District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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 Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: **Enterprise Field Services, LLC**	OGRID: **241602**
Contact Name: **Thomas Long**	Contact Telephone: **505-599-2286**
Contact email:**tjlong@eprod.com**	Incident # *(assigned by OCD)* **nAPP2228430992**
Contact mailing address: **614 Reilly Ave, Farmington, NM 87401**	

Location of Release Source

Latitude **36.648466** Longitude **-107.88401** *(NAD 83 in decimal degrees to 5 decimal places)*

Site Name **Lateral 2B-24**	Site Type **Natural Gas Gathering Pipeline**
Date Release Discovered: **10/10/2022**	Serial Number *(if applicable)*: **N/A**

Unit Letter	Section	Township	Range	County
F	**22**	**28N**	**10W**	**San Juan**

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name*: ***BLM***)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls): **5 BBLS**	Volume Recovered (bbls): **None**
☒ Natural Gas	Volume Released (Mcf): **47.49 MCF**	Volume Recovered (Mcf): **None**
☐ Other (describe)	Volume/Weight Released (provide units):	Volume/Weight Recovered (provide units)

Cause of Release On October 10, 2022, Enterprise had a release of natural gas from the Lateral 2B-24. The pipeline was isolated, depressurized, locked and tagged out. Approximately two barrels of release liquids were observed on the ground surface. No emergency services responded. No fire nor injuries occurred. The release occurred in a small ephemeral wash (blue line on a Topo). The remediation was completed on October 18, 2022. The final excavation dimensions measured approximately 14 feet long by 9 feet wide by 6 feet deep. A total of 56 cubic yards of hydrocarbon impacted soil was excavated and transported to a New Mexico Oil Conservation Division (NMOCD) approved land farm. A third party closure report is included with this "Final." C-141.

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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 (electronic submittals in .pdf format are preferred) 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.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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.

Printed Name: Thomas Long Title: Senior Environmental Scientist

Signature: Thomas Long Date: 6-12-2023

email: tjlong@eprod.com Telephone: (505) 599-2286

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Nelson Velez Date: 06/13/2023

Printed Name: Nelson Velez Title: Environmental Specialist – Adv

ENSOLUM

CLOSURE REPORT

Property:

Lateral 2B-24 (10/10/22)
Unit Letter F, S22 T28N R10W
San Juan County, New Mexico

New Mexico EMNRD OCD Incident ID No. NAPP2228430992

December 5, 2022

Ensolum Project No. 05A1226219

Prepared for:

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

Prepared by:

Ranee Deechilly
Project Manager

Kyle Summers
Senior Managing Geologist

TABLE OF CONTENTS

LIST OF APPENDICES

1.0 INTRODUCTION

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Lateral 2B-24 (10/10/22) (Site)
NM EMNRD OCD Incident ID No.	NAPP2228430992
Location:	36.648466° North, 107.884401 ° West Unit Letter F, Section 22, Township 28 North, Range 10 West San Juan County, New Mexico
Property:	United States Bureau of Land Management (BLM)
Regulatory:	New Mexico (NM) Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On October 10, 2022, Enterprise identified a release of natural gas from the Lateral 2B-24 pipeline. Enterprise subsequently isolated and locked the pipeline out of service. On October 14, 2022, Enterprise initiated activities to repair the pipeline and remediate petroleum hydrocarbon impact.

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 New Mexico EMNRD OCD. 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, during the evaluation and remediation of the Site. 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). One POD (SJ-04072-POD1) with a recorded depth to water was identified in the adjacent Public Land Survey System (PLSS) section (**Figure A**, **Appendix B**). The depth to water for this POD is approximately 470 feet below grade surface (bgs). This POD is located approximately 0.6 miles northwest of the Site and is approximately 55 feet higher in elevation than the Site.

- Six cathodic protection wells (CPWs) were identified in the NM EMNRD OCD imaging database in the same PLSS section as the Site and in adjacent sections. The CPWs are

depicted on **Figure B** (**Appendix B**). Documentation for the cathodic protection well located near the Kutz Canyon #500 well location indicates a depth to water of approximately 200 feet bgs. This cathodic protection well is located approximately 0.39 miles south of the Site and is approximately 85 feet lower in elevation than the Site. Documentation for the cathodic protection well located near the Cain #11E well location indicates a depth to water of approximately 180 feet bgs. This cathodic protection well is located approximately 0.65 miles north of the Site and is approximately 75 feet lower in elevation than the Site. Documentation for the cathodic protection well located near the Kutz Deep Test #1 well location indicates a depth to water of approximately 110 feet bgs. This cathodic protection well is located approximately 0.82 miles southwest of the Site and is approximately 150 feet higher in elevation than the Site. Documentation for the cathodic protection well located near the McClanahan A#1, A#2, & A#3 well locations indicates a depth to water of approximately 155 feet bgs. This cathodic protection well is located approximately 0.86 miles east of the Site and is approximately 164 feet lower in elevation than the Site. Documentation for the cathodic protection well located near the McClanahan #550, 15, & 9 well locations indicates a depth to water of approximately 310 feet bgs. This cathodic protection well is located approximately 1.07 miles northeast of the Site and is approximately 175 feet lower in elevation than the Site. Documentation for the cathodic protection well located near the McClanahan #19E well location indicates a depth to water of approximately 130 feet bgs. This cathodic protection well is located approximately 1.34 miles northeast of the Site and is approximately 75 feet lower in elevation than the Site.

- The Site is located within 300 feet of a NM EMNRD OCD-defined continuously flowing watercourse or significant watercourse (**Figure C**, **Appendix B**).
- 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**).
- 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, the applicable 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 October 14, 2022, Enterprise initiated activities to repair the pipeline and remediate petroleum hydrocarbon impact resulting from the release. During the remediation and corrective action activities, West States Energy Contractors, provided heavy equipment and labor support, while Ensolum provided environmental consulting support.

The final pipeline excavation measured approximately 14 feet long and 9 feet wide at the maximum extents. The maximum depth of the excavation measured approximately 6 feet bgs. The flow path excavation measured approximately 34 feet long and 5 feet wide, with an approximate depth of 1 feet bgs. The lithology encountered during the completion of remediation activities consisted primarily of silty sand underlain by weathered sandstone.

Approximately 56 cubic yards (yd^3) of petroleum hydrocarbon-affected soils were transported to the Envirotech, Inc., (Envirotech) landfarm near Hilltop, 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 topography.

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 five composite soil samples (S-1 through S-5) from the pipeline excavation for laboratory analysis. In addition, three composite soil samples (FP-1 through FP-3) were collected from the flow path excavation for laboratory analysis. The composite samples were comprised of five aliquots each and represent an estimated 200 square foot (ft^2) sample area per guidelines outlined in Section D of 19.15.29.12 NMAC. Hand

tools or the excavator bucket were utilized to obtain fresh aliquots from each area of the excavation. Regulatory correspondence is provided in **Appendix E**.

First Sampling Event

On October 14, 2022, the first sampling event 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 S-1 (6') was collected from floor of the excavation. Composite soil samples S-2 (0'-6'), S-3 (0'-6'), S-4 (0'-6'), and S-5 (0'-6') were collected from the walls of the excavation. Composite soil sample FP-1 (0.25') was collected from the flow path. Subsequent soil analytical results identified COC concentrations that exceeded the NM EMNRD OCD closure criteria for composite soil sample FP-1. In response to the exceedances the flow path was further excavated. Impacted soil associated with sample FP-1 was removed by excavation and transported to the landfarm for disposal/remediation.

Second Sampling Event

On October 18, 2022, a second sampling event was performed. The NM EMNRD OCD was notified of the sampling event although no representative was present during sampling activities. Composite soil samples FP-2 (0.25' to 1') and FP-3 (0.25' to 1') were collected from the flow path excavation to replace sample FP-1 that had exceeded closure criteria standards.

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 Hall Environmental Analysis Laboratory 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 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-5, FP-2, and FP-3) to the Tier I NM EMNRD OCD closure criteria. The impacted soil associated with composite soil sample FP-1 was removed from the Site, and therefore, is not included in the following discussion. The laboratory analytical results are summarized in **Table 1** (**Appendix F**).

- The laboratory analytical results for all composite soil samples collected from soils remaining at the Site 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 mg/kg.

- The laboratory analytical results for all composite soil samples collected from soils remaining at the Site 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 all composite soil samples collected from soils remaining at the Site indicate combined TPH GRO/DRO/MRO is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the New Mexico EMNRD OCD closure criteria of 100 mg/kg.

- The laboratory analytical results for composite soil samples FP-2, S-1, S-2, and S-5 indicate chloride concentration of 89 mg/kg, 160 mg/kg, 95 mg/kg, and 83 mg/kg, respectively, which are below the NM EMNRD OCD closure criteria of 600 mg/kg. The laboratory analytical results for all other composite soil samples collected from soils remaining at the Site indicate chloride is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the New Mexico EMNRD OCD closure criteria of 600 mg/kg.

7.0 RECLAMATION AND REVEGETATION

The excavation was backfilled with imported fill and then contoured to the surrounding topography. Enterprise will re-seed the Site with an approved seeding mixture.

8.0 FINDINGS AND RECOMMENDATION

- Eight composite soil samples were collected from the Site. Based on laboratory analytical results for soils remaining at the Site, benzene, total BTEX, combined TPH GRO/DRO/MRO, and chloride concentrations are below the New Mexico EMNRD OCD closure criteria.

- Approximately 56 yd^3 of petroleum hydrocarbon-affected soils were transported to the Envirotech landfarm for disposal/remediation. The excavation was backfilled with imported fill and then contoured to the surrounding topography.

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

9.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

9.1 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).

9.2 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.

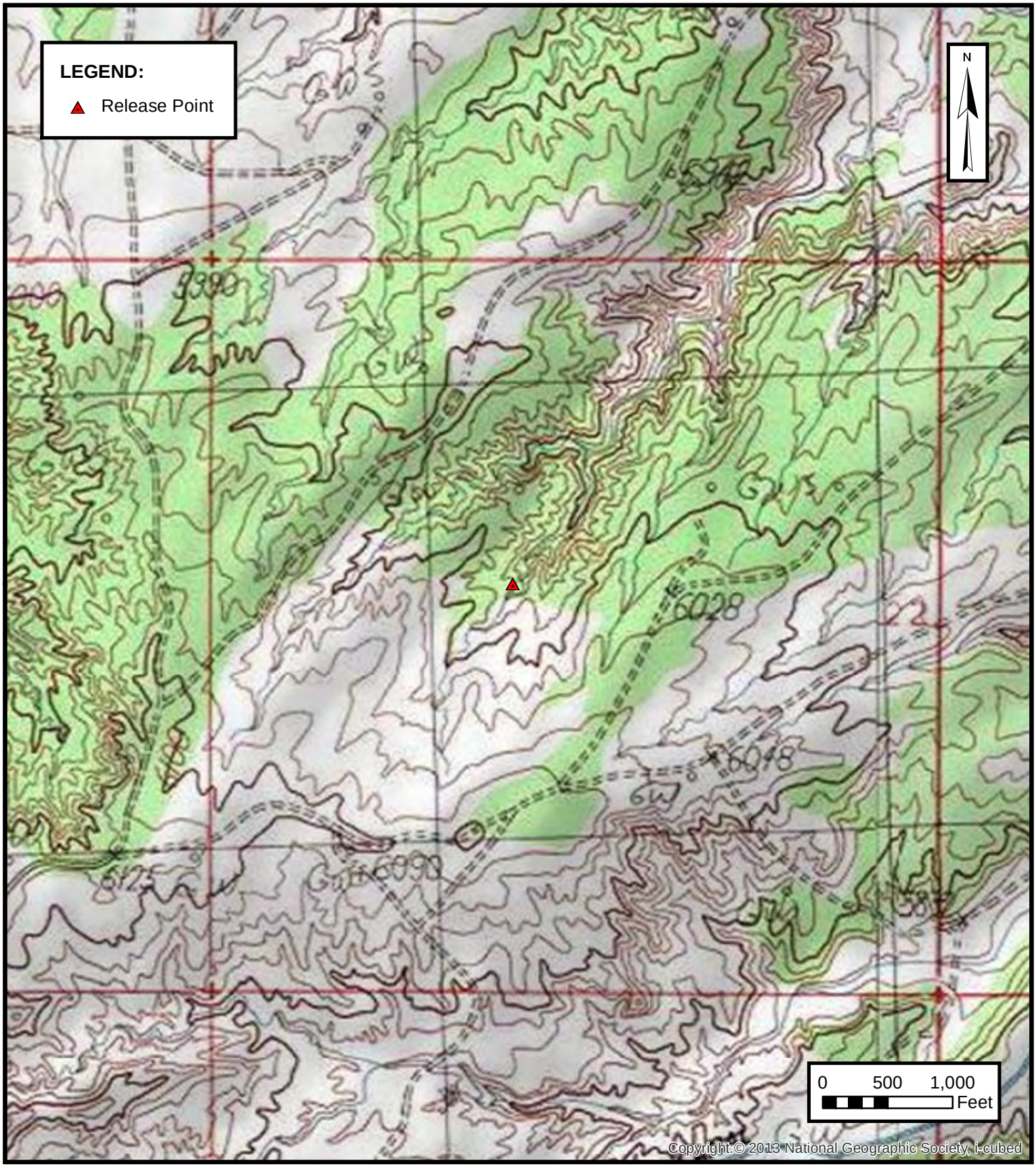
9.3 Reliance

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 the Closure 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.

ENSOLUM

APPENDIX A

Figures



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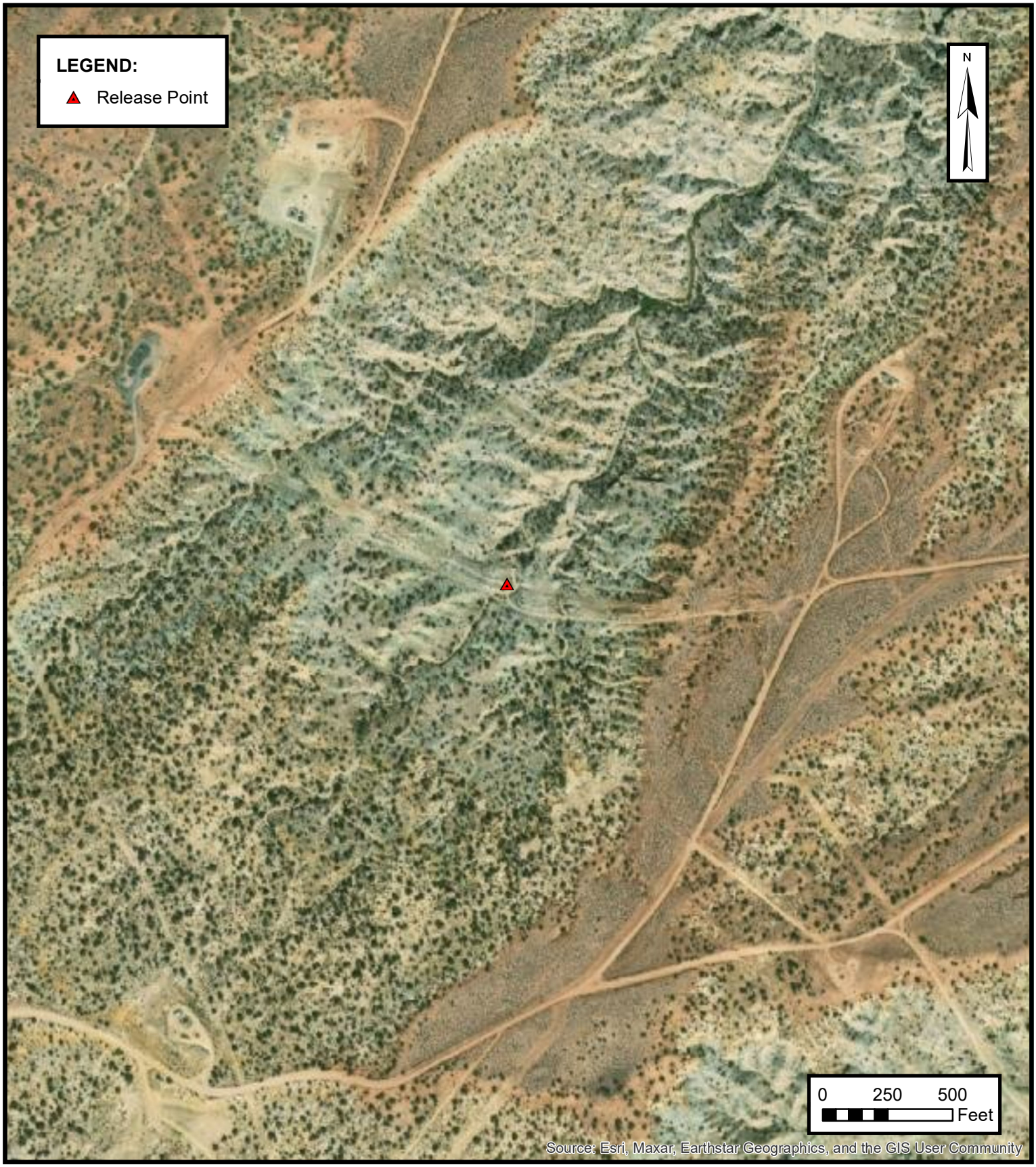
Environmental, Engineering and Hydrogeologic Consultants

TOPOGRAPHIC MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2B-24 (10/10/22)
Unit Letter F, S22 T28N R10W, San Juan County, New Mexico
32.648466° N, 107.884401° W

PROJECT NUMBER: 05A1226219

FIGURE
1



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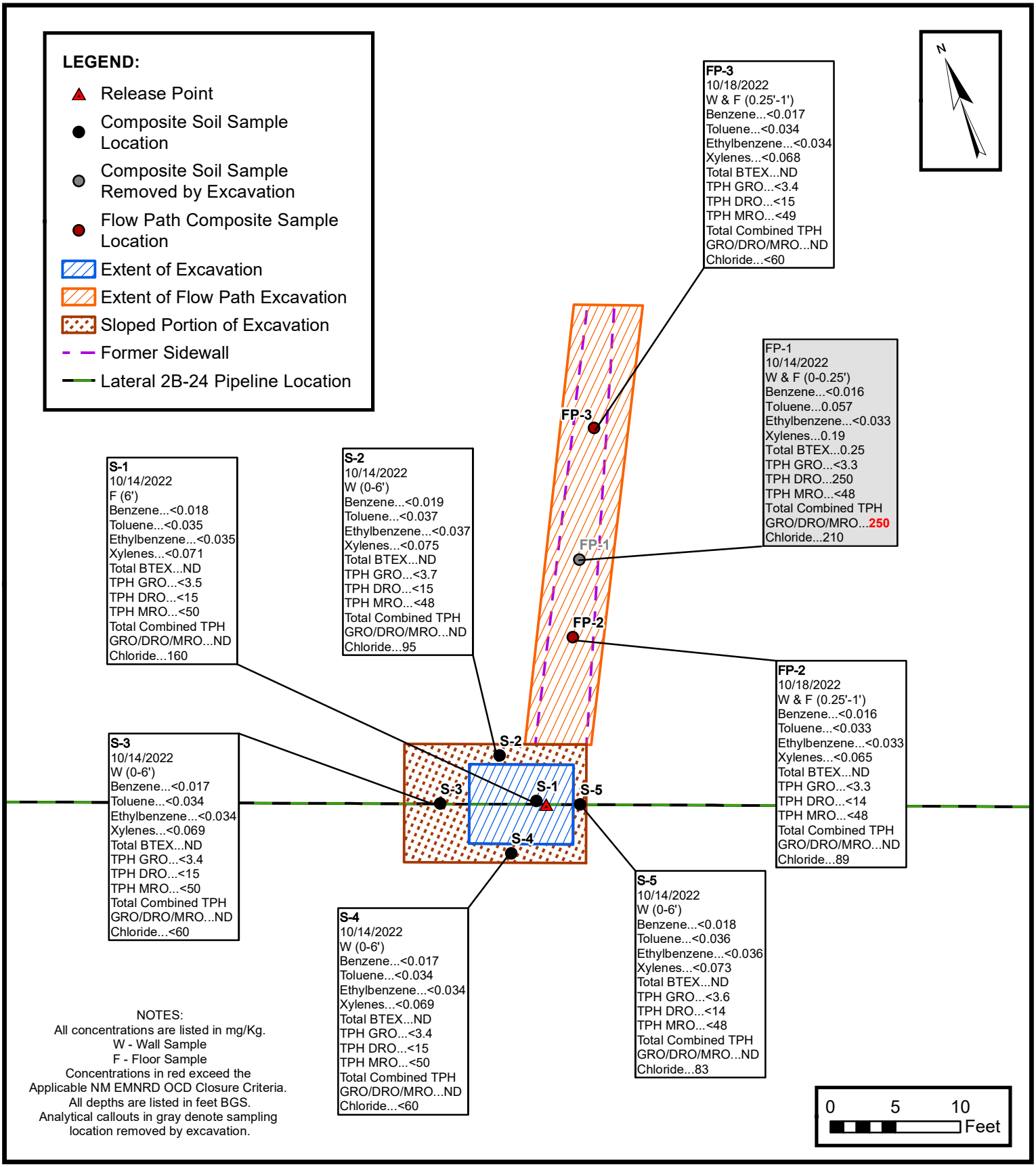
SITE VICINITY MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2B-24 (10/10/22)
Unit Letter F, S22 T28N R10W, San Juan County, New Mexico
32.648466° N, 107.884401° W

PROJECT NUMBER: 05A1226219

FIGURE
2



NOTES:
All concentrations are listed in mg/Kg.
W - Wall Sample
F - Floor Sample
Concentrations in red exceed the Applicable NM EMNRD OCD Closure Criteria.
All depths are listed in feet BGS.
Analytical callouts in gray denote sampling location removed by excavation.

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SITE MAP WITH SOIL ANALYTICAL RESULTS

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2B-24 (10/10/22)
Unit Letter F, S22 T28N R10W, San Juan County, New Mexico
32.648466° N, 107.884401° W

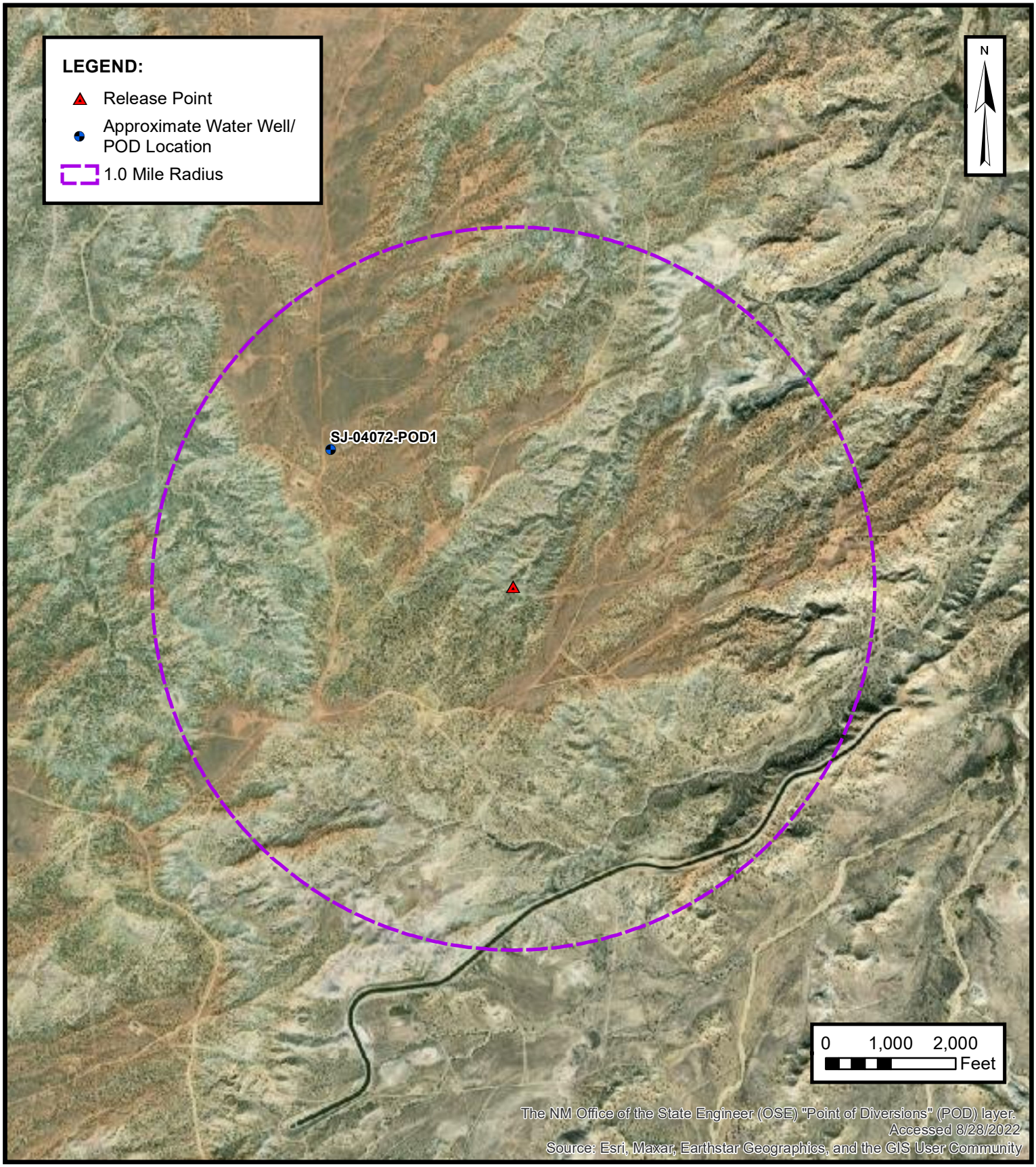
PROJECT NUMBER: 05A1226219

FIGURE
3

ENSOLUM

APPENDIX B

Siting Figures and Documentation



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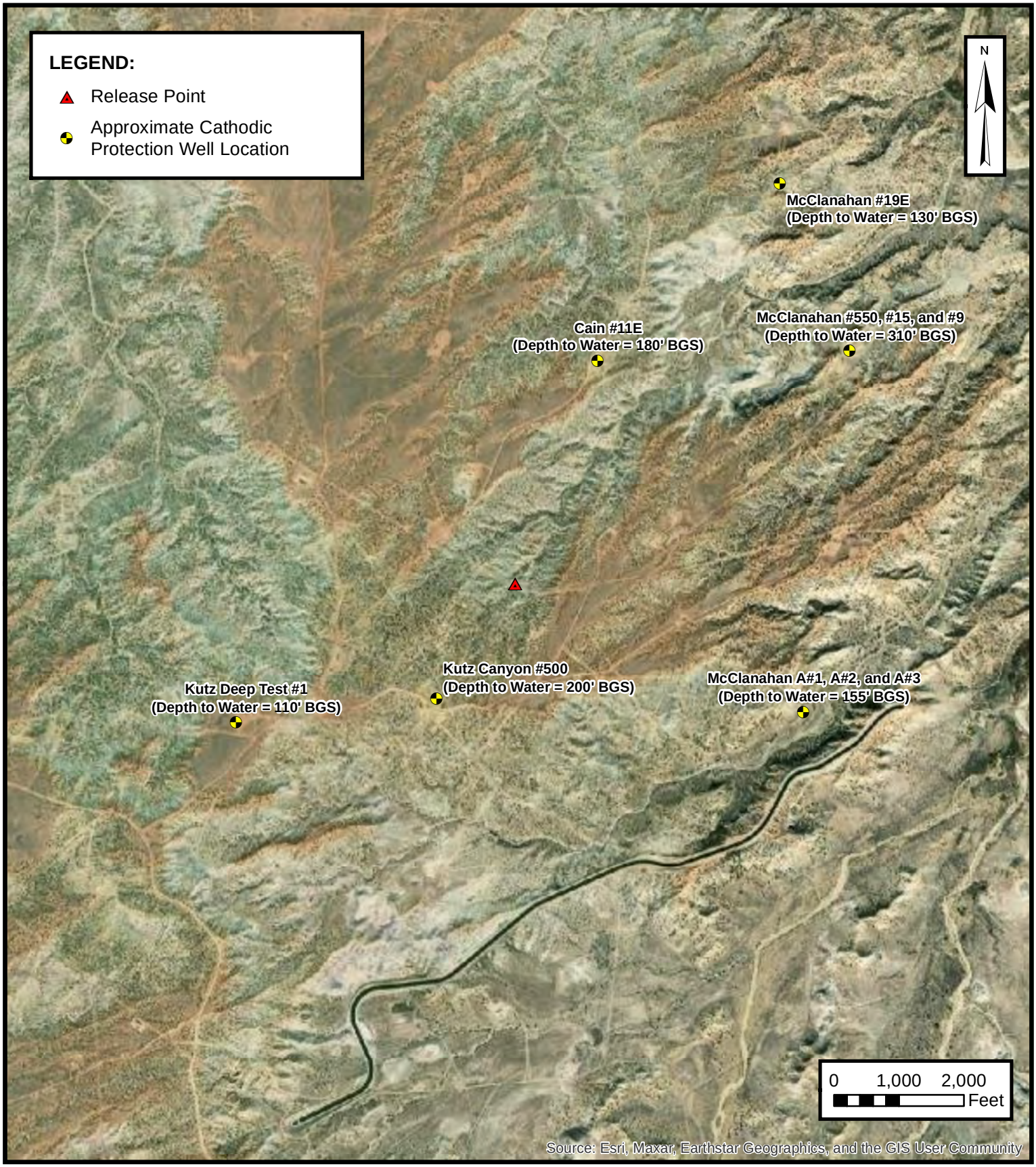
1.0 MILE RADIUS WATER WELL/ POD LOCATION MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2B-24 (10/10/22)
Unit Letter F, S22 T28N R10W, San Juan County, New Mexico
32.648466° N, 107.884401° W

PROJECT NUMBER: 05A1226219

FIGURE

A



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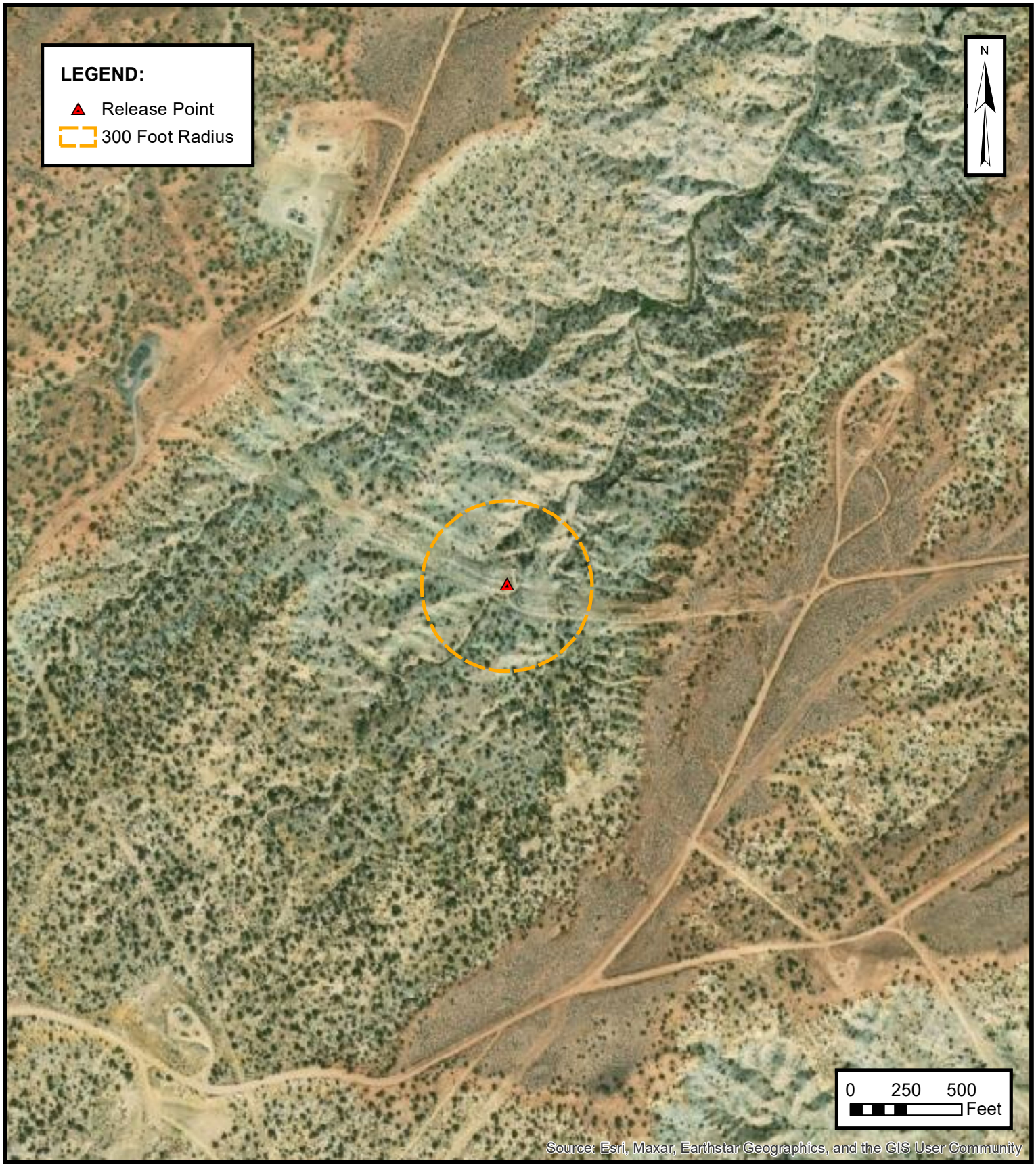
CATHODIC PROTECTION WELL RECORDED DEPTH TO WATER

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2B-24 (10/10/22)
Unit Letter F, S22 T28N R10W, San Juan County, New Mexico
32.648466° N, 107.884401° W

PROJECT NUMBER: 05A1226219

FIGURE

B



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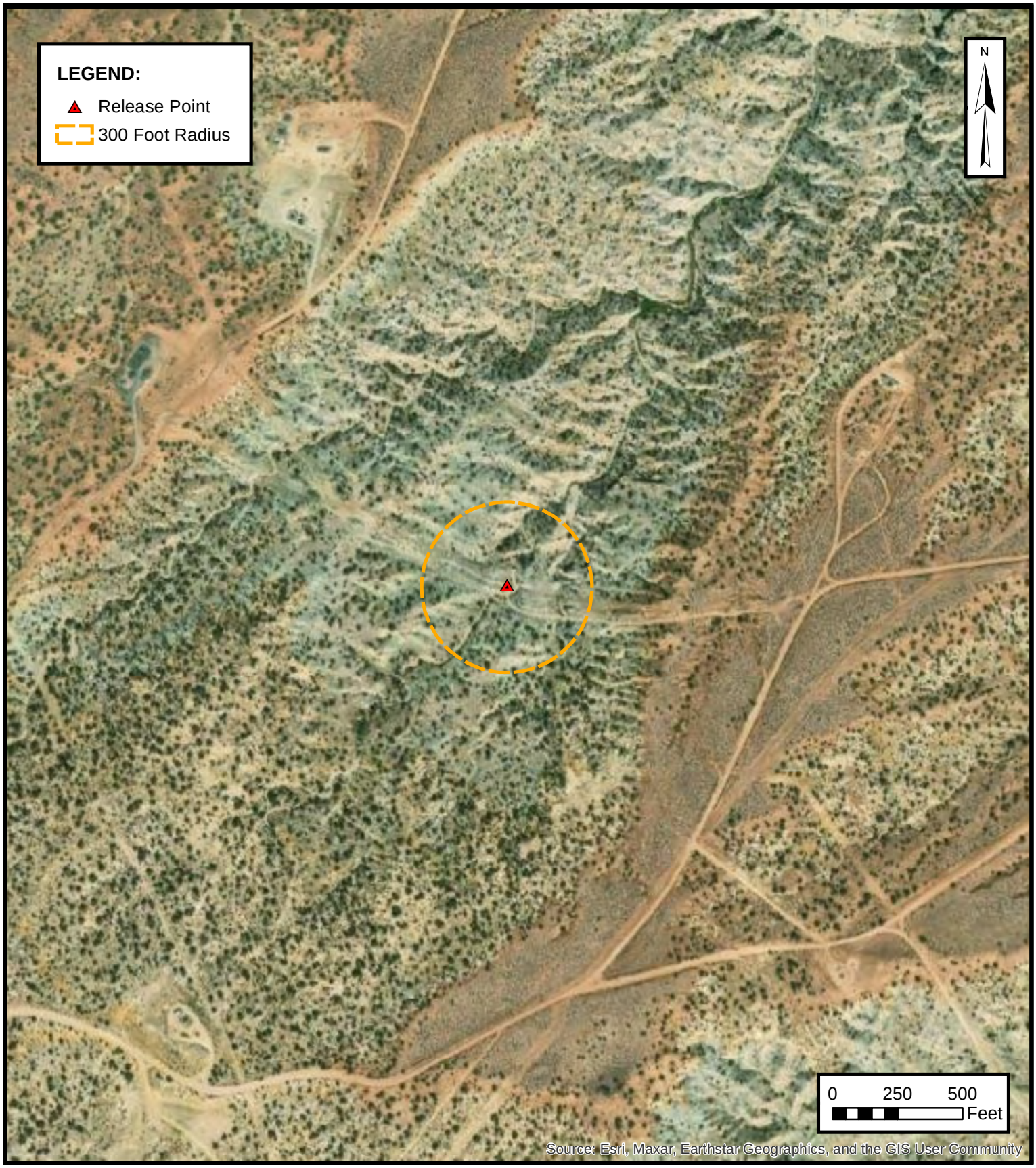
300 FOOT RADIUS
WATERCOURSE AND DRAINAGE IDENTIFICATION
ENTERPRISE FIELD SERVICES, LLC
LATERAL 2B-24 (10/10/22)
Unit Letter F, S22 T28N R10W, San Juan County, New Mexico
32.648466° N, 107.884401° W

PROJECT NUMBER: 05A1226219

FIGURE
C



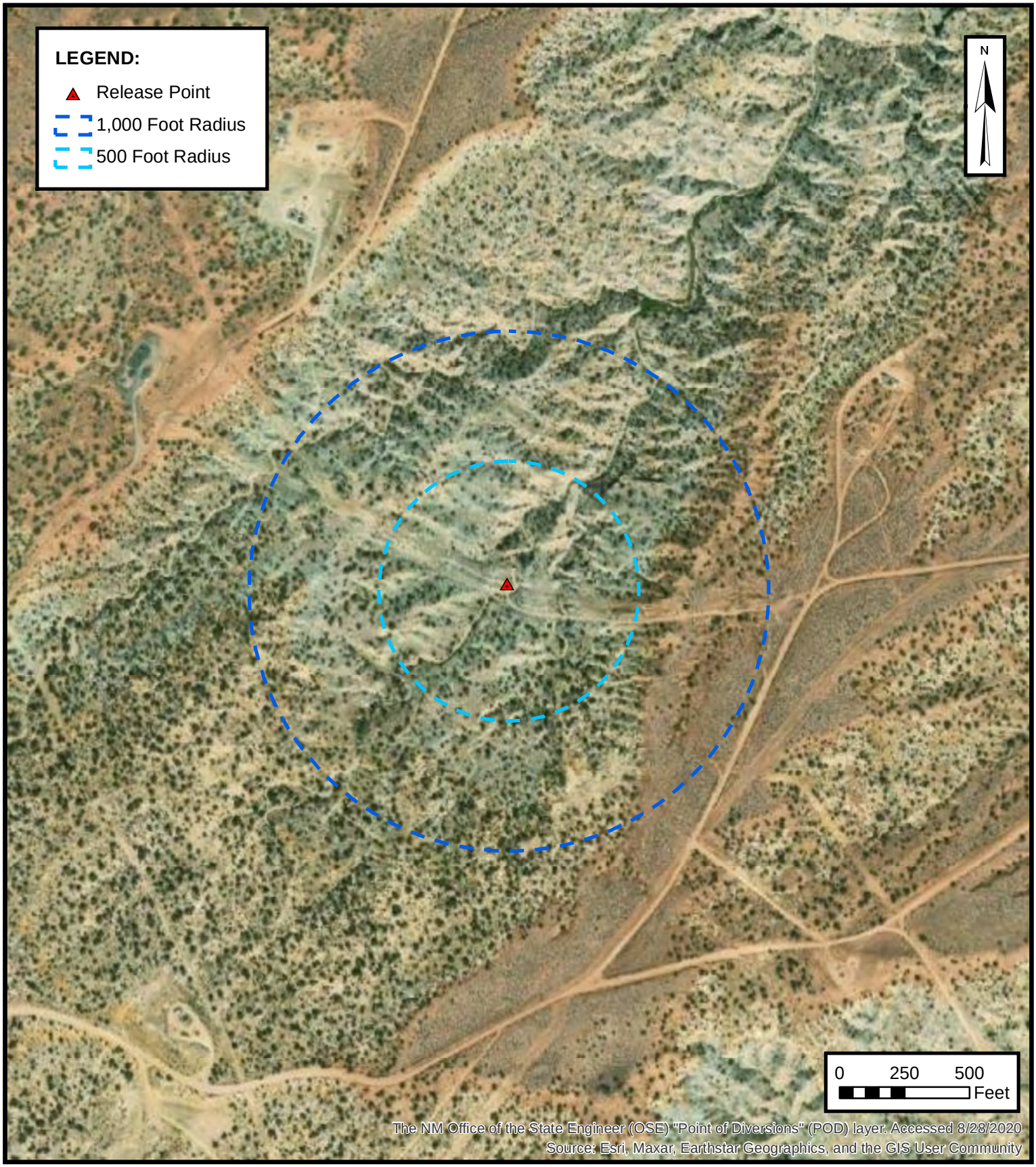
ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

300 FOOT RADIUS
OCCUPIED STRUCTURE IDENTIFICATION

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2B-24 (10/10/22)
Unit Letter F, S22 T28N R10W, San Juan County, New Mexico
32.648466° N, 107.884401° W

PROJECT NUMBER: 05A1226219

FIGURE
D



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

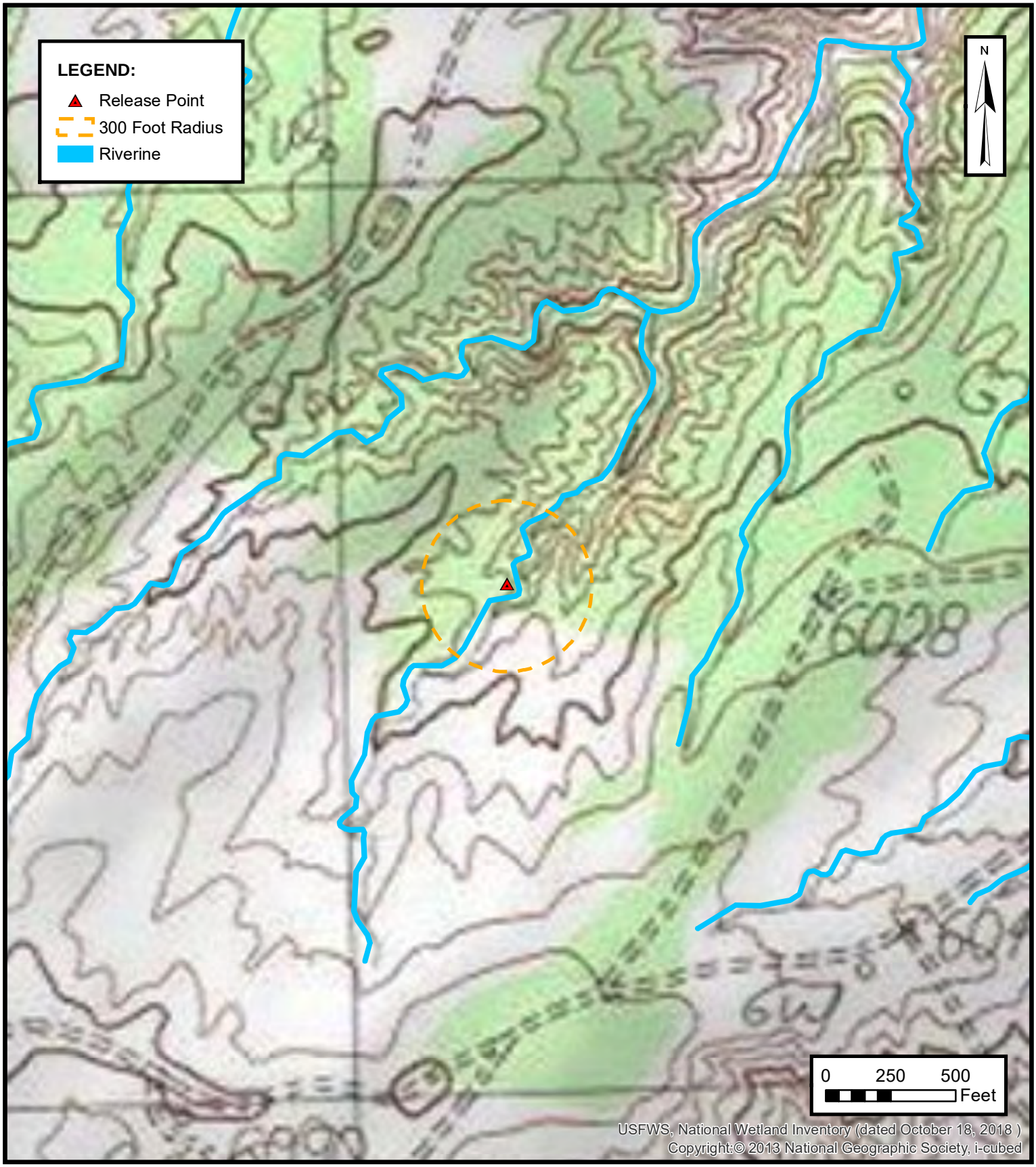
WATER WELL AND NATURAL SPRING LOCATION

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2B-24 (10/10/22)
Unit Letter F, S22 T28N R10W, San Juan County, New Mexico
32.648466° N, 107.884401° W

PROJECT NUMBER: 05A1226219

FIGURE

E



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

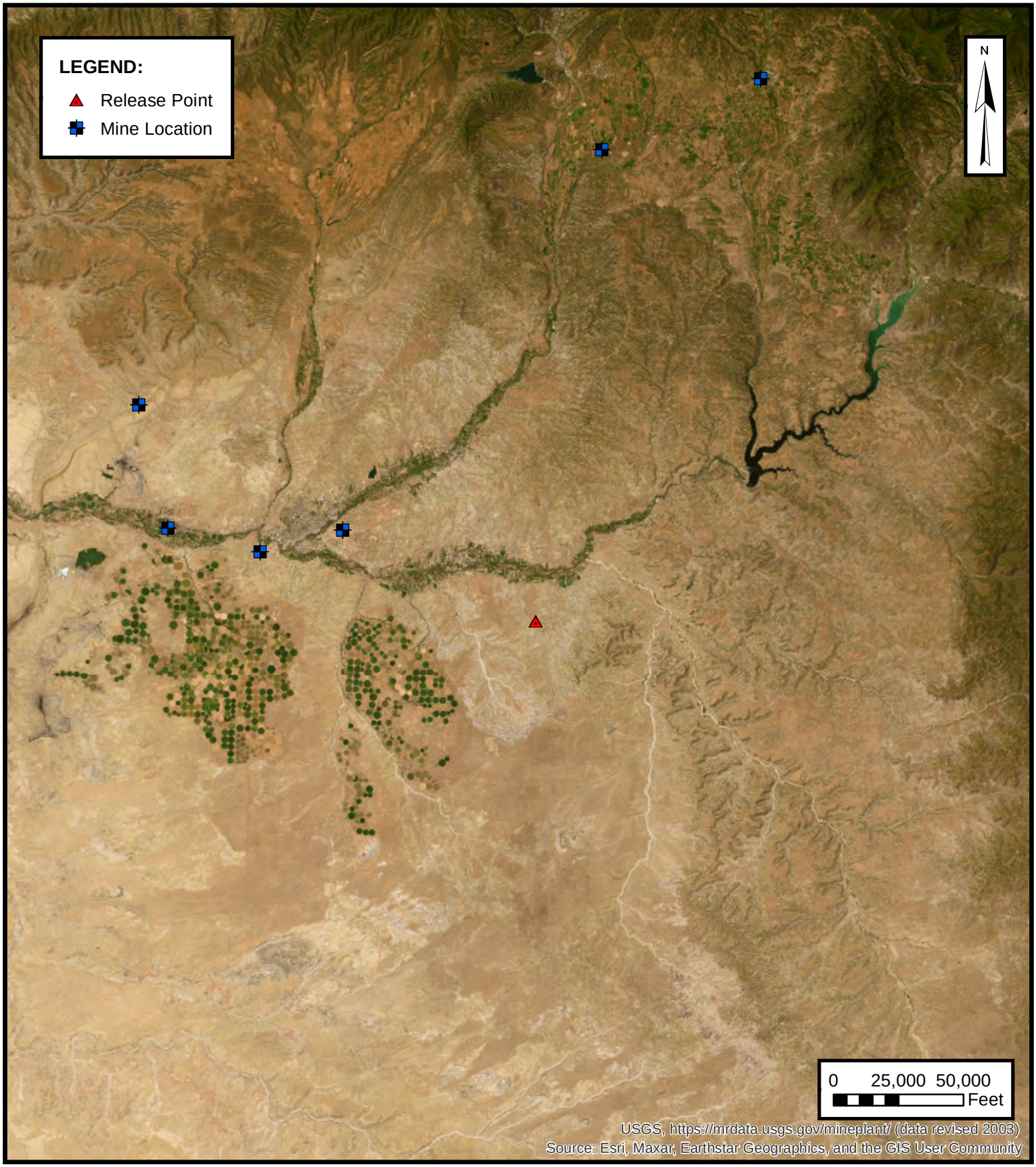
WETLANDS

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2B-24 (10/10/22)
Unit Letter F, S22 T28N R10W, San Juan County, New Mexico
32.648466° N, 107.884401° W

PROJECT NUMBER: 05A1226219

FIGURE

F



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

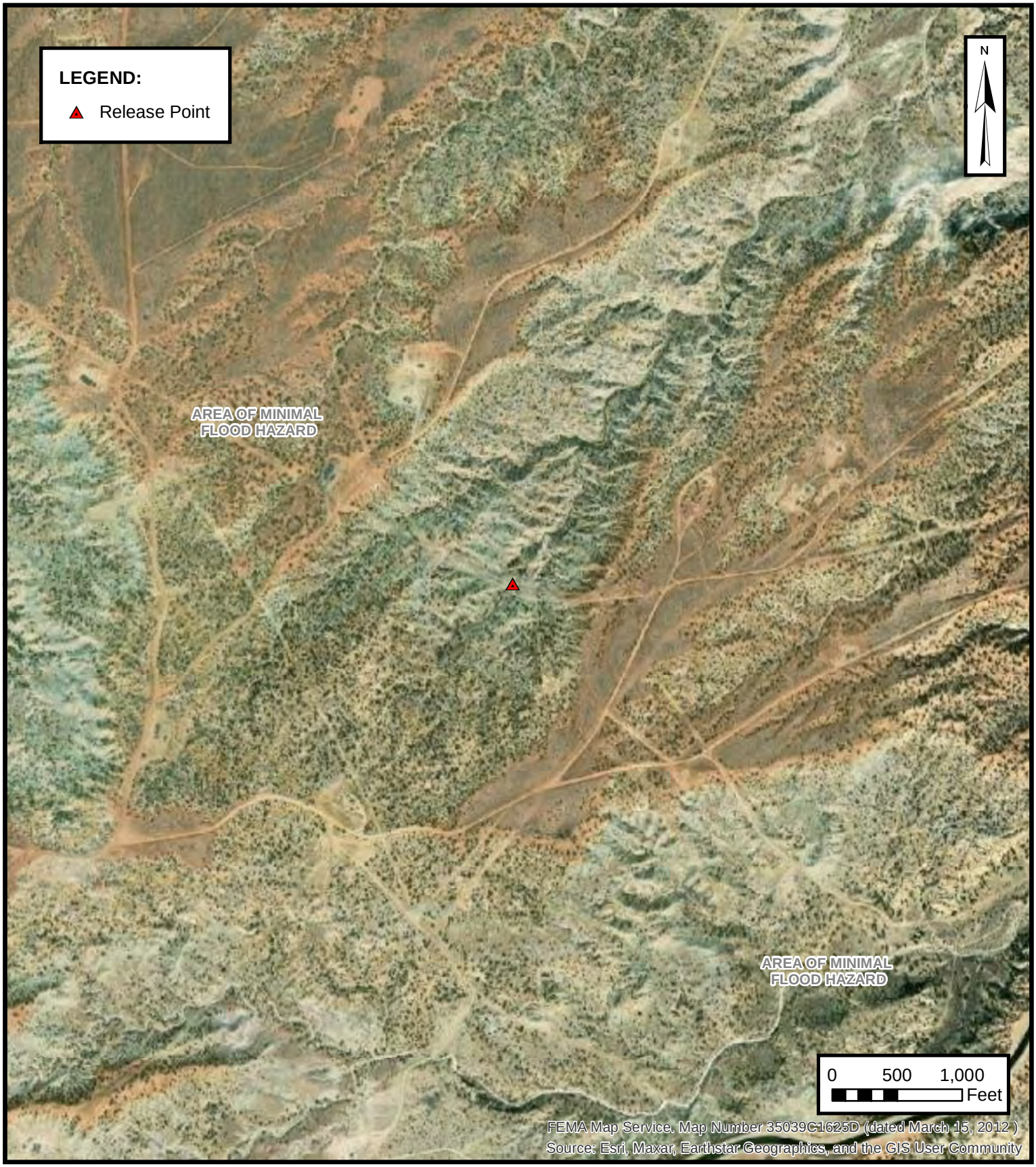
MINES, MILLS AND QUARRIES

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2B-24 (10/10/22)
Unit Letter F, S22 T28N R10W, San Juan County, New Mexico
32.648466° N, 107.884401° W

PROJECT NUMBER: 05A1226219

FIGURE

G



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

100-YEAR FLOOD PLAIN MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2B-24 (10/10/22)
Unit Letter F, S22 T28N R10W, San Juan County, New Mexico
32.648466° N, 107.884401° W

PROJECT NUMBER: 05A1226219

FIGURE

H

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

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
SJ 04072 POD1	SJ	SJ	2	2	21	28N	10W		241353	4060382	470	470	0

Average Depth to Water: **470 feet**

Minimum Depth: **470 feet**

Maximum Depth: **470 feet**

Record Count: 1

PLSS Search:

Section(s): 22, 14, 15, 16, 21, 23, 26, 27, 28 **Township:** 28N **Range:** 10W

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.

3768

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

30-045-28109

Operator Meridian Oil Co. Location: Unit M Sec. 22 Twp 28 Rng 10

Name of Well/Wells or Pipeline Serviced

Kutz Canyon #500

Elevation 589' Completion Date 2-14-93 Total Depth 415 Land Type F

Casing Strings, Sizes, Types & Depths 2/2 set 99' of 8" PVC Casing.

No Gas, Water, or Boulders were encountered during casing

If Casing Strings are cemented, show amounts & types used Cemented

with 21 sacks

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

none

Depths & thickness of water zones with description of water: Fresh, Clear,

Salty, Sulphur, Etc. 200 and 300 - water is clear

Depths gas encountered: no gas

Ground bed depth with type & amount of coke breeze used: 415' with

60 (100 lb) sacks of Loresco SW

Depths anodes placed: 395' to 305'

Depths vent pipes placed: Bottom to surface

Vent pipe perforations: up to 140'

Remarks:

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JAN 31 1994
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.

Received by OCD: 6/12/2023 1:15:47 PM

TECH, Inc.
333 East Main
Farmington
New Mexico
87401
505/327-3311

LABORATORY REPORT

OIL-FIELD WATER ANALYSIS

Lab Number: 930220-3
Client: Meridian Oil
Sample ID: Kutz Canyon #500
Location: M22-28-10

Date Sampled: 01-14-93
Date Received: 02-20-93
Date Analyzed: 02-20-93
Date Reported: 02-21-93

DISSOLVED SOLIDS:

	me/L	mg/L	Detection Limit, mg/L
Calcium, Ca++	1.0	20.8	1.0
Magnesium, Mg++	0.1	1.0	1.0
Sodium, Na+ (calc)	12.0	275	5.0
Chloride, Cl-	0.1	5.0	2.0
Sulfate, SO4--	10.9	525	5.0
Bicarbonate, HCO3-	ND	ND	5.0
Carbonate,CO3--	1.6	48.0	1.0
Hydroxide, OH-	0.4	6.8	1.0
Total Dissolved Solids (calculated):		880	10.0

OTHER PROPERTIES:

pH (units):	8.7
reisistivity (ohm-meters):	11
specific gravity at 60F:	1.0036
room temperature (F):	72

ND = Not Detected at the stated dectection limit

Methods: American Petrolium Institute, "Recommended Practice for Analysis of Oil-Field Waters;" 2nd edition.

Comments: Fruitland Coal; SJ, NM; Groundbed
Sampled by R. Smith

Sheila Tolton
analyst

Released to Imaging: 6/13/2023 8:43:14 AM
FEB 26 '93 14:00 NO.005 P.02 TEL NO.5053253311 BRIONES LAW FIRM

3720

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

Operator Meridian Oil Co. Location: Unit M Sec. 23 Twp 28 Rng 10

Name of Well/Wells or Pipeline Serviced 30-045-07272, 30-045-13069, McClanahan #1, #2, & #3 30-045-24757

Elevation 5811 Completion Date 2-22-93 Total Depth 413 Land Type F

Casing Strings, Sizes, Types & Depths 2/18 Set 99' of 8" PVC Casing. No Gas, water, or Boulders were Encountered During Casing.

If Casing Strings are cemented, show amounts & types used Cemented with 21 Sacks.

If Cement or Bentonite Plugs have been placed, show depths & amounts used None

Depths & thickness of water zones with description of water: Fresh, Clear, Salty, Sulphur, Etc. 155' and was clear.

Depths gas encountered: No gas

Ground bed depth with type & amount of coke breeze used: 413' with 20 (1001b) sacks Loresco S.W. and 80 (5016) Asbury.

Depths anodes placed: #1 at 390' and #5 at 175'

Depths vent pipes placed: Bottom to surface

Vent pipe perforations: Up to 150'

Remarks:

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JAN 31 1994
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.

Leila Fellows
analyst

BRIONES LAW FIRM TEL No.5053253311 Mar 21,93 16:02 No.001 P.16

TECH, Inc.
333 East Main
Farmington
New Mexico
87401
505/327-3311

LABORATORY REPORT

OIL-FIELD WATER ANALYSIS

61600

Lab Number:	25930315-08	Date Sampled:	02-22-93
Client:	Meridian Oil	Date Received:	03-15-93
Sample ID:	McClanahan A #2,#1,#3 G.bed	Date Analyzed:	03-17-93
Location:	M23-28-10	Date Reported:	03-18-93

DISSOLVED SOLIDS:	me/L	mg/L	Detection Limit, mg/L
Calcium, Ca++	7.9	158	1.0
Magnesium, Mg++	0.4	5	1.0
Sodium, Na+ (calc)	50.5	1,160	5.0
Chloride, Cl-	0.7	25	2.0
Sulfate, SO4--	52.9	2,540	5.0
Bicarbonate, HCO3-	4.8	293	5.0
Carbonate,CO3--	0.4	12	1.0
Hydroxide, OH-	ND	ND	1.0
Total Dissolved Solids (calculated):		4,200	10.0

OTHER PROPERTIES:

pH (units):	8.1
reisistivity (ohm-meters):	2.2
specific gravity at 60F:	1.0071
room temperature (F):	72

ND = Not Detected at the stated dectection limit

Comments: DK, PC, MC Formation.
San Juan County, New Mexico
Sampled by R. Smith

Methods: American Petroleum Institute, "Recommended Practice for Analysis of Oil-Field Waters;" 2nd edition.

Leila Lehman
analyst

TECH, Inc.
333 East Main
Farmington
New Mexico
87401
505/327-3311

LABORATORY REPORT

OIL-FIELD WATER ANALYSIS

Lab Number: 25930315-08
Client: Meridian Oil
Sample ID: McClanahan A #2,#1,#3 G.bed
Location: M23-28-10

Date Sampled: 02-22-93
Date Received: 03-15-93
Date Analyzed: 03-17-93
Date Reported: 03-18-93

DISSOLVED SOLIDS:

	me/L	mg/L	Detection Limit, mg/L
Calcium, Ca++	7.9	158	1.0
Magnesium, Mg++	0.4	5	1.0
Sodium, Na+ (calc)	50.5	1,160	5.0
Chloride, Cl-	0.7	25	2.0
Sulfate, SO4--	52.9	2,540	5.0
Bicarbonate, HCO3-	4.8	293	5.0
Carbonate,CO3--	0.4	12	1.0
Hydroxide, OH-	ND	ND	1.0
Total Dissolved Solids (calculated):		4,200	10.0

OTHER PROPERTIES:

pH (units):	8.1
reisistivity (ohm-meters):	2.2
specific gravity at 60F:	1.0071
room temperature (F):	72

ND = Not Detected at the stated dectection limit

Comments: DK, PC, PC Formation.
San Juan County, New Mexico
Sampled by R. Smith

Methods: American Petroleum Institute, "Recommended Practice for Analysis of Oil-Field Waters;" 2nd edition.

analyst

Received by OCD: 6/12/2023 1:15:47 PM

#9 30-045-07430
#15 30-045-07423
#550 30-045-27926

700

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

4207e

Operator Meridian Oil Location: Unit N Sec. 14 Twp 28 Rng 10

Name of Well/Wells or Pipeline Serviced McClanahan # 550, 15, 9

Elevation 5800 Completion Date 12-6-91 Total Depth 497' Land Type F

Casing Strings, Sizes, Types & Depths 8" PVC surface casing,

If Casing Strings are cemented, show amounts & types used yes with 24 Bags of Neat Cement

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

Depths & thickness of water zones with description of water: Fresh, Clear, Salty, Sulphur, Etc. 310' fresh

Depths gas encountered: NA

Ground bed depth with type & amount of coke breeze used: 497' 7600 lbs Asbury 4518 flo coke

Depths anodes placed: 469, 460, 450, 440, 430, 415, 405, 395, 385, 375, 365, 350

Depths vent pipes placed: 497', ~~7600 lbs Asbury 4518 flo coke~~

Vent pipe perforations: Bottom 300'

Remarks:

RECEIVED
FEB 24 1992
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.

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CPS GROUND BED CONSTRUCTION WORKSHEET

CPS #	P/L NAME(s), NUMBER(s)					
4207 W	MCCLANAHAN #550 15, 9					
WO #	TOTAL	VOLTS	AMPS	OHMS	DATE	NAME
K443		11.7	28.9	.40	12-6-91	MW, KB

REMARKS (notes for construction log)

100' of casing, 24 Bags cement, water at 320', Perforated Bottom 300'

150 Bags of Asbury 4518, 1 Bag of Loresco type SW

DEPTH	LOG ANODE	ANODE #	DEPTH	LOG ANODE	ANODE #	DEPTH	LOG ANODE	ANODE #	DEPTH	LOG ANODE	ANODE #
100			295			490	1.3		685		
105			300			495	TO 497		690		
110			305			500			695		
115			310			505			700		
120			315			510			ANODE #	DEPTH	NO COKE
125			320	1.7		515					
130			325	1.6		520			1	469	2.4
135			330	1.8		525			2	460	2.8
140			335	1.2		530			3	450	3.4
145			340	.9		535			4	440	2.8
150			345	2.3		540			5	430	2.6
155			350	2.4	12	545			6	415	2.5
160			355	1.9		550			7	405	3.0
165			360	2.1		555			8	395	2.4
170			365	2.1	11	560			9	385	2.9
175			370	2.1		565			10	375	2.5
180			375	2.0	10	570			11	365	2.4
185			380	2.1		575			12	350	2.4
190			385	2.3	9	580			13		
195			390	2.1		585			14		
200			395	2.1	8	590			15		
205			400	2.2		595			16		
210			405	2.4	7	600			17		
215			410	2.3		605			18		
220			415	2.1	6	610			19		
225			420	1.6		615			20		
230			425	1.1		620			21		
235			430	2.2	5	625			22		
240			435	2.4		630			23		
245			440	2.6	4	635			24		
250			445	2.6		640			25		
255			450	3.2	3	645			26		
260			455	2.8		650			27		
265			460	2.6	2	655			28		
270			465	2.6		660			29		
275			470	2.0	1	665			30		
280			475	1.0		670					
285			480	.7		675					
290			485	1.0		680					

ANODE #	DEPTH	NO COKE	FULL COKE
1	469	2.4	5.8
2	460	2.8	6.7
3	450	3.4	7.4
4	440	2.8	6.6
5	430	2.6	6.2
6	415	2.5	6.6
7	405	3.0	8.1
8	395	2.4	7.4
9	385	2.9	8.6
10	375	2.5	7.9
11	365	2.4	8.0
12	350	2.4	8.4
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DISTRIBUTION — original — permanent CPS FILE
copy — Division Corrosion Supervisor
copy — Region Corrosion Specialist

Received by OCD: 6/12/2023 1:15:47 PM

#19E 30-045-24107

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

Operator Meridian Oil Inc. Location: Unit E Sec. 14 Twp 28 Rng 10

Name of Well/Wells or Pipeline Serviced Mc Clanahan #19E

Elevation 5900 Completion Date 2-15-95 Total Depth _____ Land Type F

Casing Strings, Sizes, Types & Depths 100' of 8" P.V.C.

If Casing Strings are cemented, show amounts & types used Cemented with 17 sacks of type II cement.

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

Depths & thickness of water zones with description of water: Fresh, Clear, Salty, Sulphur, Etc. 130' and was clear.

Depths gas encountered: _____

Ground bed depth with type & amount of coke breeze used: _____

Depths anodes placed: _____

Depths vent pipes placed: Bottom to Surface

Vent pipe perforations: Up to 120'

Remarks: _____

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JAN 11 1996
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.

100' 17 sacks

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Received by OCD: 6/12/2023 1:15:47 PM

#11E 30-045-23972

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

Operator Meridian Oil Location: Unit O Sec. 15 Twp 28 Rng 10

Name of Well/Wells or Pipeline Serviced Cain #11E

Elevation 5700 Completion Date 2-13-95 Total Depth 430 Land Type F

Casing Strings, Sizes, Types & Depths 8" P.V.C. to 100'

If Casing Strings are cemented, show amounts & types used Used 17 sacks of type II cement.

If Cement or Bentonite Plugs have been placed, show depths & amounts used no plugs

Depths & thickness of water zones with description of water: Fresh, Clear, Salty, Sulphur, Etc. 180' and was clear

Depths gas encountered: No gas

Ground bed depth with type & amount of coke breeze used: 430' with 57 (50016) of Lonesco SW

Depths anodes placed: #1 is at 415 and #15 is at 230

Depths vent pipes placed: Up to 180' Bottom to Surface

Vent pipe perforations: Up to 180'

Remarks:

RECEIVED
JAN 11 1996
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.

Released to Imaging: 6/13/2023 8:43:14 AM

Received by OCD: 6/12/2023 1:15:47 PM

#1 30-045-07265

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

Operator Meridian Oil Inc. Location: Unit O Sec. 21 Twp 28 Rng 10

Name of Well/Wells or Pipeline Serviced Kutz Deep Test #1

Elevation 6124' Completion Date 8/26/93 Total Depth 429' Land Type F

Casing Strings, Sizes, Types & Depths 7/6 Set 59' of 8" PVC Casing. No Gas, Water, or Boulders were Encountered During Casing.

If Casing Strings are cemented, show amounts & types used Cemented with 12 Sacks.

If Cement or Bentonite Plugs have been placed, show depths & amounts used None

Depths & thickness of water zones with description of water: Fresh, Clear, Salty, Sulphur, Etc. Hit Fresh Water at 110', and More at 325'. A Water Sample was Taken.

Depths gas encountered: None

Ground bed depth with type & amount of coke breeze used: 429' Depth. Used 120 Sacks of Asbury 218R (6000#)

Depths anodes placed: 413', 405', 319', 288', 281', 274', 267', 260', 253', 246', 239', 232', 196', 188', +180'

Depths vent pipes placed: Surface To 429'

Vent pipe perforations: Bottom 320'

Remarks:

RECEIVED
JAN 31 1994
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.

Released to Imaging: 6/13/2023 8:43:14 AM

ENSOLUM

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.
97057-1125

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address:
Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401

PayKey: RB21200
PM: ME Eddleman
AFE: N61122

2. Originating Site:
Lateral 2B-24

3. Location of Material (Street Address, City, State or ULSTR):
UL F Section 22 T28N R10W; 36.648466, -107.88401

Oct 2022

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 50 (yd³) / bbls Known Volume (to be entered by the operator at the end of the haul) 56 (yd³) / 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) 10-11-2022, representative for Enterprise Products Operating authorizes Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, Greg Crabtree, 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: West States Energy Contractors and Subcontractors

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 TITLE: Enviro Manager DATE: 10/18/22
SIGNATURE: Surface Waste Management Facility Authorized Agent TELEPHONE NO.: 505-632-0615

ENSOLUM

APPENDIX D

Photographic Documentation

SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Lateral 2B-24 (10/10/22)
Ensolum Project No. 05A1226219

ENSOLUM

Photograph 1 Photograph Description: View of the in-process excavation activities.	
Photograph 2 Photograph Description: View of the in-process excavation activities.	
Photograph 3 Photograph Description: View of the final excavation.	

SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Lateral 2B-24 (10/10/22)
Ensolum Project No. 05A1226219

ENSOLUM

Photograph 4 Photograph Description: View of the final flow path excavation.	
Photograph 5 Photograph Description: View of the site after initial restoration.	
Photograph 6 Photograph Description: View of the site after initial restoration.	

ENSOLUM

APPENDIX E

Regulatory Correspondence

From: Kyle Summers
To: Ranee Deechilly
Subject: Fwd: [EXTERNAL] Lateral 2B-24 - UL F Section 22 T28N R10W; 36.648466, -107.88401; Incident # nAPP2228430992
Date: Tuesday, October 18, 2022 10:06:07 AM

Kyle Summers
Principal
903-821-5603
Ensolum, LLC

From: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Sent: Tuesday, October 18, 2022 10:57:24 AM
To: Long, Thomas <tjlong@eprod.com>; Ryan Joyner <rjoyner@blm.gov>
Cc: Stone, Brian <bmstone@eprod.com>; Kyle Summers <ksummers@ensolum.com>
Subject: RE: [EXTERNAL] Lateral 2B-24 - UL F Section 22 T28N R10W; 36.648466, -107.88401; Incident # nAPP2228430992

[**EXTERNAL EMAIL**]

Tom,

Thank you for the notice. Your variance request specifically addressing 19.15.29.12D (1a) NMAC is approved.

If an OCD representative is not on-site on the date &/or time given, please sample per 19.15.29 NMAC. For whatever reason, if the sampling timeframe is altered, please notify the OCD as soon as possible so we may adjust our schedule(s). Failure to notify the OCD of this change may result in the closure sample(s) not being accepted.

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 *NOTE NEW EMAIL ADDRESS*
http://www.emnrd.state.nm.us/OCD/

From: Long, Thomas <tjlong@eprod.com>
Sent: Tuesday, October 18, 2022 8:06 AM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>; Ryan Joyner <rjoyner@blm.gov>
Cc: Stone, Brian <bmstone@eprod.com>; Kyle Summers <ksummers@ensolum.com>
Subject: FW: [EXTERNAL] Lateral 2B-24 - UL F Section 22 T28N R10W; 36.648466, -107.88401; Incident # nAPP2228430992

Nelson,

This email is a sample notification and variance request. Enterprise is requesting a variance for required 48 hour notification per 19.15.29.12D (1a) NMAC. The last sampling event, all samples passed the NMOCD Tier I remediation standard except one. Enterprise would like to collect the final closure sample today October 18, 2022 at the Lateral 2B-24 excavation. 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

Enterprise Products

From: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Sent: Friday, October 14, 2022 2:56 PM
To: Long, Thomas <tjlong@eprod.com>; Ryan Joyner <rjoyner@blm.gov>
Cc: Stone, Brian <bmstone@eprod.com>; Kyle Summers <ksummers@ensolum.com>
Subject: RE: [EXTERNAL] Lateral 2B-24 - UL F Section 22 T28N R10W; 36.648466, -107.88401; Incident # nAPP2228430992

[Use caution with links/attachments]
Tom,

Thank you for the notice. Your variance request is approved.

If an OCD representative is not on-site on the date &/or time given, please sample per 19.15.29 NMAC. For whatever reason, if the sampling timeframe is altered, please notify the OCD as soon as possible so we may adjust our schedule(s). Failure to notify the OCD of this change may result in the closure sample(s) not being accepted.

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

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required to be included in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variances.

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 *NOTE NEW EMAIL ADDRESS*
http://www.emnrd.state.nm.us/OCD/

From: Long, Thomas <tjlong@eprod.com>
Sent: Friday, October 14, 2022 2:31 PM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>; Ryan Joyner <rjoyner@blm.gov>
Cc: Stone, Brian <bmstone@eprod.com>; Kyle Summers <ksummers@ensolum.com>
Subject: [EXTERNAL] Lateral 2B-24 - UL F Section 22 T28N R10W; 36.648466, -107.88401; Incident # nAPP2228430992

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

Nelson,

This email is a sample notification and variance request. Enterprise is requesting a variance for required 48 hour notification per 19.15.29.12D (1a) NMAC. Enterprise would like to collect closure samples today October 14, 2022 at the Lateral 2B-24 excavation. 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.

ENSOLUM

APPENDIX F

Table 1 – Soil Analytical Summary

ENSOLUM

TABLE 1
Lateral 2B-24 (10/10/22)
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) (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**
Composite Soil Sample Removed by Excavation and Transported to the Landfarmf for Remediation/Disposal													
FP-1	10.14.22	C	0.25	<0.016	0.057	<0.033	0.19	0.25	<3.3	250	<48	**250**	210
Flow Path Composite Soil Sample													
FP-2	10.18.22	C	0.25 to 1	<0.016	<0.033	<0.033	<0.065	ND	<3.3	<14	<48	ND	89
FP-3	10.18.22	C	0.25 to 1	<0.017	<0.034	<0.034	<0.068	ND	<3.4	<15	<49	ND	<60
Excavation Composite Soil Samples													
S-1	10.14.22	C	6	<0.018	<0.035	<0.035	<0.071	ND	<3.5	<15	<50	ND	160
S-2	10.14.22	C	0 to 6	<0.019	<0.037	<0.037	<0.075	ND	<3.7	<15	<48	ND	95
S-3	10.14.22	C	0 to 6	<0.017	<0.034	<0.034	<0.069	ND	<3.4	<15	<50	ND	<60
S-4	10.14.22	C	0 to 6	<0.017	<0.034	<0.034	<0.069	ND	<3.4	<15	<50	ND	<60
S-5	10.14.22	C	0 to 6	<0.018	<0.036	<0.036	<0.073	ND	<3.6	<14	<48	ND	83

*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

mg/kg = milligram 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

ENSOLUM

APPENDIX G

Laboratory Data Sheets & Chain of Custody Documentation

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 24, 2022

Kyle Summers

ENSOLUM
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603
FAX:

RE: Lateral 2B 24 OrderNo.: 2210774

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/15/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2210774**
Date Reported: **10/24/2022**

CLIENT: ENSOLUM **Client Sample ID:** S-1
Project: Lateral 2B 24 **Collection Date:** 10/14/2022 2:50:00 PM
Lab ID: 2210774-001 **Matrix:** MEOH (SOIL) **Received Date:** 10/15/2022 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	160	60		mg/Kg	20	10/17/2022 12:33:22 PM	70866
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	10/17/2022 11:57:21 AM	70853
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/17/2022 11:57:21 AM	70853
Surr: DNOP	131	21-129	S	%Rec	1	10/17/2022 11:57:21 AM	70853
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	10/15/2022 1:12:10 PM	G91823
Surr: BFB	87.1	37.7-212		%Rec	1	10/15/2022 1:12:10 PM	G91823
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.018		mg/Kg	1	10/15/2022 1:12:10 PM	B91823
Toluene	ND	0.035		mg/Kg	1	10/15/2022 1:12:10 PM	B91823
Ethylbenzene	ND	0.035		mg/Kg	1	10/15/2022 1:12:10 PM	B91823
Xylenes, Total	ND	0.071		mg/Kg	1	10/15/2022 1:12:10 PM	B91823
Surr: 4-Bromofluorobenzene	92.8	70-130		%Rec	1	10/15/2022 1:12:10 PM	B91823

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2210774**
Date Reported: **10/24/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-2
Project: Lateral 2B 24 **Collection Date:** 10/14/2022 2:55:00 PM
Lab ID: 2210774-002 **Matrix:** MEOH (SOIL) **Received Date:** 10/15/2022 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	95	60		mg/Kg	20	10/17/2022 12:45:43 PM	70866
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	10/17/2022 12:22:55 PM	70853
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/17/2022 12:22:55 PM	70853
Surr: DNOP	128	21-129		%Rec	1	10/17/2022 12:22:55 PM	70853
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	10/15/2022 1:35:35 PM	G91823
Surr: BFB	87.2	37.7-212		%Rec	1	10/15/2022 1:35:35 PM	G91823
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	10/15/2022 1:35:35 PM	B91823
Toluene	ND	0.037		mg/Kg	1	10/15/2022 1:35:35 PM	B91823
Ethylbenzene	ND	0.037		mg/Kg	1	10/15/2022 1:35:35 PM	B91823
Xylenes, Total	ND	0.075		mg/Kg	1	10/15/2022 1:35:35 PM	B91823
Surr: 4-Bromofluorobenzene	92.6	70-130		%Rec	1	10/15/2022 1:35:35 PM	B91823

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2210774**
Date Reported: **10/24/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-3
Project: Lateral 2B 24 **Collection Date:** 10/14/2022 3:00:00 PM
Lab ID: 2210774-003 **Matrix:** MEOH (SOIL) **Received Date:** 10/15/2022 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	10/17/2022 12:58:04 PM	70866
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	10/17/2022 12:33:20 PM	70853
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/17/2022 12:33:20 PM	70853
Surr: DNOP	120	21-129		%Rec	1	10/17/2022 12:33:20 PM	70853
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	10/15/2022 1:59:04 PM	G91823
Surr: BFB	87.7	37.7-212		%Rec	1	10/15/2022 1:59:04 PM	G91823
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.017		mg/Kg	1	10/15/2022 1:59:04 PM	B91823
Toluene	ND	0.034		mg/Kg	1	10/15/2022 1:59:04 PM	B91823
Ethylbenzene	ND	0.034		mg/Kg	1	10/15/2022 1:59:04 PM	B91823
Xylenes, Total	ND	0.069		mg/Kg	1	10/15/2022 1:59:04 PM	B91823
Surr: 4-Bromofluorobenzene	92.5	70-130		%Rec	1	10/15/2022 1:59:04 PM	B91823

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2210774**
Date Reported: **10/24/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-4
Project: Lateral 2B 24 **Collection Date:** 10/14/2022 3:05:00 PM
Lab ID: 2210774-004 **Matrix:** MEOH (SOIL) **Received Date:** 10/15/2022 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	ND	60		mg/Kg	20	10/17/2022 1:10:24 PM	70866
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	10/17/2022 12:43:45 PM	70853
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/17/2022 12:43:45 PM	70853
Surr: DNOP	116	21-129		%Rec	1	10/17/2022 12:43:45 PM	70853
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	10/15/2022 2:22:38 PM	G91823
Surr: BFB	87.2	37.7-212		%Rec	1	10/15/2022 2:22:38 PM	G91823
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.017		mg/Kg	1	10/15/2022 2:22:38 PM	B91823
Toluene	ND	0.034		mg/Kg	1	10/15/2022 2:22:38 PM	B91823
Ethylbenzene	ND	0.034		mg/Kg	1	10/15/2022 2:22:38 PM	B91823
Xylenes, Total	ND	0.069		mg/Kg	1	10/15/2022 2:22:38 PM	B91823
Surr: 4-Bromofluorobenzene	92.8	70-130		%Rec	1	10/15/2022 2:22:38 PM	B91823

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2210774**
Date Reported: **10/24/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-5
Project: Lateral 2B 24 **Collection Date:** 10/14/2022 3:10:00 PM
Lab ID: 2210774-005 **Matrix:** MEOH (SOIL) **Received Date:** 10/15/2022 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	83	60		mg/Kg	20	10/17/2022 1:22:46 PM	70866
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**	
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	10/17/2022 12:54:12 PM	70853
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/17/2022 12:54:12 PM	70853
Surr: DNOP	115	21-129		%Rec	1	10/17/2022 12:54:12 PM	70853
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	10/15/2022 2:46:07 PM	G91823
Surr: BFB	88.6	37.7-212		%Rec	1	10/15/2022 2:46:07 PM	G91823
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.018		mg/Kg	1	10/15/2022 2:46:07 PM	B91823
Toluene	ND	0.036		mg/Kg	1	10/15/2022 2:46:07 PM	B91823
Ethylbenzene	ND	0.036		mg/Kg	1	10/15/2022 2:46:07 PM	B91823
Xylenes, Total	ND	0.073		mg/Kg	1	10/15/2022 2:46:07 PM	B91823
Surr: 4-Bromofluorobenzene	94.2	70-130		%Rec	1	10/15/2022 2:46:07 PM	B91823

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2210774**
Date Reported: **10/24/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** FP-1
Project: Lateral 2B 24 **Collection Date:** 10/14/2022 3:15:00 PM
Lab ID: 2210774-006 **Matrix:** MEOH (SOIL) **Received Date:** 10/15/2022 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JTT**	
Chloride	210	60		mg/Kg	20	10/17/2022 1:35:06 PM	70866
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**	
Diesel Range Organics (DRO)	250	14		mg/Kg	1	10/17/2022 4:12:05 PM	70853
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/17/2022 4:12:05 PM	70853
Surr: DNOP	121	21-129		%Rec	1	10/17/2022 4:12:05 PM	70853
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	10/15/2022 3:09:36 PM	G91823
Surr: BFB	96.6	37.7-212		%Rec	1	10/15/2022 3:09:36 PM	G91823
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.016		mg/Kg	1	10/15/2022 3:09:36 PM	B91823
Toluene	0.057	0.033		mg/Kg	1	10/15/2022 3:09:36 PM	B91823
Ethylbenzene	ND	0.033		mg/Kg	1	10/15/2022 3:09:36 PM	B91823
Xylenes, Total	0.19	0.065		mg/Kg	1	10/15/2022 3:09:36 PM	B91823
Surr: 4-Bromofluorobenzene	90.9	70-130		%Rec	1	10/15/2022 3:09:36 PM	B91823

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2210774**

24-Oct-22

Client: ENSOLUM

Project: Lateral 2B 24

Sample ID: **MB-70866**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **70866**	RunNo: **91844**
Prep Date: **10/17/2022**	Analysis Date: **10/17/2022**	SeqNo: **3294671** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-70866**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **70866**	RunNo: **91844**
Prep Date: **10/17/2022**	Analysis Date: **10/17/2022**	SeqNo: **3294673** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.0	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2210774**

24-Oct-22

Client: ENSOLUM

Project: Lateral 2B 24

Sample ID: **MB-70853**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **70853**	RunNo: **91838**
Prep Date: **10/17/2022**	Analysis Date: **10/17/2022**	SeqNo: **3293382** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		118	21	129			

Sample ID: **2210774-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-1**	Batch ID: **70853**	RunNo: **91838**
Prep Date: **10/17/2022**	Analysis Date: **10/17/2022**	SeqNo: **3293893** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	15	49.31	0	117	36.1	154			
Surr: DNOP	5.5		4.931		111	21	129			

Sample ID: **2210774-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-1**	Batch ID: **70853**	RunNo: **91838**
Prep Date: **10/17/2022**	Analysis Date: **10/17/2022**	SeqNo: **3293894** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	14	47.94	0	111	36.1	154	7.63	33.9	
Surr: DNOP	5.4		4.794		112	21	129	0	0	

Sample ID: **LCS-70853**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **70853**	RunNo: **91845**
Prep Date: **10/17/2022**	Analysis Date: **10/17/2022**	SeqNo: **3293928** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	15	50.00	0	95.6	64.4	127			
Surr: DNOP	4.7		5.000		94.5	21	129			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2210774**

24-Oct-22

Client: ENSOLUM

Project: Lateral 2B 24

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **G91823**	RunNo: **91823**
Prep Date:	Analysis Date: **10/15/2022**	SeqNo: **3292452** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	880		1000		87.7	37.7	212			

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G91823**	RunNo: **91823**
Prep Date:	Analysis Date: **10/15/2022**	SeqNo: **3292453** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.6	72.3	137			
Surr: BFB	1800		1000		183	37.7	212			

Sample ID: **2210774-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-1**	Batch ID: **G91823**	RunNo: **91823**
Prep Date:	Analysis Date: **10/15/2022**	SeqNo: **3292468** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	3.5	17.67	0	96.0	70	130			
Surr: BFB	1300		706.7		185	37.7	212			

Sample ID: **2210774-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-1**	Batch ID: **G91823**	RunNo: **91823**
Prep Date:	Analysis Date: **10/15/2022**	SeqNo: **3292469** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	3.5	17.67	0	96.6	70	130	0.706	20	
Surr: BFB	1300		706.7		187	37.7	212	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2210774**

24-Oct-22

Client: ENSOLUM

Project: Lateral 2B 24

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B91823**	RunNo: **91823**
Prep Date:	Analysis Date: **10/15/2022**	SeqNo: **3292501** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		93.6	70	130			

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B91823**	RunNo: **91823**
Prep Date:	Analysis Date: **10/15/2022**	SeqNo: **3292502** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	99.7	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.8	80	120			
Surr: 4-Bromofluorobenzene	0.96		1.000		96.2	70	130			

Sample ID: **2210774-002ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S-2**	Batch ID: **B91823**	RunNo: **91823**
Prep Date:	Analysis Date: **10/15/2022**	SeqNo: **3292517** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.74	0.019	0.7485	0	99.0	68.8	120			
Toluene	0.74	0.037	0.7485	0	98.6	73.6	124			
Ethylbenzene	0.73	0.037	0.7485	0	97.4	72.7	129			
Xylenes, Total	2.2	0.075	2.246	0	96.7	75.7	126			
Surr: 4-Bromofluorobenzene	0.70		0.7485		93.9	70	130			

Sample ID: **2210774-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S-2**	Batch ID: **B91823**	RunNo: **91823**
Prep Date:	Analysis Date: **10/15/2022**	SeqNo: **3292518** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.72	0.019	0.7485	0	96.1	68.8	120	2.93	20	
Toluene	0.72	0.037	0.7485	0	96.1	73.6	124	2.58	20	
Ethylbenzene	0.71	0.037	0.7485	0	95.3	72.7	129	2.14	20	
Xylenes, Total	2.1	0.075	2.246	0	94.8	75.7	126	1.98	20	
Surr: 4-Bromofluorobenzene	0.68		0.7485		91.0	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **ENSOLUM** Work Order Number: **2210774** RcptNo: 1

Received By: **Cheyenne Cason** **10/15/2022 8:40:00 AM**

Completed By: **Cheyenne Cason** **10/15/2022 9:02:29 AM**

Reviewed By: 10/15/2022

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: 10/15/22

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.0	Good	Yes			

Released to Imaging: 6/13/2023 8:43:14 AM
Received by OCD: 6/12/2023 1:15:47 PM

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 606 S. Rio Grande Suite A
Aztec, NM 87410

Phone #:

email or Fax#: KSummers@ensolum.com

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

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

Turn-Around Time: SAME DAY
☐ Standard ☒ Rush 100%

Project Name: Lateral 2B-24

Project #: See notes

Project Manager: KSummers

Sampler: RDeechilly
On Ice: ☑ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 3.0-0=3.0 (°C)

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2210774	BTEX / ~~MTBE~~ / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chloride
10/14/22	1450	S	S-1	(1) 4oz Jar	cool	001	X	X									X
10/14/22	1455	S	S-2	(1) 4oz Jar	cool	002	X	X									X
10/14/22	1500	S	S-3	(1) 4oz Jar	cool	003	X	X									X
10/14/22	1505	S	S-4	(1) 4oz Jar	cool	004	X	X									X
10/14/22	1510	S	S-5	(1) 4oz Jar	cool	005	X	X									X
14/14/22	1515	S	FP-1	(1) 4oz Jar	cool	006	X	X									X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10/14/22	1716				10/14/22	1716
10/14/22	1806				10/15/22	0840

Remarks: SAME DAY
PM - Tom Long (EPROD)
Pay Key - RB21200
Non AFE - N6122

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 27, 2022

Kyle Summers

ENSOLUM
606 S. Rio Grande Suite A
Aztec, NM 87410
TEL: (903) 821-5603
FAX:

RE: Lateral 2B 24 OrderNo.: 2210926

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/19/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2210926**
Date Reported: **10/27/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** FP-2
Project: Lateral 2B 24 **Collection Date:** 10/18/2022 1:30:00 PM
Lab ID: 2210926-001 **Matrix:** SOIL **Received Date:** 10/19/2022 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	89	60		mg/Kg	20	10/19/2022 2:54:37 PM	70914
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**	
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	10/19/2022 9:59:06 AM	70913
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/19/2022 9:59:06 AM	70913
Surr: DNOP	99.9	21-129		%Rec	1	10/19/2022 9:59:06 AM	70913
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	10/19/2022 8:59:17 AM	A91905
Surr: BFB	87.4	37.7-212		%Rec	1	10/19/2022 8:59:17 AM	A91905
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.016		mg/Kg	1	10/19/2022 8:59:17 AM	C91905
Toluene	ND	0.033		mg/Kg	1	10/19/2022 8:59:17 AM	C91905
Ethylbenzene	ND	0.033		mg/Kg	1	10/19/2022 8:59:17 AM	C91905
Xylenes, Total	ND	0.065		mg/Kg	1	10/19/2022 8:59:17 AM	C91905
Surr: 4-Bromofluorobenzene	93.4	70-130		%Rec	1	10/19/2022 8:59:17 AM	C91905

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2210926**
Date Reported: **10/27/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** FP-3
Project: Lateral 2B 24 **Collection Date:** 10/18/2022 1:35:00 PM
Lab ID: 2210926-002 **Matrix:** SOIL **Received Date:** 10/19/2022 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	ND	60		mg/Kg	20	10/19/2022 3:07:01 PM	70914
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **mb**	
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	10/19/2022 10:22:54 AM	70913
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/19/2022 10:22:54 AM	70913
Surr: DNOP	98.6	21-129		%Rec	1	10/19/2022 10:22:54 AM	70913
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	10/19/2022 11:20:02 AM	A91905
Surr: BFB	84.8	37.7-212		%Rec	1	10/19/2022 11:20:02 AM	A91905
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.017		mg/Kg	1	10/19/2022 11:20:02 AM	C91905
Toluene	ND	0.034		mg/Kg	1	10/19/2022 11:20:02 AM	C91905
Ethylbenzene	ND	0.034		mg/Kg	1	10/19/2022 11:20:02 AM	C91905
Xylenes, Total	ND	0.068		mg/Kg	1	10/19/2022 11:20:02 AM	C91905
Surr: 4-Bromofluorobenzene	92.6	70-130		%Rec	1	10/19/2022 11:20:02 AM	C91905

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2210926**

27-Oct-22

Client: ENSOLUM

Project: Lateral 2B 24

Sample ID: **MB-70914** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **70914** RunNo: **91941**

Prep Date: **10/19/2022** Analysis Date: **10/19/2022** SeqNo: **3298265** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-70914** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **70914** RunNo: **91941**

Prep Date: **10/19/2022** Analysis Date: **10/19/2022** SeqNo: **3298266** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.8	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2210926**

27-Oct-22

Client: ENSOLUM

Project: Lateral 2B 24

Sample ID: **MB-70913** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **70913** RunNo: **91900**

Prep Date: **10/19/2022** Analysis Date: **10/19/2022** SeqNo: **3296264** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		98.1	21	129			

Sample ID: **LCS-70913** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **70913** RunNo: **91900**

Prep Date: **10/19/2022** Analysis Date: **10/19/2022** SeqNo: **3296265** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	15	50.00	0	96.4	64.4	127			
Surr: DNOP	4.9		5.000		97.8	21	129			

Sample ID: **2210926-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **FP-2** Batch ID: **70913** RunNo: **91900**

Prep Date: **10/19/2022** Analysis Date: **10/19/2022** SeqNo: **3297978** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	14	47.13	0	105	36.1	154			
Surr: DNOP	4.9		4.713		104	21	129			

Sample ID: **2210926-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **FP-2** Batch ID: **70913** RunNo: **91900**

Prep Date: **10/19/2022** Analysis Date: **10/19/2022** SeqNo: **3297979** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	14	47.80	0	99.3	36.1	154	3.84	33.9	
Surr: DNOP	4.9		4.780		102	21	129	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2210926**

27-Oct-22

Client: ENSOLUM

Project: Lateral 2B 24

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **A91905**	RunNo: **91905**
Prep Date:	Analysis Date: **10/19/2022**	SeqNo: **3297260** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		85.6	37.7	212			

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **A91905**	RunNo: **91905**
Prep Date:	Analysis Date: **10/19/2022**	SeqNo: **3297261** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.5	72.3	137			
Surr: BFB	1800		1000		181	37.7	212			

Sample ID: **2210926-002ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **FP-3**	Batch ID: **A91905**	RunNo: **91905**
Prep Date:	Analysis Date: **10/19/2022**	SeqNo: **3297262** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	16	3.4	16.98	0	93.3	70	130			
Surr: BFB	1200		679.4		179	37.7	212			

Sample ID: **2210926-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **FP-3**	Batch ID: **A91905**	RunNo: **91905**
Prep Date:	Analysis Date: **10/19/2022**	SeqNo: **3297263** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	16	3.4	16.98	0	91.9	70	130	1.51	20	
Surr: BFB	1200		679.4		182	37.7	212	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2210926**

27-Oct-22

Client: ENSOLUM

Project: Lateral 2B 24

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **C91905**	RunNo: **91905**
Prep Date:	Analysis Date: **10/19/2022**	SeqNo: **3297306** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		92.0	70	130			

Sample ID: **100ng btex lcs**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **C91905**	RunNo: **91905**
Prep Date:	Analysis Date: **10/19/2022**	SeqNo: **3297307** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	95.7	80	120			
Toluene	0.97	0.050	1.000	0	96.7	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.1	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.3	80	120			
Surr: 4-Bromofluorobenzene	0.96		1.000		95.5	70	130			

Sample ID: **2210926-001ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **FP-2**	Batch ID: **C91905**	RunNo: **91905**
Prep Date:	Analysis Date: **10/19/2022**	SeqNo: **3297308** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.63	0.016	0.6540	0	96.0	68.8	120			
Toluene	0.63	0.033	0.6540	0	95.8	73.6	124			
Ethylbenzene	0.62	0.033	0.6540	0	95.2	72.7	129			
Xylenes, Total	1.9	0.065	1.962	0	94.5	75.7	126			
Surr: 4-Bromofluorobenzene	0.61		0.6540		93.2	70	130			

Sample ID: **2210926-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **FP-2**	Batch ID: **C91905**	RunNo: **91905**
Prep Date:	Analysis Date: **10/19/2022**	SeqNo: **3297309** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.62	0.016	0.6540	0	94.8	68.8	120	1.29	20	
Toluene	0.62	0.033	0.6540	0	94.8	73.6	124	0.976	20	
Ethylbenzene	0.61	0.033	0.6540	0	94.0	72.7	129	1.24	20	
Xylenes, Total	1.8	0.065	1.962	0	94.3	75.7	126	0.230	20	
Surr: 4-Bromofluorobenzene	0.62		0.6540		95.2	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: ENSOLUM Work Order Number: 2210926 RcptNo: 1

Received By: Juan Rojas 10/19/2022 7:10:00 AM

Completed By: Tracy Casarrubias 10/19/2022 7:34:14 AM

Reviewed By: SCL 10/19/22

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: JM 10/19/22

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good	Yes			

Released to Imaging: 6/13/2023 8:45:14 AM
Received by OCD: 6/12/2023 1:15:47 PM

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 606 S. Rio Grande Suite A

Aztec, NM 87410

Phone #:

email or Fax#: ksummers@ensolum.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: SAME DAY

☐ Standard ☒ Rush 1056

Project Name: Lateral 2B-24

Project #: see notes

Project Manager: ksummers

Sampler: RDeChilly

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 1.3+0.1=1.4 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2210926	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chloride
10/18/22	1330	S	FP-2	(1) 4oz Jar	COOL	001	X	X									X
10/18/22	1335	S	FP-3	(1) 4oz Jar	COOL	002	X	X									X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10/18/22	1541				10/18/22	1541
10/18/22	1742			courier	10/19/22	7:10

Remarks: SAMEDAY

PM - Tom Long (EPROD)
Pay Key - RB21200
Non AFE - NG1122

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

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 226452

CONDITIONS

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 226452
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	6/13/2023