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)* **nAPP2211046720**
Contact mailing address: **614 Reilly Ave, Farmington, NM 87401**	

Location of Release Source

Latitude **36.383405** Longitude **-107.416641** *(NAD 83 in decimal degrees to 5 decimal places)*

Site Name **Lateral 2C-45 – McKenzie #2**	Site Type **Natural Gas Gathering Pipeline**
Date Release Discovered: **04/14/2022**	Serial Number *(if applicable)*: **N/A**

Unit Letter	Section	Township	Range	County
J	**24**	**25N**	**6W**	**Rio Arriba**

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): **5-10 BBLS**	Volume Recovered (bbls): **None**
☒ Natural Gas	Volume Released (Mcf): **7 MCF**	Volume Recovered (Mcf): **None**
☐ Other (describe)	Volume/Weight Released (provide units):	Volume/Weight Recovered (provide units)

Cause of Release: On March 15, 2022, Enterprise had a release of natural gas and condensate from the Lateral 2C-45 – McKenzie #2 pipeline. The pipeline was isolated, depressurized, locked and tagged out. No residents were affected. No washes were affected. No emergency services responded. Enterprise began repairs and remediation on April 14, 2022 and determined this release reportable per NMOCD regulation due to the volume of impacted subsurface soil. The final excavation dimensions measured approximately 15 feet long by 10 feet wide by 5 feet deep. A total of 116 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: 06-12-2023

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 2C-45 – McKenzie #2 (04/14/22)
Unit Letter J, S24 T25N R6W
Rio Arriba County, New Mexico

NM EMNRD OCD Incident ID No. NAPP2211046720

July 15, 2022
Ensolum Project No. 05A1226188

Prepared for:

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

Prepared by:

Chad D'Aponti
Project Scientist

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 2C-45 – McKenzie #2 (04/14/22) (Site)
NM EMNRD OCD Incident ID No.	NAPP2211046720
Location:	36.383405° North, 107.416641° West Unit Letter J, Section 24, Township 25 North, Range 6 West Rio Arriba 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 April 14, 2022, Enterprise personnel discovered of a release of natural gas from the Lateral 2C-45 – McKenzie #2 pipeline. Enterprise verified a leak and subsequently isolated and locked the pipeline out of service. The unpaved road to the Site was inaccessible to vehicular traffic and required repair prior to the initiation of earthwork activities. On May 3, 2022, repair and remediation activities were initiated.

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

1.2 Project Objective

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

2.0 CLOSURE CRITERIA

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

- The NM Office of the State Engineer (OSE) tracks the usage and assignment of water rights and water well installations and records this information in the Water Rights Reporting System (WRRS) database. Water wells and other points of diversion (PODs) are each assigned POD numbers in the database (which is searchable and includes an interactive map). No PODs with recorded depth to water were identified within the same Public Land Survey System (PLSS) section as the Site, and no PODS were identified in the adjacent PLSS sections. (**Figure A**, **Appendix B**).

- One cathodic protection well (CPW) was identified in the NM EMNRD OCD imaging database within the same PLSS section as the site, and four CPWs were identified in the adjacent sections **Figure B**

(**Appendix B**). The record for the cathodic protection well located near the Canyon Largo Units #143 and #335 well locations indicates a depth to water of approximately 100 feet bgs. This cathodic protection well is approximately 0.5 miles northwest of the Site and is approximately 16 feet lower in elevation than the Site. The record for the cathodic protection well located near the Canyon Largo Unit #228 well location indicates a depth to water of approximately 70 feet bgs. This cathodic protection well is approximately 1 mile northwest of the Site and is approximately 180 feet higher in elevation than the Site. The record for the cathodic protection well located near the Canyon Largo Unit #229 well location indicates a depth to water of approximately 125 feet bgs. This cathodic protection well is approximately 1.3 miles northwest of the Site and is approximately 71 feet higher in elevation than the Site. The records for the cathodic protection well located near the Canyon Largo Units #254 and #107 well location indicates a depth to water of approximately 180 feet bgs. This cathodic protection well is approximately 1.4 miles northeast of the Site and is approximately 219 feet higher in elevation than the Site. The records for the cathodic protection well located near the Canyon Largo Units #279 and #13 well location indicates a depth to water of approximately 100 feet bgs. This cathodic protection well is approximately 1.7 miles northwest of the Site and is approximately 203 feet higher 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 fresh water 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 fresh water 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 within 300 feet of a freshwater forested/shrub 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.
- Based on information provided by the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) geospatial database, the Site is 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 kilograms (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 May 3, 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 (WSEC), provided heavy equipment and labor support, while Ensolum provided environmental consulting support.

The final excavation measured approximately 15 feet long and 10 feet wide at the maximum extents. The maximum depth of the excavation measured approximately 5 feet bgs. The lithology encountered during the completion of remediation activities consisted primarily of unconsolidated silty sandy clay.

Approximately 116 cubic yards (yd^3) of petroleum hydrocarbon affected soils and 20 barrels (bbls) of hydro-excavation soil cuttings and water 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 compacted, 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 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 excavation for laboratory analysis. The composite samples were comprised of five aliquots each and represent an estimated 200 square foot (ft^2) sample area (or less) per guidelines outlined in Section D of 19.15.29.12 NMAC. Hand tools were utilized to obtain fresh aliquots from each area of the excavation. Regulatory correspondence is provided in **Appendix E**.

First Sampling Event
On April 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 samples S-1 (0'-5'), and S-2 (0'-5') were collected from the end walls of the excavation.

Second Sampling Event
On May 4, 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 sample

S-3 was collected from the floor of the excavation. Composite soil samples S-4 and S-5 were collected from the walls of the excavation.

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) to the Tier I NM EMNRD OCD closure criteria. The laboratory analytical results are summarized in **Table 1** (**Appendix F**).

- The laboratory analytical results for the composite soil samples indicate benzene is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the NM EMNRD OCD closure criteria of 10 mg/kg.
- The laboratory analytical results for the composite soil samples indicate total BTEX is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the NM EMNRD OCD closure criteria of 50 mg/kg.
- The laboratory analytical results for the composite soil samples 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 the composite soil samples 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

The excavation was backfilled with clean imported fill and then contoured to the surrounding topography.

8.0 FINDINGS AND RECOMMENDATION

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

- Approximately 116 yd^3 of petroleum hydrocarbon affected soils and 20 bbls of hydro-excavation soil cuttings and water were transported to the Envirotech landfarm for disposal/remediation. The excavation was backfilled with clean 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.

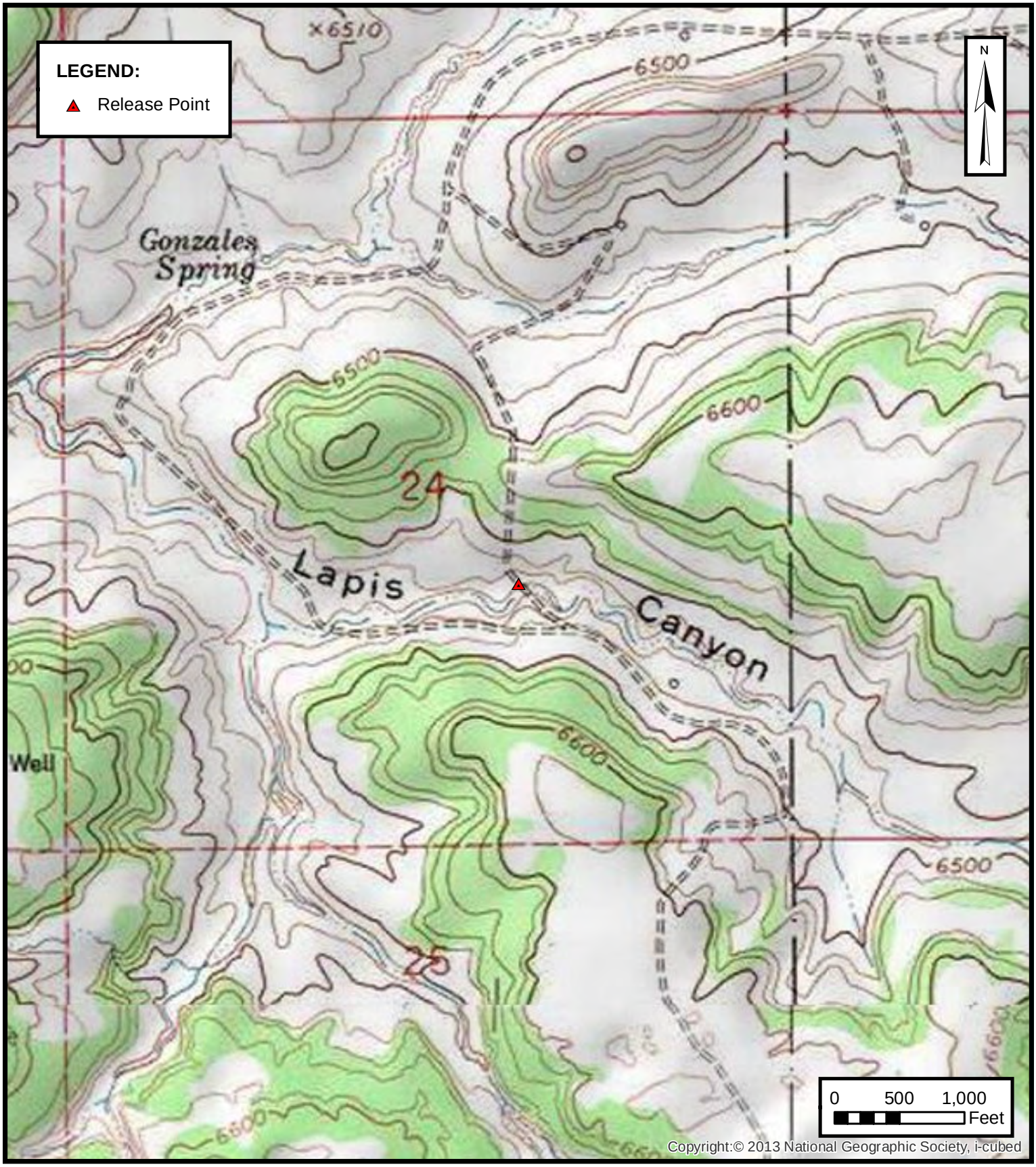
9.3 Reliance

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



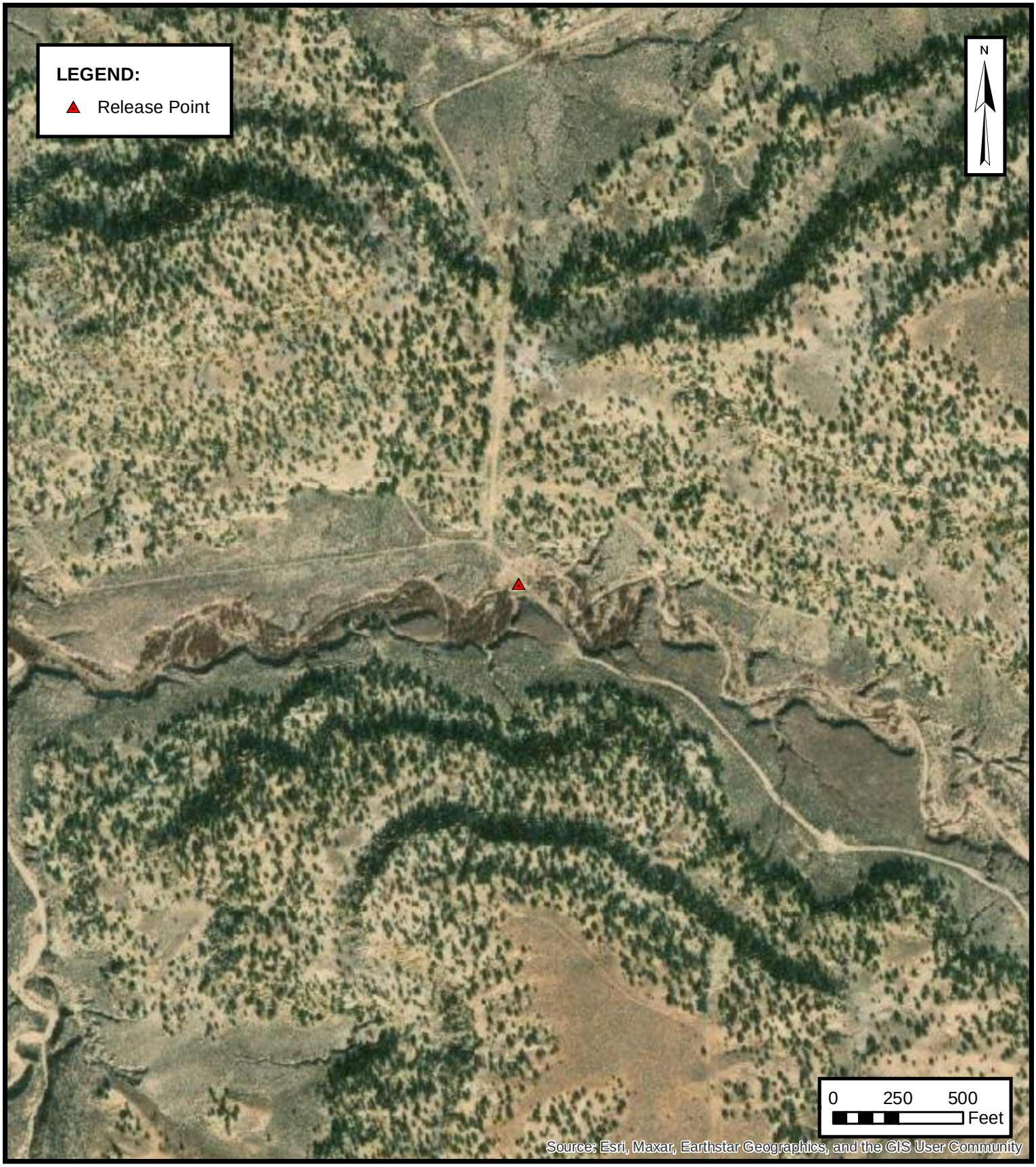
ENSOLUM
Environmental & Hydrogeologic Consultants

TOPOGRAPHIC MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-45 - MCKENZIE #2 (04/14/22)
Unit Letter J, Sec 24 T25N R6W, Rio Arriba County, New Mexico
36.383405° N, 107.416641° W

PROJECT NUMBER: 05A1226188

FIGURE
1



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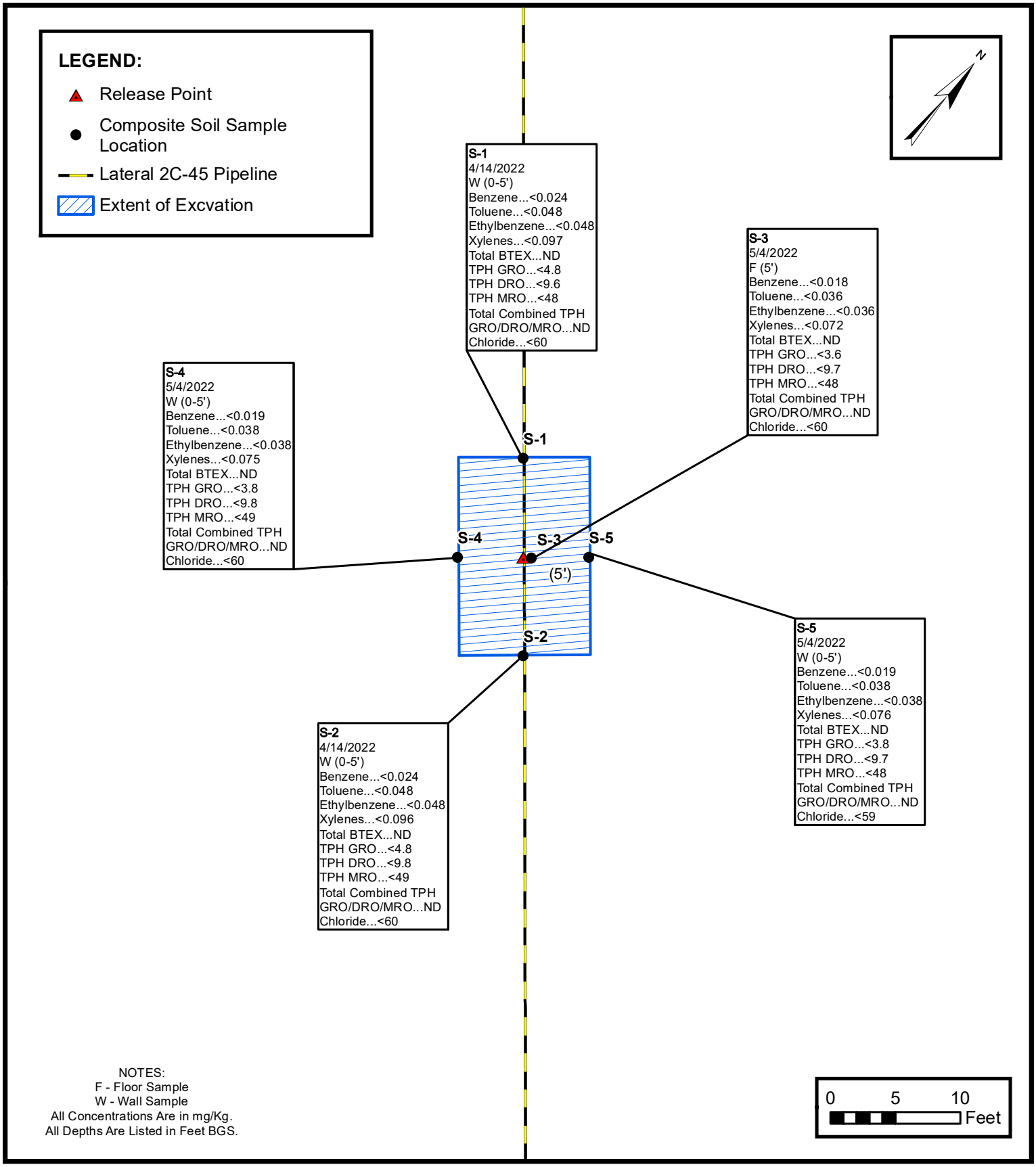
SITE VICINITY MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-45 - MCKENZIE #2 (04/14/22)
Unit Letter J, Sec 24 T25N R6W, Rio Arriba County, New Mexico
36.383405° N, 107.416641° W

PROJECT NUMBER: 05A1226188

FIGURE
2



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SITE MAP WITH SOIL ANALYTICAL RESULTS

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-45 - MCKENZIE #2 (04/14/22)
Unit Letter J, Sec 24 T25N R6W, Rio Arriba County, New Mexico
36.383405° N, 107.416641° W

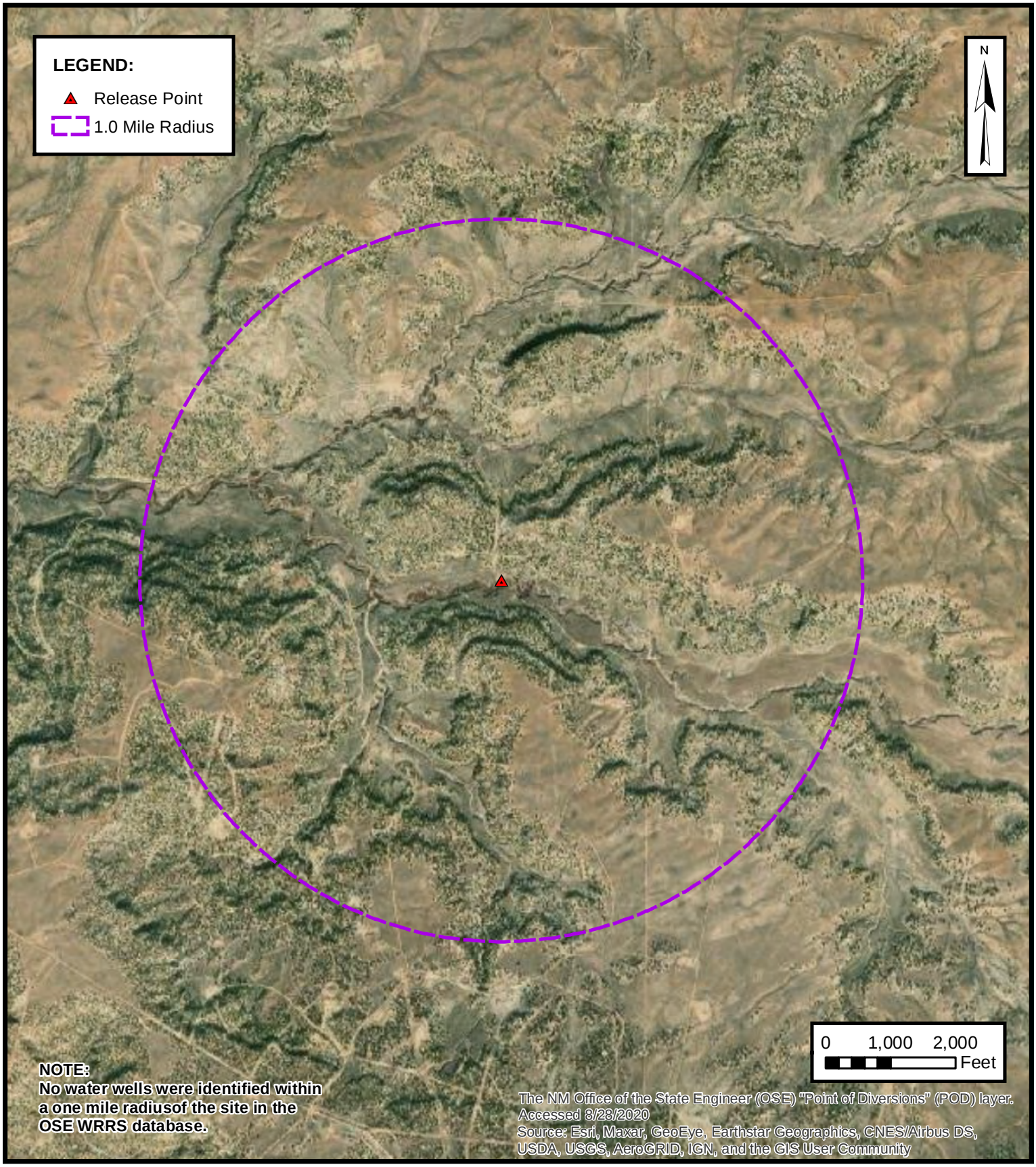
PROJECT NUMBER: 05A1226188

FIGURE
3

ENSOLUM

APPENDIX B

Siting Figures and Documentation



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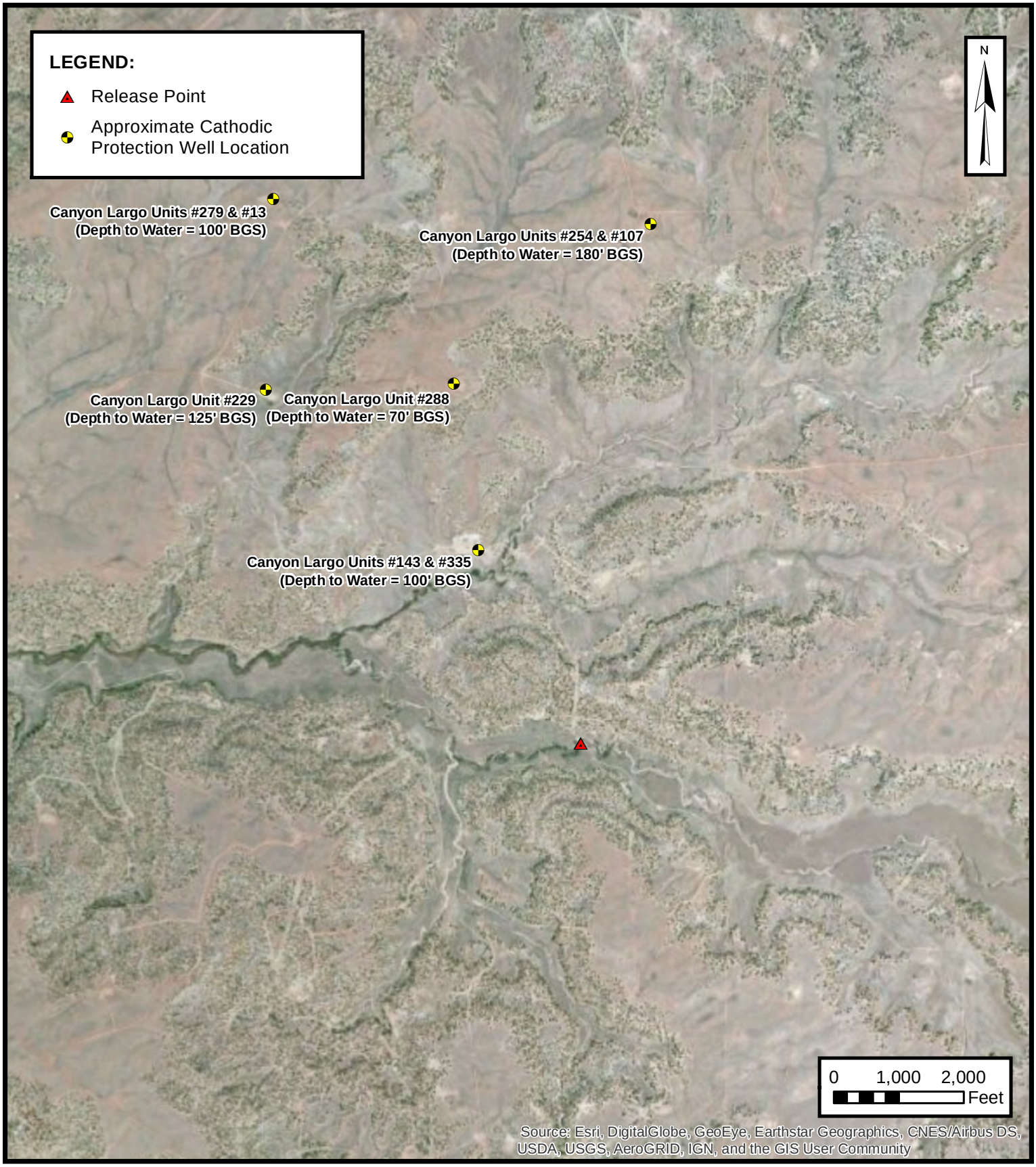
1.0 MILE RADIUS WATER WELL/ POD LOCATION MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-45 - MCKENZIE #2 (04/14/22)
Unit Letter J, Sec 24 T25N R6W, Rio Arriba County, New Mexico
36.383405° N, 107.416641° W

PROJECT NUMBER: 05A1226188

FIGURE

A



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Environmental & Hydrogeologic Consultants

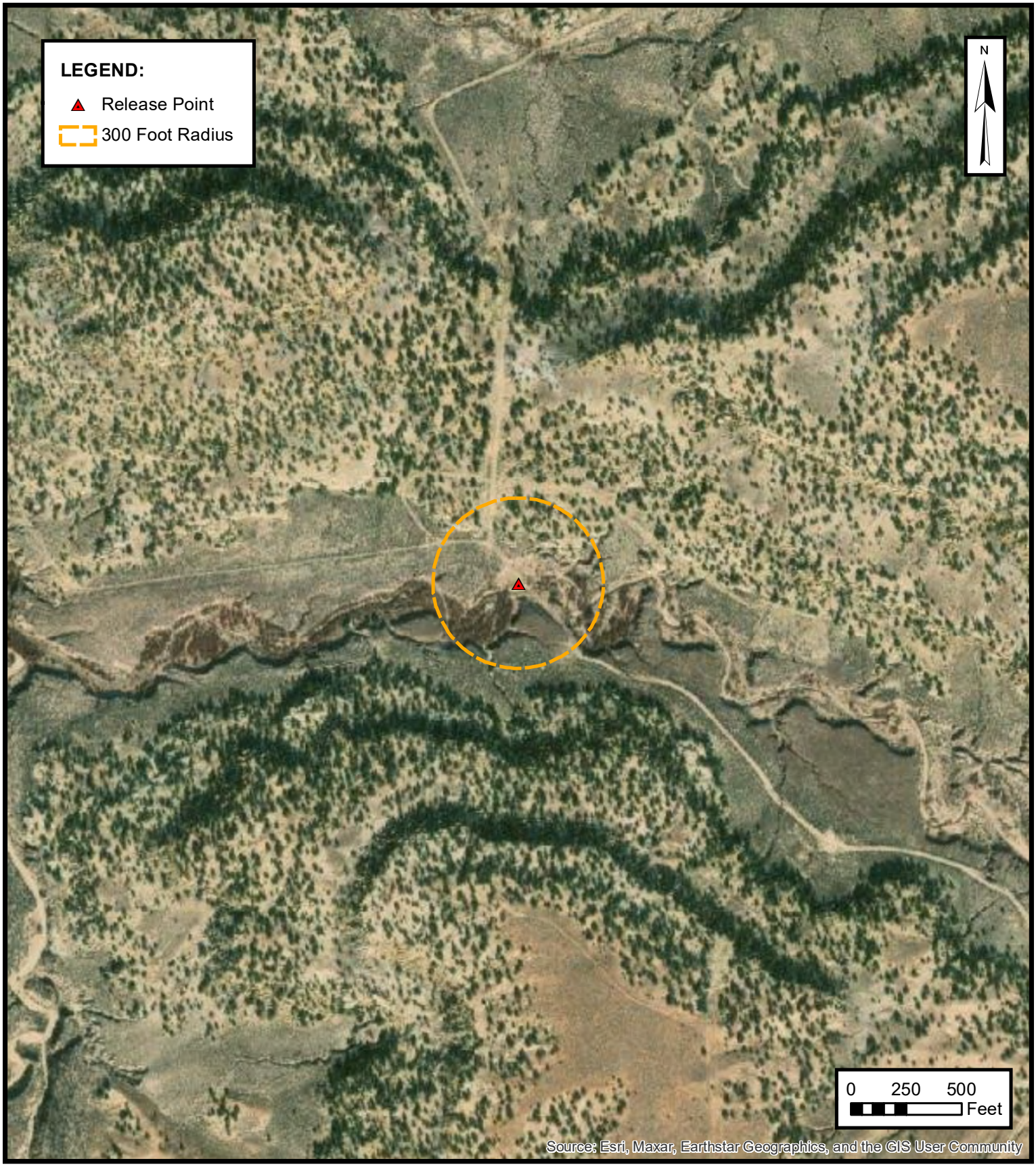
CATHODIC PROTECTION WELL RECORDED DEPTH TO WATER

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-45 - MCKENZIE #2 (04/14/22)
Unit Letter J, Sec 24 T25N R6W, Rio Arriba County, New Mexico
36.383405° N, 107.416641° W

PROJECT NUMBER: 05A1226188

FIGURE

B

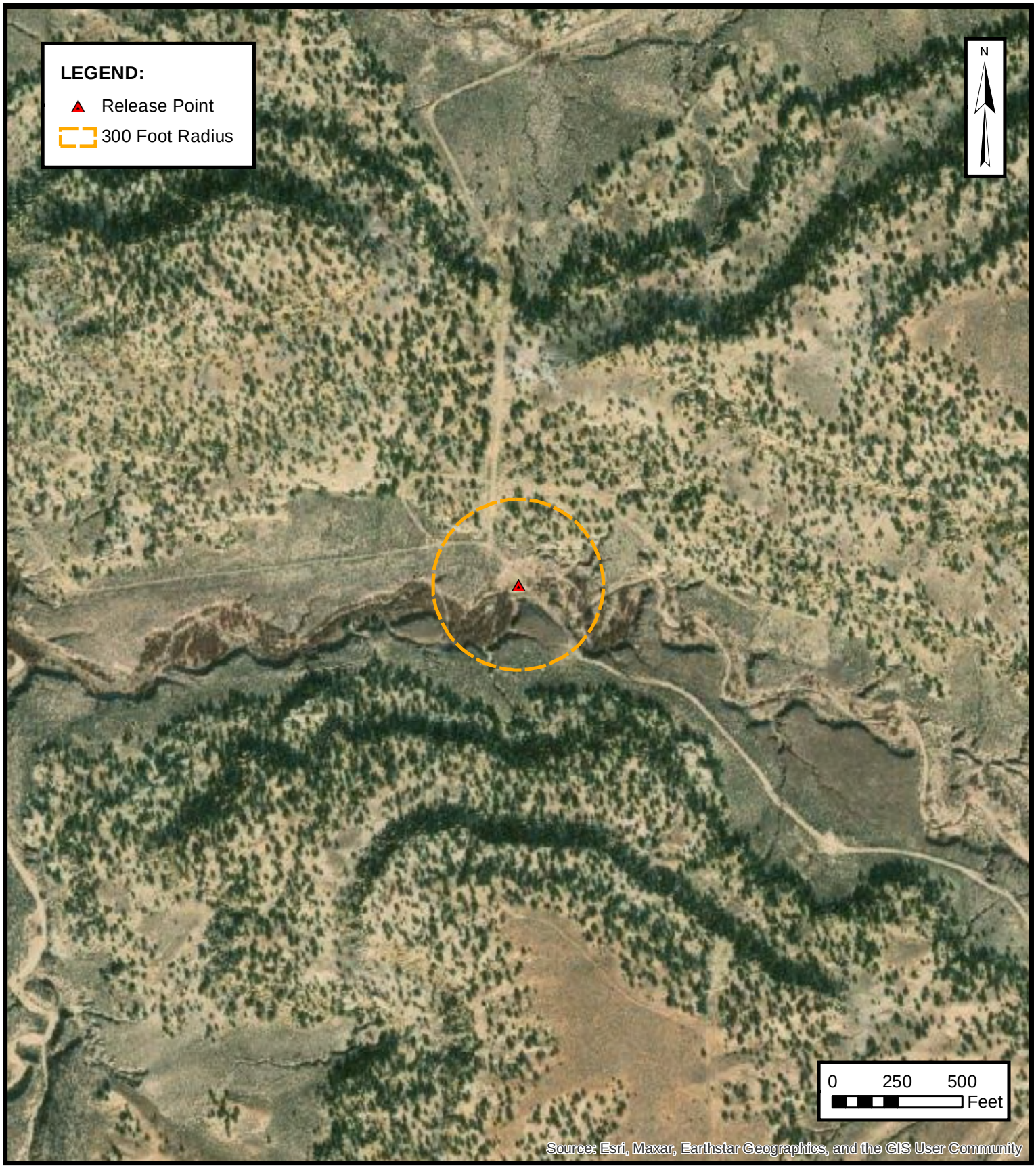


ENSOLUM
Environmental & Hydrogeologic Consultants

300 FOOT RADIUS
WATERCOURSE AND DRAINAGE IDENTIFICATION
ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-45 - MCKENZIE #2 (04/14/22)
Unit Letter J, Sec 24 T25N R6W, Rio Arriba County, New Mexico
36.383405° N, 107.416641° W

PROJECT NUMBER: 05A1226188

FIGURE
C

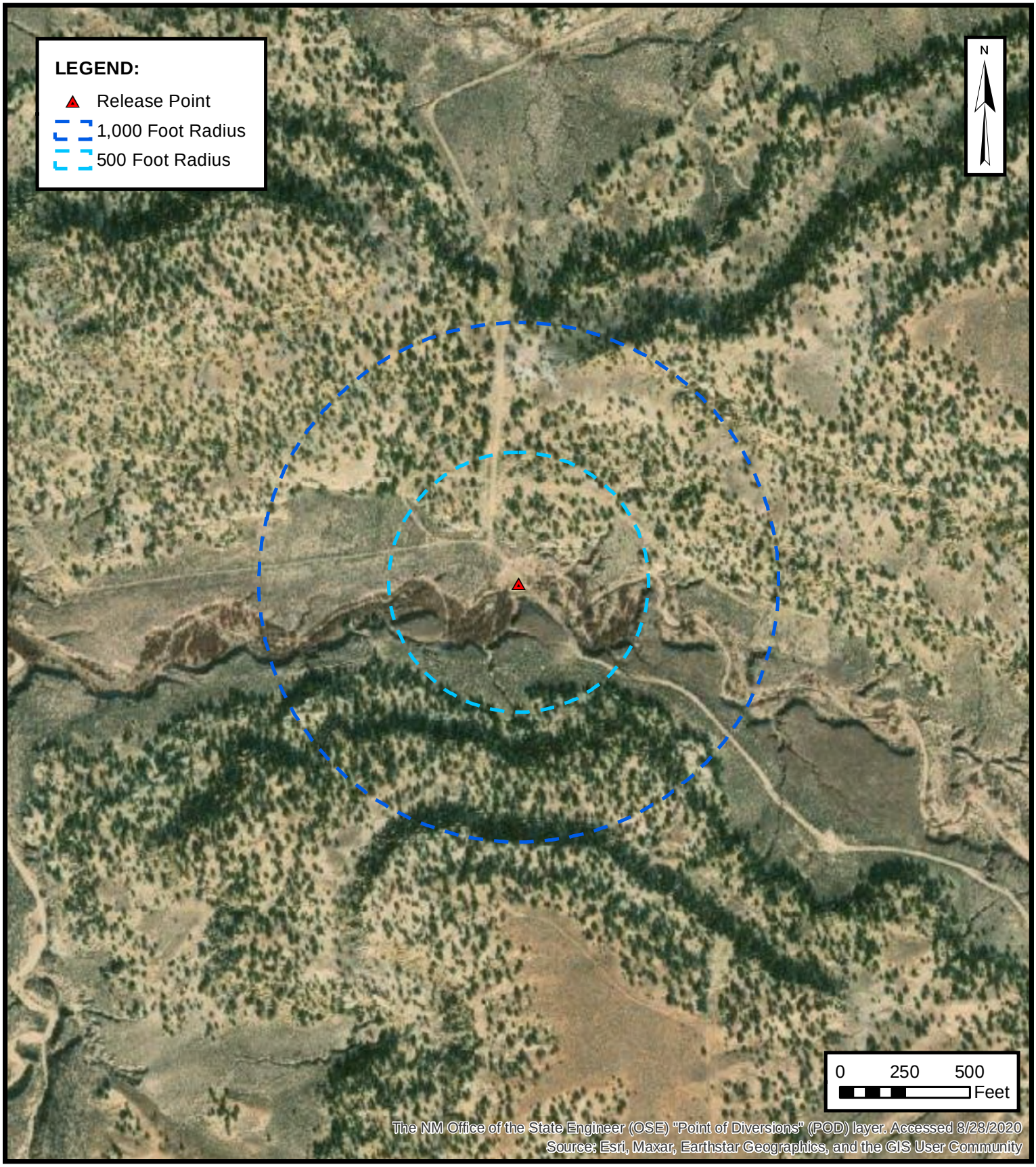


ENSOLUM
Environmental & Hydrogeologic Consultants

300 FOOT RADIUS
OCCUPIED STRUCTURE IDENTIFICATION
ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-45 - MCKENZIE #2 (04/14/22)
Unit Letter J, Sec 24 T25N R6W, Rio Arriba County, New Mexico
36.383405° N, 107.416641° W

PROJECT NUMBER: 05A1226188

FIGURE
D



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Environmental & Hydrogeologic Consultants

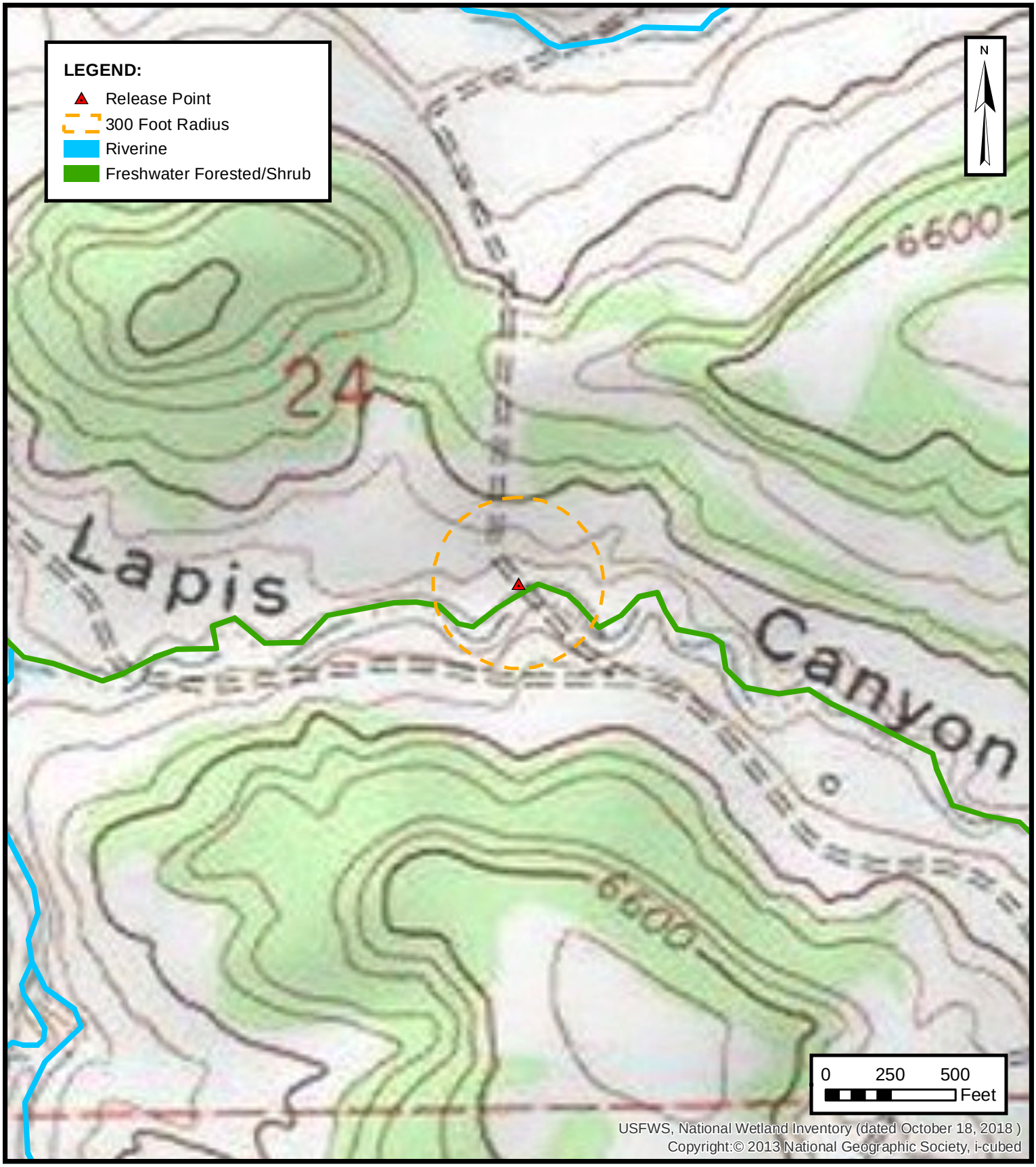
WATER WELL AND NATURAL SPRING LOCATION

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-45 - MCKENZIE #2 (04/14/22)
Unit Letter J, Sec 24 T25N R6W, Rio Arriba County, New Mexico
36.383405° N, 107.416641° W

PROJECT NUMBER: 05A1226188

FIGURE

E



ENSOLUM
Environmental & Hydrogeologic Consultants

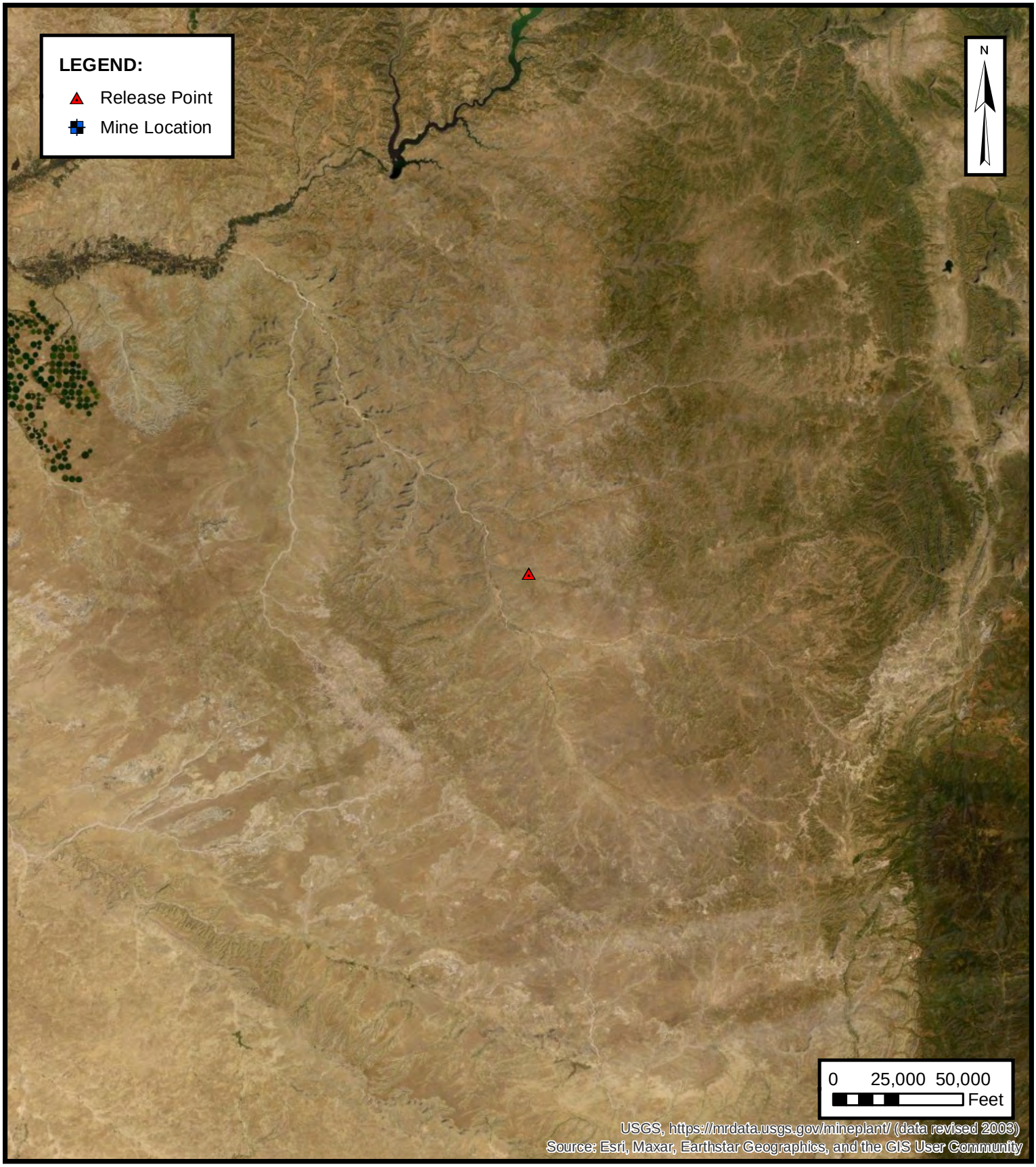
WETLANDS

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-45 - MCKENZIE #2 (04/14/22)
Unit Letter J, Sec 24 T25N R6W, Rio Arriba County, New Mexico
36.383405° N, 107.416641° W

PROJECT NUMBER: 05A1226188

FIGURE

F



ENSOLUM
Environmental & Hydrogeologic Consultants

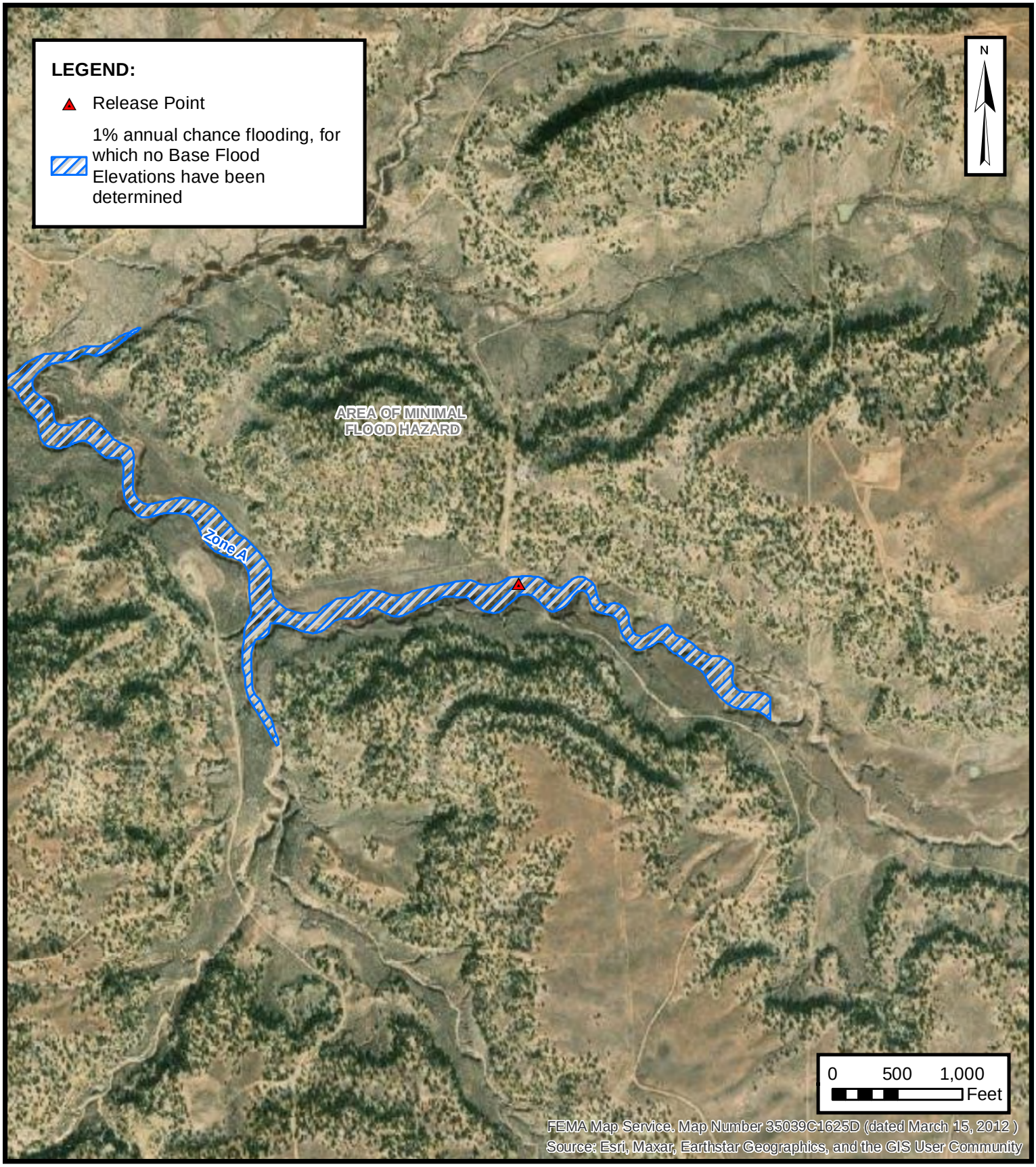
MINES, MILLS AND QUARRIES

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-45 - MCKENZIE #2 (04/14/22)
Unit Letter J, Sec 24 T25N R6W, Rio Arriba County, New Mexico
36.383405° N, 107.416641° W

PROJECT NUMBER: 05A1226188

FIGURE

G



ENSOLUM
Environmental & Hydrogeologic Consultants

100-YEAR FLOOD PLAIN MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-45 - MCKENZIE #2 (04/14/22)
Unit Letter J, Sec 24 T25N R6W, Rio Arriba County, New Mexico
36.383405° N, 107.416641° W

PROJECT NUMBER: 05A1226188

FIGURE

H

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

No records found.

PLSS Search:

Section(s): 24, 13, 14, 23, 26, 25 **Township:** 25N **Range:** 06W

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

No records found.

PLSS Search:

Section(s): 19, 18, 30 **Township:** 25N **Range:** 05W

143=30-039-20099.

336=30-039-23410

3622

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

Operator Meridian Oil Inc Location: Unit C Sec. 24 Twp 25 Rng 06

Name of Well/Wells or Pipeline Serviced

Canyon Largo Units #143 And #336

Elevation 6440 Completion Date 8/3/93 Total Depth 434' Land Type F

Casing Strings, Sizes, Types & Depths 6/19 Set 85' of 8" PVC Casing. No Gas, Water, or Boulders Were Encountered During Casing.

If Casing Strings are cemented, show amounts & types used Cemented With 23 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 Some Fresh Water At 100', And A Major Water Vein At 205'. A Water Sample Was Taken.

Depths gas encountered: None

Ground bed depth with type & amount of coke breeze used: 434' Depth. Used 122 Sacks of Asbury 218R Coke Breeze. (6100#)

Depths anodes placed: 398', 368', 363', 358', 352', 345', 340', 335', 259', 254', 249', 226', 220', 215', & 210'

Depths vent pipes placed: Surface To 434'

Vent pipe perforations: Bottom 330'

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.

254 = 30-039-20807
107 = 30-039-82340

3634

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

Operator Meridian Oil Inc. Location: Unit A Sec. 13 Twp 25 Rng 06

Name of Well/Wells or Pipeline Serviced

Canyon Largo Units #254 and #107

Elevation 6675 Completion Date 4-6-4 Total Depth 8-9-93 Land Type F

Casing Strings, Sizes, Types & Depths 6/10 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

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: 464' with 158 (5016) sacks of Asbury 218 R.

Depths anodes placed: #1 is at 365' and #15 is at 100'

Depths vent pipes placed: Bottom to Surface

Vent pipe perforations: up to 114'

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.

3638

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

30-039-21172

Operator Meridian Oil Inc. Location: Unit K Sec. 13 Twp 25 Rng 06

Name of Well/Wells or Pipeline Serviced

Canyon Largo Unit #288

Elevation 6633 Completion Date 7/24/93 Total Depth 430' Land Type F

Casing Strings, Sizes, Types & Depths 6/17 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 A Water Seep At 70' And A Major

Water Vein At 221'. Water Sample Was Taken.

Depths gas encountered: None

Ground bed depth with type & amount of coke breeze used: 430' Depth.

Used 124 Sacks of Asbury 2185 (6200#)

Depths anodes placed: 291', 285', 278', 271', 266', 260', 254', 248', 176', 170', 136', 130', 124', 116', & 110'.

Depths vent pipes placed: Surface To 430'.

Vent pipe perforations: Bottom 330'.

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.

279 = 30-039-20888
13 = 30-039-06044

3636

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

Operator Meridian Oil Inc. Location: Unit A Sec. 14 Twp 25 Rng 06

Name of Well/Wells or Pipeline Serviced

Canyon Largo Units #279, And #13

Elevation 6659' Completion Date 7/27/93 Total Depth 337' Land Type F

Casing Strings, Sizes, Types & Depths 6/17 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 11 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 Water at 100', And More A 240'.

Water was Fresh, And A Water Sample was Taken.

Depths gas encountered: None

Ground bed depth with type & amount of coke breeze used: Depth 337'.

Used 90 Sacks of Asbury 218R (4500#)

Depths anodes placed: 310', 304', 299', 293', 205', 198', 156', 149', 144', 139', 133', 127', 121', 116', +110'

Depths vent pipes placed: Surface To 337'.

Vent pipe perforations: Bottom 230'.

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.

#229 30-039-20791

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

Operator Meridian Oil Inc. Location: Unit I Sec. 14 Twp 25 Rng 06

Name of Well/Wells or Pipeline Serviced

Canyon Largo Unit #229

Elevation 6527 Completion Date 7/28/93 Total Depth 467' Land Type F

Casing Strings, Sizes, Types & Depths 6/19 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 125', And More at 220'.

Water Sample Was Taken.

Depths gas encountered: None

Ground bed depth with type & amount of coke breeze used: 467' Depth.

Used 134 Sacks of Asbury 218R (6700#).

Depths anodes placed: 435', 429', 420', 413', 407', 401', 395', 387', 365', 291', 285', 279', 157', 151', + 145'

Depths vent pipes placed: Surface To 467'.

Vent pipe perforations: Bottom 360'.

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.

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

Invoicing Information
PayKey: RB21200
PM: ME Eddleman
AFE: N58970

2. Originating Site:
Lateral 2C-45

3. Location of Material (Street Address, City, State or ULSTR):
UL J Section 24 T25N R6W; 36.383405, -107.416641

April 2022

4. Source and Description of Waste:
Source: Sediment/Soil/sludge from remediation activities associated with a natural gas pipeline release.
Description: Soil/Sediment/sludge associated with remediation activities.
Estimated Volume 50 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 116/20 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 esentative for Enterprise Products Operating authorizes Envirotech, Inc. to complete
Generator S
the required testi iste Testing Certification.

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

5. Transporter: TBD

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **Envirotech, Inc. Soil Remediation Facility * Permit #: NM01-0011**
Address of Facility: **Hill Top, 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: 4/7/22

SIGNATURE: _____ TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

ENSOLUM

APPENDIX D

Photographic Documentation

SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Lateral 2C-45 – McKenzie #2 (04/14/22)
Ensolum Project No. 05A1226188

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

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APPENDIX E

Regulatory Correspondence

From: Kyle Summers
To: Ranee Deechilly; Chad D"Aponti
Subject: Fwd: [EXTERNAL] Lateral 2C-45 - McKenzie #2 - UL J Section 24 T25N R6W; 36.383405, -107.416; Incident #nAPP2211046720
Date: Tuesday, May 3, 2022 3:01:47 PM

Kyle Summers
Principal
903-821-5603
Ensolum, LLC

From: Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>
Sent: Tuesday, May 3, 2022 1:28:37 PM
To: Long, Thomas <tjlong@eprod.com>; rjoyner@blm.gov <rjoyner@blm.gov>
Cc: Stone, Brian <bmstone@eprod.com>; Kyle Summers <ksummers@ensolum.com>; Chad D'Aponti <cdaponti@ensolum.com>
Subject: RE: [EXTERNAL] Lateral 2C-45 - McKenzie #2 - UL J Section 24 T25N R6W; 36.383405, -107.416; Incident #nAPP2211046720

[**EXTERNAL EMAIL**]

Tom,

Thank you for the notice. 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@state.nm.us

Hrs.: 7:00-11:00 am & 12:00-3:30 pm Mon.-Thur.

7:00-11:00 am & 12:00-4:00 pm Fri.

From: Long, Thomas <tjlong@eprod.com>
Sent: Tuesday, May 3, 2022 12:00 PM
To: Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>; rjoyner@blm.gov
Cc: Stone, Brian <bmstone@eprod.com>; Kyle Summers <ksummers@ensolum.com>; Chad D'Aponti <cdaponti@ensolum.com>
Subject: [EXTERNAL] Lateral 2C-45 - McKenzie #2 - UL J Section 24 T25N R6W; 36.383405, -107.416; Incident #nAPP2211046720

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

Nelson/Ryan,

This email is a notification that Enterprise will be collecting soil samples for laboratory analysis at the Lateral 2C-45 – McKenzie #2 excavation tomorrow May 4, 2022 at 10:00 a.m. 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

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APPENDIX F

Table 1 – Soil Analytical Summary

ENSOLUM

TABLE 1
Lateral 2C-45 - McKenzie #2 (04/14/22)
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)[1] (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria (Tier I)				**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**NE**	**100**	**600**
Excavation Composite Soil Samples													
S-1	4.14.22	C	0 to 5	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<9.6	<48	ND	<60
S-2	4.14.22	C	0 to 5	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<9.8	<49	ND	<60
S-3	5.04.22	C	5	<0.018	<0.036	<0.036	<0.072	ND	<3.6	<9.7	<48	ND	<60
S-4	5.04.22	C	0 to 5	<0.019	<0.038	<0.038	<0.075	ND	<3.8	<9.8	<49	ND	<60
S-5	5.04.22	C	0 to 5	<0.019	<0.038	<0.038	<0.076	ND	<3.8	<9.7	<48	ND	<59

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)

NA = Not Analyzed

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

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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

April 25, 2022

Kyle Summers

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

RE: 2C-45 McKenzie 2 OrderNo.: 2204723

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/15/2022 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

Analytical Report
Lab Order **2204723**
Date Reported: **4/25/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-1
Project: 2C-45 McKenzie 2
Collection Date: 4/14/2022 11:00:00 AM
Lab ID: 2204723-001 **Matrix:** SOIL **Received Date:** 4/15/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/20/2022 4:47:12 PM	66944
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/20/2022 1:43:44 PM	66891
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/20/2022 1:43:44 PM	66891
Surr: DNOP	74.1	51.1-141		%Rec	1	4/20/2022 1:43:44 PM	66891
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/18/2022 1:14:00 PM	66887
Surr: BFB	109	37.7-212		%Rec	1	4/18/2022 1:14:00 PM	66887
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**	
Benzene	ND	0.024		mg/Kg	1	4/18/2022 1:14:00 PM	66887
Toluene	ND	0.048		mg/Kg	1	4/18/2022 1:14:00 PM	66887
Ethylbenzene	ND	0.048		mg/Kg	1	4/18/2022 1:14:00 PM	66887
Xylenes, Total	ND	0.097		mg/Kg	1	4/18/2022 1:14:00 PM	66887
Surr: 4-Bromofluorobenzene	90.2	70-130		%Rec	1	4/18/2022 1:14:00 PM	66887

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 **2204723**
Date Reported: **4/25/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-2
Project: 2C-45 McKenzie 2
Collection Date: 4/14/2022 11:05:00 AM
Lab ID: 2204723-002 **Matrix:** SOIL **Received Date:** 4/15/2022 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/20/2022 4:59:37 PM	66944
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/20/2022 2:07:30 PM	66891
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/20/2022 2:07:30 PM	66891
Surr: DNOP	84.8	51.1-141		%Rec	1	4/20/2022 2:07:30 PM	66891
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/18/2022 1:33:00 PM	66887
Surr: BFB	101	37.7-212		%Rec	1	4/18/2022 1:33:00 PM	66887
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**	
Benzene	ND	0.024		mg/Kg	1	4/18/2022 1:33:00 PM	66887
Toluene	ND	0.048		mg/Kg	1	4/18/2022 1:33:00 PM	66887
Ethylbenzene	ND	0.048		mg/Kg	1	4/18/2022 1:33:00 PM	66887
Xylenes, Total	ND	0.096		mg/Kg	1	4/18/2022 1:33:00 PM	66887
Surr: 4-Bromofluorobenzene	82.9	70-130		%Rec	1	4/18/2022 1:33:00 PM	66887

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#: **2204723**

25-Apr-22

Client: ENSOLUM

Project: 2C-45 McKenzie 2

Sample ID: **MB-66944**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **66944**	RunNo: **87381**
Prep Date: **4/20/2022**	Analysis Date: **4/20/2022**	SeqNo: **3091676** Units: **mg/Kg**

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

Sample ID: **LCS-66944**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **66944**	RunNo: **87381**
Prep Date: **4/20/2022**	Analysis Date: **4/20/2022**	SeqNo: **3091677** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.7	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#: **2204723**

25-Apr-22

Client: ENSOLUM

Project: 2C-45 McKenzie 2

Sample ID: **MB-66891**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **66891**	RunNo: **87372**
Prep Date: **4/15/2022**	Analysis Date: **4/20/2022**	SeqNo: **3090970** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.1		10.00		70.7	51.1	141			

Sample ID: **LCS-66891**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **66891**	RunNo: **87372**
Prep Date: **4/15/2022**	Analysis Date: **4/20/2022**	SeqNo: **3090971** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	0	112	68.9	135			
Surr: DNOP	3.0		5.000		60.5	51.1	141			

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#: **2204723**

25-Apr-22

Client: ENSOLUM

Project: 2C-45 McKenzie 2

Sample ID: **lcs-66887**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **66887**	RunNo: **87322**
Prep Date: **4/15/2022**	Analysis Date: **4/18/2022**	SeqNo: **3088051** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	72.3	137			
Surr: BFB	2400		1000		236	37.7	212			S

Sample ID: **mb-66887**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **66887**	RunNo: **87322**
Prep Date: **4/15/2022**	Analysis Date: **4/18/2022**	SeqNo: **3088052** 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	1000		1000		103	37.7	212			

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#: **2204723**

25-Apr-22

Client: ENSOLUM

Project: 2C-45 McKenzie 2

Sample ID: **lcs-66887**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **66887**	RunNo: **87322**
Prep Date: **4/15/2022**	Analysis Date: **4/18/2022**	SeqNo: **3088091** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.025	1.000	0	84.7	80	120			
Toluene	0.87	0.050	1.000	0	86.8	80	120			
Ethylbenzene	0.87	0.050	1.000	0	87.3	80	120			
Xylenes, Total	2.6	0.10	3.000	0	87.3	80	120			
Surr: 4-Bromofluorobenzene	0.88		1.000		88.4	70	130			

Sample ID: **mb-66887**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **66887**	RunNo: **87322**
Prep Date: **4/15/2022**	Analysis Date: **4/18/2022**	SeqNo: **3088092** 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	0.86		1.000		85.6	70	130			

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: 2204723 | RcptNo: 1

Received By: Sean Livingston 4/15/2022 8:00:00 AM

Completed By: Tracy Casarrubias 4/15/2022 8:38:59 AM

Reviewed By: TO 4/15/22

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: 4-15-22

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	1.9	Good	Yes			
2	3.2	Good	Yes			
3	3.7	Good	Yes			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

- As per Tom Long 4/25/22 mm

Client: Ensolum, LLC

Mailing Address: 606 S Rio Grande Suit A 87410

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other ________

☐ EDD (Type) ________

Turn-Around Time: 3 Day
☐ Standard ☐ Rush 4-19-22

Project Name: Lateral 2C-45 / McKenzie 2

Project #: 05A12211

Project Manager: R. Summers

Sampler: C DAponti

On Ice: ☑ Yes ☐ No

# of Coolers: 3

Cooler Temp (including CF): See remarks (°C)

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2204723	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, NO3, NO2, PO4, SO4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						
4/14	1100	S	S-1	1 4oz Jar	Cool	001	✓	✓					✓									
4/14	1105	S	S-2	1 4oz Jar	Cool	002	✓	✓					✓									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
4/14/22	1340	[signature]	[signature]	Walt	4/14/22	1340
4/14/22	1804	Christ Walker	SGL	courier	4/15/22	8:00

Remarks: Attn Tom Long
Pay Key RB21200
AFE #

3 Day
1.9 +0.1 = 1.9°C
3.1 +0.1 = 3.2
3.6 +0.1 = 3.7

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

May 13, 2022

Kyle Summers

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

RE: Lateral 2C 45 OrderNo.: 2205220

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 3 sample(s) on 5/5/2022 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 **2205220**
Date Reported: **5/13/2022**

CLIENT: ENSOLUM
Project: Lateral 2C 45
Lab ID: 2205220-001 **Matrix:** SOIL

Client Sample ID: S-3
Collection Date: 5/4/2022 10:00:00 AM
Received Date: 5/5/2022 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	5/5/2022 11:06:07 AM	67282
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/5/2022 10:47:24 AM	67279
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/5/2022 10:47:24 AM	67279
Surr: DNOP	95.3	51.1-141		%Rec	1	5/5/2022 10:47:24 AM	67279
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	5/5/2022 9:01:26 AM	67268
Surr: BFB	101	37.7-212		%Rec	1	5/5/2022 9:01:26 AM	67268
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.018		mg/Kg	1	5/5/2022 9:01:26 AM	67268
Toluene	ND	0.036		mg/Kg	1	5/5/2022 9:01:26 AM	67268
Ethylbenzene	ND	0.036		mg/Kg	1	5/5/2022 9:01:26 AM	67268
Xylenes, Total	ND	0.072		mg/Kg	1	5/5/2022 9:01:26 AM	67268
Surr: 4-Bromofluorobenzene	99.5	70-130		%Rec	1	5/5/2022 9:01:26 AM	67268

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

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

Analytical Report
Lab Order **2205220**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-4
Project: Lateral 2C 45
Collection Date: 5/4/2022 10:10:00 AM
Lab ID: 2205220-002 **Matrix:** SOIL **Received Date:** 5/5/2022 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	5/5/2022 11:18:31 AM	67282
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/5/2022 11:27:48 AM	67279
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/5/2022 11:27:48 AM	67279
Surr: DNOP	92.3	51.1-141		%Rec	1	5/5/2022 11:27:48 AM	67279
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	5/5/2022 9:25:03 AM	67268
Surr: BFB	95.6	37.7-212		%Rec	1	5/5/2022 9:25:03 AM	67268
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.019		mg/Kg	1	5/5/2022 9:25:03 AM	67268
Toluene	ND	0.038		mg/Kg	1	5/5/2022 9:25:03 AM	67268
Ethylbenzene	ND	0.038		mg/Kg	1	5/5/2022 9:25:03 AM	67268
Xylenes, Total	ND	0.075		mg/Kg	1	5/5/2022 9:25:03 AM	67268
Surr: 4-Bromofluorobenzene	97.4	70-130		%Rec	1	5/5/2022 9:25:03 AM	67268

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

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

Analytical Report
Lab Order **2205220**
Date Reported: **5/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Project: Lateral 2C 45
Lab ID: 2205220-003 **Matrix:** SOIL

Client Sample ID: S-5
Collection Date: 5/4/2022 10:20:00 AM
Received Date: 5/5/2022 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**JMT**
Chloride	ND	59		mg/Kg	20	5/5/2022 11:30:55 AM	67282
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**ED**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/5/2022 2:15:03 PM	67279
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/5/2022 2:15:03 PM	67279
Surr: DNOP	101	51.1-141		%Rec	1	5/5/2022 2:15:03 PM	67279
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	5/5/2022 9:48:45 AM	67268
Surr: BFB	99.1	37.7-212		%Rec	1	5/5/2022 9:48:45 AM	67268
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.019		mg/Kg	1	5/5/2022 9:48:45 AM	67268
Toluene	ND	0.038		mg/Kg	1	5/5/2022 9:48:45 AM	67268
Ethylbenzene	ND	0.038		mg/Kg	1	5/5/2022 9:48:45 AM	67268
Xylenes, Total	ND	0.076		mg/Kg	1	5/5/2022 9:48:45 AM	67268
Surr: 4-Bromofluorobenzene	99.2	70-130		%Rec	1	5/5/2022 9:48:45 AM	67268

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

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#: **2205220**

13-May-22

Client: ENSOLUM

Project: Lateral 2C 45

Sample ID: **MB-67282** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **67282** RunNo: **87792**

Prep Date: **5/5/2022** Analysis Date: **5/5/2022** SeqNo: **3110148** Units: **mg/Kg**

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

Sample ID: **LCS-67282** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **67282** RunNo: **87792**

Prep Date: **5/5/2022** Analysis Date: **5/5/2022** SeqNo: **3110149** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.3	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#: **2205220**

13-May-22

Client: ENSOLUM

Project: Lateral 2C 45

Sample ID: **MB-67279** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **67279** RunNo: **87770**

Prep Date: **5/5/2022** Analysis Date: **5/5/2022** SeqNo: **3108790** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.6		10.00		96.5	51.1	141			

Sample ID: **LCS-67279** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **67279** RunNo: **87770**

Prep Date: **5/5/2022** Analysis Date: **5/5/2022** SeqNo: **3108791** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.8	68.9	135			
Surr: DNOP	4.7		5.000		94.1	51.1	141			

Sample ID: **2205220-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **S-3** Batch ID: **67279** RunNo: **87770**

Prep Date: **5/5/2022** Analysis Date: **5/5/2022** SeqNo: **3108793** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.9	49.26	0	91.2	36.1	154			
Surr: DNOP	4.7		4.926		95.0	51.1	141			

Sample ID: **2205220-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **S-3** Batch ID: **67279** RunNo: **87770**

Prep Date: **5/5/2022** Analysis Date: **5/5/2022** SeqNo: **3108794** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.05	0	84.8	36.1	154	5.64	33.9	
Surr: DNOP	4.9		5.005		98.4	51.1	141	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#: **2205220**

13-May-22

Client: ENSOLUM

Project: Lateral 2C 45

Sample ID: **mb-67268** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **67268** RunNo: **87759**

Prep Date: **5/4/2022** Analysis Date: **5/5/2022** SeqNo: **3109013** 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	1000		1000		100	37.7	212			

Sample ID: **lcs-67268** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **67268** RunNo: **87759**

Prep Date: **5/4/2022** Analysis Date: **5/5/2022** SeqNo: **3109014** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.2	72.3	137			
Surr: BFB	2000		1000		202	37.7	212			

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#: **2205220**

13-May-22

Client: ENSOLUM

Project: Lateral 2C 45

Sample ID: **mb-67268** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **67268** RunNo: **87759**

Prep Date: **5/4/2022** Analysis Date: **5/5/2022** SeqNo: **3109057** 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	1.0		1.000		100	70	130			

Sample ID: **LCS-67268** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **67268** RunNo: **87759**

Prep Date: **5/4/2022** Analysis Date: **5/5/2022** SeqNo: **3109058** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.4	80	120			
Toluene	0.93	0.050	1.000	0	93.4	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.2	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.1	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	70	130			

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		

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: 2205220 RcptNo: 1

Received By: **Tracy Casarrubias** 5/5/2022 7:10:00 AM

Completed By: **Tracy Casarrubias** 5/5/2022 7:42:16 AM

Reviewed By: DAD 5/5/22

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 5/5/22

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	2.2	Good	Yes			

Chain-of-Custody Record

Client: Ensolum, LLC

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

Phone #:

email or Fax#:

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

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

Turn-Around Time: Same
☐ Standard ☒ Rush 100% Day

Project Name: Lateral 2C-45

Project #:

Project Manager: K. Summers

Sampler: L. Daniell

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 2.3 - 0.1 = 2.2 (°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. 2205220	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)
5/4/22	10:00	S	S-3	1 4oz jar	Cool	001	X	X					X			
5/4/22	10:10	S	S-4	↓	↓	002	X	X					X			
5/4/22	10:20	S	S-5	↓	↓	003	X	X					X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
5/4/22	1502			Courier	5/4/22	1506
5/4/22	1802			Courier	5/5/22	7:10

Remarks:
PM Tom Long
Pyley RB21200
Same Day

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

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 226462
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

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