



CLOSURE REPORT

Property:

Schwerdtsferger ALS #10A
Unit Letter D, S31 T28N R8W
San Juan County, New Mexico

New Mexico EMNRD OCD Incident ID No. NAPP2431143123


February 5, 2025 (Updated February 12, 2025)

Ensolum Project No. 05A1226351

Prepared for:

Enterprise Field Services, LLC
614 Reilly Avenue
Farmington, NM 87401
Attn: Mr. Thomas Long

Prepared by:



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Project Geologist



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1.0 INTRODUCTION

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Schwerdtsferger ALS #10A (Site)
NM EMNRD OCD Incident ID No.	NAPP2431143123
Location:	36.62291° North, 107.72857° West Unit Letter D, Section 31, Township 28 North, Range 8 West San Juan County, New Mexico
Property:	Bureau of Land Management (BLM)
Regulatory:	New Mexico (NM) Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On October 30, 2024, Enterprise personnel identified a potential release of natural gas from the Schwerdtsferger ALS #10A well tie. Enterprise subsequently isolated and locked the pipeline out of service. On November 1, 2024, Enterprise initiated activities to remediate petroleum hydrocarbon impact. On November 6, 2024, Enterprise determined the release was “reportable” due to the potential volume of impacted soil. The NM EMNRD OCD was subsequently notified.

A **Topographic Map** depicting the location of the Site is included as **Figure 1**, and a **Site Vicinity Map** is included as **Figure 2** in **Appendix A**.

1.2 Project Objective

The primary objective of the closure activities was to reduce constituent of concern (COC) concentrations in the on-site soils to below the applicable NM EMNRD OCD closure criteria.

2.0 CLOSURE CRITERIA

The Site is subject to regulatory oversight by the NM EMNRD OCD. During the evaluation and remediation of the Site, Ensolum, LLC (Ensolum) referenced New Mexico Administrative Code (NMAC) 19.15.29 *Releases*, which establishes investigation and abatement action requirements for oil and gas release sites that are subject to reporting and/or corrective action. The appropriate closure criteria for sites are determined using the siting requirements outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC. Ensolum utilized the general site characteristics and information available from NM state agency databases and federal agency geospatial databases to determine the appropriate closure criteria for the Site. Supporting figures and documentation associated with the following Siting bullets are provided in **Appendix B**.

- The NM Office of the State Engineer (OSE) tracks the usage and assignment of water rights and water well installations and records this information in the Water Rights Reporting System (WRRS) database. Water wells and other points of diversion (PODs) are each assigned POD numbers in the database (which is searchable and includes an interactive map). No PODs were identified in the same Public Land Survey System (PLSS) section as the Site, and no PODs were identified in the adjacent PLSS sections (**Figure A, Appendix B**).
- Three cathodic protection wells (CPWs) were identified in the NM EMNRD OCD imaging database in the adjacent PLSS sections. No CPWs were identified in the same PLSS section as the Site. These CPWs are depicted on **Figure B (Appendix B)**. Documentation for the closest cathodic protection well located near the Phillips #2, #3, and #1A production pads

indicates a depth to water of 160 feet to 180 feet below grade surface (bgs). This cathodic protection well is located approximately 1.02 miles east of the Site and is approximately 493 feet higher in elevation than the Site. Documentation for the cathodic protection well located near the Phillips #4, #3E, and #800 production pads indicates dampness at 100 feet bgs. This cathodic protection well is located approximately 1.32 miles southeast of the Site and is approximately 500 feet higher in elevation than the Site.

- The Site is located within 300 feet of a NM EMNRD OCD-defined significant watercourse (**Figure C, Appendix B**). The Site is approximately 50 feet north from a “blue-line” ephemeral wash.
- The Site is not located within 200 feet of a lakebed, sinkhole, or playa lake.
- The Site is not located within 300 feet of a permanent residence, school, hospital, institution, or church (**Figure D, Appendix B**).
- No springs, or private domestic freshwater wells used by less than five households for domestic or stock watering purposes were identified within 500 feet of the Site (**Figure E, Appendix B**).
- No freshwater wells or springs were identified within 1,000 feet of the Site (**Figure E, Appendix B**).
- The Site is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to New Mexico Statutes Annotated (NMSA) 1978, Section 3-27-3.
- Based on information identified in the U.S. Fish & Wildlife Service National Wetlands Inventory Wetlands Mapper, the Site is not within 300 feet of a wetland (**Figure F, Appendix B**). The Site is located within 300 feet of an ‘Intermittently Flooded’ (J) riverine, which is not designated as a wetland.
- Based on information identified in the NM Mining and Minerals Division’s Geographic Information System (GIS) Maps and Mine Data database, the Site is not within an area overlying a subsurface mine (**Figure G, Appendix B**).
- The Site is not located within an unstable area per Paragraph (6) of Subsection U of 19.15.2.7 NMAC.
- Based on information provided by the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) geospatial database, the Site is not within a 100-year floodplain (**Figure H, Appendix B**).

Based on available information Enterprise estimates the depth to water at the Site to potentially be less than 50 feet bgs, resulting in a Tier I ranking. The closure criteria for soils remaining in place at the Site include:

Tier I Closure Criteria for Soils Impacted by a Release		
Constituent ¹	Method	Limit
Chloride	EPA 300.0 or SM4500 Cl B	600 mg/kg
TPH (GRO+DRO+MRO) ²	EPA SW-846 Method 8015	100 mg/kg
BTEX ³	EPA SW-846 Method 8021 or 8260	50 mg/kg
Benzene	EPA SW-846 Method 8021 or 8260	10 mg/kg

¹ – Constituent concentrations are in milligrams per kilogram (mg/kg).

² – Total Petroleum Hydrocarbons (TPH). Gasoline Range Organics (GRO). Diesel Range Organics (DRO). Motor Oil/Lube Oil Range Organics (MRO).

³ – Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX).

3.0 SOIL REMEDIATION ACTIVITIES

On November 1, 2024, Enterprise initiated activities to remediate petroleum hydrocarbon impact resulting from the release. During the remediation and corrective action activities, West States Energy Contractors, Inc., provided heavy equipment and labor support, while Ensolum provided environmental consulting support.

The excavation measured approximately 30 feet long and 18 feet wide at the maximum extents. The maximum depth of the excavation measured approximately 16 feet bgs, with a footprint of approximately 540 ft². The lithology encountered during the completion of remediation activities consisted primarily of silty sand and gravel.

Approximately 444 cubic yards (yd³) of petroleum hydrocarbon-affected soils and 25 barrels (bbls) of hydro-excavation soil cuttings and water were transported to the Envirotech, Inc., (Envirotech) landfarm in San Juan County, NM for disposal/remediation. The executed C-138 solid waste acceptance form is provided in **Appendix C**. The excavation was backfilled with imported fill and then contoured to the surrounding grade.

Figure 3 is a map that identifies approximate soil sample locations and depicts the approximate dimensions of the excavation with respect to the pipeline (**Appendix A**). Photographic documentation of the field activities is included in **Appendix D**.

4.0 SOIL SAMPLING PROGRAM

Ensolum field screened the soil samples from the excavation utilizing a calibrated Dexsil PetroFLAG[®] hydrocarbon analyzer system and a photoionization detector (PID) fitted with a 10.6 eV lamp to guide excavation extents.

Ensolum's soil sampling program included the collection of 13 composite soil samples (S-1 through S-13) from the excavation and one composite soil sample (BF-1) from the backfill for laboratory analysis. The composite samples were comprised of five aliquots each and represent an estimated 200 square foot (ft²) or less sample area per guidelines outlined in Section D of 19.15.29.12 NMAC. The excavator bucket and/or hand tools were utilized to obtain fresh aliquots from the excavation and backfill. Regulatory correspondence is provided in **Appendix E**.

Sampling Event

On November 8, 2024, sampling was performed at the Site. The NM EMNRD OCD was notified of the sampling event although no representative was present during sampling activities. Composite soil samples S-1 (16'), S-2 (16'), and S-3 (16') were collected from the floor of the excavation. Composite soil samples S-4 (0' to 16'), S-5 (0' to 16'), S-6 (0' to 16'), S-7 (0' to 16'), S-8 (0' to 16'), S-9 (0' to 16'), S-10 (0' to 16'), S-11 (0' to 16'), S-12 (0' to 16'), and S-13 (0' to 16') were collected from the walls of the excavation.

Second Sampling Event

On January 22, 2025, sampling was performed at the Site. The NM EMNRD OCD was notified of the sampling event although no representative was present during sampling activities. Composite soil sample BF-1 was collected from the imported fill.

All soil samples were collected and placed in laboratory-prepared glassware. The containers were labeled and sealed using the laboratory-supplied labels and custody seals and were stored on ice in a cooler. The samples were relinquished to the courier for Eurofins Environment Testing South Central LLC (Eurofins) of Albuquerque, NM, under proper chain-of-custody procedures.

5.0 SOIL LABORATORY ANALYTICAL METHODS

The composite soil samples were analyzed for BTEX using Environmental Protection Agency (EPA) SW-846 Method 8021; TPH GRO/DRO/MRO using EPA SW-846 Method 8015; and chlorides using EPA Method 300.0.

The laboratory analytical results are summarized in **Table 1 (Appendix F)**. The laboratory data sheets and executed chain-of-custody forms are provided in **Appendix G**.

6.0 SOIL DATA EVALUATION

Ensolum compared the benzene, BTEX, TPH, and chloride laboratory analytical results or laboratory practical quantitation limits (PQLs) / reporting limits (RLs) associated with the composite soil samples (S-1 through S-13 and BF-1) to the applicable NM EMNRD OCD closure criteria. The laboratory analytical results are summarized in **Table 1 (Appendix F)**.

- The laboratory analytical results for the composite soil samples indicate benzene is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the NM EMNRD OCD closure criteria of 10 milligrams per kilogram (mg/kg).
- The laboratory analytical results for the composite soil samples indicate total BTEX is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the NM EMNRD OCD closure criteria of 50 mg/kg.
- The laboratory analytical results for composite soil sample BF-1 indicate a total combined TPH GRO/DRO/MRO concentration of 10 mg/kg which is less than the NM EMNRD OCD closure criteria of 100 mg/kg. Analytical results for the other confirmation soil samples from the Site indicate TPH GRO/DRO/MRO is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the NM EMNRD OCD closure criteria of 100 mg/kg.
- The laboratory analytical results for composite soil sample BF-1 indicate a chloride concentration of 67 mg/kg which is less than the NM EMNRD OCD closure criteria of 600 mg/kg. Analytical results for the other confirmation soil samples from the Site indicate chloride is not present at concentrations greater than the laboratory PQLs/RLs, which is less than the NM EMNRD OCD closure criteria of 600 mg/kg.

7.0 RECLAMATION

The excavation was backfilled with imported fill and then contoured to the surrounding grade. The backfill and the upper four feet of the excavation have been analytically verified to be below the Tier I soil standards of 50 mg/kg BTEX, 10 mg/kg benzene, 100 mg/kg total combined TPH, and 600 mg/kg Chloride. See **APPENDIX D** and **APPENDIX F** for further documentation.

8.0 REVEGETATION

Revegetation will be addressed in accordance with 19.15.29.13 NMAC utilizing the recommended seed mix as described in the Vegetation Community Descriptions and Seed Mixes provided by the BLM Farmington Field Office. In this case the surrounding vegetation appears to be predominantly of the Badland and Sagebrush Vegetation Communities. Enterprise will reseed the area with the appropriate seed mix during the next favorable growing season. Enterprise will provide revegetation documentation under separate cover.

9.0 FINDINGS AND RECOMMENDATION

- Fourteen composite soil samples were collected from the Site. Based on laboratory analytical results, no benzene, BTEX, chloride, or total combined TPH GRO/DRO/MRO exceedances were identified in the soils remaining at the Site.
- Approximately 444 yd³ of petroleum hydrocarbon-affected soils and 25 bbls of hydro-excavation soil cuttings and water were transported to the Envirotech landfarm for disposal/remediation.

Based on field observations and laboratory analytical results, no additional investigation or corrective action appears warranted at this time.

10.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

10.1 Standard of Care

Ensolum's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Ensolum makes no warranties, express or implied, as to the services performed hereunder. Additionally, Ensolum does not warrant the work of third parties supplying information used in the report (e.g., laboratories, regulatory agencies, or other third parties).

10.2 Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work, and it should be noted that this 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, or not present during these services, and Ensolum cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during the investigation. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. Ensolum's findings and recommendation are based solely upon data available to Ensolum at the time of these services.

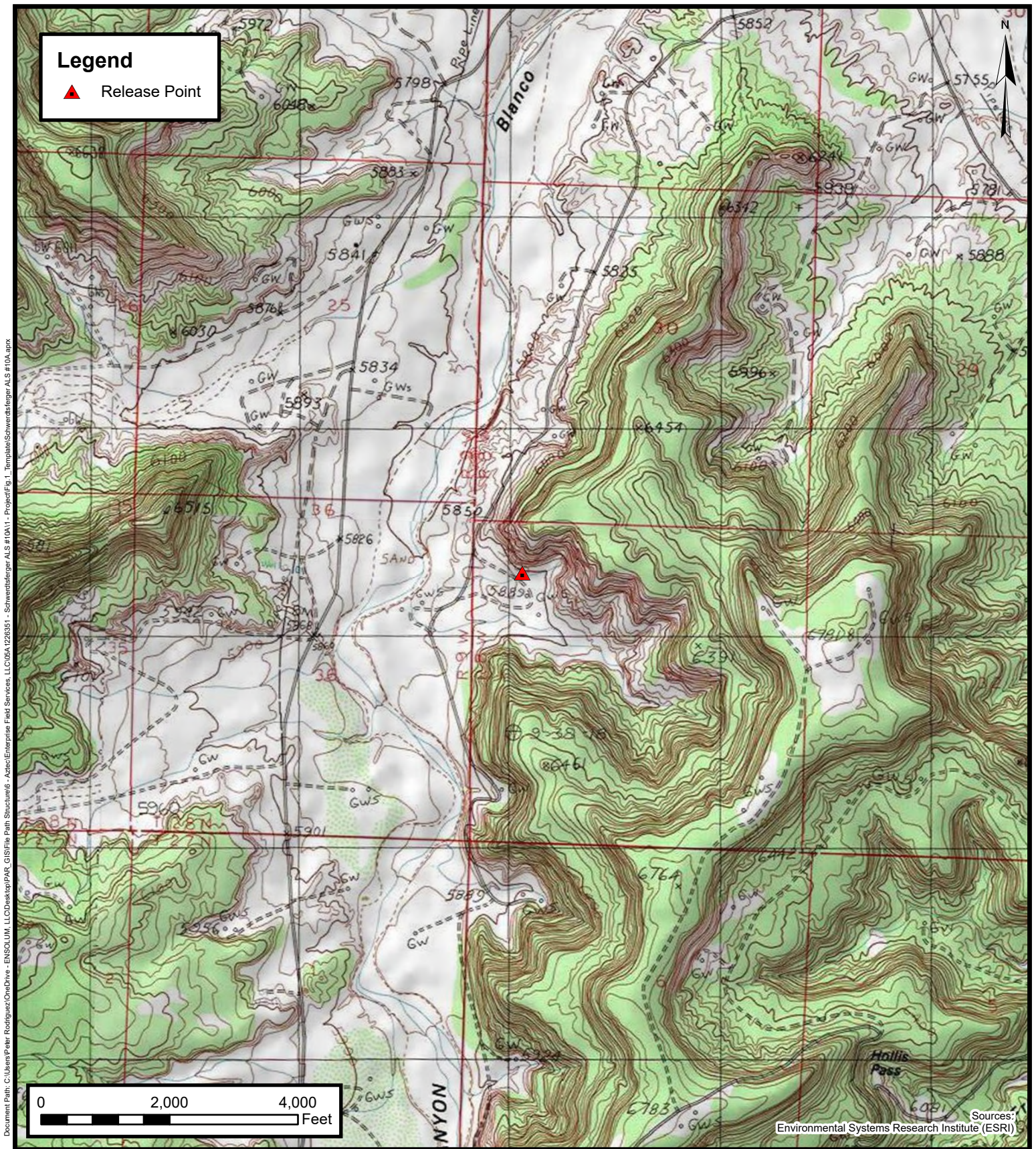
10.3 Reliance

This report has been prepared for the exclusive use of Enterprise, 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 Enterprise and Ensolum. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in this report and Ensolum's Master Services Agreement. The limitation of liability defined in the agreement is the aggregate limit of Ensolum's liability to the client.



APPENDIX A

Figures



Topographic Map

Enterprise Field Services, LLC

Schwerdtfeger ALS #10A

Project Number: 05A1226351

Unit Letter D, S31 T28N R8W, San Juan County, New Mexico
36.62291, -107.72857

FIGURE

1



Site Vicinity Map

Enterprise Field Services, LLC

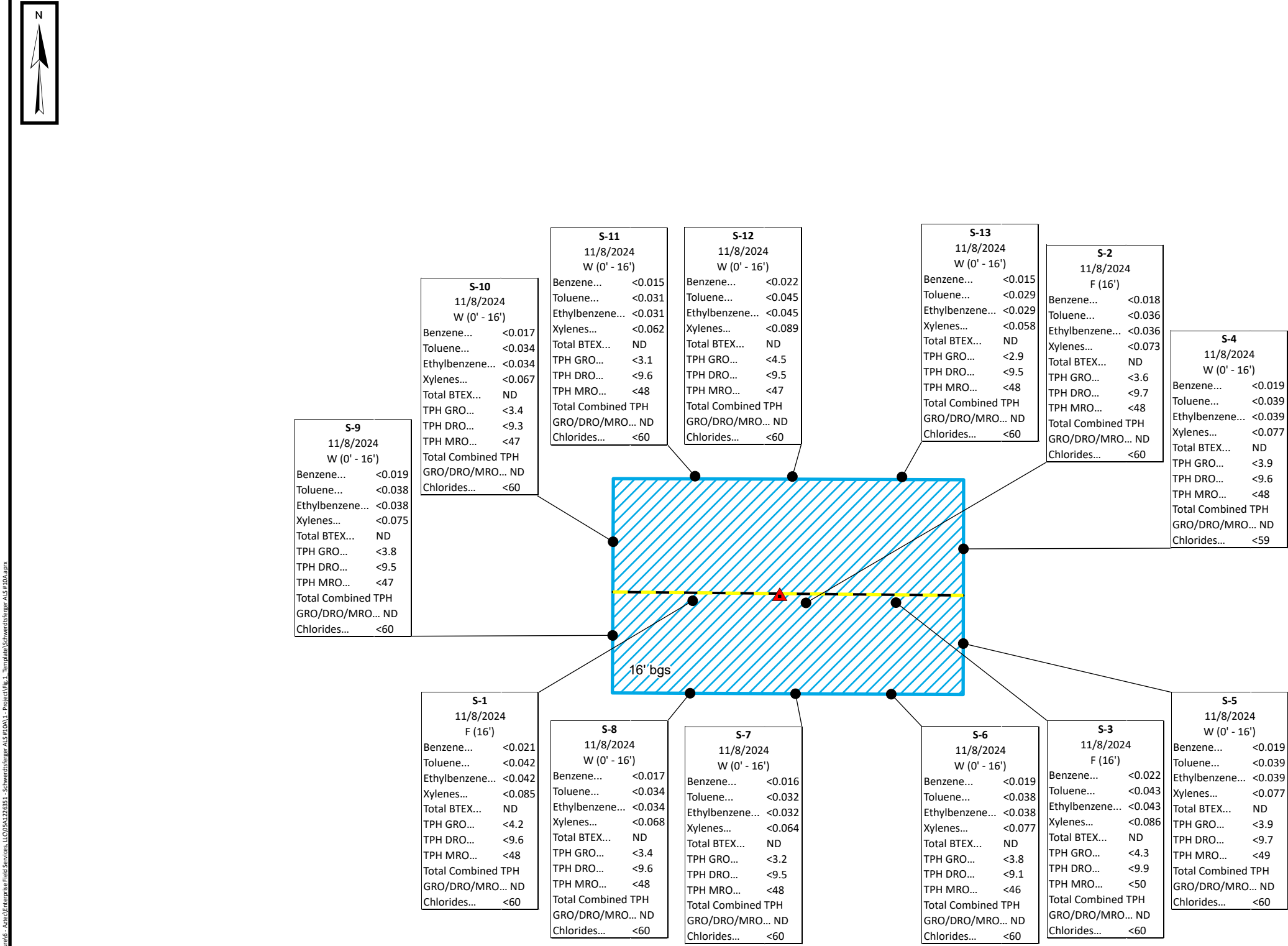
Schwerdtfeger ALS #10A

Project Number: 05A1226351

Unit Letter D, S31 T28N R8W, San Juan County, New Mexico
36.62291, -107.72857

FIGURE

2



LEGEND

- Point of Release
- Composite Soil Sample Location
- Schwerdtsferger ALS #10A Pipeline
- Excavation Extent



Site Map with
Soil Analytical Results

Enterprise Field Services, LLC
Schwerdtsferger ALS #10A
Unit Letter D, S31 T28N R8W
San Juan County, New Mexico
36.62291, -107.72857

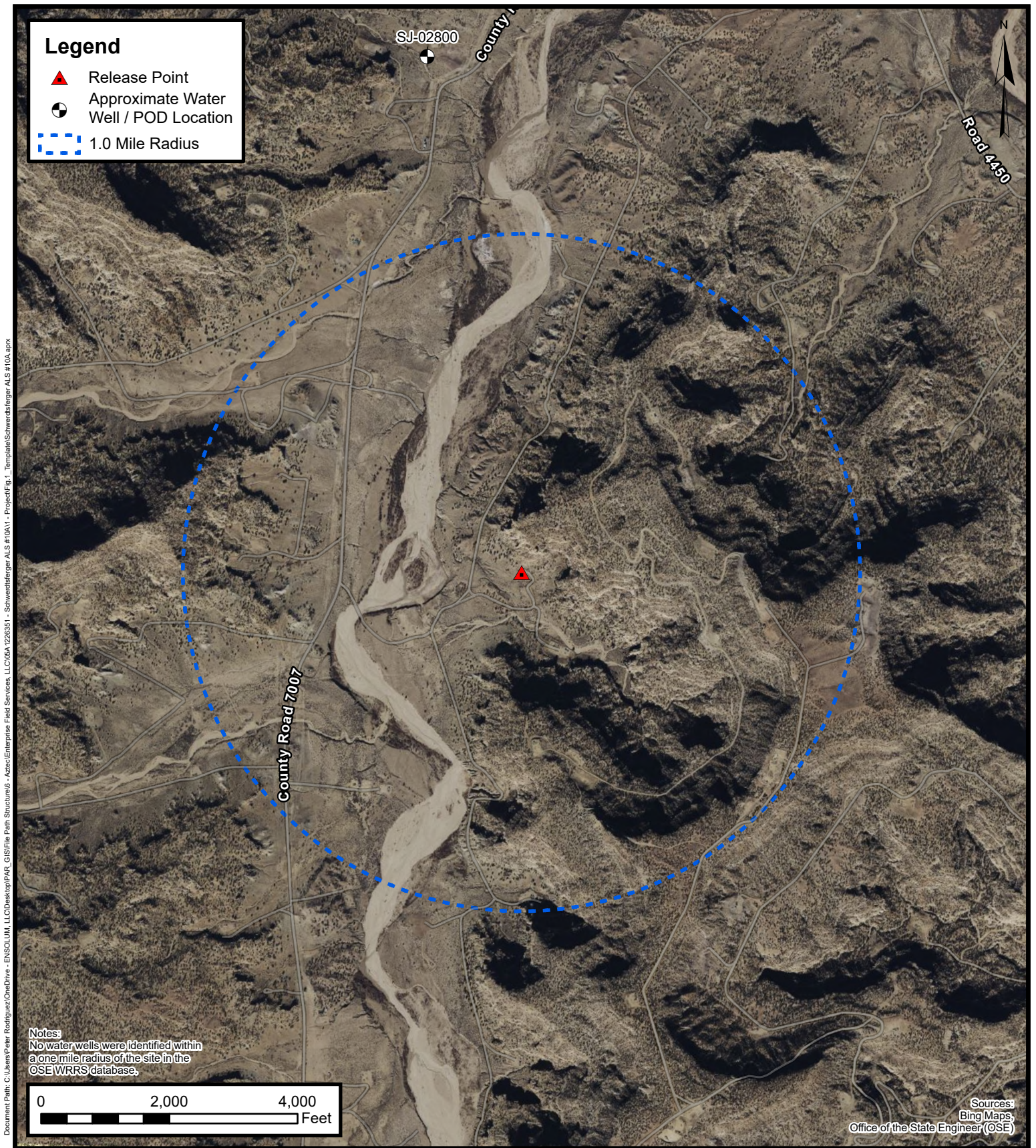
Figure
3

Project Number: 05A1226351



APPENDIX B

Siting Figures and Documentation



1.0 Mile Radius Water Well / POD Location Map

Enterprise Field Services, LLC

Schwerdtfeger ALS #10A

Project Number: 05A1226351

Unit Letter D, S31 T28N R8W, San Juan County, New Mexico
36.62291, -107.72857

FIGURE

A



Cathodic Protection Well Recorded Depth to Water

Enterprise Field Services, LLC

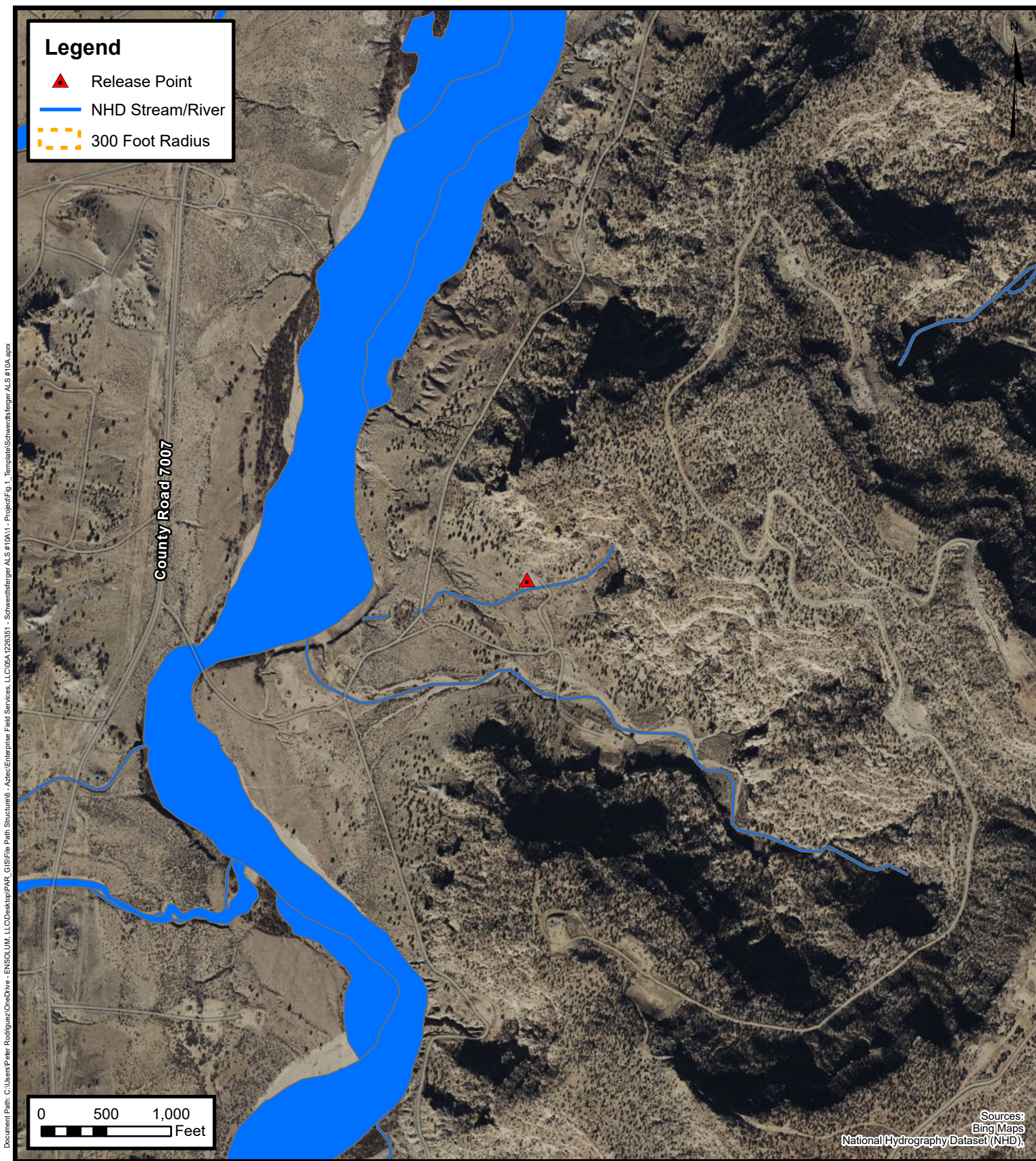
Schwerdtfeger ALS #10A

Project Number: 05A1226351

Unit Letter D, S31 T28N R8W, San Juan County, New Mexico
36.62291, -107.72857

FIGURE

B



300 Foot Radius Watercourse and Drainage Identification

Enterprise Field Services, LLC

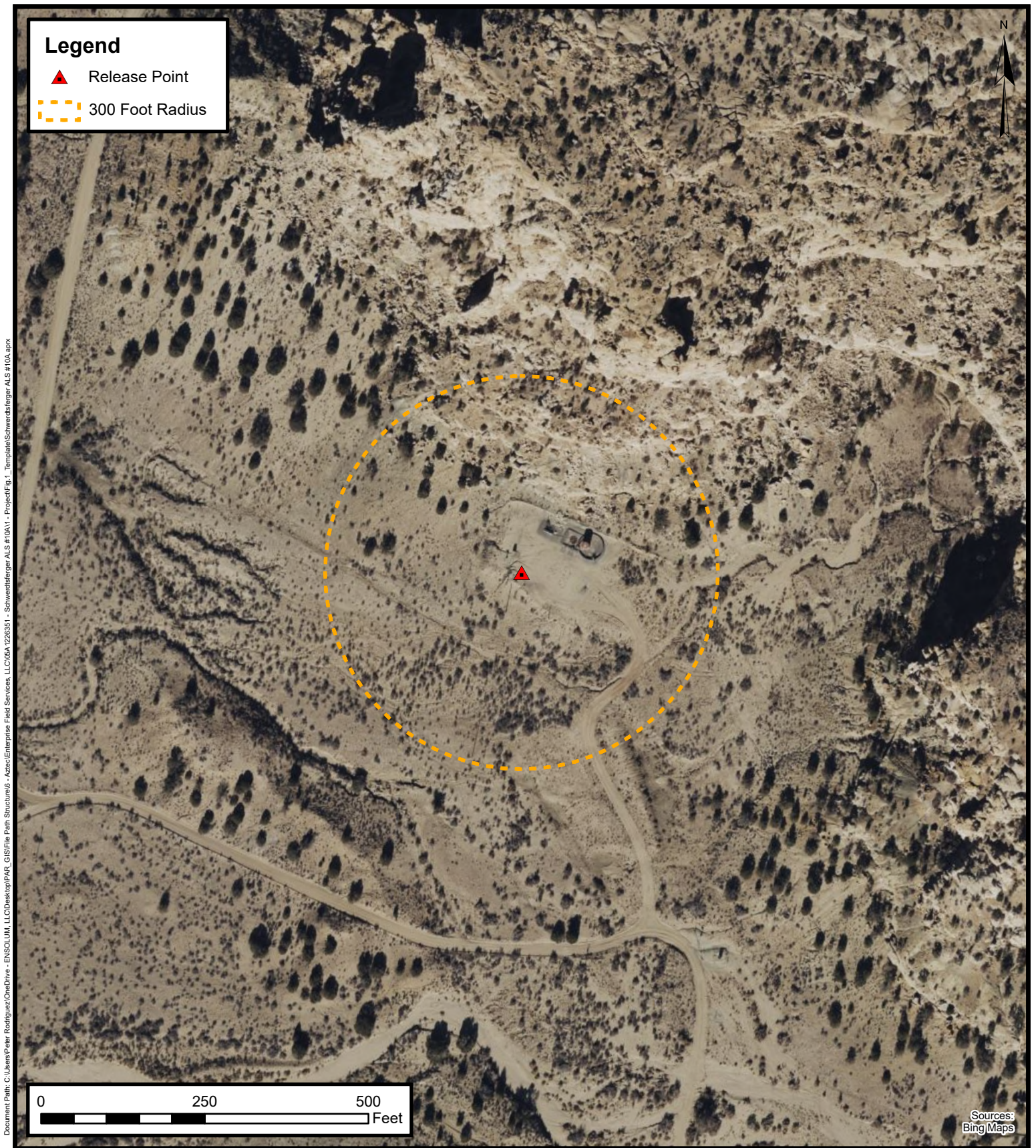
Schwerdtferger ALS #10A

Project Number: 05A1226351

Unit Letter D, S31 T28N R8W, San Juan County, New Mexico
36.62291, -107.72857

FIGURE

C



**300 Foot Radius Occupied
Structure Identification**

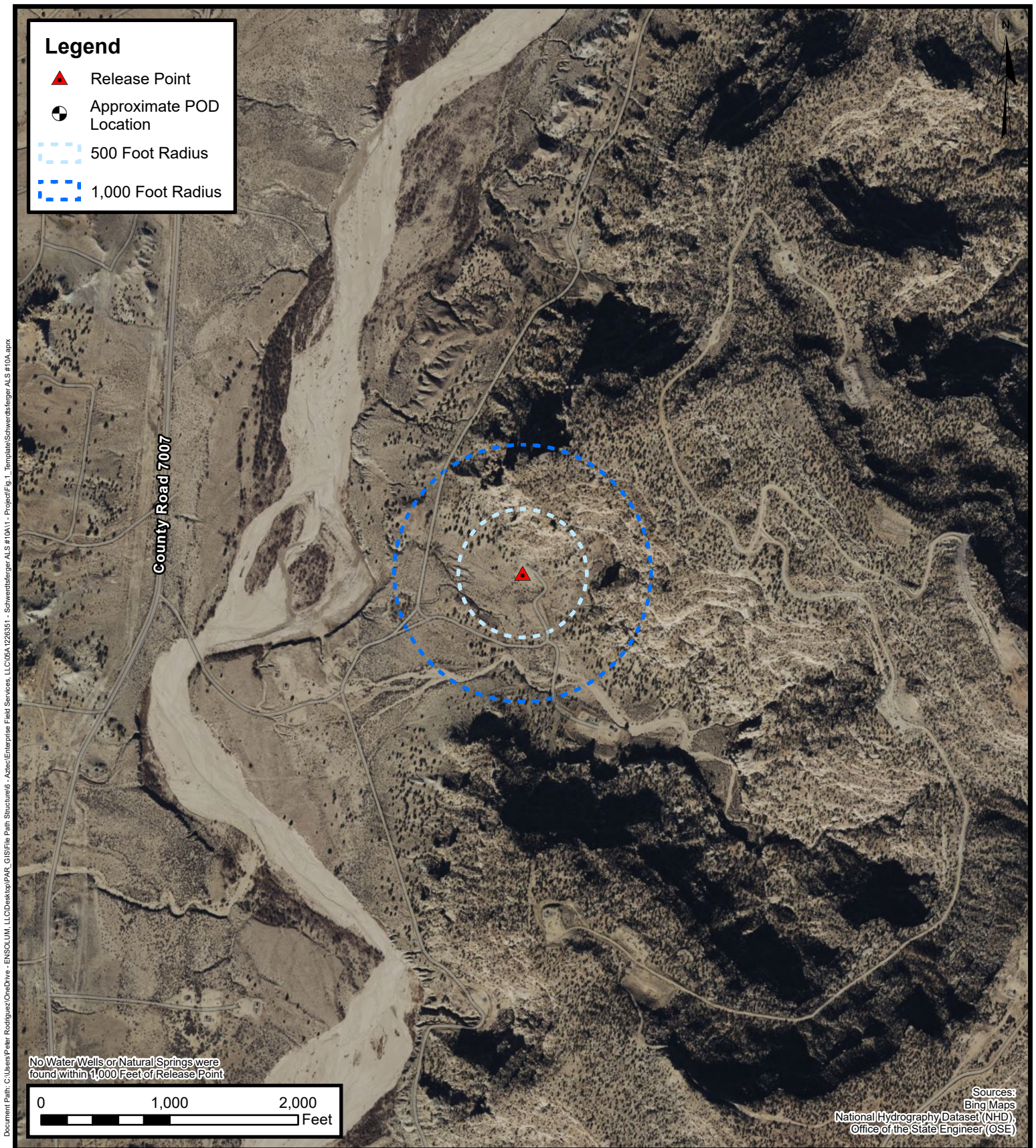
Enterprise Field Services, LLC

Schwerdtfeger ALS #10A

Project Number: 05A1226351

Unit Letter D, S31 T28N R8W, San Juan County, New Mexico
36.62291, -107.72857

**FIGURE
D**



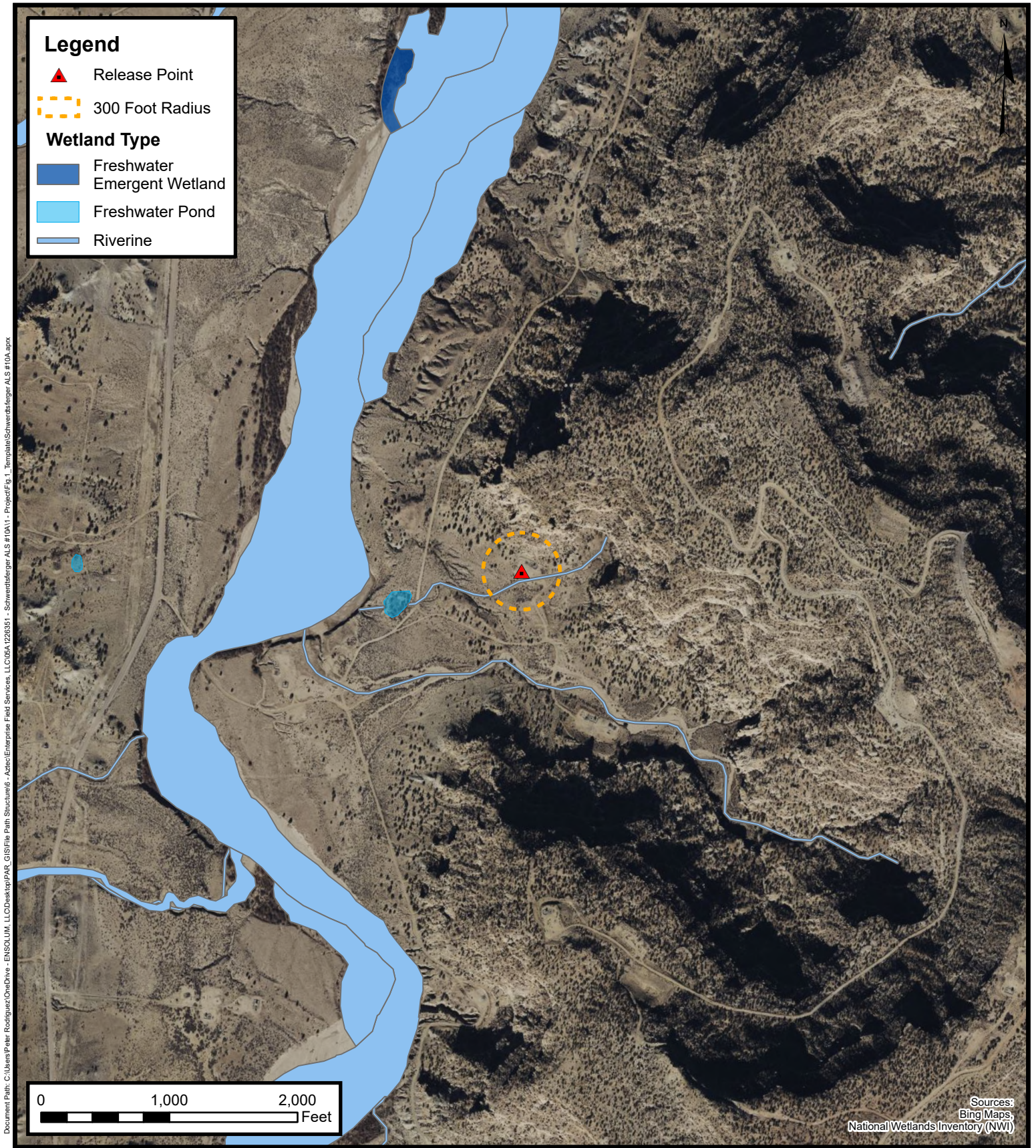
Water Well and Natural Spring Location

Enterprise Field Services, LLC
Schwerdtfeger ALS #10A

Project Number: 05A1226351

Unit Letter D, S31 T28N R8W, San Juan County, New Mexico
36.62291, -107.72857

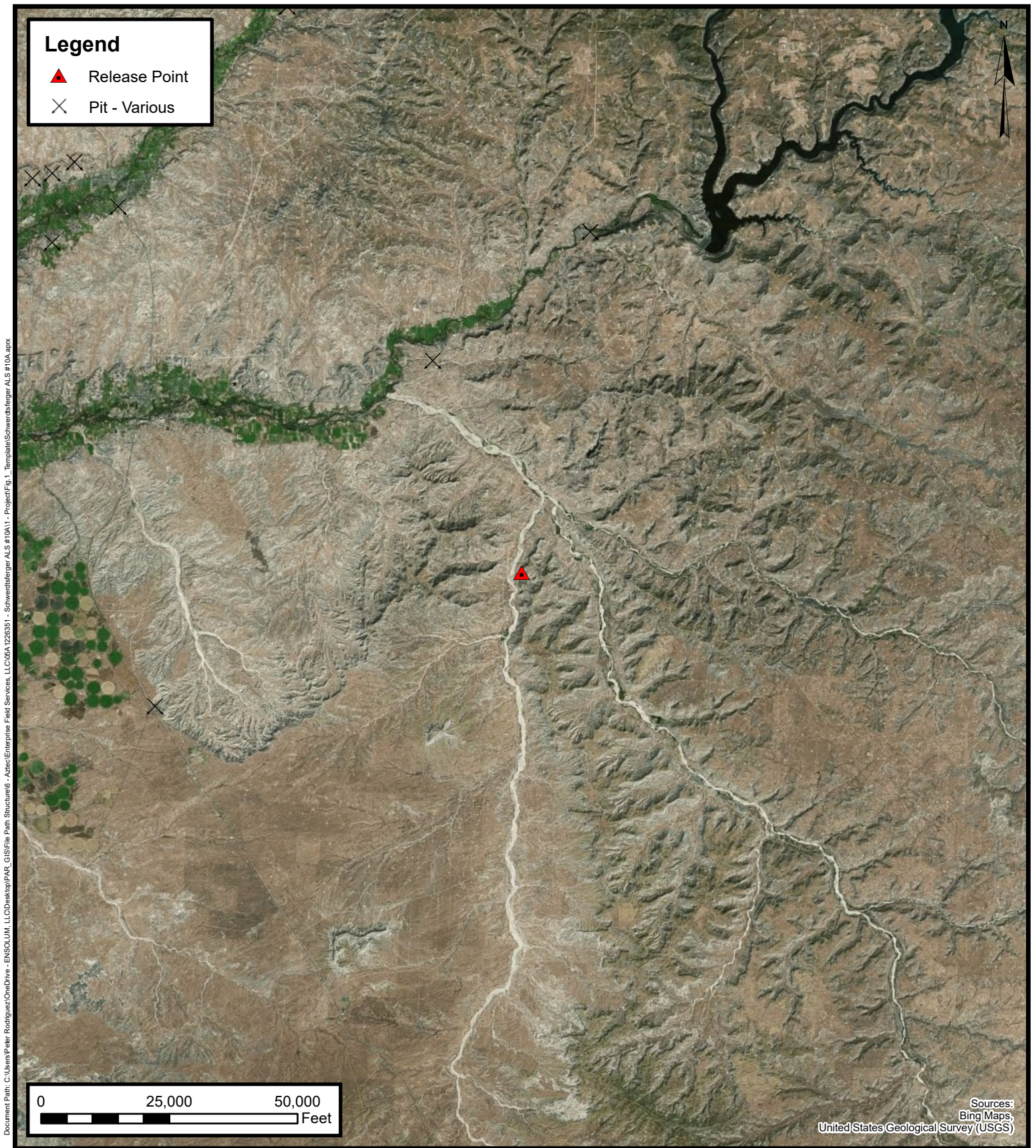
FIGURE
E



Wetlands

Enterprise Field Services, LLC
Schwerdtfeger ALS #10A
Project Number: 05A1226351
Unit Letter D, S31 T28N R8W, San Juan County, New Mexico
36.62291, -107.72857

FIGURE
F



Mines, Mills, and Quarries

Enterprise Field Services, LLC

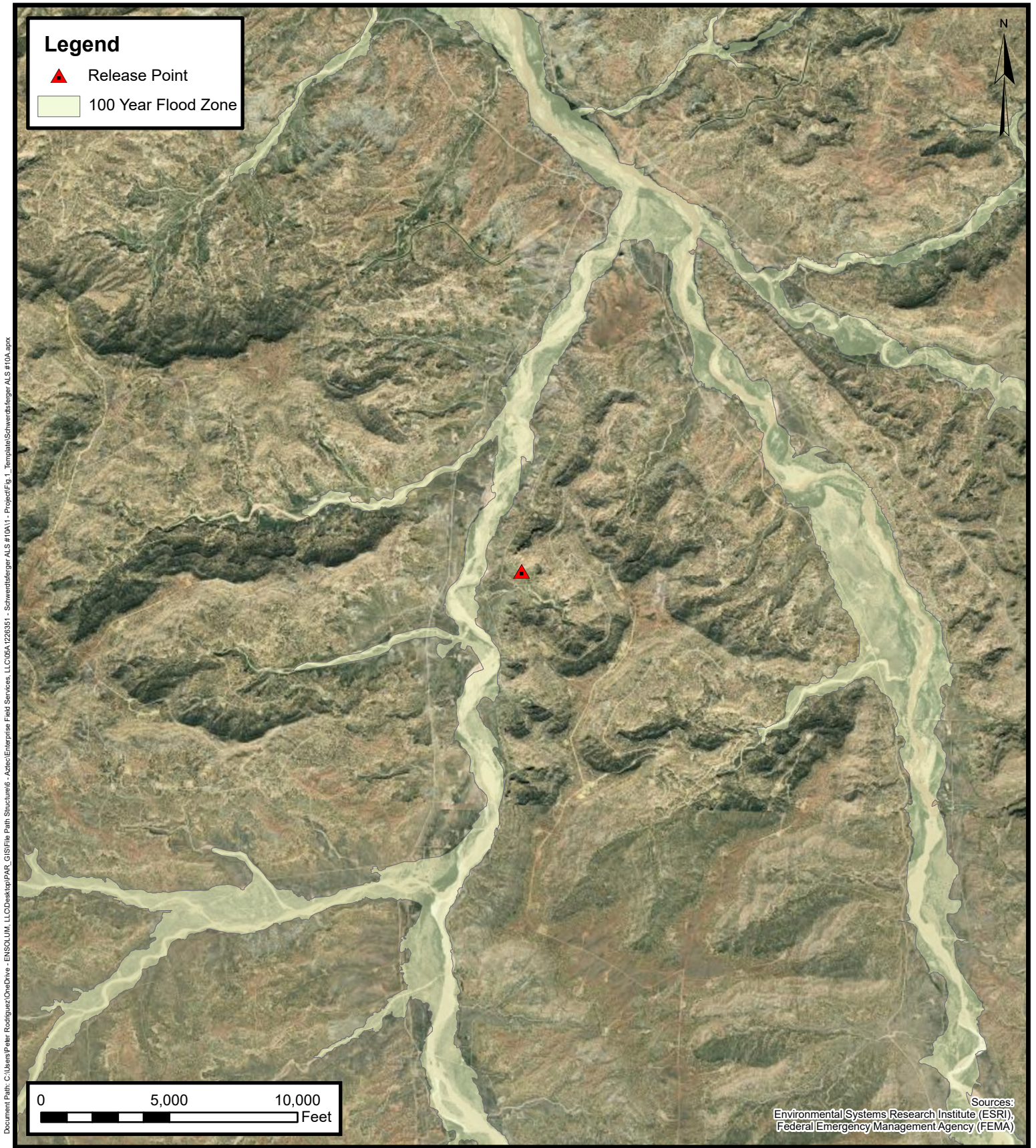
Schwerdtfeger ALS #10A

Project Number: 05A1226351

Unit Letter D, S31 T28N R8W, San Juan County, New Mexico
36.62291, -107.72857

FIGURE

G



100-Year Flood Plain Map

Enterprise Field Services, LLC

Schwerdsferger ALS #10A

Project Number: 05A1226351

Unit Letter D, S31 T28N R8W, San Juan County, New Mexico
36.62291, -107.72857

FIGURE

H



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 31, 30, 29, 32 **Township:** 28N **Range:** 08W

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

2/9/23 10:20 AM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 6, 5

Township: 27N

Range: 08W

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

2/9/23 10:21 AM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER



New Mexico Office of the State Engineer Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 1

Township: 27N

Range: 09W

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

2/9/23 10:21 AM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER



New Mexico Office of the State Engineer Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 25, 36

Township: 28N

Range: 09W

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

2/9/23 10:22 AM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER

30-045-06951

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit SW Sec. 32 Twp 28 Rng 8Name of Well/Wells or Pipeline Serviced PHILLIPS #1cps 547wElevation 6379' Completion Date 4/16/64 Total Depth 260' Land Type* N/ACasing, Sizes, Types & Depths N/AIf Casing is cemented, show amounts & types used N/AIf Cement or Bentonite Plugs have been placed, show depths & amounts used
N/ADepths & thickness of water zones with description of water when possible:
Fresh, Clear, Salty, Sulphur, Etc. N/ADepths gas encountered: N/AType & amount of coke breeze used: 4125lbs.Depths anodes placed: 175', 169', 163', 157', 151'Depths vent pipes placed: N/AVent pipe perforations: N/ARemarks: qb. #1

RECEIVED
MAY 31 1991
OIL CON. DIV.
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

DATE 4-16-64

WELL NAME Phillips No. 1 CPS NO. 547-W

LOCATION SW 32-28-8

WORK ORDER NUMBER 53061

ANODE HOLE DEPTH 260

TOTAL DRILLING RIG TIME 17 Hrs.

DRILLING TIME FOR RECTIFIER POLE HOLE 0

TYPE AND SIZE BIT USED 7 7/8 - Security-Ser # 67744-X

NUMBER SACKS MUD USED 1

NUMBER SACKS LOST CIRCULATION MAT'L USED 0

ANODE DEPTHS #1 175, #2 169, #3 163, #4 157 5 151

TOTAL LBS. COKE USED 4125 (33 sacks)

ANODE OUTPUTS 12.7 VOLTS, #1 2.6, #2 3.9, #3 4.7, #4 5.0 5.3

TOTAL CIRCUIT RESISTANCE: VOLTS 12.2 AMPERES 7.4 OHMS 1.64

NUMBER FEET SURFACE CABLE ~~CONDUIT~~ 308

DRILLING LOG (ATTACH HERETO).

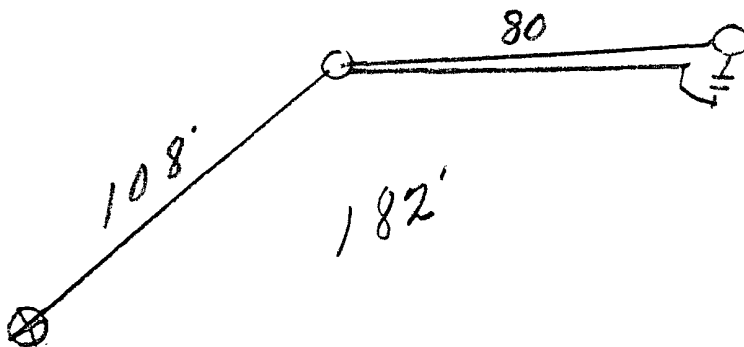
FORMATION LOG (ATTACH HERETO).

REMARKS: Static Gs. 80 R 600' NE
P.E.M. Rect. Ser. # 637255 - 28V 12A

ALL CONSTRUCTION COMPLETED

Amels
SIGNATURE

GROUND BED LAYOUT SKETCH



ORIGINAL & 1 COPY
ALL REPORTS

DRILLING DEPARTMENT

DAILY DRILLING REPORT

WELL NO.

CONTRACTOR

L. E. Wilson

RIG NO

P-2

REPORT NO.

DATE _____

11-14 + 15 + 16 1964

MORNING

DAYLIGHT

EVENING

Driller					Total Men In Crew					Driller					Total Men In Crew					Driller					Total Men In Crew				
FROM	TO	FORMATION	WT-BIT	R.P.M.	FROM	TO	FORMATION	WT-BIT	R.P.M.	FROM	TO	FORMATION	WT-BIT	R.P.M.	FROM	TO	FORMATION	WT-BIT	R.P.M.										
0	12	SC.			115	120	SC & SS			190	210	SAND																	
12	25	SS			120	163	SAND & SS			210	223	Sh																	
25	95	Sh & SC.			163	177	Sh. & SS			223	232	SAND																	
95	115	SAND			177	190	SC			232	260	Sh																	

	NO. DC	SIZE	LENG.		NO. DC	SIZE	LENG.		NO. DC	SIZE	LENG.		NO. DC	SIZE	LENG.
BIT NO.				BIT NO.				BIT NO.				BIT NO.			
SERIAL NO. 67744-260 ST				SERIAL NO.				SERIAL NO.				SERIAL NO.			
SIZE 74				SIZE				SIZE				SIZE			
TYPE K2PJ				TYPE				TYPE				TYPE			
MAKE SECURITY				MAKE				MAKE				MAKE			
TOTAL DEPTH 910'				TOTAL DEPTH				TOTAL DEPTH				TOTAL DEPTH			

MUD RECORD			MUD, ADDITIVES USED AND RECEIVED	MUD RECORD			MUD, ADDITIVES USED AND RECEIVED	MUD RECORD			MUD, ADDITIVES USED AND RECEIVED
Time	Wt.	Vis.		Time	Wt.	Vis.		Time	Wt.	Vis.	
			1 Mud								

[illegible]

REMARKS -	REMARKS -	REMARKS -
<p>4-14-64</p> <p>Finished Last hole @ 3:30 AM.</p> <p>Started hole @ 4:15 PM. - Drilled from 0' to 40'</p> <p>Left Field @ 5:00 PM.</p>		<p>4-16-64</p> <p>Left Yard @ 6:00 AM.</p> <p>Arrived Rig @ 7:45 AM - Drilled from 40' to 800'</p> <p>Finished hole @ 12:30 PM.</p>
<p>4-15-64</p> <p>Left Yard @ 6:00 AM.</p> <p>Arrived Rig @ 7:45 AM - Drilled from 40' to 800'</p> <p>Left Field @ 5:00 PM.</p>		

SIGNED: Toolpusher

Continued Supervision

O. H. Sorensen

#2 = 30-045-07016
#3 = 30-045-20827
#1A = 30-045-26487

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NW Sec. 32 Twp 28 Rng 8

Name of Well/Wells or Pipeline Serviced PHILLIPS #2, #3, #1A

cps 646w

Elevation 6739' Completion Date 10/5/73 Total Depth 700' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. N/A

Depths gas encountered: N/A

Type & amount of coke breeze used: 9000 lbs.

Depths anodes placed: 525', 515', 495', 485', 440', 430', 420', 355', 335'

Depths vent pipes placed: N/A

Vent pipe perforations: 487'

Remarks: qb #2

RECEIVED

MAY 31 1991

OIL CON. DIV.
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

Farmington Region

Post Office Box 4239

Farmington, New Mexico 87499

(505) 327-0251

W-07-0235 Rev. 10-81

Drilling Log (Attach Here) ☒ WELL CASING CATHODIC PROTECTION CONSTRUCTION REPORT Completion Date 11-11-87
DAILY LOG

CPS #	Well Name, Line or Plant	Work Order #	Static	Ins. Union Check
646-w	PHILLIPS # 1-A			<input checked="" type="checkbox"/> Good <input type="checkbox"/> Bad
	PHILLIPS # 2			
	PHILLIPS # 3			
Location A-32-28-8	Anode Size 2" x 60"	Anode Type Duriron	Size Bit 6 3/4"	
Depth Drilled 540'	Depth Logged 530'	Drilling Rig Type	Total Lbs. Cable Used	Loss Circulation Mat'l Used
Anode Depth				
# 1 380	# 2 372	# 3 364	# 4 356	# 5 348
# 6 340	# 7 272	# 8 244	# 9 200	# 10 190
Anode Output (Amps)				
# 1 3.6	# 2 3.8	# 3 4.8	# 4 4.8	# 5 3.9
# 6 3.1	# 7 3.3	# 8 3.4	# 9 3.9	# 10 3.2
Anode Depth				
# 11	# 12	# 13	# 14	# 15
# 16	# 17	# 18	# 19	# 20
Anode Output (Amps)				
# 11	# 12	# 13	# 14	# 15
# 16	# 17	# 18	# 19	# 20
Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 12.05	Amps 15.2	Ohms .79		

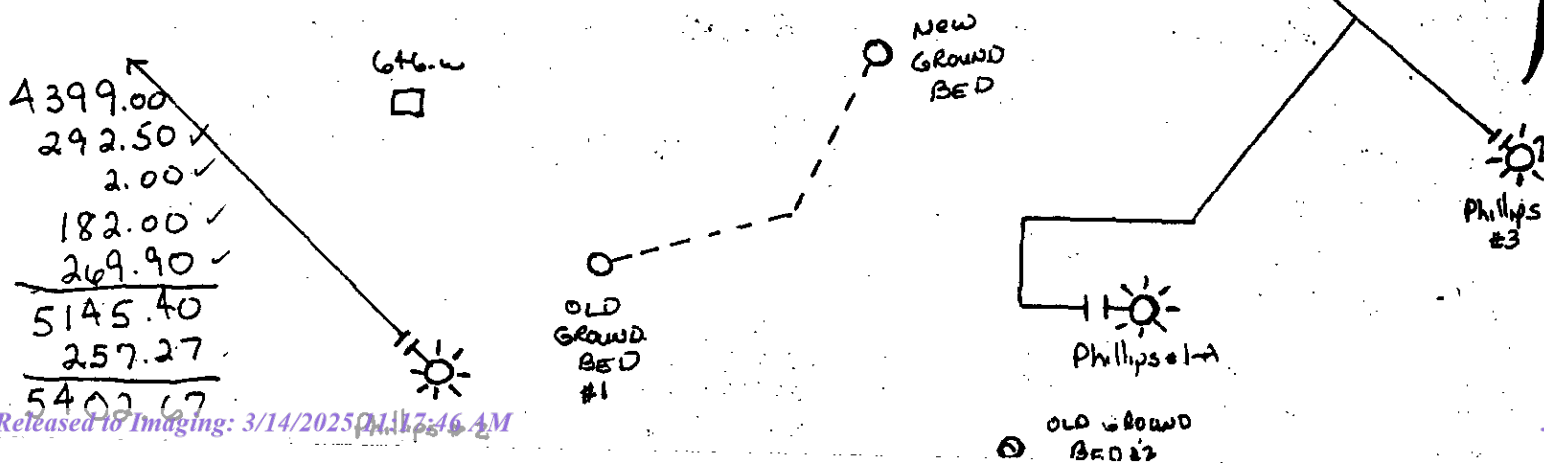
Remarks: DRILLED 540, LOGGED 530'. HIT WATER BETWEEN 160' - 180'.
NOT ENOUGH FOR SAMPLE. INSTALLED 535' of 1" PVC VENT
PIPE; PERFORATED 460'

Rectifier Size: — V — A
Addn'l Depth: 30' ✓
Depth Credit: —
Extra Cable: 10' ✓
Ditch & 1 Cable: 260'
Ditch & 2 Cable: —
25' Meter Pole: —
20' Meter Pole: —
10' Stub Pole: —
Junction Box: —

All Construction Completed

M. Sullivan
(Signature)

GROUND BED LAYOUT SKETCH



Date: 11-11-87

DEEP WELL GROUND BED LOG

MERIDIAN O. I.

Ph. 11, p 5#1-A

Location

NW 32-28-8

- Volts Applied

12.05

7.9

AS

Released to Imaging: 3/14/2025 11:17:46 AM

1414

4- 30-045-20924
 3E- 30-045-26485
 800- 30-045-27190

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
 NORTHWESTERN NEW MEXICO

(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL INC. Location: Unit N Sec. 32 Twp 28 Rng 8

Name of Well/Wells or Pipeline Serviced PHILLIPS #4, #3E, #800

cps 2160w

Elevation 6398' Completion Date 7/5/89 Total Depth 240' Land Type *N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

If Cement or Bentonite Plugs have been placed, show depths & amounts used

N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 100'

Depths gas encountered: N/A

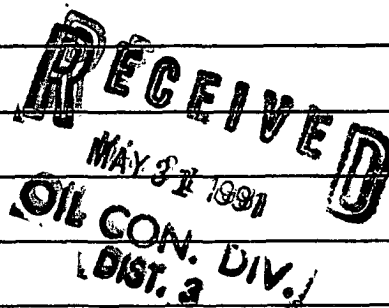
Type & amount of coke breeze used: N/A

Depths anodes placed: 189', 173', 165', 158'

Depths vent pipes placed: N/A

Vent pipe perforations: N/A

Remarks: (gb. #2)



If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
 If Federal or Indian, add Lease Number.

CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOGDrilling Log (Attach Hereto) ☒

Completion Date 7-5-89

CPS #	Well Name, Line or Plant:	Work Order #	Static:	Ins. Union Check
2160-w	Phillips #800 ①	F/C 3541A	600' S = .897	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Bad
	Phillips #3-E ③	D/K 54271A	600' S = .811	
	Phillips #4 30033②	P/C 44390A	600' SW = .853	
Location:	Anode Size:	Anode Type:	Size Bit:	
N32-28-8	2" x 60"	Duriron	6 3/4"	
Depth Drilled	Depth Logged	Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used
500' / 240'	240'			
Anode Depth				
# 1 185'	# 2 178'	# 3 171'	# 4 164'	# 5 157'
# 6 189'	# 7 181'	# 8 173'	# 9 165'	# 10 158'
Anode Output (Amps)				
# 1 3.4	# 2 4.9	# 3 7.2	# 4 7.2	# 5 6.9
# 6 2.5	# 7 4.3	# 8 4.9	# 9 5.2	# 10 3.2
Anode Depth				
# 11	# 12	# 13	# 14	# 15
# 16	# 17	# 18	# 19	# 20
Anode Output (Amps)				
# 11	# 12	# 13	# 14	# 15
# 16	# 17	# 18	# 19	# 20
Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 12.17	Amps 13.5	Ohms .901		

Remarks: DRILLED 500' HOLE CAVED IN AT 225' PUT 5 ANODES IN 1ST HOLE THEN MOVED OVER & DRILLED 2ND HOLE 240' + INSTALLED REMAINING 5 ANODES. DRILLER SAID DAMP AT 100'. INSTALLED 245' OF 1" PVC VENT PIPE PERFORATED BOTTOM 260'

* Build Power (METER DROP)

Rectifier Size: 60 V 30 A

Addn'l Depth

Depth Credit: 260' 3.75

Extra Cable: 380' .20

Ditch & 1 Cable: 1220' .70

25' Meter Pole:

20' Meter Pole:

10' Stub Pole:

Junction Box:

3870.00 ✓

789.00 ✓

-975.00 ✓

76.00 ✓

854.00 ✓

312.50 ✓

237.00 ✓

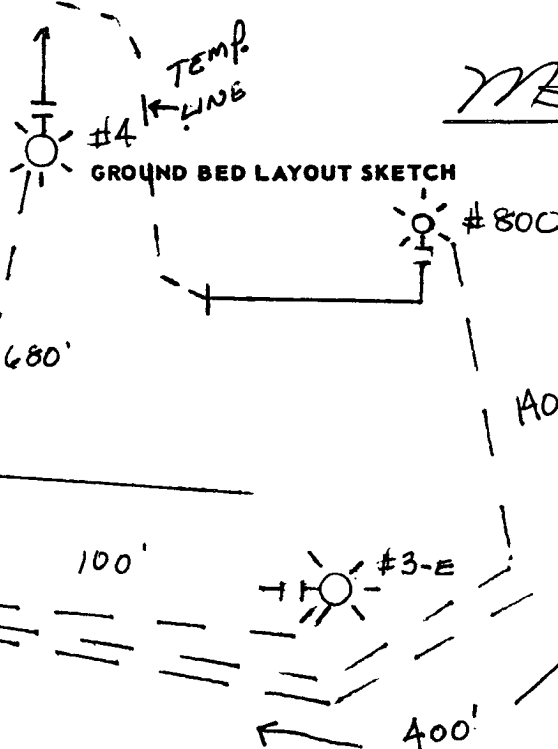
5163.50

258.18

5421.68 OKG2

All Construction Completed

M. Williams
(Signature)



D. CRASS DRILLING CO.Drill No. 3 2160

DRILLER'S WELL LOG

S. P. No. Phillips #800 Date 6-30-89
Client Meridian Oil Co. Prospect _____
County SAN JUAN State New Mex.

If hole is a redrill or if moved from original staked position show distance
and direction moved: _____

FROM	TO	FORMATION — COLOR — HARDNESS
<u>0</u>	<u>150</u>	<u>SANDSTONE</u>
<u>150</u>	<u>185</u>	<u>SHALE</u>
<u>185</u>	<u>210</u>	<u>SANDY SHALE</u>
<u>210</u>	<u>270</u>	<u>SANDSTONE</u>
<u>270</u>	<u>295</u>	<u>SANDY SHALE</u>
<u>295</u>	<u>315</u>	<u>SHALE</u>
<u>315</u>	<u>440</u>	<u>SANDSTONE</u>
<u>440</u>	<u>460</u>	<u>SHALE</u>
<u>460</u>	<u>500</u>	<u>SANDSTONE</u>

Mud _____ Bron _____ Lime _____

Rock Bit Number _____ Make _____

Remarks: Damp @ 100'Driller Rennie Brown

D. CRASS DRILLING CO.Drill No. 3

2160

Redrill

DRILLER'S WELL LOG

S. P. No. Phillips #800 Date 7-5-89Client Meridian Oil Co. Prospect _____County SAN JUAN State New MexIf hole is a redrill or if moved from original staked position show distance
and direction moved: _____

FROM	TO	FORMATION — COLOR — HARDNESS
0	100	SANDstone
100	110	Shale
110	130	SANDstone
130	160	SANDy Shale
160	195	Shale
195	205	SANDstone
205	215	Shale
215	240	SANDstone

Mud _____ Bron _____ Lime _____

Rock Bit Number _____ Make _____

Remarks: DAMP @ 100'Driller Rennie Brown



APPENDIX C

Executed C-138 Solid Waste Acceptance Form

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-138
Revised 08/01/11

*Surface Waste Management Facility Operator
and Generator shall maintain and make this
documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address: Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401	PayKey: AM14058 PM: ME Eddleman AFE: Pending
2. Originating Site: Schwerdtfeger ALS #10A	
3. Location of Material (Street Address, City, State or ULSTR): UL D Section 31 T28N R8W 36.622910, -107.728570	
4. Source and Description of Waste: Source: Remediation activities associated with a natural gas pipeline leak. Description: Hydrocarbon/Condensate impacted soil associated natural gas pipeline release. Estimated Volume <u>50</u> yd ³ / bbls Known Volume (to be entered by the operator at the end of the haul) <u>444/25</u> yd ³ / bbls	

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Thomas Long *Thomas Long*, representative or authorized agent for Enterprise Products Operating do hereby
Generator Signature
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988
regulatory determination, the above described waste is: (Check the appropriate classification)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency ☐ Monthly ☐ Weekly ☐ Per Load

☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long *Thomas Long* 11-1-2024, representative for Enterprise Products Operating authorizes Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, _____, representative for Envirotech, Inc. do hereby certify that
representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples
have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results
of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of
19.15.36 NMAC.

5. Transporter: TBD

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Envirotech Inc. Soil Remediation Facility * Permit #: NM 01-0011

Address of Facility: Hilltop, NM

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☐ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: Greg Crabtree
SIGNATURE: *Greg Crabtree*
Surface Waste Management Facility Authorized Agent

TITLE: Enviro Manager DATE: 11/1/24
TELEPHONE NO.: 505-632-0615



APPENDIX D

Photographic Documentation

SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Schwerdtsferger ALS 10A
Ensolum Project No. 05A1226351

**Photograph 1**

Photograph Description: View of the release point.

**Photograph 2**

Photograph Description: View of the in-process excavation activities.

**Photograph 3**

Photograph Description: View of the in-process excavation activities.



SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Schwerdtsferger ALS 10A
Ensolum Project No. 05A1226351

**Photograph 4**

Photograph Description: View of the in-process excavation activities.

**Photograph 5**

Photograph Description: View of the final excavation.

**Photograph 6**

Photograph Description: View of the final excavation.



SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Schwerdtsferger ALS 10A
Ensolum Project No. 05A1226351



Photograph 7

Photograph Description: View of the backfilled excavation.





APPENDIX E

Regulatory Correspondence

From: [Long, Thomas](#)
To: [Kyle Summers](#); [Chad D'Aponti](#)
Subject: FW: [EXTERNAL] The Oil Conservation Division (OCD) has accepted the application, Application ID: 400024
Date: Wednesday, November 6, 2024 12:07:26 PM

[**EXTERNAL EMAIL**]

FYI

Thomas J. Long
Senior Environmental Scientist
Enterprise Products Company
614 Reilly Ave.
Farmington, New Mexico 87401
505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com



From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Wednesday, November 6, 2024 12:01 PM
To: Long, Thomas <tjlong@eprod.com>
Subject: [EXTERNAL] The Oil Conservation Division (OCD) has accepted the application, Application ID: 400024

[Use caution with links/attachments]

To whom it may concern (c/o Thomas Long for Enterprise Field Services, LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2431143123.

The sampling event is expected to take place:

When: 11/08/2024 @ 12:00

Where: D-31-28N-08W 0 FNL 0 FEL (36.62291,-107.72857)

Additional Information: Ensolum, LLC

Additional Instructions: 36.62291,-107.72857

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the

sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

This message (including any attachments) is confidential and intended for a specific individual and purpose. If you are not the intended recipient, please notify the sender immediately and delete this message.

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>

Sent: Thursday, January 16, 2025 1:51 PM

To: Long, Thomas <tjlong@eprod.com>

Subject: [EXTERNAL] The Oil Conservation Division (OCD) has accepted the application, Application ID: 421741

[Use caution with links/attachments]

To whom it may concern (c/o Thomas Long for Enterprise Field Services, LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2431143123.

The sampling event is expected to take place:

When: 01/22/2025 @ 10:30

Where: D-31-28N-08W 0 FNL 0 FEL (36.62291,-107.72857)

Additional Information: Ensolum LLC

Additional Instructions: 36.62291,-107.72857

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

This message (including any attachments) is confidential and intended for a specific individual and purpose. If you are not the intended recipient, please notify the sender immediately and delete this message.

From: [Long, Thomas](#)
To: [Kyle Summers](#)
Subject: FW: [EXTERNAL] Schwerdtsferger ALS #10A - Unit Letter D, S31 T28N R8W; 36.62291, 107.72857; NMOCD Incident ID No. NAPP2431143123
Date: Wednesday, February 12, 2025 10:28:11 AM
Attachments: [Outlook-vrvnsbs0.png](#)

[**EXTERNAL EMAIL**]

From: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Sent: Thursday, February 6, 2025 7:24 AM
To: Long, Thomas <tjlong@eprod.com>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: Re: [EXTERNAL] Schwerdtsferger ALS #10A - Unit Letter D, S31 T28N R8W; 36.62291, 107.72857; NMOCD Incident ID No. NAPP2431143123

[Use caution with links/attachments]

Good morning Tom,

Thank you for the notice. After conversing with you on the phone yesterday, 60-day time extension request is approved. Remediation Due date updated to April 7, 2025.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

Regards,

Nelson Velez • Environmental Specialist - Adv

Environmental Bureau | EMNRD - Oil Conservation Division

1000 Rio Brazos Road | Aztec, NM 87410

(505) 469-6146 | nelson.velez@emnrd.nm.gov

<http://www.emnrd.nm.gov/ocd>



From: Long, Thomas <tjlong@eprod.com>
Sent: Wednesday, February 5, 2025 7:32 AM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: [EXTERNAL] Schwerdtsferger ALS #10A - Unit Letter D, S31 T28N R8W; 36.62291, 107.72857; NMOCD Incident ID No. NAPP2431143123

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

Nelson,

Enterprise requests a time extension. The original due date for the closure report submittal is February 6, 2025. Enterprise requests time extension of an additional **30 days** for a new submittal due date of March 6, 2025. Enterprise requires additional time to finalize the closure report and allow time for internal review. Please acknowledge acceptance of this variance request. If you have any questions, please call or email.

Thomas J. Long
Senior Environmental Scientist
Enterprise Products Company
614 Reilly Ave.
Farmington, New Mexico 87401
505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com



This message (including any attachments) is confidential and intended for a specific individual and purpose. If you are not the intended recipient, please notify the sender immediately and delete this message.



APPENDIX F

Table 1 – Soil Analytical Summary

TABLE 1
Schwerdtfeger ALS 10A
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX ¹ (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total Combined TPH (GRO/DRO/MRO) ¹ (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria (Tier I)				10	NE	NE	NE	50	NE	NE	NE	100	600
Excavation Composite Soil Samples													
S-1	11.08.24	C	16	<0.021	<0.042	<0.042	<0.085	ND	<4.2	<9.6	<48	ND	<60
S-2	11.08.24	C	16	<0.018	<0.036	<0.036	<0.073	ND	<3.6	<9.7	<48	ND	<60
S-3	11.08.24	C	16	<0.022	<0.043	<0.043	<0.086	ND	<4.3	<9.9	<50	ND	<60
S-4	11.08.24	C	0 to 16	<0.019	<0.039	<0.039	<0.077	ND	<3.9	<9.6	<48	ND	<59
S-5	11.08.24	C	0 to 16	<0.019	<0.039	<0.039	<0.077	ND	<3.9	<9.7	<49	ND	<60
S-6	11.08.24	C	0 to 16	<0.019	<0.038	<0.038	<0.077	ND	<3.8	<9.1	<46	ND	<60
S-7	11.08.24	C	0 to 16	<0.016	<0.032	<0.032	<0.064	ND	<3.2	<9.5	<48	ND	<60
S-8	11.08.24	C	0 to 16	<0.017	<0.034	<0.034	<0.068	ND	<3.4	<9.6	<48	ND	<60
S-9	11.08.24	C	0 to 16	<0.019	<0.038	<0.038	<0.075	ND	<3.8	<9.5	<47	ND	<60
S-10	11.08.24	C	0 to 16	<0.017	<0.034	<0.034	<0.067	ND	<3.4	<9.3	<47	ND	<60
S-11	11.08.24	C	0 to 16	<0.015	<0.031	<0.031	<0.062	ND	<3.1	<9.6	<48	ND	<60
S-12	11.08.24	C	0 to 16	<0.022	<0.045	<0.045	<0.089	ND	<4.5	<9.5	<47	ND	<60
S-13	11.08.24	C	0 to 16	<0.015	<0.029	<0.029	<0.058	ND	<2.9	<9.5	<48	ND	<60
Backfill Composite Soil Sample													
BF-1	01.22.25	C	BF	<0.024	<0.049	<0.049	<0.098	ND	<4.9	10	<49	10	67

Note: Concentrations in **bold** and yellow exceed the applicable NM EMNRD Closure Criteria

¹ = Total combined concentrations are rounded to two (2) significant figures to match the laboratory resolution of the individual constituents.

ND = Not Detected above the Practical Quantitation Limits (PQLs) or Reporting Limits (RLs)

NE = Not established

NS = Not sampled

mg/kg = milligrams per kilogram

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

TPH = Total Petroleum Hydrocarbons

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics

BF = Backfill sample



APPENDIX G

Laboratory Data Sheets & Chain of Custody Documentation



Environment Testing

1

2

3

4

5

6

7

8

9

10

11

ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Summers
Ensolum
606 S Rio Grande
Suite A
Aztec, New Mexico 87410
Generated 11/11/2024 1:59:17 PM

JOB DESCRIPTION

Schwerdtsferger ALS #10A

JOB NUMBER

885-15038-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

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

Authorization



Generated
11/11/2024 1:59:17 PM

Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Client: Ensolum
Project/Site: Schwerdtsferger ALS #10A

Laboratory Job ID: 885-15038-1

Table of Contents

Cover Page	1
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Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
QC Sample Results	19
QC Association Summary	23
Lab Chronicle	26
Certification Summary	31
Chain of Custody	32
Receipt Checklists	34



Definitions/Glossary

Client: Ensolum
Project/Site: Schwerdtsferger ALS #10A

Job ID: 885-15038-1

Glossary

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

Case Narrative

Client: Ensolum
Project: Schwerdtsferger ALS #10A

Job ID: 885-15038-1

Job ID: 885-15038-1

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Job Narrative 885-15038-1

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 11/9/2024 7:07 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°C.

Gasoline Range Organics

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

GC VOA

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

Diesel Range Organics

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

HPLC/IC

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

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Client Sample Results

Client: Ensolum
Project/Site: Schwerdtferger ALS #10A

Job ID: 885-15038-1

Client Sample ID: S-1

Lab Sample ID: 885-15038-1

Date Collected: 11/08/24 12:00

Matrix: Solid

Date Received: 11/09/24 07:07

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.2	mg/Kg		11/10/24 17:17	11/10/24 19:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		35 - 166			11/10/24 17:17	11/10/24 19:33	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.021	mg/Kg		11/10/24 17:17	11/10/24 19:33	1
Ethylbenzene	ND		0.042	mg/Kg		11/10/24 17:17	11/10/24 19:33	1
Toluene	ND		0.042	mg/Kg		11/10/24 17:17	11/10/24 19:33	1
Xylenes, Total	ND		0.085	mg/Kg		11/10/24 17:17	11/10/24 19:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		48 - 145			11/10/24 17:17	11/10/24 19:33	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6	mg/Kg		11/11/24 08:37	11/11/24 11:10	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		11/11/24 08:37	11/11/24 11:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	79		62 - 134			11/11/24 08:37	11/11/24 11:10	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		11/09/24 09:02	11/09/24 10:01	20

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Client Sample Results

Client: Ensolum
Project/Site: Schwerdtsferger ALS #10A

Job ID: 885-15038-1

Client Sample ID: S-2
Date Collected: 11/08/24 12:05
Date Received: 11/09/24 07:07

Lab Sample ID: 885-15038-2
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		3.6	mg/Kg		11/10/24 17:17	11/10/24 19:56		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	99		35 - 166			11/10/24 17:17	11/10/24 19:56		1
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.018	mg/Kg		11/10/24 17:17	11/10/24 19:56		1
Ethylbenzene	ND		0.036	mg/Kg		11/10/24 17:17	11/10/24 19:56		1
Toluene	ND		0.036	mg/Kg		11/10/24 17:17	11/10/24 19:56		1
Xylenes, Total	ND		0.073	mg/Kg		11/10/24 17:17	11/10/24 19:56		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	100		48 - 145			11/10/24 17:17	11/10/24 19:56		1
Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		11/11/24 08:37	11/11/24 11:20		1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		11/11/24 08:37	11/11/24 11:20		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	78		62 - 134			11/11/24 08:37	11/11/24 11:20		1
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		60	mg/Kg		11/09/24 09:02	11/09/24 10:11		20

Client Sample Results

Client: Ensolum

Job ID: 885-15038-1

Project/Site: Schwerdtsferger ALS #10A

Client Sample ID: S-3

Lab Sample ID: 885-15038-3

Date Collected: 11/08/24 12:10

Matrix: Solid

Date Received: 11/09/24 07:07

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.3	mg/Kg		11/10/24 17:17	11/10/24 20:19		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	103		35 - 166			11/10/24 17:17	11/10/24 20:19		1
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.022	mg/Kg		11/10/24 17:17	11/10/24 20:19		1
Ethylbenzene	ND		0.043	mg/Kg		11/10/24 17:17	11/10/24 20:19		1
Toluene	ND		0.043	mg/Kg		11/10/24 17:17	11/10/24 20:19		1
Xylenes, Total	ND		0.086	mg/Kg		11/10/24 17:17	11/10/24 20:19		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	102		48 - 145			11/10/24 17:17	11/10/24 20:19		1
Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.9	mg/Kg		11/11/24 08:37	11/11/24 11:31		1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		11/11/24 08:37	11/11/24 11:31		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	79		62 - 134			11/11/24 08:37	11/11/24 11:31		1
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		60	mg/Kg		11/09/24 09:02	11/09/24 10:21		20

Client Sample Results

Client: Ensolum
Project/Site: Schwerdtferger ALS #10A

Job ID: 885-15038-1

Client Sample ID: S-4

Lab Sample ID: 885-15038-4

Date Collected: 11/08/24 12:15

Matrix: Solid

Date Received: 11/09/24 07:07

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		3.9	mg/Kg		11/10/24 17:17	11/10/24 20:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		35 - 166			11/10/24 17:17	11/10/24 20:43	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.019	mg/Kg		11/10/24 17:17	11/10/24 20:43	1
Ethylbenzene	ND		0.039	mg/Kg		11/10/24 17:17	11/10/24 20:43	1
Toluene	ND		0.039	mg/Kg		11/10/24 17:17	11/10/24 20:43	1
Xylenes, Total	ND		0.077	mg/Kg		11/10/24 17:17	11/10/24 20:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		48 - 145			11/10/24 17:17	11/10/24 20:43	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6	mg/Kg		11/11/24 08:37	11/11/24 11:41	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		11/11/24 08:37	11/11/24 11:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	80		62 - 134			11/11/24 08:37	11/11/24 11:41	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		59	mg/Kg		11/09/24 09:02	11/09/24 10:32	20

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Client Sample Results

Client: Ensolum
Project/Site: Schwerdtsferger ALS #10A

Job ID: 885-15038-1

Client Sample ID: S-5
Date Collected: 11/08/24 12:20
Date Received: 11/09/24 07:07

Lab Sample ID: 885-15038-5
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		3.9	mg/Kg		11/10/24 17:17	11/10/24 21:06		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	100		35 - 166			11/10/24 17:17	11/10/24 21:06		1
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.019	mg/Kg		11/10/24 17:17	11/10/24 21:06		1
Ethylbenzene	ND		0.039	mg/Kg		11/10/24 17:17	11/10/24 21:06		1
Toluene	ND		0.039	mg/Kg		11/10/24 17:17	11/10/24 21:06		1
Xylenes, Total	ND		0.077	mg/Kg		11/10/24 17:17	11/10/24 21:06		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	101		48 - 145			11/10/24 17:17	11/10/24 21:06		1
Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		11/11/24 08:37	11/11/24 11:52		1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		11/11/24 08:37	11/11/24 11:52		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	82		62 - 134			11/11/24 08:37	11/11/24 11:52		1
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		60	mg/Kg		11/09/24 09:02	11/09/24 10:42		20

Client Sample Results

Client: Ensolum
Project/Site: Schwerdtsferger ALS #10A

Job ID: 885-15038-1

Client Sample ID: S-6
Date Collected: 11/08/24 12:25
Date Received: 11/09/24 07:07

Lab Sample ID: 885-15038-6
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		3.8	mg/Kg		11/10/24 17:17	11/10/24 21:30		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	97		35 - 166			11/10/24 17:17	11/10/24 21:30		1
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.019	mg/Kg		11/10/24 17:17	11/10/24 21:30		1
Ethylbenzene	ND		0.038	mg/Kg		11/10/24 17:17	11/10/24 21:30		1
Toluene	ND		0.038	mg/Kg		11/10/24 17:17	11/10/24 21:30		1
Xylenes, Total	ND		0.077	mg/Kg		11/10/24 17:17	11/10/24 21:30		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	98		48 - 145			11/10/24 17:17	11/10/24 21:30		1
Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.1	mg/Kg		11/11/24 08:37	11/11/24 12:03		1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		11/11/24 08:37	11/11/24 12:03		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	83		62 - 134			11/11/24 08:37	11/11/24 12:03		1
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		60	mg/Kg		11/09/24 09:02	11/09/24 11:13		20

Client Sample Results

Client: Ensolum

Job ID: 885-15038-1

Project/Site: Schwerdtsferger ALS #10A

Client Sample ID: S-7

Lab Sample ID: 885-15038-7

Date Collected: 11/08/24 12:30

Matrix: Solid

Date Received: 11/09/24 07:07

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		3.2	mg/Kg		11/10/24 17:17	11/10/24 21:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			11/10/24 17:17	11/10/24 21:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.016	mg/Kg		11/10/24 17:17	11/10/24 21:53	1
Ethylbenzene	ND		0.032	mg/Kg		11/10/24 17:17	11/10/24 21:53	1
Toluene	ND		0.032	mg/Kg		11/10/24 17:17	11/10/24 21:53	1
Xylenes, Total	ND		0.064	mg/Kg		11/10/24 17:17	11/10/24 21:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		48 - 145			11/10/24 17:17	11/10/24 21:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		11/11/24 08:37	11/11/24 10:39	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		11/11/24 08:37	11/11/24 10:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	103		62 - 134			11/11/24 08:37	11/11/24 10:39	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		11/09/24 09:02	11/09/24 11:23	20

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Client Sample Results

Client: Ensolum

Job ID: 885-15038-1

Project/Site: Schwerdtfeger ALS #10A

Client Sample ID: S-8

Lab Sample ID: 885-15038-8

Date Collected: 11/08/24 12:35

Matrix: Solid

Date Received: 11/09/24 07:07

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		3.4	mg/Kg		11/10/24 17:17	11/10/24 22:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			11/10/24 17:17	11/10/24 22:16	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.017	mg/Kg		11/10/24 17:17	11/10/24 22:16	1
Ethylbenzene	ND		0.034	mg/Kg		11/10/24 17:17	11/10/24 22:16	1
Toluene	ND		0.034	mg/Kg		11/10/24 17:17	11/10/24 22:16	1
Xylenes, Total	ND		0.068	mg/Kg		11/10/24 17:17	11/10/24 22:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			11/10/24 17:17	11/10/24 22:16	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6	mg/Kg		11/11/24 08:37	11/11/24 10:51	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		11/11/24 08:37	11/11/24 10:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	103		62 - 134			11/11/24 08:37	11/11/24 10:51	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		11/09/24 09:02	11/09/24 11:34	20

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Client Sample Results

Client: Ensolum
Project/Site: Schwerdtsferger ALS #10A

Job ID: 885-15038-1

Client Sample ID: S-9

Lab Sample ID: 885-15038-9

Date Collected: 11/08/24 12:40

Matrix: Solid

Date Received: 11/09/24 07:07

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		3.8	mg/Kg		11/10/24 17:17	11/10/24 22:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			11/10/24 17:17	11/10/24 22:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.019	mg/Kg		11/10/24 17:17	11/10/24 22:40	1
Ethylbenzene	ND		0.038	mg/Kg		11/10/24 17:17	11/10/24 22:40	1
Toluene	ND		0.038	mg/Kg		11/10/24 17:17	11/10/24 22:40	1
Xylenes, Total	ND		0.075	mg/Kg		11/10/24 17:17	11/10/24 22:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		48 - 145			11/10/24 17:17	11/10/24 22:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		11/11/24 08:37	11/11/24 11:03	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		11/11/24 08:37	11/11/24 11:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	109		62 - 134			11/11/24 08:37	11/11/24 11:03	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		11/09/24 09:02	11/09/24 11:44	20

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Client Sample Results

Client: Ensolum
Project/Site: Schwerdtsferger ALS #10A

Job ID: 885-15038-1

Client Sample ID: S-10

Lab Sample ID: 885-15038-10

Date Collected: 11/08/24 12:45

Matrix: Solid

Date Received: 11/09/24 07:07

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		3.4	mg/Kg		11/10/24 17:17	11/10/24 23:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		35 - 166			11/10/24 17:17	11/10/24 23:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.017	mg/Kg		11/10/24 17:17	11/10/24 23:03	1
Ethylbenzene	ND		0.034	mg/Kg		11/10/24 17:17	11/10/24 23:03	1
Toluene	ND		0.034	mg/Kg		11/10/24 17:17	11/10/24 23:03	1
Xylenes, Total	ND		0.067	mg/Kg		11/10/24 17:17	11/10/24 23:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		48 - 145			11/10/24 17:17	11/10/24 23:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		11/11/24 08:37	11/11/24 11:15	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		11/11/24 08:37	11/11/24 11:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	103		62 - 134			11/11/24 08:37	11/11/24 11:15	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		11/09/24 09:02	11/09/24 11:55	20

Client Sample Results

Client: Ensolum

Job ID: 885-15038-1

Project/Site: Schwerdtfeger ALS #10A

Client Sample ID: S-11

Lab Sample ID: 885-15038-11

Date Collected: 11/08/24 12:50

Matrix: Solid

Date Received: 11/09/24 07:07

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		3.1	mg/Kg		11/10/24 17:17	11/10/24 23:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		35 - 166			11/10/24 17:17	11/10/24 23:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.015	mg/Kg		11/10/24 17:17	11/10/24 23:50	1
Ethylbenzene	ND		0.031	mg/Kg		11/10/24 17:17	11/10/24 23:50	1
Toluene	ND		0.031	mg/Kg		11/10/24 17:17	11/10/24 23:50	1
Xylenes, Total	ND		0.062	mg/Kg		11/10/24 17:17	11/10/24 23:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		48 - 145			11/10/24 17:17	11/10/24 23:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6	mg/Kg		11/11/24 08:37	11/11/24 11:27	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		11/11/24 08:37	11/11/24 11:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	106		62 - 134			11/11/24 08:37	11/11/24 11:27	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60	mg/Kg		11/09/24 09:02	11/09/24 12:05	20

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Client Sample Results

Client: Ensolum
Project/Site: Schwerdtsferger ALS #10A

Job ID: 885-15038-1

Client Sample ID: S-12

Lab Sample ID: 885-15038-12

Date Collected: 11/08/24 12:55

Matrix: Solid

Date Received: 11/09/24 07:07

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.5	mg/Kg		11/10/24 17:17	11/11/24 00:13	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	97		35 - 166			11/10/24 17:17	11/11/24 00:13	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.022	mg/Kg		11/10/24 17:17	11/11/24 00:13	1	
Ethylbenzene	ND		0.045	mg/Kg		11/10/24 17:17	11/11/24 00:13	1	
Toluene	ND		0.045	mg/Kg		11/10/24 17:17	11/11/24 00:13	1	
Xylenes, Total	ND		0.089	mg/Kg		11/10/24 17:17	11/11/24 00:13	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	95		48 - 145			11/10/24 17:17	11/11/24 00:13	1	
Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		11/11/24 08:37	11/11/24 11:39	1	
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		11/11/24 08:37	11/11/24 11:39	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	107		62 - 134			11/11/24 08:37	11/11/24 11:39	1	
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		60	mg/Kg		11/09/24 09:02	11/09/24 12:15	20	

Client Sample Results

Client: Ensolum

Job ID: 885-15038-1

Project/Site: Schwerdtsferger ALS #10A

Client Sample ID: S-13

Lab Sample ID: 885-15038-13

Date Collected: 11/08/24 13:00

Matrix: Solid

Date Received: 11/09/24 07:07

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		2.9	mg/Kg		11/10/24 17:17	11/11/24 00:36	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	96		35 - 166			11/10/24 17:17	11/11/24 00:36	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.015	mg/Kg		11/10/24 17:17	11/11/24 00:36	1	
Ethylbenzene	ND		0.029	mg/Kg		11/10/24 17:17	11/11/24 00:36	1	
Toluene	ND		0.029	mg/Kg		11/10/24 17:17	11/11/24 00:36	1	
Xylenes, Total	ND		0.058	mg/Kg		11/10/24 17:17	11/11/24 00:36	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	98		48 - 145			11/10/24 17:17	11/11/24 00:36	1	
Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		11/11/24 08:37	11/11/24 11:51	1	
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		11/11/24 08:37	11/11/24 11:51	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	110		62 - 134			11/11/24 08:37	11/11/24 11:51	1	
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		60	mg/Kg		11/09/24 09:02	11/09/24 12:46	20	

QC Sample Results

Client: Ensolum

Job ID: 885-15038-1

Project/Site: Schwerdtsferger ALS #10A

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

Lab Sample ID: MB 885-15655/1-A

Matrix: Solid

Analysis Batch: 15653

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15655

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		11/10/24 17:17	11/10/24 19:09	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		35 - 166			11/10/24 17:17	11/10/24 19:09	1

Lab Sample ID: LCS 885-15655/2-A

Matrix: Solid

Analysis Batch: 15653

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15655

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	24.4		mg/Kg		97	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	202		35 - 166				

Lab Sample ID: 885-15038-1 MS

Matrix: Solid

Analysis Batch: 15653

Client Sample ID: S-1

Prep Type: Total/NA

Prep Batch: 15655

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	ND		21.2	20.1		mg/Kg		95	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	195		35 - 166						

Lab Sample ID: 885-15038-1 MSD

Matrix: Solid

Analysis Batch: 15653

Client Sample ID: S-1

Prep Type: Total/NA

Prep Batch: 15655

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		21.2	20.5		mg/Kg		97	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	199		35 - 166								

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-15655/1-A

Matrix: Solid

Analysis Batch: 15654

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15655

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		11/10/24 17:17	11/10/24 19:09	1
Ethylbenzene	ND		0.050	mg/Kg		11/10/24 17:17	11/10/24 19:09	1
Toluene	ND		0.050	mg/Kg		11/10/24 17:17	11/10/24 19:09	1

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QC Sample Results

Client: Ensolum

Job ID: 885-15038-1

Project/Site: Schwerdtsferger ALS #10A

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

Lab Sample ID: MB 885-15655/1-A

Matrix: Solid

Analysis Batch: 15654

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15655

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10	mg/Kg		11/10/24 17:17	11/10/24 19:09	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		48 - 145			11/10/24 17:17	11/10/24 19:09	1

Lab Sample ID: LCS 885-15655/3-A

Matrix: Solid

Analysis Batch: 15654

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15655

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	1.02		mg/Kg		102	70 - 130
Ethylbenzene	1.00	1.08		mg/Kg		108	70 - 130
Toluene	1.00	1.08		mg/Kg		108	70 - 130
Xylenes, Total	3.00	3.17		mg/Kg		106	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	103		48 - 145				

Lab Sample ID: 885-15038-2 MS

Matrix: Solid

Analysis Batch: 15654

Client Sample ID: S-2

Prep Type: Total/NA

Prep Batch: 15655

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		0.728	0.756		mg/Kg		104	70 - 130
Ethylbenzene	ND		0.728	0.774		mg/Kg		106	70 - 130
Toluene	ND		0.728	0.791		mg/Kg		109	70 - 130
Xylenes, Total	ND		2.18	2.27		mg/Kg		103	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	99		48 - 145						

Lab Sample ID: 885-15038-2 MSD

Matrix: Solid

Analysis Batch: 15654

Client Sample ID: S-2

Prep Type: Total/NA

Prep Batch: 15655

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.728	0.739		mg/Kg		101	70 - 130	2	20
Ethylbenzene	ND		0.728	0.770		mg/Kg		106	70 - 130	0	20
Toluene	ND		0.728	0.780		mg/Kg		107	70 - 130	1	20
Xylenes, Total	ND		2.18	2.28		mg/Kg		103	70 - 130	0	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	99		48 - 145								

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QC Sample Results

Client: Ensolum

Job ID: 885-15038-1

Project/Site: Schwerdtsferger ALS #10A

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

Lab Sample ID: MB 885-15665/1-A

Matrix: Solid

Analysis Batch: 15668

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15665

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		11/11/24 08:37	11/11/24 10:38	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		11/11/24 08:37	11/11/24 10:38	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	89		62 - 134			11/11/24 08:37	11/11/24 10:38	1

Lab Sample ID: LCS 885-15665/2-A

Matrix: Solid

Analysis Batch: 15668

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15665

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	37.1		mg/Kg		74	60 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Di-n-octyl phthalate (Surr)	80		62 - 134				

Lab Sample ID: 885-15038-13 MS

Matrix: Solid

Analysis Batch: 15669

Client Sample ID: S-13

Prep Type: Total/NA

Prep Batch: 15665

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	ND		47.9	46.4		mg/Kg		97	44 - 136
Surrogate	MS %Recovery	MS Qualifier	Limits						
Di-n-octyl phthalate (Surr)	112		62 - 134						

Lab Sample ID: 885-15038-13 MSD

Matrix: Solid

Analysis Batch: 15669

Client Sample ID: S-13

Prep Type: Total/NA

Prep Batch: 15665

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		48.0	47.2		mg/Kg		98	44 - 136	2	32
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Di-n-octyl phthalate (Surr)	105		62 - 134								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MRL 885-15641/3

Matrix: Solid

Analysis Batch: 15641

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	0.500	0.521		mg/L		104	50 - 150

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QC Sample Results

Client: Ensolum

Job ID: 885-15038-1

Project/Site: Schwerdtsferger ALS #10A

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 885-15644/1-A

Matrix: Solid

Analysis Batch: 15641

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15644

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5	mg/Kg		11/09/24 09:02	11/09/24 09:40	1

Lab Sample ID: LCS 885-15644/2-A

Matrix: Solid

Analysis Batch: 15641

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15644

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15.0	14.4		mg/Kg		96	90 - 110

Lab Sample ID: 885-15038-12 MS

Matrix: Solid

Analysis Batch: 15641

Client Sample ID: S-12

Prep Type: Total/NA

Prep Batch: 15644

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	ND		30.2	ND		mg/Kg		NC	50 - 150

Lab Sample ID: 885-15038-12 MSD

Matrix: Solid

Analysis Batch: 15641

Client Sample ID: S-12

Prep Type: Total/NA

Prep Batch: 15644

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit
Chloride	ND		29.7	ND		mg/Kg		NC	50 - 150	NC 20

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QC Association Summary

Client: Ensolum

Job ID: 885-15038-1

Project/Site: Schwerdtsferger ALS #10A

GC VOA

Analysis Batch: 15653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15038-1	S-1	Total/NA	Solid	8015M/D	15655
885-15038-2	S-2	Total/NA	Solid	8015M/D	15655
885-15038-3	S-3	Total/NA	Solid	8015M/D	15655
885-15038-4	S-4	Total/NA	Solid	8015M/D	15655
885-15038-5	S-5	Total/NA	Solid	8015M/D	15655
885-15038-6	S-6	Total/NA	Solid	8015M/D	15655
885-15038-7	S-7	Total/NA	Solid	8015M/D	15655
885-15038-8	S-8	Total/NA	Solid	8015M/D	15655
885-15038-9	S-9	Total/NA	Solid	8015M/D	15655
885-15038-10	S-10	Total/NA	Solid	8015M/D	15655
885-15038-11	S-11	Total/NA	Solid	8015M/D	15655
885-15038-12	S-12	Total/NA	Solid	8015M/D	15655
885-15038-13	S-13	Total/NA	Solid	8015M/D	15655
MB 885-15655/1-A	Method Blank	Total/NA	Solid	8015M/D	15655
LCS 885-15655/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	15655
885-15038-1 MS	S-1	Total/NA	Solid	8015M/D	15655
885-15038-1 MSD	S-1	Total/NA	Solid	8015M/D	15655

Analysis Batch: 15654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15038-1	S-1	Total/NA	Solid	8021B	15655
885-15038-2	S-2	Total/NA	Solid	8021B	15655
885-15038-3	S-3	Total/NA	Solid	8021B	15655
885-15038-4	S-4	Total/NA	Solid	8021B	15655
885-15038-5	S-5	Total/NA	Solid	8021B	15655
885-15038-6	S-6	Total/NA	Solid	8021B	15655
885-15038-7	S-7	Total/NA	Solid	8021B	15655
885-15038-8	S-8	Total/NA	Solid	8021B	15655
885-15038-9	S-9	Total/NA	Solid	8021B	15655
885-15038-10	S-10	Total/NA	Solid	8021B	15655
885-15038-11	S-11	Total/NA	Solid	8021B	15655
885-15038-12	S-12	Total/NA	Solid	8021B	15655
885-15038-13	S-13	Total/NA	Solid	8021B	15655
MB 885-15655/1-A	Method Blank	Total/NA	Solid	8021B	15655
LCS 885-15655/3-A	Lab Control Sample	Total/NA	Solid	8021B	15655
885-15038-2 MS	S-2	Total/NA	Solid	8021B	15655
885-15038-2 MSD	S-2	Total/NA	Solid	8021B	15655

Prep Batch: 15655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15038-1	S-1	Total/NA	Solid	5035	
885-15038-2	S-2	Total/NA	Solid	5035	
885-15038-3	S-3	Total/NA	Solid	5035	
885-15038-4	S-4	Total/NA	Solid	5035	
885-15038-5	S-5	Total/NA	Solid	5035	
885-15038-6	S-6	Total/NA	Solid	5035	
885-15038-7	S-7	Total/NA	Solid	5035	
885-15038-8	S-8	Total/NA	Solid	5035	
885-15038-9	S-9	Total/NA	Solid	5035	
885-15038-10	S-10	Total/NA	Solid	5035	
885-15038-11	S-11	Total/NA	Solid	5035	

Eurofins Albuquerque

QC Association Summary

Client: Ensolum

Job ID: 885-15038-1

Project/Site: Schwerdtsferger ALS #10A

GC VOA (Continued)

Prep Batch: 15655 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15038-12	S-12	Total/NA	Solid	5035	
885-15038-13	S-13	Total/NA	Solid	5035	
MB 885-15655/1-A	Method Blank	Total/NA	Solid	5035	
LCS 885-15655/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCS 885-15655/3-A	Lab Control Sample	Total/NA	Solid	5035	
885-15038-1 MS	S-1	Total/NA	Solid	5035	
885-15038-1 MSD	S-1	Total/NA	Solid	5035	
885-15038-2 MS	S-2	Total/NA	Solid	5035	
885-15038-2 MSD	S-2	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 15665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15038-1	S-1	Total/NA	Solid	SHAKE	
885-15038-2	S-2	Total/NA	Solid	SHAKE	
885-15038-3	S-3	Total/NA	Solid	SHAKE	
885-15038-4	S-4	Total/NA	Solid	SHAKE	
885-15038-5	S-5	Total/NA	Solid	SHAKE	
885-15038-6	S-6	Total/NA	Solid	SHAKE	
885-15038-7	S-7	Total/NA	Solid	SHAKE	
885-15038-8	S-8	Total/NA	Solid	SHAKE	
885-15038-9	S-9	Total/NA	Solid	SHAKE	
885-15038-10	S-10	Total/NA	Solid	SHAKE	
885-15038-11	S-11	Total/NA	Solid	SHAKE	
885-15038-12	S-12	Total/NA	Solid	SHAKE	
885-15038-13	S-13	Total/NA	Solid	SHAKE	
MB 885-15665/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-15665/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-15038-13 MS	S-13	Total/NA	Solid	SHAKE	
885-15038-13 MSD	S-13	Total/NA	Solid	SHAKE	

Analysis Batch: 15668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15038-1	S-1	Total/NA	Solid	8015M/D	15665
885-15038-2	S-2	Total/NA	Solid	8015M/D	15665
885-15038-3	S-3	Total/NA	Solid	8015M/D	15665
885-15038-4	S-4	Total/NA	Solid	8015M/D	15665
885-15038-5	S-5	Total/NA	Solid	8015M/D	15665
885-15038-6	S-6	Total/NA	Solid	8015M/D	15665
MB 885-15665/1-A	Method Blank	Total/NA	Solid	8015M/D	15665
LCS 885-15665/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	15665

Analysis Batch: 15669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15038-7	S-7	Total/NA	Solid	8015M/D	15665
885-15038-8	S-8	Total/NA	Solid	8015M/D	15665
885-15038-9	S-9	Total/NA	Solid	8015M/D	15665
885-15038-10	S-10	Total/NA	Solid	8015M/D	15665
885-15038-11	S-11	Total/NA	Solid	8015M/D	15665
885-15038-12	S-12	Total/NA	Solid	8015M/D	15665

Eurofins Albuquerque

QC Association Summary

Client: Ensolum

Job ID: 885-15038-1

Project/Site: Schwerdtsferger ALS #10A

GC Semi VOA (Continued)

Analysis Batch: 15669 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15038-13	S-13	Total/NA	Solid	8015M/D	15665
885-15038-13 MS	S-13	Total/NA	Solid	8015M/D	15665
885-15038-13 MSD	S-13	Total/NA	Solid	8015M/D	15665

HPLC/IC

Analysis Batch: 15641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15038-1	S-1	Total/NA	Solid	300.0	15644
885-15038-2	S-2	Total/NA	Solid	300.0	15644
885-15038-3	S-3	Total/NA	Solid	300.0	15644
885-15038-4	S-4	Total/NA	Solid	300.0	15644
885-15038-5	S-5	Total/NA	Solid	300.0	15644
885-15038-6	S-6	Total/NA	Solid	300.0	15644
885-15038-7	S-7	Total/NA	Solid	300.0	15644
885-15038-8	S-8	Total/NA	Solid	300.0	15644
885-15038-9	S-9	Total/NA	Solid	300.0	15644
885-15038-10	S-10	Total/NA	Solid	300.0	15644
885-15038-11	S-11	Total/NA	Solid	300.0	15644
885-15038-12	S-12	Total/NA	Solid	300.0	15644
885-15038-13	S-13	Total/NA	Solid	300.0	15644
MB 885-15644/1-A	Method Blank	Total/NA	Solid	300.0	15644
LCS 885-15644/2-A	Lab Control Sample	Total/NA	Solid	300.0	15644
MRL 885-15641/3	Lab Control Sample	Total/NA	Solid	300.0	
885-15038-12 MS	S-12	Total/NA	Solid	300.0	15644
885-15038-12 MSD	S-12	Total/NA	Solid	300.0	15644

Prep Batch: 15644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-15038-1	S-1	Total/NA	Solid	300_Prep	
885-15038-2	S-2	Total/NA	Solid	300_Prep	
885-15038-3	S-3	Total/NA	Solid	300_Prep	
885-15038-4	S-4	Total/NA	Solid	300_Prep	
885-15038-5	S-5	Total/NA	Solid	300_Prep	
885-15038-6	S-6	Total/NA	Solid	300_Prep	
885-15038-7	S-7	Total/NA	Solid	300_Prep	
885-15038-8	S-8	Total/NA	Solid	300_Prep	
885-15038-9	S-9	Total/NA	Solid	300_Prep	
885-15038-10	S-10	Total/NA	Solid	300_Prep	
885-15038-11	S-11	Total/NA	Solid	300_Prep	
885-15038-12	S-12	Total/NA	Solid	300_Prep	
885-15038-13	S-13	Total/NA	Solid	300_Prep	
MB 885-15644/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-15644/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-15038-12 MS	S-12	Total/NA	Solid	300_Prep	
885-15038-12 MSD	S-12	Total/NA	Solid	300_Prep	

Eurofins Albuquerque

Lab Chronicle

Client: Ensolum
Project/Site: Schwerdtsferger ALS #10A

Job ID: 885-15038-1

Client Sample ID: S-1
Date Collected: 11/08/24 12:00
Date Received: 11/09/24 07:07

Lab Sample ID: 885-15038-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8015M/D		1	15653	JP	EET ALB	11/10/24 19:33
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8021B		1	15654	JP	EET ALB	11/10/24 19:33
Total/NA	Prep	SHAKE			15665	MI	EET ALB	11/11/24 08:37
Total/NA	Analysis	8015M/D		1	15668	MI	EET ALB	11/11/24 11:10
Total/NA	Prep	300_Prep			15644	MA	EET ALB	11/09/24 09:02
Total/NA	Analysis	300.0		20	15641	JT	EET ALB	11/09/24 10:01

Client Sample ID: S-2
Date Collected: 11/08/24 12:05
Date Received: 11/09/24 07:07

Lab Sample ID: 885-15038-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8015M/D		1	15653	JP	EET ALB	11/10/24 19:56
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8021B		1	15654	JP	EET ALB	11/10/24 19:56
Total/NA	Prep	SHAKE			15665	MI	EET ALB	11/11/24 08:37
Total/NA	Analysis	8015M/D		1	15668	MI	EET ALB	11/11/24 11:20
Total/NA	Prep	300_Prep			15644	MA	EET ALB	11/09/24 09:02
Total/NA	Analysis	300.0		20	15641	JT	EET ALB	11/09/24 10:11

Client Sample ID: S-3
Date Collected: 11/08/24 12:10
Date Received: 11/09/24 07:07

Lab Sample ID: 885-15038-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8015M/D		1	15653	JP	EET ALB	11/10/24 20:19
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8021B		1	15654	JP	EET ALB	11/10/24 20:19
Total/NA	Prep	SHAKE			15665	MI	EET ALB	11/11/24 08:37
Total/NA	Analysis	8015M/D		1	15668	MI	EET ALB	11/11/24 11:31
Total/NA	Prep	300_Prep			15644	MA	EET ALB	11/09/24 09:02
Total/NA	Analysis	300.0		20	15641	JT	EET ALB	11/09/24 10:21

Client Sample ID: S-4
Date Collected: 11/08/24 12:15
Date Received: 11/09/24 07:07

Lab Sample ID: 885-15038-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8015M/D		1	15653	JP	EET ALB	11/10/24 20:43

Eurofins Albuquerque

Lab Chronicle

Client: Ensolum

Job ID: 885-15038-1

Project/Site: Schwerdtsferger ALS #10A

Client Sample ID: S-4

Lab Sample ID: 885-15038-4

Date Collected: 11/08/24 12:15

Matrix: Solid

Date Received: 11/09/24 07:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8021B		1	15654	JP	EET ALB	11/10/24 20:43
Total/NA	Prep	SHAKE			15665	MI	EET ALB	11/11/24 08:37
Total/NA	Analysis	8015M/D		1	15668	MI	EET ALB	11/11/24 11:41
Total/NA	Prep	300_Prep			15644	MA	EET ALB	11/09/24 09:02
Total/NA	Analysis	300.0		20	15641	JT	EET ALB	11/09/24 10:32

Client Sample ID: S-5

Lab Sample ID: 885-15038-5

Date Collected: 11/08/24 12:20

Matrix: Solid

Date Received: 11/09/24 07:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8015M/D		1	15653	JP	EET ALB	11/10/24 21:06
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8021B		1	15654	JP	EET ALB	11/10/24 21:06
Total/NA	Prep	SHAKE			15665	MI	EET ALB	11/11/24 08:37
Total/NA	Analysis	8015M/D		1	15668	MI	EET ALB	11/11/24 11:52
Total/NA	Prep	300_Prep			15644	MA	EET ALB	11/09/24 09:02
Total/NA	Analysis	300.0		20	15641	JT	EET ALB	11/09/24 10:42

Client Sample ID: S-6

Lab Sample ID: 885-15038-6

Date Collected: 11/08/24 12:25

Matrix: Solid

Date Received: 11/09/24 07:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8015M/D		1	15653	JP	EET ALB	11/10/24 21:30
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8021B		1	15654	JP	EET ALB	11/10/24 21:30
Total/NA	Prep	SHAKE			15665	MI	EET ALB	11/11/24 08:37
Total/NA	Analysis	8015M/D		1	15668	MI	EET ALB	11/11/24 12:03
Total/NA	Prep	300_Prep			15644	MA	EET ALB	11/09/24 09:02
Total/NA	Analysis	300.0		20	15641	JT	EET ALB	11/09/24 11:13

Client Sample ID: S-7

Lab Sample ID: 885-15038-7

Date Collected: 11/08/24 12:30

Matrix: Solid

Date Received: 11/09/24 07:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8015M/D		1	15653	JP	EET ALB	11/10/24 21:53
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8021B		1	15654	JP	EET ALB	11/10/24 21:53

Eurofins Albuquerque

Lab Chronicle

Client: Ensolum
Project/Site: Schwerdtsferger ALS #10A

Job ID: 885-15038-1

Client Sample ID: S-7
Date Collected: 11/08/24 12:30
Date Received: 11/09/24 07:07

Lab Sample ID: 885-15038-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			15665	MI	EET ALB	11/11/24 08:37
Total/NA	Analysis	8015M/D		1	15669	MI	EET ALB	11/11/24 10:39
Total/NA	Prep	300_Prep			15644	MA	EET ALB	11/09/24 09:02
Total/NA	Analysis	300.0		20	15641	JT	EET ALB	11/09/24 11:23

Client Sample ID: S-8
Date Collected: 11/08/24 12:35
Date Received: 11/09/24 07:07

Lab Sample ID: 885-15038-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8015M/D		1	15653	JP	EET ALB	11/10/24 22:16
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8021B		1	15654	JP	EET ALB	11/10/24 22:16
Total/NA	Prep	SHAKE			15665	MI	EET ALB	11/11/24 08:37
Total/NA	Analysis	8015M/D		1	15669	MI	EET ALB	11/11/24 10:51
Total/NA	Prep	300_Prep			15644	MA	EET ALB	11/09/24 09:02
Total/NA	Analysis	300.0		20	15641	JT	EET ALB	11/09/24 11:34

Client Sample ID: S-9
Date Collected: 11/08/24 12:40
Date Received: 11/09/24 07:07

Lab Sample ID: 885-15038-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8015M/D		1	15653	JP	EET ALB	11/10/24 22:40
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8021B		1	15654	JP	EET ALB	11/10/24 22:40
Total/NA	Prep	SHAKE			15665	MI	EET ALB	11/11/24 08:37
Total/NA	Analysis	8015M/D		1	15669	MI	EET ALB	11/11/24 11:03
Total/NA	Prep	300_Prep			15644	MA	EET ALB	11/09/24 09:02
Total/NA	Analysis	300.0		20	15641	JT	EET ALB	11/09/24 11:44

Client Sample ID: S-10
Date Collected: 11/08/24 12:45
Date Received: 11/09/24 07:07

Lab Sample ID: 885-15038-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8015M/D		1	15653	JP	EET ALB	11/10/24 23:03
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8021B		1	15654	JP	EET ALB	11/10/24 23:03
Total/NA	Prep	SHAKE			15665	MI	EET ALB	11/11/24 08:37
Total/NA	Analysis	8015M/D		1	15669	MI	EET ALB	11/11/24 11:15

Lab Chronicle

Client: Ensolum
Project/Site: Schwerdtsferger ALS #10A

Job ID: 885-15038-1

Client Sample ID: S-10
Date Collected: 11/08/24 12:45
Date Received: 11/09/24 07:07

Lab Sample ID: 885-15038-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			15644	MA	EET ALB	11/09/24 09:02
Total/NA	Analysis	300.0		20	15641	JT	EET ALB	11/09/24 11:55

Client Sample ID: S-11
Date Collected: 11/08/24 12:50
Date Received: 11/09/24 07:07

Lab Sample ID: 885-15038-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8015M/D		1	15653	JP	EET ALB	11/10/24 23:50
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8021B		1	15654	JP	EET ALB	11/10/24 23:50
Total/NA	Prep	SHAKE			15665	MI	EET ALB	11/11/24 08:37
Total/NA	Analysis	8015M/D		1	15669	MI	EET ALB	11/11/24 11:27
Total/NA	Prep	300_Prep			15644	MA	EET ALB	11/09/24 09:02
Total/NA	Analysis	300.0		20	15641	JT	EET ALB	11/09/24 12:05

Client Sample ID: S-12
Date Collected: 11/08/24 12:55
Date Received: 11/09/24 07:07

Lab Sample ID: 885-15038-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8015M/D		1	15653	JP	EET ALB	11/11/24 00:13
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8021B		1	15654	JP	EET ALB	11/11/24 00:13
Total/NA	Prep	SHAKE			15665	MI	EET ALB	11/11/24 08:37
Total/NA	Analysis	8015M/D		1	15669	MI	EET ALB	11/11/24 11:39
Total/NA	Prep	300_Prep			15644	MA	EET ALB	11/09/24 09:02
Total/NA	Analysis	300.0		20	15641	JT	EET ALB	11/09/24 12:15

Client Sample ID: S-13
Date Collected: 11/08/24 13:00
Date Received: 11/09/24 07:07

Lab Sample ID: 885-15038-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8015M/D		1	15653	JP	EET ALB	11/11/24 00:36
Total/NA	Prep	5035			15655	JP	EET ALB	11/10/24 17:17
Total/NA	Analysis	8021B		1	15654	JP	EET ALB	11/11/24 00:36
Total/NA	Prep	SHAKE			15665	MI	EET ALB	11/11/24 08:37
Total/NA	Analysis	8015M/D		1	15669	MI	EET ALB	11/11/24 11:51
Total/NA	Prep	300_Prep			15644	MA	EET ALB	11/09/24 09:02
Total/NA	Analysis	300.0		20	15641	JT	EET ALB	11/09/24 12:46

Lab Chronicle

Client: Ensolum
Project/Site: Schwerdtsferger ALS #10A

Job ID: 885-15038-1

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

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: Schwerdtsferger ALS #10A

Job ID: 885-15038-1

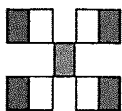
Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-26-25

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

11/11/2024



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Chain-of-Custody Record

[illegible]

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 885-15038-1

Login Number: 15038
List Number: 1
Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Summers
Ensolum
606 S Rio Grande
Suite A
Aztec, New Mexico 87410
Generated 1/28/2025 10:19:13 AM

JOB DESCRIPTION

Schwerdtfeger ALS #10A

JOB NUMBER

885-18770-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

Eurofins Albuquerque

Job Notes

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

Authorization



Generated
1/28/2025 10:19:13 AM

Authorized for release by
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(505)345-3975

Client: Ensolum
Project/Site: Schwerdtfeger ALS #10A

Laboratory Job ID: 885-18770-1



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Definitions/Glossary

Client: Ensolum

Job ID: 885-18770-1

Project/Site: Schwerdtfeger ALS #10A

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: Ensolum
Project: Schwerdtfeger ALS #10A

Job ID: 885-18770-1

Job ID: 885-18770-1

Eurofins Albuquerque

Job Narrative 885-18770-1

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 1/23/2025 8:30 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 1.4°C.

Gasoline Range Organics

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

GC VOA

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

Diesel Range Organics

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

HPLC/IC

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

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Client Sample Results

Client: Ensolum
Project/Site: Schwerdtferger ALS #10A

Job ID: 885-18770-1

Client Sample ID: BF-1

Lab Sample ID: 885-18770-1

Date Collected: 01/22/25 10:30

Matrix: Solid

Date Received: 01/23/25 08:30

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		4.9	mg/Kg		01/23/25 09:35	01/24/25 13:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		35 - 166			01/23/25 09:35	01/24/25 13:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		01/23/25 09:35	01/24/25 13:45	1
Ethylbenzene	ND		0.049	mg/Kg		01/23/25 09:35	01/24/25 13:45	1
Toluene	ND		0.049	mg/Kg		01/23/25 09:35	01/24/25 13:45	1
Xylenes, Total	ND		0.098	mg/Kg		01/23/25 09:35	01/24/25 13:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		48 - 145			01/23/25 09:35	01/24/25 13:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	10		9.9	mg/Kg		01/23/25 10:00	01/23/25 15:14	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		01/23/25 10:00	01/23/25 15:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	107		62 - 134			01/23/25 10:00	01/23/25 15:14	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	67		60	mg/Kg		01/24/25 07:35	01/24/25 10:07	20

Eurofins Albuquerque

QC Sample Results

Client: Ensolum
Project/Site: Schwerdtferger ALS #10A

Job ID: 885-18770-1

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

Lab Sample ID: MB 885-19727/1-A

Matrix: Solid

Analysis Batch: 19810

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19727

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C6-C10)	ND		5.0	mg/Kg		01/23/25 09:35	01/24/25 13:01	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		35 - 166			01/23/25 09:35	01/24/25 13:01	1

Lab Sample ID: LCS 885-19727/2-A

Matrix: Solid

Analysis Batch: 19810

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19727

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
GRO (C6-C10)	25.0	19.7		mg/Kg		79	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	183		35 - 166					

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-19727/1-A

Matrix: Solid

Analysis Batch: 19811

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19727

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		01/23/25 09:35	01/24/25 13:01	1
Ethylbenzene	ND		0.050	mg/Kg		01/23/25 09:35	01/24/25 13:01	1
Toluene	ND		0.050	mg/Kg		01/23/25 09:35	01/24/25 13:01	1
Xylenes, Total	ND		0.10	mg/Kg		01/23/25 09:35	01/24/25 13:01	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		48 - 145			01/23/25 09:35	01/24/25 13:01	1

Lab Sample ID: LCS 885-19727/3-A

Matrix: Solid

Analysis Batch: 19811

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19727

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Benzene	1.00	0.937		mg/Kg		94	70 - 130	
Ethylbenzene	1.00	0.958		mg/Kg		96	70 - 130	
Toluene	1.00	0.933		mg/Kg		93	70 - 130	
Xylenes, Total	3.00	2.82		mg/Kg		94	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	98		48 - 145					

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QC Sample Results

Client: Ensolum
Project/Site: Schwerdtfeger ALS #10A

Job ID: 885-18770-1

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

Lab Sample ID: 885-18770-1 MS

Matrix: Solid

Analysis Batch: 19811

Client Sample ID: BF-1

Prep Type: Total/NA

Prep Batch: 19727

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		0.983	0.931		mg/Kg		95	70 - 130
Ethylbenzene	ND		0.983	0.981		mg/Kg		100	70 - 130
Toluene	ND		0.983	0.963		mg/Kg		98	70 - 130
Xylenes, Total	ND		2.95	2.92		mg/Kg		99	70 - 130
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	98		48 - 145						

Lab Sample ID: 885-18770-1 MSD

Matrix: Solid

Analysis Batch: 19811

Client Sample ID: BF-1

Prep Type: Total/NA

Prep Batch: 19727

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.973	0.945		mg/Kg		97	70 - 130	1	20
Ethylbenzene	ND		0.973	0.974		mg/Kg		100	70 - 130	1	20
Toluene	ND		0.973	0.950		mg/Kg		98	70 - 130	1	20
Xylenes, Total	ND		2.92	2.90		mg/Kg		99	70 - 130	1	20
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	99		48 - 145								

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

Lab Sample ID: MB 885-19717/1-A

Matrix: Solid

Analysis Batch: 19714

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19717

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		01/23/25 08:19	01/23/25 09:55	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		01/23/25 08:19	01/23/25 09:55	1
MB MB								
Surrogate	%Recovery	Qualifier	Limits					
Di-n-octyl phthalate (Surr)	93		62 - 134					
						Prepared	Analyzed	Dil Fac
						01/23/25 08:19	01/23/25 09:55	1

Lab Sample ID: LCS 885-19717/2-A

Matrix: Solid

Analysis Batch: 19714

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19717

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	49.3		mg/Kg		99	60 - 135
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
Di-n-octyl phthalate (Surr)	88		62 - 134				

Eurofins Albuquerque

QC Sample Results

Client: Ensolum
Project/Site: Schwerdtferger ALS #10A

Job ID: 885-18770-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-19786/1-A					Client Sample ID: Method Blank				
Matrix: Solid					Prep Type: Total/NA				
Analysis Batch: 19784					Prep Batch: 19786				
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		1.5	mg/Kg		01/24/25 07:35	01/24/25 08:19	1	

Lab Sample ID: LCS 885-19786/3-A					Client Sample ID: Lab Control Sample				
Matrix: Solid					Prep Type: Total/NA				
Analysis Batch: 19784					Prep Batch: 19786				
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	15.0	15.2		mg/Kg		101	90 - 110		

Lab Sample ID: MRL 885-19786/2-A					Client Sample ID: Lab Control Sample				
Matrix: Solid					Prep Type: Total/NA				
Analysis Batch: 19784					Prep Batch: 19786				
Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1.50	1.65		mg/L		110	50 - 150		

QC Association Summary

Client: Ensolum
Project/Site: Schwerdtfeger ALS #10A

Job ID: 885-18770-1

GC VOA

Prep Batch: 19727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18770-1	BF-1	Total/NA	Solid	5030C	
MB 885-19727/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-19727/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-19727/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-18770-1 MS	BF-1	Total/NA	Solid	5030C	
885-18770-1 MSD	BF-1	Total/NA	Solid	5030C	

Analysis Batch: 19810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18770-1	BF-1	Total/NA	Solid	8015M/D	19727
MB 885-19727/1-A	Method Blank	Total/NA	Solid	8015M/D	19727
LCS 885-19727/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	19727

Analysis Batch: 19811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18770-1	BF-1	Total/NA	Solid	8021B	19727
MB 885-19727/1-A	Method Blank	Total/NA	Solid	8021B	19727
LCS 885-19727/3-A	Lab Control Sample	Total/NA	Solid	8021B	19727
885-18770-1 MS	BF-1	Total/NA	Solid	8021B	19727
885-18770-1 MSD	BF-1	Total/NA	Solid	8021B	19727

GC Semi VOA

Analysis Batch: 19714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18770-1	BF-1	Total/NA	Solid	8015M/D	19717
MB 885-19717/1-A	Method Blank	Total/NA	Solid	8015M/D	19717
LCS 885-19717/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	19717

Prep Batch: 19717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18770-1	BF-1	Total/NA	Solid	SHAKE	
MB 885-19717/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-19717/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

HPLC/IC

Analysis Batch: 19784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18770-1	BF-1	Total/NA	Solid	300.0	19786
MB 885-19786/1-A	Method Blank	Total/NA	Solid	300.0	19786
LCS 885-19786/3-A	Lab Control Sample	Total/NA	Solid	300.0	19786
MRL 885-19786/2-A	Lab Control Sample	Total/NA	Solid	300.0	19786

Prep Batch: 19786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-18770-1	BF-1	Total/NA	Solid	300_Prep	
MB 885-19786/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-19786/3-A	Lab Control Sample	Total/NA	Solid	300_Prep	
MRL 885-19786/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Eurofins Albuquerque

Lab Chronicle

Client: Ensolum
Project/Site: Schwerdtferger ALS #10A

Job ID: 885-18770-1

Client Sample ID: BF-1
Date Collected: 01/22/25 10:30
Date Received: 01/23/25 08:30

Lab Sample ID: 885-18770-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			19727	JP	EET ALB	01/23/25 09:35
Total/NA	Analysis	8015M/D		1	19810	JP	EET ALB	01/24/25 13:45
Total/NA	Prep	5030C			19727	JP	EET ALB	01/23/25 09:35
Total/NA	Analysis	8021B		1	19811	JP	EET ALB	01/24/25 13:45
Total/NA	Prep	SHAKE			19717	EM	EET ALB	01/23/25 10:00
Total/NA	Analysis	8015M/D		1	19714	EM	EET ALB	01/23/25 15:14
Total/NA	Prep	300_Prep			19786	RC	EET ALB	01/24/25 07:35
Total/NA	Analysis	300.0		20	19784	RC	EET ALB	01/24/25 10:07

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Schwerdtferger ALS #10A

Job ID: 885-18770-1

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	NM100001	02-25-25

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

Chain-of-Custody Record

Client: Ensolum LLCMailing Address: 606 S Rio GrandeSuite A 874110

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC ☐ Other☐ EDD (Type)

Project Manager:

K Summers

Sampler:

C. D. Apert

On Ice:

☒ Yes ☐ No# of Coolers: 1Cooler Temp (including cp): 1.0-0.2 = 1.4 (°C)

Date Time Matrix Sample Name

1/22 1030 S B1F-1

Container Type and #

402 Jar Cool

Preservative Type

HEAL No.

1.0-0.2 = 1.4 (°C)

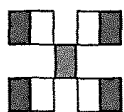
Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Schwerdt + Fergner A25 d10A

Project #:

**HALL ENVIRONMENTAL
ANALYSIS LABOR**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87105

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

885-18770 COC



Analysis Request

BTEX / MPE / THB's (8021)

✓

8081 Pesticides/8082 PCBs

✓

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

✓

8260 (VOA)

✓

8270 (Semi-VOA)

✓

Total Coliform (Present/Absent)

Remarks:

Tom Long
AM 14058

Received by

Date

Time

Chawar1/22/251409

Received by

Date

Time

Chawar1/22/257:151/23/25

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 885-18770-1

Login Number: 18770

List Source: Eurofins Albuquerque

List Number: 1

Creator: Casarrubias, Tracy

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

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 431166

QUESTIONS

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 431166
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2431143123
Incident Name	NAPP2431143123 SCHWERDTSFERGER ALS #10A @ 0
Incident Type	Natural Gas Release
Incident Status	Reclamation Report Received

Location of Release Source	
Please answer all the questions in this group.	
Site Name	SCHWERDTSFERGER ALS #10A
Date Release Discovered	11/06/2024
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Natural Gas 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	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Cause: Corrosion Pipeline (Any) Condensate Released: 5 BBL Recovered: 0 BBL Lost: 5 BBL.
Natural Gas Vented (Mcf) Details	Cause: Corrosion Pipeline (Any) Natural Gas Vented Released: 0 MCF Recovered: 0 MCF Lost: 0 MCF.
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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Phone: (505) 476-3441

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

QUESTIONS, Page 2

Action 431166

QUESTIONS (continued)

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 431166
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	More info needed to determine if this will be treated as a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	No
Reasons why this would be considered a submission for a notification of a major release	<i>Unavailable.</i>
<i>With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.</i>	

Initial Response

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

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	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	<i>Not answered.</i>

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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

I hereby agree and sign off to the above statement	Name: Thomas Long Title: Sr Field Environmental Scientist Email: tjlong@eprod.com Date: 11/12/2024
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QUESTIONS, Page 3

Action 431166

QUESTIONS (continued)

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 431166
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS**Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Less than or equal 25 (ft.)
What method was used to determine the depth to ground water	OCD Imaging Records Lookup
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 100 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1000 (ft.) and ½ (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	Zero feet, overlying, or within area
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	60
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0.1
GRO+DRO (EPA SW-846 Method 8015M)	14.1
BTEX (EPA SW-846 Method 8021B or 8260B)	0.1
Benzene (EPA SW-846 Method 8021B or 8260B)	0.1

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	11/06/2024
On what date will (or did) the final sampling or liner inspection occur	11/08/2024
On what date will (or was) the remediation complete(d)	11/08/2024
What is the estimated surface area (in square feet) that will be reclaimed	540
What is the estimated volume (in cubic yards) that will be reclaimed	444
What is the estimated surface area (in square feet) that will be remediated	540
What is the estimated volume (in cubic yards) that will be remediated	444

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 431166

QUESTIONS (continued)

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 431166
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Remediation Plan (continued)	
<i>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.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(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	ENVIROTECH LANDFARM #2 [FEEM0112336756]
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.
<i>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>	
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: Thomas Long Title: Sr Field Environmental Scientist Email: tjlong@eprod.com Date: 02/12/2025
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5

Action 431166

QUESTIONS (continued)

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 431166
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

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

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QUESTIONS, Page 6

Action 431166

QUESTIONS (continued)

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 431166
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	421741
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	01/22/2025
What was the (estimated) number of samples that were to be gathered	1
What was the sampling surface area in square feet	200

Remediation Closure Request	
<i>Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.</i>	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	540
What was the total volume (cubic yards) remediated	444
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	540
What was the total volume (in cubic yards) reclaimed	444
Summarize any additional remediation activities not included by answers (above)	None
<p><i>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></p>	
<p>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.</p>	
I hereby agree and sign off to the above statement	Name: Thomas Long Title: Sr Field Environmental Scientist Email: tjlong@eprod.com Date: 02/12/2025

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QUESTIONS, Page 7

Action 431166

QUESTIONS (continued)

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 431166
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Reclamation Report	
<i>Only answer the questions in this group if all reclamation steps have been completed.</i>	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	540
What was the total volume of replacement material (in cubic yards) for this site	444
<i>Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.</i>	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseedling commence(d)	07/01/2025
Summarize any additional reclamation activities not included by answers (above)	None
<i>The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseedling plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.	
I hereby agree and sign off to the above statement	Name: Thomas Long Title: Sr Field Environmental Scientist Email: tjlong@eprod.com Date: 02/12/2025

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QUESTIONS, Page 8

Action 431166

QUESTIONS (continued)

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 431166
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

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

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CONDITIONS

Action 431166

CONDITIONS

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 431166
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	We have received your Remediation Closure/Reclamation Report for Incident #NAPP2431143123, thank you. This Remediation Closure/Reclamation Report is approved.	3/14/2025