27	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/26/25 00:27	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		06/24/25 15:02	06/26/25 00:27	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/26/25 00:27	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/24/25 15:02	06/26/25 00:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*06/24/25 15:02*	*06/26/25 00:27*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*06/24/25 15:02*	*06/26/25 00:27*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			06/26/25 00:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			06/26/25 18:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/24/25 15:31	06/26/25 18:00	1
Diesel Range Organics (Over C10-C28)	<49.8	U *1	49.8		mg/Kg		06/24/25 15:31	06/26/25 18:00	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/24/25 15:31	06/26/25 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*80*		*70 - 130*	*06/24/25 15:31*	*06/26/25 18:00*	*1*
o-Terphenyl (Surr)	*85*		*70 - 130*	*06/24/25 15:31*	*06/26/25 18:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1480**		9.90		mg/Kg			06/26/25 03:11	1

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CWS-7 (0'-1.5')

Lab Sample ID: 820-19526-21
Matrix: Solid
Date Collected: 06/20/25 12:15
Date Received: 06/23/25 12:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:00	06/24/25 23:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:00	06/24/25 23:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:00	06/24/25 23:16	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		06/24/25 15:00	06/24/25 23:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:00	06/24/25 23:16	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/24/25 15:00	06/24/25 23:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*06/24/25 15:00*	*06/24/25 23:16*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*06/24/25 15:00*	*06/24/25 23:16*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			06/24/25 23:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			06/27/25 08:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/24/25 15:33	06/27/25 08:58	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/24/25 15:33	06/27/25 08:58	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/24/25 15:33	06/27/25 08:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*91*		*70 - 130*	*06/24/25 15:33*	*06/27/25 08:58*	*1*
o-Terphenyl (Surr)	*91*		*70 - 130*	*06/24/25 15:33*	*06/27/25 08:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3930**	**F1**	49.6		mg/Kg			06/26/25 03:56	5

Client Sample ID: CWS-8 (0'-1.5')

Lab Sample ID: 820-19526-22
Matrix: Solid
Date Collected: 06/20/25 12:20
Date Received: 06/23/25 12:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:00	06/24/25 23:36	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:00	06/24/25 23:36	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:00	06/24/25 23:36	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		06/24/25 15:00	06/24/25 23:36	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/24/25 15:00	06/24/25 23:36	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/24/25 15:00	06/24/25 23:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*06/24/25 15:00*	*06/24/25 23:36*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*06/24/25 15:00*	*06/24/25 23:36*	*1*

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CWS-8 (0'-1.5')

Date Collected: 06/20/25 12:20
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-22

Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/24/25 23:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**237**		49.9		mg/Kg			06/27/25 09:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/24/25 15:33	06/27/25 09:47	1
Diesel Range Organics (Over C10-C28)	**237**		49.9		mg/Kg		06/24/25 15:33	06/27/25 09:47	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/24/25 15:33	06/27/25 09:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*96*		*70 - 130*	*06/24/25 15:33*	*06/27/25 09:47*	*1*
o-Terphenyl (Surr)	*101*		*70 - 130*	*06/24/25 15:33*	*06/27/25 09:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18800**		199		mg/Kg			06/26/25 04:13	20

Surrogate Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
820-19526-1	CFS-1 (1.0'-1.5')	91	108
820-19526-1 MS	CFS-1 (1.0'-1.5')	106	99
820-19526-1 MSD	CFS-1 (1.0'-1.5')	99	97
820-19526-2	CFS-2 (1.0'-1.5')	113	105
820-19526-3	CFS-3 (1.0'-1.5')	115	105
820-19526-4	CFS-4 (1.0'-1.5')	108	109
820-19526-5	CFS-5 (1.0'-1.5')	120	109
820-19526-6	CFS-6 (1.0'-1.5')	124	106
820-19526-7	CFS-7 (1.0'-1.5')	119	110
820-19526-8	CFS-8 (1.0'-1.5')	122	106
820-19526-9	CFS-9 (1.0'-1.5')	117	110
820-19526-10	CFS-10 (1.0'-1.5')	119	104
820-19526-11	CFS-11 (1.0'-1.5')	94	96
820-19526-12	CFS-12 (1.0'-1.5')	108	100
820-19526-13	CWS-1 (0'-1.5')	114	108
820-19526-14	CWS-2 (0'-1.5')	113	111
820-19526-15	CWS-3 (0'-1.5')	117	107
820-19526-16	CWS-4 (0'-1.5')	115	108
820-19526-17	CFS-13 (1.0'-1.5')	124	103
820-19526-18	CFS-14 (1.0'-1.5')	119	103
820-19526-19	CWS-5 (0'-1.5')	118	108
820-19526-20	CWS-6 (0'-1.5')	124	103
820-19526-21	CWS-7 (0'-1.5')	118	102
820-19526-22	CWS-8 (0'-1.5')	113	102
890-8342-A-1-B MS	Matrix Spike	112	101
890-8342-A-1-C MSD	Matrix Spike Duplicate	95	100
LCS 880-112847/1-A	Lab Control Sample	97	92
LCS 880-112934/1-A	Lab Control Sample	102	99
LCSD 880-112847/2-A	Lab Control Sample Dup	96	86
LCSD 880-112934/2-A	Lab Control Sample Dup	101	102
MB 880-112847/5-A	Method Blank	152 S1+	95
MB 880-112934/5-A	Method Blank	145 S1+	91

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
820-19526-1	CFS-1 (1.0'-1.5')	85	92
820-19526-1 MS	CFS-1 (1.0'-1.5')	98	99
820-19526-1 MSD	CFS-1 (1.0'-1.5')	96	96
820-19526-2	CFS-2 (1.0'-1.5')	83	91
820-19526-3	CFS-3 (1.0'-1.5')	85	93
820-19526-4	CFS-4 (1.0'-1.5')	84	90
820-19526-5	CFS-5 (1.0'-1.5')	84	94

Surrogate Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)									
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)								
820-19526-6	CFS-6 (1.0'-1.5')	80	86								
820-19526-7	CFS-7 (1.0'-1.5')	83	90								
820-19526-8	CFS-8 (1.0'-1.5')	84	92								
820-19526-9	CFS-9 (1.0'-1.5')	81	89								
820-19526-10	CFS-10 (1.0'-1.5')	86	92								
820-19526-11	CFS-11 (1.0'-1.5')	81	86								
820-19526-12	CFS-12 (1.0'-1.5')	80	84								
820-19526-13	CWS-1 (0'-1.5')	76	79								
820-19526-14	CWS-2 (0'-1.5')	77	80								
820-19526-15	CWS-3 (0'-1.5')	81	87								
820-19526-16	CWS-4 (0'-1.5')	82	90								
820-19526-17	CFS-13 (1.0'-1.5')	79	83								
820-19526-18	CFS-14 (1.0'-1.5')	80	86								
820-19526-19	CWS-5 (0'-1.5')	81	87								
820-19526-20	CWS-6 (0'-1.5')	80	85								
820-19526-21	CWS-7 (0'-1.5')	91	91								
820-19526-21 MS	CWS-7 (0'-1.5')	87	95								
820-19526-21 MSD	CWS-7 (0'-1.5')	88	95								
820-19526-22	CWS-8 (0'-1.5')	96	101								
LCS 880-112940/2-A	Lab Control Sample	77	82								
LCS 880-112943/2-A	Lab Control Sample	106	116								
LCSD 880-112940/3-A	Lab Control Sample Dup	78	82								
LCSD 880-112943/3-A	Lab Control Sample Dup	104	114								
MB 880-112940/1-A	Method Blank	75	85								
MB 880-112943/1-A	Method Blank	95	100								

Surrogate Legend

1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-112847/5-A
Matrix: Solid
Analysis Batch: 112842

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 112847

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/25 10:26	06/24/25 15:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/25 10:26	06/24/25 15:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/25 10:26	06/24/25 15:09	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		06/24/25 10:26	06/24/25 15:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/25 10:26	06/24/25 15:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/24/25 10:26	06/24/25 15:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*152*	*S1+*	*70 - 130*	*06/24/25 10:26*	*06/24/25 15:09*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*06/24/25 10:26*	*06/24/25 15:09*	*1*

Lab Sample ID: LCS 880-112847/1-A
Matrix: Solid
Analysis Batch: 112842

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 112847

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08859		mg/Kg		89	70 - 130		
Toluene			0.100	0.08616		mg/Kg		86	70 - 130		
Ethylbenzene			0.100	0.09812		mg/Kg		98	70 - 130		
m,p-Xylenes			0.200	0.1837		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.1019		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: LCSD 880-112847/2-A
Matrix: Solid
Analysis Batch: 112842

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 112847

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09476		mg/Kg		95	70 - 130	7	35
Toluene			0.100	0.1117		mg/Kg		112	70 - 130	26	35
Ethylbenzene			0.100	0.1081		mg/Kg		108	70 - 130	10	35
m,p-Xylenes			0.200	0.2131		mg/Kg		107	70 - 130	15	35
o-Xylene			0.100	0.1159		mg/Kg		116	70 - 130	13	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*

Lab Sample ID: 890-8342-A-1-B MS
Matrix: Solid
Analysis Batch: 112842

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 112847

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.100	0.1184		mg/Kg		118	70 - 130		
Toluene	<0.00200	U	0.100	0.1030		mg/Kg		103	70 - 130		

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

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

Lab Sample ID: 890-8342-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 112842 — **Prep Batch: 112847**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U F1	0.100	0.1372	F1	mg/Kg		137	70 - 130
m,p-Xylenes	<0.00399	U	0.200	0.2567		mg/Kg		128	70 - 130
o-Xylene	<0.00200	U F1	0.100	0.1399	F1	mg/Kg		140	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 890-8342-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 112842 — **Prep Batch: 112847**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.1133		mg/Kg		113	70 - 130	4	35
Toluene	<0.00200	U	0.100	0.1046		mg/Kg		105	70 - 130	2	35
Ethylbenzene	<0.00200	U F1	0.100	0.1109		mg/Kg		111	70 - 130	21	35
m,p-Xylenes	<0.00399	U	0.200	0.1918		mg/Kg		96	70 - 130	29	35
o-Xylene	<0.00200	U F1	0.100	0.1217		mg/Kg		122	70 - 130	14	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: MB 880-112934/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 112978 — **Prep Batch: 112934**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 16:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 16:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 16:00	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		06/24/25 15:02	06/25/25 16:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/25 15:02	06/25/25 16:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/24/25 15:02	06/25/25 16:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*145*	*S1+*	*70 - 130*	*06/24/25 15:02*	*06/25/25 16:00*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*06/24/25 15:02*	*06/25/25 16:00*	*1*

Lab Sample ID: LCS 880-112934/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 112978 — **Prep Batch: 112934**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1036		mg/Kg		104	70 - 130
Toluene	0.100	0.09917		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.1086		mg/Kg		109	70 - 130
m,p-Xylenes	0.200	0.2188		mg/Kg		109	70 - 130

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

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

Lab Sample ID: LCS 880-112934/1-A
Matrix: Solid
Analysis Batch: 112978

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 112934

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
o-Xylene			0.100	0.1236		mg/Kg		124	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-112934/2-A
Matrix: Solid
Analysis Batch: 112978

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 112934

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1084		mg/Kg		108	70 - 130	5	35
Toluene			0.100	0.09708		mg/Kg		97	70 - 130	2	35
Ethylbenzene			0.100	0.1190		mg/Kg		119	70 - 130	9	35
m,p-Xylenes			0.200	0.2300		mg/Kg		115	70 - 130	5	35
o-Xylene			0.100	0.1274		mg/Kg		127	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 820-19526-1 MS
Matrix: Solid
Analysis Batch: 112978

Client Sample ID: CFS-1 (1.0'-1.5')
Prep Type: Total/NA
Prep Batch: 112934

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.100	0.09739		mg/Kg		97	70 - 130		
Toluene	<0.00200	U	0.100	0.08751		mg/Kg		88	70 - 130		
Ethylbenzene	<0.00200	U	0.100	0.09148		mg/Kg		91	70 - 130		
m,p-Xylenes	<0.00399	U	0.200	0.1996		mg/Kg		100	70 - 130		
o-Xylene	<0.00200	U	0.100	0.1191		mg/Kg		119	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 820-19526-1 MSD
Matrix: Solid
Analysis Batch: 112978

Client Sample ID: CFS-1 (1.0'-1.5')
Prep Type: Total/NA
Prep Batch: 112934

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.1002		mg/Kg		100	70 - 130	3	35
Toluene	<0.00200	U	0.100	0.08976		mg/Kg		90	70 - 130	3	35
Ethylbenzene	<0.00200	U	0.100	0.09590		mg/Kg		96	70 - 130	5	35
m,p-Xylenes	<0.00399	U	0.200	0.1912		mg/Kg		96	70 - 130	4	35
o-Xylene	<0.00200	U	0.100	0.1119		mg/Kg		112	70 - 130	6	35

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

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

Lab Sample ID: 820-19526-1 MSD
Matrix: Solid
Analysis Batch: 112978

Client Sample ID: CFS-1 (1.0'-1.5')
Prep Type: Total/NA
Prep Batch: 112934

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

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

Lab Sample ID: MB 880-112940/1-A
Matrix: Solid
Analysis Batch: 113145

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 112940

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/24/25 15:30	06/26/25 10:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/24/25 15:30	06/26/25 10:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/24/25 15:30	06/26/25 10:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*75*		*70 - 130*	*06/24/25 15:30*	*06/26/25 10:09*	*1*
o-Terphenyl (Surr)	*85*		*70 - 130*	*06/24/25 15:30*	*06/26/25 10:09*	*1*

Lab Sample ID: LCS 880-112940/2-A
Matrix: Solid
Analysis Batch: 113145

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 112940

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	878.6		mg/Kg		88	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	920.4		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*77*		*70 - 130*
o-Terphenyl (Surr)	*82*		*70 - 130*

Lab Sample ID: LCSD 880-112940/3-A
Matrix: Solid
Analysis Batch: 113145

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 112940

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1055		mg/Kg		105	70 - 130	18	20
Diesel Range Organics (Over C10-C28)			1000	1138	*1	mg/Kg		114	70 - 130	21	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*78*		*70 - 130*
o-Terphenyl (Surr)	*82*		*70 - 130*

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

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

Lab Sample ID: 820-19526-1 MS — **Client Sample ID: CFS-1 (1.0'-1.5')**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 113145 — **Prep Batch: 112940**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	836.9		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *1	998	935.6		mg/Kg		94	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*98*		*70 - 130*
o-Terphenyl (Surr)	*99*		*70 - 130*

Lab Sample ID: 820-19526-1 MSD — **Client Sample ID: CFS-1 (1.0'-1.5')**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 113145 — **Prep Batch: 112940**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	821.2		mg/Kg		82	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U *1	998	899.5		mg/Kg		90	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*96*		*70 - 130*
o-Terphenyl (Surr)	*96*		*70 - 130*

Lab Sample ID: MB 880-112943/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 113218 — **Prep Batch: 112943**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/24/25 15:33	06/27/25 06:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/24/25 15:33	06/27/25 06:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/24/25 15:33	06/27/25 06:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*95*		*70 - 130*	*06/24/25 15:33*	*06/27/25 06:59*	*1*
o-Terphenyl (Surr)	*100*		*70 - 130*	*06/24/25 15:33*	*06/27/25 06:59*	*1*

Lab Sample ID: LCS 880-112943/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 113218 — **Prep Batch: 112943**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	905.4		mg/Kg		91	70 - 130
Diesel Range Organics (Over C10-C28)	1000	980.4		mg/Kg		98	70 - 130

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

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

Lab Sample ID: LCS 880-112943/2-A
Matrix: Solid
Analysis Batch: 113218

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 112943

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane (Surr)	106		70 - 130
o-Terphenyl (Surr)	116		70 - 130

Lab Sample ID: LCSD 880-112943/3-A
Matrix: Solid
Analysis Batch: 113218

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 112943

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	904.1		mg/Kg		90	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	989.6		mg/Kg		99	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane (Surr)	104		70 - 130
o-Terphenyl (Surr)	114		70 - 130

Lab Sample ID: 820-19526-21 MS
Matrix: Solid
Analysis Batch: 113218

Client Sample ID: CWS-7 (0'-1.5')
Prep Type: Total/NA
Prep Batch: 112943

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	997	717.4		mg/Kg		72	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U	997	822.1		mg/Kg		80	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane (Surr)	87		70 - 130
o-Terphenyl (Surr)	95		70 - 130

Lab Sample ID: 820-19526-21 MSD
Matrix: Solid
Analysis Batch: 113218

Client Sample ID: CWS-7 (0'-1.5')
Prep Type: Total/NA
Prep Batch: 112943

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	997	728.5		mg/Kg		73	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.8	U	997	828.7		mg/Kg		81	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane (Surr)	88		70 - 130
o-Terphenyl (Surr)	95		70 - 130

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-113000/1-A
Matrix: Solid
Analysis Batch: 113076

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			06/26/25 00:21	1

Lab Sample ID: LCS 880-113000/2-A
Matrix: Solid
Analysis Batch: 113076

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	247.8		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-113000/3-A
Matrix: Solid
Analysis Batch: 113076

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	248.6		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 820-19526-1 MS
Matrix: Solid
Analysis Batch: 113076

Client Sample ID: CFS-1 (1.0'-1.5')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	399	F1	252	617.1	F1	mg/Kg		86	90 - 110		

Lab Sample ID: 820-19526-1 MSD
Matrix: Solid
Analysis Batch: 113076

Client Sample ID: CFS-1 (1.0'-1.5')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	399	F1	252	620.0	F1	mg/Kg		88	90 - 110	0	20

Lab Sample ID: 820-19526-11 MS
Matrix: Solid
Analysis Batch: 113076

Client Sample ID: CFS-11 (1.0'-1.5')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	712		249	944.8		mg/Kg		94	90 - 110		

Lab Sample ID: 820-19526-11 MSD
Matrix: Solid
Analysis Batch: 113076

Client Sample ID: CFS-11 (1.0'-1.5')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	712		249	944.3		mg/Kg		93	90 - 110	0	20

Lab Sample ID: MB 880-113003/1-A
Matrix: Solid
Analysis Batch: 113081

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			06/26/25 03:39	1

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCS 880-113003/2-A
Matrix: Solid
Analysis Batch: 113081

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	249.9		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-113003/3-A
Matrix: Solid
Analysis Batch: 113081

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	249.4		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 820-19526-21 MS
Matrix: Solid
Analysis Batch: 113081

Client Sample ID: CWS-7 (0'-1.5')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	3930	F1	1240	5360	F1	mg/Kg		115	90 - 110		

Lab Sample ID: 820-19526-21 MSD
Matrix: Solid
Analysis Batch: 113081

Client Sample ID: CWS-7 (0'-1.5')
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	3930	F1	1240	5368	F1	mg/Kg		116	90 - 110	0	20

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

GC VOA

Analysis Batch: 112842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19526-21	CWS-7 (0'-1.5')	Total/NA	Solid	8021B	112847
820-19526-22	CWS-8 (0'-1.5')	Total/NA	Solid	8021B	112847
MB 880-112847/5-A	Method Blank	Total/NA	Solid	8021B	112847
LCS 880-112847/1-A	Lab Control Sample	Total/NA	Solid	8021B	112847
LCSD 880-112847/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	112847
890-8342-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	112847
890-8342-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	112847

Prep Batch: 112847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19526-21	CWS-7 (0'-1.5')	Total/NA	Solid	5035	
820-19526-22	CWS-8 (0'-1.5')	Total/NA	Solid	5035	
MB 880-112847/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-112847/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-112847/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-8342-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-8342-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 112934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19526-1	CFS-1 (1.0'-1.5')	Total/NA	Solid	5035	
820-19526-2	CFS-2 (1.0'-1.5')	Total/NA	Solid	5035	
820-19526-3	CFS-3 (1.0'-1.5')	Total/NA	Solid	5035	
820-19526-4	CFS-4 (1.0'-1.5')	Total/NA	Solid	5035	
820-19526-5	CFS-5 (1.0'-1.5')	Total/NA	Solid	5035	
820-19526-6	CFS-6 (1.0'-1.5')	Total/NA	Solid	5035	
820-19526-7	CFS-7 (1.0'-1.5')	Total/NA	Solid	5035	
820-19526-8	CFS-8 (1.0'-1.5')	Total/NA	Solid	5035	
820-19526-9	CFS-9 (1.0'-1.5')	Total/NA	Solid	5035	
820-19526-10	CFS-10 (1.0'-1.5')	Total/NA	Solid	5035	
820-19526-11	CFS-11 (1.0'-1.5')	Total/NA	Solid	5035	
820-19526-12	CFS-12 (1.0'-1.5')	Total/NA	Solid	5035	
820-19526-13	CWS-1 (0'-1.5')	Total/NA	Solid	5035	
820-19526-14	CWS-2 (0'-1.5')	Total/NA	Solid	5035	
820-19526-15	CWS-3 (0'-1.5')	Total/NA	Solid	5035	
820-19526-16	CWS-4 (0'-1.5')	Total/NA	Solid	5035	
820-19526-17	CFS-13 (1.0'-1.5')	Total/NA	Solid	5035	
820-19526-18	CFS-14 (1.0'-1.5')	Total/NA	Solid	5035	
820-19526-19	CWS-5 (0'-1.5')	Total/NA	Solid	5035	
820-19526-20	CWS-6 (0'-1.5')	Total/NA	Solid	5035	
MB 880-112934/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-112934/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-112934/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
820-19526-1 MS	CFS-1 (1.0'-1.5')	Total/NA	Solid	5035	
820-19526-1 MSD	CFS-1 (1.0'-1.5')	Total/NA	Solid	5035	

Analysis Batch: 112978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19526-1	CFS-1 (1.0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-2	CFS-2 (1.0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-3	CFS-3 (1.0'-1.5')	Total/NA	Solid	8021B	112934

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

GC VOA (Continued)

Analysis Batch: 112978 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19526-4	CFS-4 (1.0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-5	CFS-5 (1.0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-6	CFS-6 (1.0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-7	CFS-7 (1.0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-8	CFS-8 (1.0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-9	CFS-9 (1.0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-10	CFS-10 (1.0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-11	CFS-11 (1.0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-12	CFS-12 (1.0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-13	CWS-1 (0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-14	CWS-2 (0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-15	CWS-3 (0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-16	CWS-4 (0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-17	CFS-13 (1.0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-18	CFS-14 (1.0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-19	CWS-5 (0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-20	CWS-6 (0'-1.5')	Total/NA	Solid	8021B	112934
MB 880-112934/5-A	Method Blank	Total/NA	Solid	8021B	112934
LCS 880-112934/1-A	Lab Control Sample	Total/NA	Solid	8021B	112934
LCSD 880-112934/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	112934
820-19526-1 MS	CFS-1 (1.0'-1.5')	Total/NA	Solid	8021B	112934
820-19526-1 MSD	CFS-1 (1.0'-1.5')	Total/NA	Solid	8021B	112934

Analysis Batch: 113019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19526-1	CFS-1 (1.0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-2	CFS-2 (1.0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-3	CFS-3 (1.0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-4	CFS-4 (1.0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-5	CFS-5 (1.0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-6	CFS-6 (1.0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-7	CFS-7 (1.0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-8	CFS-8 (1.0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-9	CFS-9 (1.0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-10	CFS-10 (1.0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-11	CFS-11 (1.0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-12	CFS-12 (1.0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-13	CWS-1 (0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-14	CWS-2 (0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-15	CWS-3 (0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-16	CWS-4 (0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-17	CFS-13 (1.0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-18	CFS-14 (1.0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-19	CWS-5 (0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-20	CWS-6 (0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-21	CWS-7 (0'-1.5')	Total/NA	Solid	Total BTEX	
820-19526-22	CWS-8 (0'-1.5')	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

GC Semi VOA

Prep Batch: 112940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19526-1	CFS-1 (1.0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-2	CFS-2 (1.0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-3	CFS-3 (1.0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-4	CFS-4 (1.0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-5	CFS-5 (1.0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-6	CFS-6 (1.0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-7	CFS-7 (1.0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-8	CFS-8 (1.0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-9	CFS-9 (1.0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-10	CFS-10 (1.0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-11	CFS-11 (1.0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-12	CFS-12 (1.0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-13	CWS-1 (0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-14	CWS-2 (0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-15	CWS-3 (0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-16	CWS-4 (0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-17	CFS-13 (1.0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-18	CFS-14 (1.0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-19	CWS-5 (0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-20	CWS-6 (0'-1.5')	Total/NA	Solid	8015NM Prep	
MB 880-112940/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-112940/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-112940/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
820-19526-1 MS	CFS-1 (1.0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-1 MSD	CFS-1 (1.0'-1.5')	Total/NA	Solid	8015NM Prep	

Prep Batch: 112943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19526-21	CWS-7 (0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-22	CWS-8 (0'-1.5')	Total/NA	Solid	8015NM Prep	
MB 880-112943/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-112943/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-112943/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
820-19526-21 MS	CWS-7 (0'-1.5')	Total/NA	Solid	8015NM Prep	
820-19526-21 MSD	CWS-7 (0'-1.5')	Total/NA	Solid	8015NM Prep	

Analysis Batch: 113145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19526-1	CFS-1 (1.0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-2	CFS-2 (1.0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-3	CFS-3 (1.0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-4	CFS-4 (1.0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-5	CFS-5 (1.0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-6	CFS-6 (1.0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-7	CFS-7 (1.0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-8	CFS-8 (1.0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-9	CFS-9 (1.0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-10	CFS-10 (1.0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-11	CFS-11 (1.0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-12	CFS-12 (1.0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-13	CWS-1 (0'-1.5')	Total/NA	Solid	8015B NM	112940

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

GC Semi VOA (Continued)

Analysis Batch: 113145 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19526-14	CWS-2 (0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-15	CWS-3 (0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-16	CWS-4 (0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-17	CFS-13 (1.0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-18	CFS-14 (1.0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-19	CWS-5 (0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-20	CWS-6 (0'-1.5')	Total/NA	Solid	8015B NM	112940
MB 880-112940/1-A	Method Blank	Total/NA	Solid	8015B NM	112940
LCS 880-112940/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	112940
LCSD 880-112940/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	112940
820-19526-1 MS	CFS-1 (1.0'-1.5')	Total/NA	Solid	8015B NM	112940
820-19526-1 MSD	CFS-1 (1.0'-1.5')	Total/NA	Solid	8015B NM	112940

Analysis Batch: 113188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19526-1	CFS-1 (1.0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-2	CFS-2 (1.0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-3	CFS-3 (1.0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-4	CFS-4 (1.0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-5	CFS-5 (1.0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-6	CFS-6 (1.0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-7	CFS-7 (1.0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-8	CFS-8 (1.0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-9	CFS-9 (1.0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-10	CFS-10 (1.0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-11	CFS-11 (1.0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-12	CFS-12 (1.0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-13	CWS-1 (0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-14	CWS-2 (0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-15	CWS-3 (0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-16	CWS-4 (0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-17	CFS-13 (1.0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-18	CFS-14 (1.0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-19	CWS-5 (0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-20	CWS-6 (0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-21	CWS-7 (0'-1.5')	Total/NA	Solid	8015 NM	
820-19526-22	CWS-8 (0'-1.5')	Total/NA	Solid	8015 NM	

Analysis Batch: 113218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19526-21	CWS-7 (0'-1.5')	Total/NA	Solid	8015B NM	112943
820-19526-22	CWS-8 (0'-1.5')	Total/NA	Solid	8015B NM	112943
MB 880-112943/1-A	Method Blank	Total/NA	Solid	8015B NM	112943
LCS 880-112943/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	112943
LCSD 880-112943/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	112943
820-19526-21 MS	CWS-7 (0'-1.5')	Total/NA	Solid	8015B NM	112943
820-19526-21 MSD	CWS-7 (0'-1.5')	Total/NA	Solid	8015B NM	112943

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

HPLC/IC

Leach Batch: 113000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19526-1	CFS-1 (1.0'-1.5')	Soluble	Solid	DI Leach	
820-19526-2	CFS-2 (1.0'-1.5')	Soluble	Solid	DI Leach	
820-19526-3	CFS-3 (1.0'-1.5')	Soluble	Solid	DI Leach	
820-19526-4	CFS-4 (1.0'-1.5')	Soluble	Solid	DI Leach	
820-19526-5	CFS-5 (1.0'-1.5')	Soluble	Solid	DI Leach	
820-19526-6	CFS-6 (1.0'-1.5')	Soluble	Solid	DI Leach	
820-19526-7	CFS-7 (1.0'-1.5')	Soluble	Solid	DI Leach	
820-19526-8	CFS-8 (1.0'-1.5')	Soluble	Solid	DI Leach	
820-19526-9	CFS-9 (1.0'-1.5')	Soluble	Solid	DI Leach	
820-19526-10	CFS-10 (1.0'-1.5')	Soluble	Solid	DI Leach	
820-19526-11	CFS-11 (1.0'-1.5')	Soluble	Solid	DI Leach	
820-19526-12	CFS-12 (1.0'-1.5')	Soluble	Solid	DI Leach	
820-19526-13	CWS-1 (0'-1.5')	Soluble	Solid	DI Leach	
820-19526-14	CWS-2 (0'-1.5')	Soluble	Solid	DI Leach	
820-19526-15	CWS-3 (0'-1.5')	Soluble	Solid	DI Leach	
820-19526-16	CWS-4 (0'-1.5')	Soluble	Solid	DI Leach	
820-19526-17	CFS-13 (1.0'-1.5')	Soluble	Solid	DI Leach	
820-19526-18	CFS-14 (1.0'-1.5')	Soluble	Solid	DI Leach	
820-19526-19	CWS-5 (0'-1.5')	Soluble	Solid	DI Leach	
820-19526-20	CWS-6 (0'-1.5')	Soluble	Solid	DI Leach	
MB 880-113000/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-113000/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-113000/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
820-19526-1 MS	CFS-1 (1.0'-1.5')	Soluble	Solid	DI Leach	
820-19526-1 MSD	CFS-1 (1.0'-1.5')	Soluble	Solid	DI Leach	
820-19526-11 MS	CFS-11 (1.0'-1.5')	Soluble	Solid	DI Leach	
820-19526-11 MSD	CFS-11 (1.0'-1.5')	Soluble	Solid	DI Leach	

Leach Batch: 113003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19526-21	CWS-7 (0'-1.5')	Soluble	Solid	DI Leach	
820-19526-22	CWS-8 (0'-1.5')	Soluble	Solid	DI Leach	
MB 880-113003/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-113003/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-113003/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
820-19526-21 MS	CWS-7 (0'-1.5')	Soluble	Solid	DI Leach	
820-19526-21 MSD	CWS-7 (0'-1.5')	Soluble	Solid	DI Leach	

Analysis Batch: 113076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19526-1	CFS-1 (1.0'-1.5')	Soluble	Solid	300.0	113000
820-19526-2	CFS-2 (1.0'-1.5')	Soluble	Solid	300.0	113000
820-19526-3	CFS-3 (1.0'-1.5')	Soluble	Solid	300.0	113000
820-19526-4	CFS-4 (1.0'-1.5')	Soluble	Solid	300.0	113000
820-19526-5	CFS-5 (1.0'-1.5')	Soluble	Solid	300.0	113000
820-19526-6	CFS-6 (1.0'-1.5')	Soluble	Solid	300.0	113000
820-19526-7	CFS-7 (1.0'-1.5')	Soluble	Solid	300.0	113000
820-19526-8	CFS-8 (1.0'-1.5')	Soluble	Solid	300.0	113000
820-19526-9	CFS-9 (1.0'-1.5')	Soluble	Solid	300.0	113000
820-19526-10	CFS-10 (1.0'-1.5')	Soluble	Solid	300.0	113000
820-19526-11	CFS-11 (1.0'-1.5')	Soluble	Solid	300.0	113000

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

HPLC/IC (Continued)

Analysis Batch: 113076 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19526-12	CFS-12 (1.0'-1.5')	Soluble	Solid	300.0	113000
820-19526-13	CWS-1 (0'-1.5')	Soluble	Solid	300.0	113000
820-19526-14	CWS-2 (0'-1.5')	Soluble	Solid	300.0	113000
820-19526-15	CWS-3 (0'-1.5')	Soluble	Solid	300.0	113000
820-19526-16	CWS-4 (0'-1.5')	Soluble	Solid	300.0	113000
820-19526-17	CFS-13 (1.0'-1.5')	Soluble	Solid	300.0	113000
820-19526-18	CFS-14 (1.0'-1.5')	Soluble	Solid	300.0	113000
820-19526-19	CWS-5 (0'-1.5')	Soluble	Solid	300.0	113000
820-19526-20	CWS-6 (0'-1.5')	Soluble	Solid	300.0	113000
MB 880-113000/1-A	Method Blank	Soluble	Solid	300.0	113000
LCS 880-113000/2-A	Lab Control Sample	Soluble	Solid	300.0	113000
LCSD 880-113000/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	113000
820-19526-1 MS	CFS-1 (1.0'-1.5')	Soluble	Solid	300.0	113000
820-19526-1 MSD	CFS-1 (1.0'-1.5')	Soluble	Solid	300.0	113000
820-19526-11 MS	CFS-11 (1.0'-1.5')	Soluble	Solid	300.0	113000
820-19526-11 MSD	CFS-11 (1.0'-1.5')	Soluble	Solid	300.0	113000

Analysis Batch: 113081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19526-21	CWS-7 (0'-1.5')	Soluble	Solid	300.0	113003
820-19526-22	CWS-8 (0'-1.5')	Soluble	Solid	300.0	113003
MB 880-113003/1-A	Method Blank	Soluble	Solid	300.0	113003
LCS 880-113003/2-A	Lab Control Sample	Soluble	Solid	300.0	113003
LCSD 880-113003/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	113003
820-19526-21 MS	CWS-7 (0'-1.5')	Soluble	Solid	300.0	113003
820-19526-21 MSD	CWS-7 (0'-1.5')	Soluble	Solid	300.0	113003

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CFS-1 (1.0'-1.5')
Date Collected: 06/20/25 10:36
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 16:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 16:29	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 12:27	SA	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 12:27	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		1			113076	06/26/25 00:38	CS	EET MID

Client Sample ID: CFS-2 (1.0'-1.5')
Date Collected: 06/20/25 10:40
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 16:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 16:50	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 13:12	SA	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 13:12	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		1			113076	06/26/25 00:55	CS	EET MID

Client Sample ID: CFS-3 (1.0'-1.5')
Date Collected: 06/20/25 10:45
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 17:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 17:10	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 13:27	SA	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 13:27	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		1			113076	06/26/25 01:01	CS	EET MID

Client Sample ID: CFS-4 (1.0'-1.5')
Date Collected: 06/20/25 10:50
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 17:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 17:30	SA	EET MID

Eurofins Lubbock

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CFS-4 (1.0'-1.5')
Date Collected: 06/20/25 10:50
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			113188	06/26/25 13:42	SA	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 13:42	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		1			113076	06/26/25 01:06	CS	EET MID

Client Sample ID: CFS-5 (1.0'-1.5')
Date Collected: 06/20/25 10:55
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 17:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 17:51	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 13:58	SA	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 13:58	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		1			113076	06/26/25 01:12	CS	EET MID

Client Sample ID: CFS-6 (1.0'-1.5')
Date Collected: 06/20/25 11:00
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 18:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 18:11	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 14:13	SA	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 14:13	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		1			113076	06/26/25 01:29	CS	EET MID

Client Sample ID: CFS-7 (1.0'-1.5')
Date Collected: 06/20/25 11:05
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 18:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 18:32	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 14:28	SA	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 14:28	TKC	EET MID

Eurofins Lubbock

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CFS-7 (1.0'-1.5')
Date Collected: 06/20/25 11:05
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		1			113076	06/26/25 01:35	CS	EET MID

Client Sample ID: CFS-8 (1.0'-1.5')
Date Collected: 06/20/25 11:10
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 18:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 18:52	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 14:43	SA	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 14:43	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		1			113076	06/26/25 01:40	CS	EET MID

Client Sample ID: CFS-9 (1.0'-1.5')
Date Collected: 06/20/25 11:15
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 19:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 19:13	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 14:58	SA	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 14:58	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		1			113076	06/26/25 01:46	CS	EET MID

Client Sample ID: CFS-10 (1.0'-1.5')
Date Collected: 06/20/25 11:20
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 19:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 19:33	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 15:13	SA	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 15:13	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		1			113076	06/26/25 01:52	CS	EET MID

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CFS-11 (1.0'-1.5')
Date Collected: 06/20/25 11:25
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 21:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 21:23	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 15:44	SA	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 15:44	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		1			113076	06/26/25 01:57	CS	EET MID

Client Sample ID: CFS-12 (1.0'-1.5')
Date Collected: 06/20/25 11:30
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 21:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 21:44	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 15:59	SA	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 15:59	TKC	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		1			113076	06/26/25 02:14	CS	EET MID

Client Sample ID: CWS-1 (0'-1.5')
Date Collected: 06/20/25 11:35
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 22:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 22:04	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 16:14	SA	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 16:14	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		1			113076	06/26/25 02:20	CS	EET MID

Client Sample ID: CWS-2 (0'-1.5')
Date Collected: 06/20/25 11:40
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 22:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 22:25	SA	EET MID

Eurofins Lubbock

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CWS-2 (0'-1.5')
Date Collected: 06/20/25 11:40
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			113188	06/26/25 16:30	SA	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 16:30	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		1			113076	06/26/25 02:37	CS	EET MID

Client Sample ID: CWS-3 (0'-1.5')
Date Collected: 06/20/25 11:45
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 22:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 22:45	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 16:45	SA	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 16:45	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		1			113076	06/26/25 02:43	CS	EET MID

Client Sample ID: CWS-4 (0'-1.5')
Date Collected: 06/20/25 11:50
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 23:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 23:05	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 17:00	SA	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 17:00	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		10			113076	06/26/25 02:48	CS	EET MID

Client Sample ID: CFS-13 (1.0'-1.5')
Date Collected: 06/20/25 11:55
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 23:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 23:26	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 17:15	SA	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 17:15	TKC	EET MID

Eurofins Lubbock

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CFS-13 (1.0'-1.5')
Date Collected: 06/20/25 11:55
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		1			113076	06/26/25 02:54	CS	EET MID

Client Sample ID: CFS-14 (1.0'-1.5')
Date Collected: 06/20/25 12:00
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-18
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/25/25 23:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/25/25 23:46	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 17:30	SA	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 17:30	TKC	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		10			113076	06/26/25 03:00	CS	EET MID

Client Sample ID: CWS-5 (0'-1.5')
Date Collected: 06/20/25 12:05
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-19
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/26/25 00:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/26/25 00:07	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 17:45	SA	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 17:45	TKC	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		5			113076	06/26/25 03:05	CS	EET MID

Client Sample ID: CWS-6 (0'-1.5')
Date Collected: 06/20/25 12:10
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-20
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	112934	06/24/25 15:02	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112978	06/26/25 00:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/26/25 00:27	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/26/25 18:00	SA	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	112940	06/24/25 15:31	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113145	06/26/25 18:00	TKC	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	113000	06/25/25 11:01	SA	EET MID
Soluble	Analysis	300.0		1			113076	06/26/25 03:11	CS	EET MID

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Client Sample ID: CWS-7 (0'-1.5')
Date Collected: 06/20/25 12:15
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-21
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	112847	06/24/25 15:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112842	06/24/25 23:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/24/25 23:16	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/27/25 08:58	SA	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	112943	06/24/25 15:33	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113218	06/27/25 08:58	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	113003	06/25/25 11:02	SA	EET MID
Soluble	Analysis	300.0		5			113081	06/26/25 03:56	CS	EET MID

Client Sample ID: CWS-8 (0'-1.5')
Date Collected: 06/20/25 12:20
Date Received: 06/23/25 12:07

Lab Sample ID: 820-19526-22
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	112847	06/24/25 15:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	112842	06/24/25 23:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113019	06/24/25 23:36	SA	EET MID
Total/NA	Analysis	8015 NM		1			113188	06/27/25 09:47	SA	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	112943	06/24/25 15:33	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113218	06/27/25 09:47	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	113003	06/25/25 11:02	SA	EET MID
Soluble	Analysis	300.0		20			113081	06/26/25 04:13	CS	EET MID

Laboratory References:
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-25

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International
EPA = US Environmental Protection Agency
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19526-1
SDG: KH247059

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
820-19526-1	CFS-1 (1.0'-1.5')	Solid	06/20/25 10:36	06/23/25 12:07
820-19526-2	CFS-2 (1.0'-1.5')	Solid	06/20/25 10:40	06/23/25 12:07
820-19526-3	CFS-3 (1.0'-1.5')	Solid	06/20/25 10:45	06/23/25 12:07
820-19526-4	CFS-4 (1.0'-1.5')	Solid	06/20/25 10:50	06/23/25 12:07
820-19526-5	CFS-5 (1.0'-1.5')	Solid	06/20/25 10:55	06/23/25 12:07
820-19526-6	CFS-6 (1.0'-1.5')	Solid	06/20/25 11:00	06/23/25 12:07
820-19526-7	CFS-7 (1.0'-1.5')	Solid	06/20/25 11:05	06/23/25 12:07
820-19526-8	CFS-8 (1.0'-1.5')	Solid	06/20/25 11:10	06/23/25 12:07
820-19526-9	CFS-9 (1.0'-1.5')	Solid	06/20/25 11:15	06/23/25 12:07
820-19526-10	CFS-10 (1.0'-1.5')	Solid	06/20/25 11:20	06/23/25 12:07
820-19526-11	CFS-11 (1.0'-1.5')	Solid	06/20/25 11:25	06/23/25 12:07
820-19526-12	CFS-12 (1.0'-1.5')	Solid	06/20/25 11:30	06/23/25 12:07
820-19526-13	CWS-1 (0'-1.5')	Solid	06/20/25 11:35	06/23/25 12:07
820-19526-14	CWS-2 (0'-1.5')	Solid	06/20/25 11:40	06/23/25 12:07
820-19526-15	CWS-3 (0'-1.5')	Solid	06/20/25 11:45	06/23/25 12:07
820-19526-16	CWS-4 (0'-1.5')	Solid	06/20/25 11:50	06/23/25 12:07
820-19526-17	CFS-13 (1.0'-1.5')	Solid	06/20/25 11:55	06/23/25 12:07
820-19526-18	CFS-14 (1.0'-1.5')	Solid	06/20/25 12:00	06/23/25 12:07
820-19526-19	CWS-5 (0'-1.5')	Solid	06/20/25 12:05	06/23/25 12:07
820-19526-20	CWS-6 (0'-1.5')	Solid	06/20/25 12:10	06/23/25 12:07
820-19526-21	CWS-7 (0'-1.5')	Solid	06/20/25 12:15	06/23/25 12:07
820-19526-22	CWS-8 (0'-1.5')	Solid	06/20/25 12:20	06/23/25 12:07

Loc: 820
19526

CHAIN OF CU

Terracon

Office Location	Lubbock, Texas
Project Manager	Chuck Smith
Sampler's Name	Daniel Pavelka
Sampler's Signature	

Laboratory: Eurofins
Address: 6701 Aberdeen
Lubbock, Texas 79424
Phone: (806) 794-1296
Contact: Holly Taylor

ANALYSIS REQUESTED

TEMP OF COOLER WHEN RECEIVED (°C): 5.3/5.6 1.1/0.3

Project Number: KH247059
Project Name: Hognose Viper 23 Fed 1H

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth (FT)	End Depth (FT)	No. Type of Containers: 4 oz Glass				Chloride (EPA Method 300)	BTEX (EPA Method 8021B)	TPH 8015 extended					Lab Sample ID
	6/20/2025	10:36	X		CFS-1 (1.0'-1.5')	1.0	1.5	1				X	X	X					
	6/20/2025	10:40	X		CFS-2 (1.0'-1.5')	1.0	1.5	1				X	X	X					
	6/20/2025	10:45	X		CFS-3 (1.0'-1.5')	1.0	1.5	1				X	X	X					
	6/20/2025	10:50	X		CFS-4 (1.0'-1.5')	1.0	1.5	1				X	X	X					
	6/20/2025	10:55	X		CFS-5 (1.0'-1.5')	1.0	1.5	1				X	X	X					
	6/20/2025	11:00	X		CFS-6 (1.0'-1.5')	1.0	1.5	1				X	X	X					
	6/20/2025	11:05	X		CFS-7 (1.0'-1.5')	1.0	1.5	1				X	X	X					
	6/20/2025	11:10	X		CFS-8 (1.0'-1.5')	1.0	1.5	1				X	X	X					
	6/20/2025	11:15	X		CFS-9 (1.0'-1.5')	1.0	1.5	1				X	X	X					
	6/20/2025	11:20	X		CFS-10 (1.0'-1.5')	1.0	1.5	1				X	X	X					
	6/20/2025	11:25	X		CFS-11 (1.0'-1.5')	1.0	1.5	1				X	X	X					

TURNAROUND TIME: [X] Normal [ ] 48-Hour Rush [ ] 24-Hour Rush
TRRP Laboratory Review Checklist [ ] Yes [ ] No

Relinquished by (Signature)	Date	Time	Received by (Signature)	Date	Time
	6-20-25	1658		6-20-25	1658
	6-23-25	1207		6/23/25	12:07

Bill To: Devon Energy Attn: Jim Raley Address: 205 E. Bender Rd, Carlsbad, NM. On Invoice Reference WO No: 21453154

e-mail results to:
chuck.smith@terracon.com
joseph.guesnier@terracon.com

Matrix: WW-Wastewater W - Water S - Soil L - Liquid A - Air Bag C - Charcoal tube SL - Sludge
Container: VOA - 40 ml vial A/G - Amber Glass 1L 250 ml = Glass wide mouth P/O - Plastic or other Wipe

CHAIN OF CUSTODY RECORD

Terracon

Office Location	Lubbock, Texas
Project Manager	Chuck Smith
Sampler's Name	Daniel Pavelka
Sampler's Signature	

Laboratory: Eurofins
Address: 6701 Aberdeen, Lubbock, Texas 79424
Phone: (806) 794-1296
Contact: Holly Taylor

ANALYSIS REQUESTED

LAB USE ONLY
DUE DATE:
TEMP OF COOLER WHEN RECEIVED (°C): 5.3/5.6, 12-1/0.3

Project Number: KH247059
Project Name: Hognose Viper 23 Fed 1H

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth (FT)	End Depth (FT)	No. Type of Containers: 4 oz Glass				Chloride (EPA Method 300)	BTEX (EPA Method 8021B)	TPH 8015 extended					Lab Sample ID
	6/20/2025	11:30	X		CFS-12 (1.0'-1.5')	1.0	1.5	1				X	X	X					
	6/20/2025	11:35	X		CWS-1 (0'-1.5')	0.0	1.5	1				X	X	X					
	6/20/2025	11:40	X		CWS-2 (0'-1.5')	0.0	1.5	1				X	X	X					
	6/20/2025	11:45	X		CWS-3 (0'-1.5')	0.0	1.5	1				X	X	X					
	6/20/2025	11:50	X		CWS-4 (0'-1.5')	0.0	1.5	1				X	X	X					
	6/20/2025	11:55	X		CFS-13 (1.0'-1.5')	1.0	1.5	1				X	X	X					
	6/20/2025	12:00	X		CFS-14 (1.0'-1.5')	1.0	1.5	1				X	X	X					
	6/20/2025	12:05	X		CWS-5 (0'-1.5')	0.0	1.5	1				X	X	X					
	6/20/2025	12:10	X		CWS-6 (0'-1.5')	0.0	1.5	1				X	X	X					
	6/20/2025	12:15	X		CWS-7 (0'-1.5')	0.0	1.5	1				X	X	X					
	6/20/2025	12:30	X		CWS-8 (0'-1.5')	0.0	1.5	1				X	X	X					

TURNAROUND TIME: [X] Normal [ ] 48-Hour Rush [ ] 24-Hour Rush
TRRP Laboratory Review Checklist: [ ] Yes [ ] No

Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Date:	Time:
	6-20-25	1658		6-20-25	1658
	6-23-25	1207		6/23/25	12:07

Bill To: Devon Energy Attn: Jim Raley Address: 205 E. Bender Rd, Carlsbad, NM. On Invoice Reference WO No: 21453154

e-mail results to:
chuck.smith@terracon.com
joseph.guesnier@terracon.com

Matrix: WW-Wastewater; W - Water; S - Soil; L - Liquid; A - Air Bag; C - Charcoal tube; SL - Sludge
Container: VOA - 40 ml vial; A/G - Amber Glass 1L; 250 ml = Glass wide mouth; P/O - Plastic or other Wipe

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-19526-1
SDG Number: KH247059

Login Number: 19526
List Number: 1
Creator: Guillen, Kyrstin

List Source: Eurofins Lubbock

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

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-19526-1
SDG Number: KH247059

Login Number: 19526
List Number: 2
Creator: Rios, Minerva

List Source: Eurofins Midland
List Creation: 06/24/25 02:59 PM

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Chuck Smith
Terracon Consulting Eng & Scientists
5847 50th St
Lubbock, Texas 79424
Generated 7/10/2025 12:44:25 PM

JOB DESCRIPTION

Hognose Viper 23 Fed 1H
KH247059

JOB NUMBER

820-19722-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.

my EOL

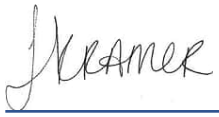
Eurofins Lubbock

Job Notes

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

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

Authorization



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

Eurofins Lubbock

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD,and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Coliform MCLs
· Based on the EPA primary drinking water standard MCL for total coliforms, a water supply is considered bacteriologically "SAFE" if no coliform bacteria are detected. To be considered "SAFE" your report should indicate "<1 cfu/100mL" or "NEG" for the coliform test. If you report indicates a positive result "POS" or a value greater than or equal to one, then your supply is "UNSAFE FOR DRINKING" contact your local health department.

Warranties, Terms, and Conditions
· Analyses for Field Parameters are performed by Eurofins Philadelphia field staff. Locations and certifications are identified on the Chain of Custody as follows:

ERF = field staff performs tests under NJ State certification # 02015.
VL = field staff performs tests under NJ State certification # 06005.
WG = field staff performs tests under NJ State certification # PA001, PA State certification # 48-01334.
H = field staff performs tests under NJ NELAP certification # PA093, PA NELAP certification # 46-05499.

· Test results meet all TNI or other applicable regulatory agency requirements, including holding times and preservation, unless otherwise indicated.

· The report shall not be reproduced, except in full, without the written consent of the laboratory

· All samples are collected as "grab" samples unless otherwise identified.

· Reported results related only to the samples as tested. Eurofins Philadelphia is not responsible for sample integrity unless sampling has been performed by a member of our staff.

· Eurofins Philadelphia is not responsible for sampling and/or testing omissions. Note that regulatory authorities may assess substantial fines for testing omissions. Please track your sample collection schedules and results on a regular basis (e.g. weekly, monthly, or quarterly) to ensure compliance.

· Eurofins' online data portal "TotalAccess" will provide you with real-time access to collection dates and testing results. Please contact Client Services for further information.

· The following personnel or their deputies have approved the results of the tests performed by Eurofins Philadelphia : Nicki Smith (Environmental Chemistry) and Jacqueline Gartner (Water Microbiology).

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Laboratory Job ID: 820-19722-1
SDG: KH247059

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Definitions/Glossary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19722-1
SDG: KH247059

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	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: Terracon Consulting Eng & Scientists
Project: Hognose Viper 23 Fed 1H

Job ID: 820-19722-1

Job ID: 820-19722-1 Eurofins Lubbock

Job Narrative
820-19722-1

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 7/7/2025 12:18 PM. 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 4.5°C.

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
Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-113798 and analytical batch 880-113809 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.

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19722-1
SDG: KH247059

Client Sample ID: CWS-8.1 (0-1.5)

Lab Sample ID: 820-19722-1
Matrix: Solid
Date Collected: 07/03/25 11:40
Date Received: 07/07/25 12:18
Sample Depth: 0 - 1.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/08/25 10:21	07/08/25 13:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/08/25 10:21	07/08/25 13:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/08/25 10:21	07/08/25 13:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/08/25 10:21	07/08/25 13:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/08/25 10:21	07/08/25 13:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/08/25 10:21	07/08/25 13:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*07/08/25 10:21*	*07/08/25 13:46*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*07/08/25 10:21*	*07/08/25 13:46*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			07/08/25 13:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			07/10/25 02:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/08/25 08:08	07/10/25 02:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/08/25 08:08	07/10/25 02:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/08/25 08:08	07/10/25 02:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*07/08/25 08:08*	*07/10/25 02:43*	*1*
o-Terphenyl	*111*		*70 - 130*	*07/08/25 08:08*	*07/10/25 02:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**824**		10.1		mg/Kg			07/09/25 11:52	1

Client Sample ID: CFS-15 (0-1.5)

Lab Sample ID: 820-19722-2
Matrix: Solid
Date Collected: 07/03/25 11:45
Date Received: 07/07/25 12:18
Sample Depth: 0 - 1.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/08/25 10:21	07/08/25 14:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/08/25 10:21	07/08/25 14:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/08/25 10:21	07/08/25 14:06	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/08/25 10:21	07/08/25 14:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/08/25 10:21	07/08/25 14:06	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/08/25 10:21	07/08/25 14:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*07/08/25 10:21*	*07/08/25 14:06*	*1*

Client Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19722-1
SDG: KH247059

Client Sample ID: CFS-15 (0-1.5)
Date Collected: 07/03/25 11:45
Date Received: 07/07/25 12:18
Sample Depth: 0 - 1.5

Lab Sample ID: 820-19722-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*07/08/25 10:21*	*07/08/25 14:06*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			07/08/25 14:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			07/10/25 02:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/08/25 08:08	07/10/25 02:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/08/25 08:08	07/10/25 02:58	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/08/25 08:08	07/10/25 02:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*07/08/25 08:08*	*07/10/25 02:58*	*1*
o-Terphenyl	*109*		*70 - 130*	*07/08/25 08:08*	*07/10/25 02:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2980**		49.6		mg/Kg			07/09/25 11:58	5

Surrogate Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19722-1
SDG: KH247059

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
820-19722-1	CWS-8.1 (0-1.5)	81	99
820-19722-2	CFS-15 (0-1.5)	89	98
890-8386-A-1-E MS	Matrix Spike	105	94
890-8386-A-1-F MSD	Matrix Spike Duplicate	114	100
LCS 880-113754/1-A	Lab Control Sample	91	106
LCSD 880-113754/2-A	Lab Control Sample Dup	111	95
MB 880-113754/5-A	Method Blank	83	95

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
820-19722-1	CWS-8.1 (0-1.5)	106	111
820-19722-2	CFS-15 (0-1.5)	104	109
890-8390-A-2-E MS	Matrix Spike	96	108
890-8390-A-2-F MSD	Matrix Spike Duplicate	95	108
LCS 880-113734/2-A	Lab Control Sample	92	106
LCSD 880-113734/3-A	Lab Control Sample Dup	93	107
MB 880-113734/1-A	Method Blank	96	99

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19722-1
SDG: KH247059

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-113754/5-A
Matrix: Solid
Analysis Batch: 113739

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113754

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/08/25 10:21	07/08/25 11:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/08/25 10:21	07/08/25 11:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/08/25 10:21	07/08/25 11:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/08/25 10:21	07/08/25 11:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/08/25 10:21	07/08/25 11:40	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/08/25 10:21	07/08/25 11:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*07/08/25 10:21*	*07/08/25 11:40*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*07/08/25 10:21*	*07/08/25 11:40*	*1*

Lab Sample ID: LCS 880-113754/1-A
Matrix: Solid
Analysis Batch: 113739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113754

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09969		mg/Kg		100	70 - 130		
Toluene			0.100	0.1018		mg/Kg		102	70 - 130		
Ethylbenzene			0.100	0.1037		mg/Kg		104	70 - 130		
m-Xylene & p-Xylene			0.200	0.1969		mg/Kg		98	70 - 130		
o-Xylene			0.100	0.09914		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-113754/2-A
Matrix: Solid
Analysis Batch: 113739

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 113754

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09035		mg/Kg		90	70 - 130	10	35
Toluene			0.100	0.09556		mg/Kg		96	70 - 130	6	35
Ethylbenzene			0.100	0.1059		mg/Kg		106	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.2358		mg/Kg		118	70 - 130	18	35
o-Xylene			0.100	0.1184		mg/Kg		118	70 - 130	18	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 890-8386-A-1-E MS
Matrix: Solid
Analysis Batch: 113739

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 113754

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.100	0.08554		mg/Kg		86	70 - 130		
Toluene	<0.00200	U	0.100	0.09042		mg/Kg		90	70 - 130		

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19722-1
SDG: KH247059

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

Lab Sample ID: 890-8386-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 113739 — **Prep Batch: 113754**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.100	0.1073		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1961		mg/Kg		98	70 - 130
o-Xylene	<0.00200	U	0.100	0.09879		mg/Kg		99	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 890-8386-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 113739 — **Prep Batch: 113754**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.08715		mg/Kg		87	70 - 130	2	35
Toluene	<0.00200	U	0.100	0.08625		mg/Kg		86	70 - 130	5	35
Ethylbenzene	<0.00200	U	0.100	0.09224		mg/Kg		92	70 - 130	15	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1698		mg/Kg		85	70 - 130	14	35
o-Xylene	<0.00200	U	0.100	0.08825		mg/Kg		88	70 - 130	11	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

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

Lab Sample ID: MB 880-113734/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 113843 — **Prep Batch: 113734**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/08/25 07:59	07/09/25 23:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/08/25 07:59	07/09/25 23:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/08/25 07:59	07/09/25 23:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*07/08/25 07:59*	*07/09/25 23:47*	*1*
o-Terphenyl	*99*		*70 - 130*	*07/08/25 07:59*	*07/09/25 23:47*	*1*

Lab Sample ID: LCS 880-113734/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 113843 — **Prep Batch: 113734**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	992.4		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1069		mg/Kg		107	70 - 130

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19722-1
SDG: KH247059

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

Lab Sample ID: LCS 880-113734/2-A
Matrix: Solid
Analysis Batch: 113843

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113734

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: LCSD 880-113734/3-A
Matrix: Solid
Analysis Batch: 113843

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 113734

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1004		mg/Kg		100	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	1069		mg/Kg		107	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	107		70 - 130

Lab Sample ID: 890-8390-A-2-E MS
Matrix: Solid
Analysis Batch: 113843

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 113734

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	912.4		mg/Kg		91	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1031		mg/Kg		103	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: 890-8390-A-2-F MSD
Matrix: Solid
Analysis Batch: 113843

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 113734

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	905.1		mg/Kg		91	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1032		mg/Kg		103	70 - 130	0	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	108		70 - 130

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19722-1
SDG: KH247059

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-113798/1-A
Matrix: Solid
Analysis Batch: 113809

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			07/09/25 09:42	1

Lab Sample ID: LCS 880-113798/2-A
Matrix: Solid
Analysis Batch: 113809

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	250.9		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-113798/3-A
Matrix: Solid
Analysis Batch: 113809

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	245.8		mg/Kg		98	90 - 110	2	20

Lab Sample ID: 880-60124-A-4-B MS
Matrix: Solid
Analysis Batch: 113809

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1760	F1	1260	3298	F1	mg/Kg		122	90 - 110		

Lab Sample ID: 880-60124-A-4-C MSD
Matrix: Solid
Analysis Batch: 113809

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1760	F1	1260	3267	F1	mg/Kg		119	90 - 110	1	20

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19722-1
SDG: KH247059

GC VOA

Analysis Batch: 113739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19722-1	CWS-8.1 (0-1.5)	Total/NA	Solid	8021B	113754
820-19722-2	CFS-15 (0-1.5)	Total/NA	Solid	8021B	113754
MB 880-113754/5-A	Method Blank	Total/NA	Solid	8021B	113754
LCS 880-113754/1-A	Lab Control Sample	Total/NA	Solid	8021B	113754
LCSD 880-113754/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	113754
890-8386-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	113754
890-8386-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	113754

Prep Batch: 113754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19722-1	CWS-8.1 (0-1.5)	Total/NA	Solid	5035	
820-19722-2	CFS-15 (0-1.5)	Total/NA	Solid	5035	
MB 880-113754/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-113754/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-113754/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-8386-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-8386-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 113780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19722-1	CWS-8.1 (0-1.5)	Total/NA	Solid	Total BTEX	
820-19722-2	CFS-15 (0-1.5)	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 113734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19722-1	CWS-8.1 (0-1.5)	Total/NA	Solid	8015NM Prep	
820-19722-2	CFS-15 (0-1.5)	Total/NA	Solid	8015NM Prep	
MB 880-113734/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-113734/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-113734/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-8390-A-2-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-8390-A-2-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 113843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19722-1	CWS-8.1 (0-1.5)	Total/NA	Solid	8015B NM	113734
820-19722-2	CFS-15 (0-1.5)	Total/NA	Solid	8015B NM	113734
MB 880-113734/1-A	Method Blank	Total/NA	Solid	8015B NM	113734
LCS 880-113734/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	113734
LCSD 880-113734/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	113734
890-8390-A-2-E MS	Matrix Spike	Total/NA	Solid	8015B NM	113734
890-8390-A-2-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	113734

Analysis Batch: 113888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19722-1	CWS-8.1 (0-1.5)	Total/NA	Solid	8015 NM	
820-19722-2	CFS-15 (0-1.5)	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19722-1
SDG: KH247059

HPLC/IC

Leach Batch: 113798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19722-1	CWS-8.1 (0-1.5)	Soluble	Solid	DI Leach	
820-19722-2	CFS-15 (0-1.5)	Soluble	Solid	DI Leach	
MB 880-113798/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-113798/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-113798/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-60124-A-4-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-60124-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 113809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19722-1	CWS-8.1 (0-1.5)	Soluble	Solid	300.0	113798
820-19722-2	CFS-15 (0-1.5)	Soluble	Solid	300.0	113798
MB 880-113798/1-A	Method Blank	Soluble	Solid	300.0	113798
LCS 880-113798/2-A	Lab Control Sample	Soluble	Solid	300.0	113798
LCSD 880-113798/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	113798
880-60124-A-4-B MS	Matrix Spike	Soluble	Solid	300.0	113798
880-60124-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	113798

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19722-1
SDG: KH247059

Client Sample ID: CWS-8.1 (0-1.5)

Lab Sample ID: 820-19722-1

Date Collected: 07/03/25 11:40
Matrix: Solid
Date Received: 07/07/25 12:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	113754	07/08/25 10:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	113739	07/08/25 13:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113780	07/08/25 13:46	SA	EET MID
Total/NA	Analysis	8015 NM		1			113888	07/10/25 02:43	SA	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	113734	07/08/25 08:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113843	07/10/25 02:43	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	113798	07/09/25 08:41	SA	EET MID
Soluble	Analysis	300.0		1			113809	07/09/25 11:52	CS	EET MID

Client Sample ID: CFS-15 (0-1.5)

Lab Sample ID: 820-19722-2

Date Collected: 07/03/25 11:45
Matrix: Solid
Date Received: 07/07/25 12:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	113754	07/08/25 10:21	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	113739	07/08/25 14:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			113780	07/08/25 14:06	SA	EET MID
Total/NA	Analysis	8015 NM		1			113888	07/10/25 02:58	SA	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	113734	07/08/25 08:08	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	113843	07/10/25 02:58	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	113798	07/09/25 08:41	SA	EET MID
Soluble	Analysis	300.0		5			113809	07/09/25 11:58	CS	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19722-1
SDG: KH247059

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-26

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19722-1
SDG: KH247059

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19722-1
SDG: KH247059

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
820-19722-1	CWS-8.1 (0-1.5)	Solid	07/03/25 11:40	07/07/25 12:18	0 - 1.5
820-19722-2	CFS-15 (0-1.5)	Solid	07/03/25 11:45	07/07/25 12:18	0 - 1.5

Loc: 820
19722

820-19722 Chain of Custody

CHAIN

Terracon

Laboratory:	Eurofins
Address:	6701 Aberdeen Lubbock, Texas 79424
Phone:	(806) 794-1296
Contact:	Holly Taylor

ANALYSIS REQUESTED

TEMP OF COOLER WHEN RECEIVED (°C): 4.2/4.5 IR-1/0.3

Page 1 of 1

Office Location	Lubbock, Texas
Project Manager	Chuck Smith
Sampler's Name	Daniel Pavelka
Sampler's Signature	
Project Number	KH247059
Project Name	Hognose Viper 23 Fed 1H

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth (FT)	End Depth (FT)	No. Type of Containers: 4 oz Glass	Chloride (EPA Method 300)	BTEX (EPA Method 8260B)	TPH 8015 extended	Lab Sample ID
S	7/3/2025	1140	X		CWS-8.1 (0-1.5)	0.0	1.5	1	X	X	X	
S	7/3/2025	1145	X		CFS-15 (1.0-1.5)	1.0	1.5	1	X	X	X	

NFE

TURNAROUND TIME: [X] Normal [ ] 48-Hour Rush [ ] 24-Hour Rush

TRRP Laboratory Review Checklist: [ ] Yes [ ] No

Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Date:	Time:
	7/3/25	12:00		7-3-25	12:01
	7-3-25	12:18		7/3/25	12:18

Bill To: Terracon

e-mail results to:
chuck.smith@terracon.com
joseph.guesnier@terracon.com
daniel.pavelka@terracon.com

Matrix: WW-Wastewater W - Water S - Soil L - Liquid A - Air Bag C - Charcoal tube SL - Sludge
Container: VOA - 40 ml vial A/G - Amber Glass 1L 250 ml = Glass wide mouth P/O - Plastic or other Wipe

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-19722-1
SDG Number: KH247059

Login Number: 19722
List Number: 1
Creator: Guillen, Kyrstin

List Source: Eurofins Lubbock

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

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-19722-1
SDG Number: KH247059

Login Number: 19722
List Number: 2
Creator: Vasquez, Julisa

List Source: Eurofins Midland
List Creation: 07/08/25 10:58 AM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Joseph Guesnier
Terracon Consulting Eng & Scientists
5847 50th St
Lubbock, Texas 79424
Generated 7/17/2025 12:39:16 PM

JOB DESCRIPTION

Hognose Viper 23 Fed 1H
KH247059

JOB NUMBER

820-19879-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.

Eurofins Lubbock

Job Notes

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

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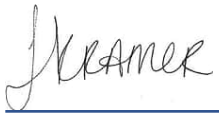
Authorization



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

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Laboratory Job ID: 820-19879-1
SDG: KH247059

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Definitions/Glossary

Client: Terracon Consulting Eng & Scientists Job ID: 820-19879-1
Project/Site: Hognose Viper 23 Fed 1H SDG: KH247059

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	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: Terracon Consulting Eng & Scientists
Project: Hognose Viper 23 Fed 1H

Job ID: 820-19879-1

Job ID: 820-19879-1 Eurofins Lubbock

Job Narrative
820-19879-1

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 7/15/2025 9:23 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 -4.1°C.

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: BFS-1 (820-19879-1)

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: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19879-1
SDG: KH247059

Client Sample ID: BFS-1

Date Collected: 07/14/25 15:20
Date Received: 07/15/25 09:23

Lab Sample ID: 820-19879-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/16/25 20:24	07/16/25 23:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/16/25 20:24	07/16/25 23:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/16/25 20:24	07/16/25 23:48	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		07/16/25 20:24	07/16/25 23:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/16/25 20:24	07/16/25 23:48	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/16/25 20:24	07/16/25 23:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*07/16/25 20:24*	*07/16/25 23:48*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*07/16/25 20:24*	*07/16/25 23:48*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			07/16/25 23:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			07/17/25 04:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/16/25 08:25	07/17/25 04:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/16/25 08:25	07/17/25 04:00	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/16/25 08:25	07/17/25 04:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*111*		*70 - 130*	*07/16/25 08:25*	*07/17/25 04:00*	*1*
o-Terphenyl (Surr)	*100*		*70 - 130*	*07/16/25 08:25*	*07/17/25 04:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**364**		9.96		mg/Kg			07/16/25 17:37	1

Surrogate Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19879-1
SDG: KH247059

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
820-19879-1	BFS-1	112	94
820-19879-1 MS	BFS-1	96	101
820-19879-1 MSD	BFS-1	99	106
LCS 880-114301/1-A	Lab Control Sample	98	109
LCSD 880-114301/2-A	Lab Control Sample Dup	98	102
MB 880-114291/8	Method Blank	102	93
MB 880-114301/5-A	Method Blank	99	91

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
820-19879-1	BFS-1	111	100
890-8450-A-1-L MS	Matrix Spike	103	100
890-8450-A-1-M MSD	Matrix Spike Duplicate	104	101
LCS 880-114246/2-A	Lab Control Sample	107	107
LCSD 880-114246/3-A	Lab Control Sample Dup	108	107
MB 880-114246/1-A	Method Blank	103	94

Surrogate Legend

1CO = 1-Chlorooctane (Surr)
OTPH = o-Terphenyl (Surr)

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19879-1
SDG: KH247059

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-114291/8
Matrix: Solid
Analysis Batch: 114291

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			07/16/25 16:28	1
Toluene	<0.00200	U	0.00200		mg/Kg			07/16/25 16:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			07/16/25 16:28	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg			07/16/25 16:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			07/16/25 16:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			07/16/25 16:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*		*07/16/25 16:28*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*		*07/16/25 16:28*	*1*

Lab Sample ID: MB 880-114301/5-A
Matrix: Solid
Analysis Batch: 114291

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114301

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/16/25 20:24	07/16/25 23:27	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/16/25 20:24	07/16/25 23:27	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/16/25 20:24	07/16/25 23:27	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		07/16/25 20:24	07/16/25 23:27	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/16/25 20:24	07/16/25 23:27	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/16/25 20:24	07/16/25 23:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*07/16/25 20:24*	*07/16/25 23:27*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*07/16/25 20:24*	*07/16/25 23:27*	*1*

Lab Sample ID: LCS 880-114301/1-A
Matrix: Solid
Analysis Batch: 114291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114301

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1056		mg/Kg		106	70 - 130		
Toluene			0.100	0.09573		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.1081		mg/Kg		108	70 - 130		
m,p-Xylenes			0.200	0.2152		mg/Kg		108	70 - 130		
o-Xylene			0.100	0.1059		mg/Kg		106	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: LCSD 880-114301/2-A
Matrix: Solid
Analysis Batch: 114291

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 114301

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1001		mg/Kg		100	70 - 130	5	35

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19879-1
SDG: KH247059

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

Lab Sample ID: LCSD 880-114301/2-A
Matrix: Solid
Analysis Batch: 114291

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 114301

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09540		mg/Kg		95	70 - 130	0	35
Ethylbenzene			0.100	0.1072		mg/Kg		107	70 - 130	1	35
m,p-Xylenes			0.200	0.2130		mg/Kg		107	70 - 130	1	35
o-Xylene			0.100	0.1056		mg/Kg		106	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 820-19879-1 MS
Matrix: Solid
Analysis Batch: 114291

Client Sample ID: BFS-1
Prep Type: Total/NA
Prep Batch: 114301

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.100	0.1003		mg/Kg		100	70 - 130
Toluene	<0.00200	U	0.100	0.09348		mg/Kg		93	70 - 130
Ethylbenzene	<0.00200	U	0.100	0.1034		mg/Kg		103	70 - 130
m,p-Xylenes	<0.00399	U	0.200	0.2037		mg/Kg		102	70 - 130
o-Xylene	<0.00200	U	0.100	0.1021		mg/Kg		102	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 820-19879-1 MSD
Matrix: Solid
Analysis Batch: 114291

Client Sample ID: BFS-1
Prep Type: Total/NA
Prep Batch: 114301

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.09645		mg/Kg		96	70 - 130	4	35
Toluene	<0.00200	U	0.100	0.09337		mg/Kg		93	70 - 130	0	35
Ethylbenzene	<0.00200	U	0.100	0.1007		mg/Kg		101	70 - 130	3	35
m,p-Xylenes	<0.00399	U	0.200	0.2000		mg/Kg		100	70 - 130	2	35
o-Xylene	<0.00200	U	0.100	0.1004		mg/Kg		100	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

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

Lab Sample ID: MB 880-114246/1-A
Matrix: Solid
Analysis Batch: 114289

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114246

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/16/25 08:25	07/16/25 22:00	1

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19879-1
SDG: KH247059

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

Lab Sample ID: MB 880-114246/1-A
Matrix: Solid
Analysis Batch: 114289

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 114246

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/16/25 08:25	07/16/25 22:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/16/25 08:25	07/16/25 22:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane (Surr)	*103*		*70 - 130*	*07/16/25 08:25*	*07/16/25 22:00*	*1*
o-Terphenyl (Surr)	*94*		*70 - 130*	*07/16/25 08:25*	*07/16/25 22:00*	*1*

Lab Sample ID: LCS 880-114246/2-A
Matrix: Solid
Analysis Batch: 114289

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 114246

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1091		mg/Kg		109	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1076		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*107*		*70 - 130*
o-Terphenyl (Surr)	*107*		*70 - 130*

Lab Sample ID: LCSD 880-114246/3-A
Matrix: Solid
Analysis Batch: 114289

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 114246

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1081		mg/Kg		108	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	1086		mg/Kg		109	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*108*		*70 - 130*
o-Terphenyl (Surr)	*107*		*70 - 130*

Lab Sample ID: 890-8450-A-1-L MS
Matrix: Solid
Analysis Batch: 114289

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 114246

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	1000	953.1		mg/Kg		95	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.7	U	1000	1008		mg/Kg		101	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane (Surr)	*103*		*70 - 130*
o-Terphenyl (Surr)	*100*		*70 - 130*

QC Sample Results

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19879-1
SDG: KH247059

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

Lab Sample ID: 890-8450-A-1-M MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 114289 — **Prep Batch: 114246**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	1000	977.7		mg/Kg		98	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.7	U	1000	1015		mg/Kg		101	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane (Surr)	*104*		*70 - 130*
o-Terphenyl (Surr)	*101*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-114286/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 114292

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			07/16/25 14:25	1

Lab Sample ID: LCS 880-114286/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 114292

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	232.8		mg/Kg		93	90 - 110

Lab Sample ID: LCSD 880-114286/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 114292

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	230.5		mg/Kg		92	90 - 110	1	20

Lab Sample ID: 880-60381-A-7-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 114292

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	171		249	410.5		mg/Kg		96	90 - 110

Lab Sample ID: 880-60381-A-7-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 114292

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	171		249	421.1		mg/Kg		101	90 - 110	3	20

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19879-1
SDG: KH247059

GC VOA

Analysis Batch: 114291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19879-1	BFS-1	Total/NA	Solid	8021B	114301
MB 880-114291/8	Method Blank	Total/NA	Solid	8021B	
MB 880-114301/5-A	Method Blank	Total/NA	Solid	8021B	114301
LCS 880-114301/1-A	Lab Control Sample	Total/NA	Solid	8021B	114301
LCSD 880-114301/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	114301
820-19879-1 MS	BFS-1	Total/NA	Solid	8021B	114301
820-19879-1 MSD	BFS-1	Total/NA	Solid	8021B	114301

Prep Batch: 114301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19879-1	BFS-1	Total/NA	Solid	5035	
MB 880-114301/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-114301/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-114301/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
820-19879-1 MS	BFS-1	Total/NA	Solid	5035	
820-19879-1 MSD	BFS-1	Total/NA	Solid	5035	

Analysis Batch: 114378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19879-1	BFS-1	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 114246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19879-1	BFS-1	Total/NA	Solid	8015NM Prep	
MB 880-114246/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-114246/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-114246/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-8450-A-1-L MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-8450-A-1-M MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 114289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19879-1	BFS-1	Total/NA	Solid	8015B NM	114246
MB 880-114246/1-A	Method Blank	Total/NA	Solid	8015B NM	114246
LCS 880-114246/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	114246
LCSD 880-114246/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	114246
890-8450-A-1-L MS	Matrix Spike	Total/NA	Solid	8015B NM	114246
890-8450-A-1-M MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	114246

Analysis Batch: 114369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19879-1	BFS-1	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 114286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19879-1	BFS-1	Soluble	Solid	DI Leach	
MB 880-114286/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-114286/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

QC Association Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19879-1
SDG: KH247059

HPLC/IC (Continued)

Leach Batch: 114286 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-114286/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-60381-A-7-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-60381-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 114292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-19879-1	BFS-1	Soluble	Solid	300.0	114286
MB 880-114286/1-A	Method Blank	Soluble	Solid	300.0	114286
LCS 880-114286/2-A	Lab Control Sample	Soluble	Solid	300.0	114286
LCSD 880-114286/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	114286
880-60381-A-7-B MS	Matrix Spike	Soluble	Solid	300.0	114286
880-60381-A-7-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	114286

Lab Chronicle

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19879-1
SDG: KH247059

Client Sample ID: BFS-1
Date Collected: 07/14/25 15:20
Date Received: 07/15/25 09:23

Lab Sample ID: 820-19879-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	114301	07/16/25 20:24	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	114291	07/16/25 23:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			114378	07/16/25 23:48	SA	EET MID
Total/NA	Analysis	8015 NM		1			114369	07/17/25 04:00	SA	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	114246	07/16/25 08:25	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	114289	07/17/25 04:00	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	114286	07/16/25 13:16	SA	EET MID
Soluble	Analysis	300.0		1			114292	07/16/25 17:37	CS	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19879-1
SDG: KH247059

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-26

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19879-1
SDG: KH247059

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Terracon Consulting Eng & Scientists
Project/Site: Hognose Viper 23 Fed 1H

Job ID: 820-19879-1
SDG: KH247059

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
820-19879-1	BFS-1	Solid	07/14/25 15:20	07/15/25 09:23

Loc: 820
19879

820-19879 Chain of Custody

CHAIN OF

Terracon

Office Location	Lubbock, Texas
Project Manager	Chuck Smith
Sampler's Name	Daniel Pavelka
Sampler's Signature	
Project Number	KH247059
Project Name	Hognose Viper 23 Fed 1H

Laboratory: Eurofins
Address: 6701 Aberdeen
Lubbock, Texas 79424
Phone: (806) 794-1296
Contact: Holly Taylor

ANALYSIS REQUESTED

LAB USE ONLY
DUE DATE:

TEMP OF COOLER WHEN RECEIVED (°C) -4.1 / -4.1 IR4 / AD3

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth (FT)	End Depth (FT)	No. Type of Containers: 4 oz Glass	Chloride (EPA Method 300)	BTEX (EPA Method 8021B)	TPH 8015 extended	Lab Sample ID
S	7/14/2025	1520	X		BFS-1	N/A	N/A	1	X	X	X	

NFE

TURNAROUND TIME ☐ Normal ☒ 48-Hour Rush ☐ 24-Hour Rush TRRP Laboratory Review Checklist ☐ Yes ☐ No

Relinquished by (Signature)	Date:	Time:	Received by (Signature)	Date:	Time:
	20250715	0923		7/15/25	923

Bill To: Devon Energy Attn: Jim Raley Address: 205 E. Bender Rd, Carlsbad, NM. On Invoice Reference WO No: 21453154

e-mail results to:
chuck.smith@terracon.com
joseph.guesnier@terracon.com

Matrix: WW-Wastewater; W - Water; S - Soil; L - Liquid; A - Air Bag; C - Charcoal tube; SL - Sludge
Container: VOA - 40 ml vial; A/G - Amber Glass 1L; 250 ml = Glass wide mouth; P/O - Plastic or other Wipe

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-19879-1
SDG Number: KH247059

Login Number: 19879
List Number: 1
Creator: Pena, Yazmeane

List Source: Eurofins Lubbock

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

Login Sample Receipt Checklist

Client: Terracon Consulting Eng & Scientists

Job Number: 820-19879-1
SDG Number: KH247059

Login Number: 19879
List Number: 2
Creator: Vasquez, Julisa

List Source: Eurofins Midland
List Creation: 07/16/25 11:31 AM

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

APPENDIX E – TERRACON STANDARD OF CARE, LIMITATION, AND RELIANCE

Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time. Terracon makes no warranties, either express or implied, regarding the findings, conclusions, or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report. These services were performed in accordance with the scope of work agreed with you, Devon Energy Production Company, LP, as reflected in our Assessment Report sent via email on May 20, 3024.

Additional Scope Limitations

The development of this Closure Report is based on information provided by the Devon Energy Production Company, LP and Terracon's remediation and construction services line. Such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, nondetectable, or not present during these services. We cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those by information provided by the Devon Energy Production Company, LP. The data, interpretations, findings, and recommendations are based solely upon reformation executed within the scope of these services.

Reliance

This report has been prepared for the exclusive use of Devon Energy Production Company, LP, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the express written authorization of Devon Energy Production Company, LP and Terracon. Any unauthorized distribution or reuse is at Devon Energy Production Company, LP sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in the proposal and Devon Energy Production Company, LP and Terracon's Master Services Agreement. The limitation of liability defined in the terms and conditions is the aggregate limit of Terracon's liability to Devon Energy Production Company, LP and all relying parties unless otherwise agreed in writing.

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 488363

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 488363
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2432652685**
Incident Name	**NAPP2432652685 HOGNOSE VIPER 23 FEDERAL #001H @ 30-025-41975**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Closure Report Received**
Incident Well	**[30-025-41975] HOGNOSE VIPER 23 FEDERAL #001H**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	HOGNOSE VIPER 23 FEDERAL #001H
Date Release Discovered	11/21/2024
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	*Not answered.*
Produced Water Released (bbls) Details	Cause: Corrosion | Flow Line - Production | Produced Water | Released: 6 BBL | Recovered: 5 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: 488363
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*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: 07/24/2025

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

General Information
Phone: (505) 629-6116

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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: 488363
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	Attached Document
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	Greater than 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	Greater than 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)	29200
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	97.6
GRO+DRO	(EPA SW-846 Method 8015M)	67.8
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		03/31/2025
On what date will (or did) the final sampling or liner inspection occur		06/03/2025
On what date will (or was) the remediation complete(d)		07/14/2025
What is the estimated surface area (in square feet) that will be reclaimed		0
What is the estimated volume (in cubic yards) that will be reclaimed		0
What is the estimated surface area (in square feet) that will be remediated		2555
What is the estimated volume (in cubic yards) that will be remediated		800
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.		

Sante Fe Main Office
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General Information
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Online Phone Directory
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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: 488363
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	fEEM0112334510 HALFWAY DISPOSAL AND LANDFILL
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dvn.com Date: 07/24/2025
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)

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	Action Number: 488363
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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
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	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**480639**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**07/03/2025**
What was the (estimated) number of samples that were to be gathered	**2**
What was the sampling surface area in square feet	**200**

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	2917
What was the total volume (cubic yards) remediated	180
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	0
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	Remediation Complete

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: 07/24/2025

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QUESTIONS (continued)

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

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 488363
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	Remediation has met 19.15.29 NMAC requirements. Soil impacts exceeding the reclamation standards have been left in place and are required to meet 19.15.29.13D (1) NMAC once the site is no longer reasonably needed for production or subsequent drilling operations.	9/15/2025