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: **151618**
Contact Name: **Thomas Long**	Contact Telephone: **505-599-2286**
Contact email:**tjlong@eprod.com**	**Incident #** *(assigned by OCD)*: **NRM2011345278**
Contact mailing address: **614 Reilly Ave, Farmington, NM 87401**	

Location of Release Source

Latitude **36.170690** Longitude **-107.169768** *(NAD 83 in decimal degrees to 5 decimal places)*

Site Name **Lateral 2C-79**	Site Type **Natural Gas Gathering Pipeline**
Date Release Discovered: **04/6/2020**	Serial Number *(if applicable)*: **N/A**

Unit Letter	Section	Township	Range	County
D	**4**	**22N**	**3W**	**Rio Arriba**

Surface Owner: ☐ State ☐ Federal ☒ Tribal ☐ Private (*Name*: *Jicarilla Apache Tribe*)

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): **15-20 BBLs**	Volume Recovered (bbls): **None**
☐ Natural Gas	Volume Released (Mcf):	Volume Recovered (Mcf):
☐ Other (describe)	Volume/Weight Released (provide units):	Volume/Weight Recovered (provide units)

Cause of Release On April 6, 2020, Enterprise discovered a release of condensate from a riser on the Lateral 2C-79 pipeline. No washes were affected. An area of approximately 5 feet in diameter was impacted by released fluids. Remediation began on April 9, 2020. Enterprise determined the release reportable per NMOCD regulation on April 9, 2020, due to the volume of impacted subsurface soil. Enterprise completed the remediation on April 30, 2020. The final excavation dimensions measured approximately 71 feet long by 23 feet wide by approximately 36 feet deep. Approximately 1,062 cubic yards of hydrocarbon impacted soil was excavated and transported to a New Mexico Oil Conservation Division approved land farm facility. The Jicarilla Apache Nation Environmental Protection Office approved the variance request and alternative closure method proposed by Enterprise that included changing the closure standards to the New Mexico EMNRD Tier II standards and the application of potassium permanganate to the excavation prior to backfill A third party closure report is included with this "Final." C-141.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

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: Jon E. Fields Title: Director, Environmental

Signature: Jon E. Fields Date: 8/9/2021

email: jefields@eprod.com Telephone: (713) 381-6684

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: 03/07/2022

Printed Name: Nelson Velez Title: Environmental Specialist – Adv

Enterprise Products

ENTERPRISE PRODUCTS PARTNERS L.P.
ENTERPRISE PRODUCTS HOLDINGS LLC
(General Partner)

ENTERPRISE PRODUCTS OPERATING LLC

August 9, 2021

7016 0600 0000 4870 3677
Return Receipt Requested

Jicarilla Apache Tribe
Environmental Protection Office
Attn: Cordell Te Cube & Keith Manwell
P. O. Box 507
Dulce, New Mexico 87528-0507

RE: C-141 Form
Enterprise Field Services, LLC
Lateral 2C-79
Rio Arriba County, NM

Mr. Te Cube & Mr. Manwell:

Enterprise Field Services, LLC is submitting the final release report on Lateral 2C-79 that occurred on April 6, 2020.

If you have questions or require additional information, please contact our field representative, Thomas Long at (505) 599-2286 or Brian Stone, Field Environmental Manager at (970) 263-3020.

Thank you,

Jon E. Fields
Director, Field Environmental

Rodney M. Sartor
Senior Director, Environmental

/bjm
Enclosures

P.O. BOX 4324
HOUSTON, TEXAS 77210-4324
713.381.6500

1100 LOUISIANA STREET
HOUSTON, TEXAS 77002-5227
www.enterpriseproducts.com

ENSOLUM

CLOSURE REPORT

Property:

Lateral 2C-79
NW ¼, S4 T22N R3W
Sandoval County, New Mexico

September 25, 2020
Ensolum Project No. 05A1226102

Prepared for:

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

Prepared by:

Ranee Deechilly
Environmental Scientist

Kyle Summers, CPG
Sr. Project Manager

Table of Contents

LIST OF APPENDICES

ENSOLUM

CLOSURE REPORT

Lateral 2C-79
NW ¼, S4 T22N R3W
Sandoval County, New Mexico

Ensolum Project No. 05A1226102

1.0 INTRODUCTION

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Lateral 2C-79 (Site)
Location:	36.170690° North, 107.169768° West Northwest (NW) ¼ of Section 4, Township 22 North, Range 3 West Sandoval County, New Mexico
Property:	Jicarilla Apache Nation
Regulatory:	Jicarilla Apache Nation Environmental Protection Office (JAN-EPO) and New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On April 6, 2020, Enterprise personnel discovered a release of condensate coming from the Lateral 2C-79 two-inch pipeline drip riser valve. Enterprise subsequently isolated and locked the pipeline out of service. The valve on the drip riser was replaced and the pipeline was placed back in service. On April 9, 2020, Enterprise initiated activities to 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 New Mexico EMNRD OCD closure criteria.

2.0 CLOSURE CRITERIA

The Site is subject to regulatory oversight by the Jicarilla Apache Nation Environmental Protection Office (JAN-EPO) and New Mexico EMNRD OCD. In the absence of published JAN-EPO regulatory guidance, Ensolum, LLC (Ensolum) deferred to the New Mexico Administrative Code (NMAC) 19.15.29 *Releases,* as guidance, which establishes investigation and abatement action requirements for oil and gas release sites that are subject to reporting and/or corrective action. Ensolum utilized information provided by Enterprise, the general site characteristics, and information available from the New Mexico Office of the State Engineer (OSE) and the New Mexico EMNRD OCD imaging database to determine the appropriate closure criteria for the Site. Supporting documentation and figures associated with the following bullets are provided in **Appendix B**.

- The OSE tracks the usage and assignment of water rights and water well installations and records this information in the Water Rights Reporting System (WRRS) database. Water wells and other points of diversion (PODs) are each assigned POD numbers in the database (which is searchable and includes an interactive map). No PODs were identified within a one mile radius of the Site in the OSE WRRS database. In addition, no PODs were identified in adjacent Public Land Survey System (PLSS) sections. The nearest POD (SJ-00809) is located approximately 5.5 miles southwest of the Site and located at a lower elevation (6,848) than the Site (7,820 feet). The records for this POD indicate a depth to water of 145 feet below grade surface (bgs).

- No cathodic wells were identified within one mile of the Site in the New Mexico EMNRD imaging database. In addition, no cathodic wells were identified in adjacent Sections.

- Records for former test holes associated with a below grade tank registration and various pit permits were identified in the New Mexico EMNRD OCD imaging database. The test hole identified nearest to the Site was advanced at the Jicarilla O 3E well location which is located approximately 2.3 miles southeast of the Site (near a large ephemeral wash) and at a lower elevation (7,072 feet, based on permit documentation) than the Site (approximately 7,182 feet). Records for this former test hole indicate a depth to water of 70 feet bgs. Records for the former test hole drilled at the Chacon Amigos #9 well location, located approximately 2.8 miles east of the Site and at a lower elevation (7,138 feet, based on permit documentation) than the Site, indicate that the test hole was drilled to 65 feet bgs and no water was detected. Records for the former test hole drilled at the Chacon Amigos #10 well location, located approximately 3.2 miles southeast of the Site and at a lower elevation (7,169 feet, based on permit documentation) than the Site, indicate a depth to water of 115 feet bgs.

- The Site is located within 300 feet of a New Mexico EMNRD OCD-defined continuously flowing watercourse or significant watercourse. The excavation is located approximate 130 feet west of a small unnamed ephemeral wash that may convey water during significant rain events.

- 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.

- No springs, or private domestic fresh water wells used by less than five (5) households for domestic or stock watering purposes were identified within 500 feet of the Site.

- No fresh water wells or springs were identified within 1,000 feet of the Site.

- 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 Statues 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 located within 300 feet of a wetland.

- Based on information identified in the New Mexico Mining and Minerals Division's Geographic Information System (GIS), Maps and Mine Data database, the Site is not located within an area overlying a subsurface mine.

- The Site is not located within an unstable area.

- The Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) geospatial database does not provide flood hazard information for this geographic area of the Jicarilla Apache reservation. Based on the location of the Site, it is unlikely that the Site is located within a 100-year floodplain.

During the late stages of excavation at the Site, Enterprise requested the application of Tier II standards for closure consideration at the Site due to safety concerns, lack of physical receptors for the remaining COC impact, the removal of all shallow soil impact, and the apparent depth to groundwater. Based on available information, Enterprise estimates the depth to water at the Site to be greater than 100 feet bgs and possibly greater than 200 feet bgs. Enterprise also agreed to apply a potassium permanganate solution application to the excavation prior to backfilling. On May 4, 2020 JAN-EPO approved the variance request and alternative closure method. Regulatory correspondence is provided in **Appendix G**.

Applicable closure criteria for soils remaining in place at the Site include:

Closure Criteria for Soils Impacted by a Release (Tier II)		
Constituent	Method	Limit
Chloride	EPA 300.0 or SM4500 Cl B	10,000 mg/kg
TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015	2,500 mg/kg
TPH (GRO+DRO)	EPA SW-846 Method 8015	1,000 mg/kg
BTEX	EPA SW-846 Method 8021 or 8260	50 mg/kg
Benzene	EPA SW-846 Method 8021 or 8260	10 mg/kg

3.0 SOIL REMEDIATION ACTIVITIES

On April 9, 2020, Enterprise initiated activities to remediate petroleum hydrocarbon impact resulting from the release. During the remediation and corrective action activities, OFT Construction, Inc. (OFT). provided heavy equipment and labor support, while Ensolum provided environmental consulting support.

During the remediation activities, apparent historic impact was encountered when the excavation was deepened. Due to safety concerns related to the extent and depth of the excavation, Site activities were suspended after the April 30, 2020 sampling event. Enterprise corresponded with the New Mexico EMNRD OCD and the JAN-EPO and reached an agreement on a variance request and alternative closure method that included the supplemental application of potassium permanganate to the excavation prior to backfilling. Potassium permanganate was selected for its ability to persistently degrade (through chemical oxidation via the permanganate anion) petroleum hydrocarbon COCs. Additionally, the permanganate anion oxidation reactions are relatively safe to apply as the oxidants and byproducts are not toxic, the reactions are not exothermic, pH monitoring is not necessary, no catalysts are needed to instigate oxidation, and soil carbonates do not appear to interfere with the oxidation processes.

On May 4, 2020 JAN-EPO approved the variance request and alternative closure method proposed by Enterprise. On May 8, 2020, 275 gallons of potassium permanganate were applied to the excavation by Envirotech prior to backfilling activities.

The final excavation measured approximately 71 feet long and 23 feet wide at the maximum extents. The maximum depth of the excavation measured approximately 36 feet bgs.

The lithology encountered during the completion of remediation activities consisted primarily of semi-consolidated silty sand and unconsolidated silty sand.

A total of approximately 1,062 cubic yards of petroleum hydrocarbon affected soils were transported to the Envirotech, Inc. (Envirotech) landfarm near Hilltop, New Mexico for disposal/remediation. The executed C-138 solid waste acceptance form is provided in **Appendix C**. The excavation was backfilled with a combination of JAN-EPO approved native fill and segregated, laboratory-confirmed stockpiled soil and then contoured to surrounding grade.

Figure 3 is a map that identifies approximate soil sample locations and depicts the approximate dimensions of the excavation with respect to the pipeline drip riser (**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 29 composite soil samples (S-1 through S-28), comprised of five (5) aliquots each, from the excavation for laboratory analysis. In addition, one (1) composite soil sample (SP-1) was collected from the stockpiled soil that was segregated for potential reuse, to confirm the material was suitable to remain on Site. A clean shovel was utilized to obtain fresh aliquots from each accessible area of the excavation. An excavator, operated by OFT, was utilized to obtain fresh aliquots from the central (deep) portion of the excavation. Regulatory correspondence is provided in **Appendix G**.

First Sampling Event
On April 17, 2020, the first sampling event was performed at the Site. The New Mexico EMNRD OCD, JAN-EPO, and the Bureau of Indian Affairs (BIA) Jicarilla Agency were notified of the sampling event. A representative from the JAN-EPO was present during sampling activities.

Composite soil sample S-1 (10') was collected from the floor of excavation near the release point. Composite soil samples S-2 (5'-10) and S-3 (0'-10) were collected from the sidewalls near the release point. Composite soil samples S-4 (5') and S-5 (5') were collected from floor of the eastern portion of the excavation. Composite soil samples S-6 (0'-5') and S-7 (0'-5') were collected from the sidewalls of the eastern portion of the excavation. Composite soil samples S-8 (10'-21'), S-9 (11'-21'), S-10 (0'-11'), S-11 (11'-21'), S-12 (0'-11'), S-13 (5'-21'), S-14 (5'-21'), S-15 (0'-11'), and S-16 (11'-21') were collected from the sidewalls of the central portion of the excavation. Composite soil samples S-17 (21') and S-18 (21') were collected from the floor of the central portion of the excavation. Composite soil samples S-19 (5'), S-20 (5'), and S-21 (5') were collected from the floor of the sloped ramp in the western portion of the excavation. Composite soil samples S-22 (0'-3'), S-23 (0'-5'), and S-24 (0'-5') were collected from the sidewalls of the sloped ramp.

Subsequent analytical results identified total petroleum hydrocarbon (TPH) concentrations that exceeded the New Mexico EMNRD OCD Tier I closure criteria for composite soil samples S-13, S-14, S-17, and S-18. In response to the data exceedances, the excavation was deepened in the central portion of the excavation. In order for the excavator to safely reach and remove the impacted soil at the floor of the excavation the soils associated with S-13 and S-14 were not removed, as these soils provided a more stable operating platform for the excavator than would be provided by the underlying soils. The soils associated with composite soil samples S-17 and S-18 were removed and transported from the Site to the landfarm for disposal/remediation. During removal of the soils associated with S-17 and S-18, apparent

historic impact was identified on the floor of the excavation (based on increasing TPH (field screening) concentrations with depth).

Second Sampling Event
On April 24, 2020, the second sampling event was performed at the Site. The New Mexico EMNRD OCD, JAN-EPO, and the BIA Jicarilla Agency were notified of the sampling event although no representatives were present during sampling activities.

Composite soil samples S-25 (31') and S-26 (21') were collected from the floor of the central (deep) portion of the excavation. Laboratory analytical results identified TPH concentrations that exceeded the New Mexico EMNRD OCD Tier I closure criteria. The excavation was deepened, and the soils associated with samples S-25 and S-26 were removed from the Site and transported to the landfarm for disposal/remediation.

Third Sampling Event
On April 30, 2020, the third sampling event was performed at the Site and composite soil samples S-27 (36') and S-28 (36') were collected from the floor of the central (deep) portion of the excavation. The New Mexico EMNRD OCD, JAN-EPO, and the BIA Jicarilla Agency were notified of the sampling event although no representatives were present during sampling activities. Subsequent laboratory analytical results identified TPH concentrations that exceeded the applicable New Mexico EMNRD OCD closure criteria.

On May 4, 2020 JAN-EPO approved the variance request and alternative closure method proposed by Enterprise that included changing the closure standards to the New Mexico EMNRD Tier II standards and the application of potassium permanganate to the excavation prior to backfill.

The soil samples that were collected during these sampling events 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, New Mexico, under proper chain-of-custody procedures.

5.0 SOIL LABORATORY ANALYTICAL METHODS

The composite soil samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using Environmental Protection Agency (EPA) SW-846 Method #8021; TPH gasoline range organics (GRO), diesel range organics (DRO), and motor oil/lube oil range organics (MRO) using EPA SW-846 Method #8015; and, chlorides using EPA Method #300.0.

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

6.0 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-16, S-19 through S-24, S-27, S-28, and SP-1) to the applicable New Mexico EMNRD OCD closure criteria. The soils associated with composite samples S-17, S-18, S-25, and S-26 were transported to Envirotech landfarm for disposal/remediation and are not included in the following discussion.

- The laboratory analytical results for the composite soil samples collected from soils remaining at the Site indicate benzene is not present at concentrations greater than the laboratory PQLs/RLs,

Received by OCD: 8/11/2021 10:24:30 AM

which are less than the applicable New Mexico EMNRD OCD closure criteria of 10 milligrams per kilogram (mg/kg).

- The laboratory analytical results for composite soil samples S-27 and S-28 collected from soils remaining at the Site indicate total BTEX concentrations of 7.9 mg/kg and 4.2 mg/kg, respectively, which are less than the applicable New Mexico EMNRD OCD closure criteria of 50 mg/kg. The laboratory analytical results for the remaining 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 applicable New Mexico EMNRD OCD closure criteria of 50 mg/kg.

- The laboratory analytical results for composite soil samples S-27, and S-28 collected from soils remaining at the Site indicate combined TPH GRO/DRO concentrations of 1,780 mg/kg and 1,010 mg/kg, respectively, which exceed the applicable New Mexico EMNRD OCD closure criteria of 1,000 mg/kg. The laboratory analytical results for composite soil samples S-13 and S-14 collected from soils remaining at the Site indicate combined TPH GRO/DRO concentrations of 59 mg/kg and 66 mg/kg, respectively, which are less than the applicable New Mexico EMNRD OCD closure criteria of 1,000 mg/kg. The laboratory analytical results for the remaining composite soil samples collected from soils remaining at the Site indicate combined TPH GRO/DRO is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the applicable New Mexico EMNRD OCD closure criteria of 1,000 mg/kg.

- The laboratory analytical results for composite soil samples S-13, S-14, S-15, S-20, S-27, and S-28 collected from soils remaining at the Site indicate combined TPH GRO/DRO/MRO concentrations ranging from 22 mg/kg (S-15) to 2,310 mg/kg (S-27), which are less the applicable New Mexico EMNRD OCD closure criteria of 2,500 mg/kg. The laboratory analytical results for the remaining 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 applicable New Mexico EMNRD OCD closure criteria of 2,500 mg/kg.

- The laboratory analytical results for composite soil samples S-1, S-8, S-9, S-27, and S-28 collected from soils remaining at the Site indicate chloride concentrations ranging from 63 mg/kg (S-27) to 200 mg/kg (S-1), which are less than the applicable New Mexico EMNRD OCD closure criteria of 10,000 mg/kg for chlorides. The laboratory analytical results for the remaining 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 applicable New Mexico EMNRD OCD closure criteria of 10,000 mg/kg for chlorides.

The laboratory analytical results are summarized in **Table 1** (**Appendix E**).

7.0 RECLAMATION AND REVEGETATION

The excavation was backfilled with JAN-EPO approved native imported fill and the segregated, laboratory-confirmed stockpiled soil and was then contoured to surrounding grade. Enterprise will re-seed the Site with an approved seeding mixture.

8.0 FINDINGS AND RECOMMENDATION

- A total of 29 composite soil samples were collected from the excavation. Additionally, one (1) composite soil sample was collected from stockpiled soil.

Released to Imaging: 3/7/2022 10:10:27 AM

- Based on laboratory analytical results, no benzene, BTEX, chloride, or combined TPH GRO/DRO/MRO exceedances were identified in the Site soils. Combined TPH GRO/DRO concentrations that exceed the New Mexico EMNRD OCD closure criteria are present at the floor of the central portion (36 feet bgs) of the former excavation.

- JAN-EPO approved the variance request and alternative closure method proposed by Enterprise that included changing the closure standards to the New Mexico EMNRD Tier II standards and the application of potassium permanganate to the excavation prior to backfill.

- A total of approximately 1,062 cubic yards of petroleum hydrocarbon affected soils were transported to the Envirotech landfarm for disposal/remediation. The excavation was backfilled and was then contoured to surrounding grade.

Based on field observations and laboratory analytical results and the approval by JAN-EPO of the variance and closure plan 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

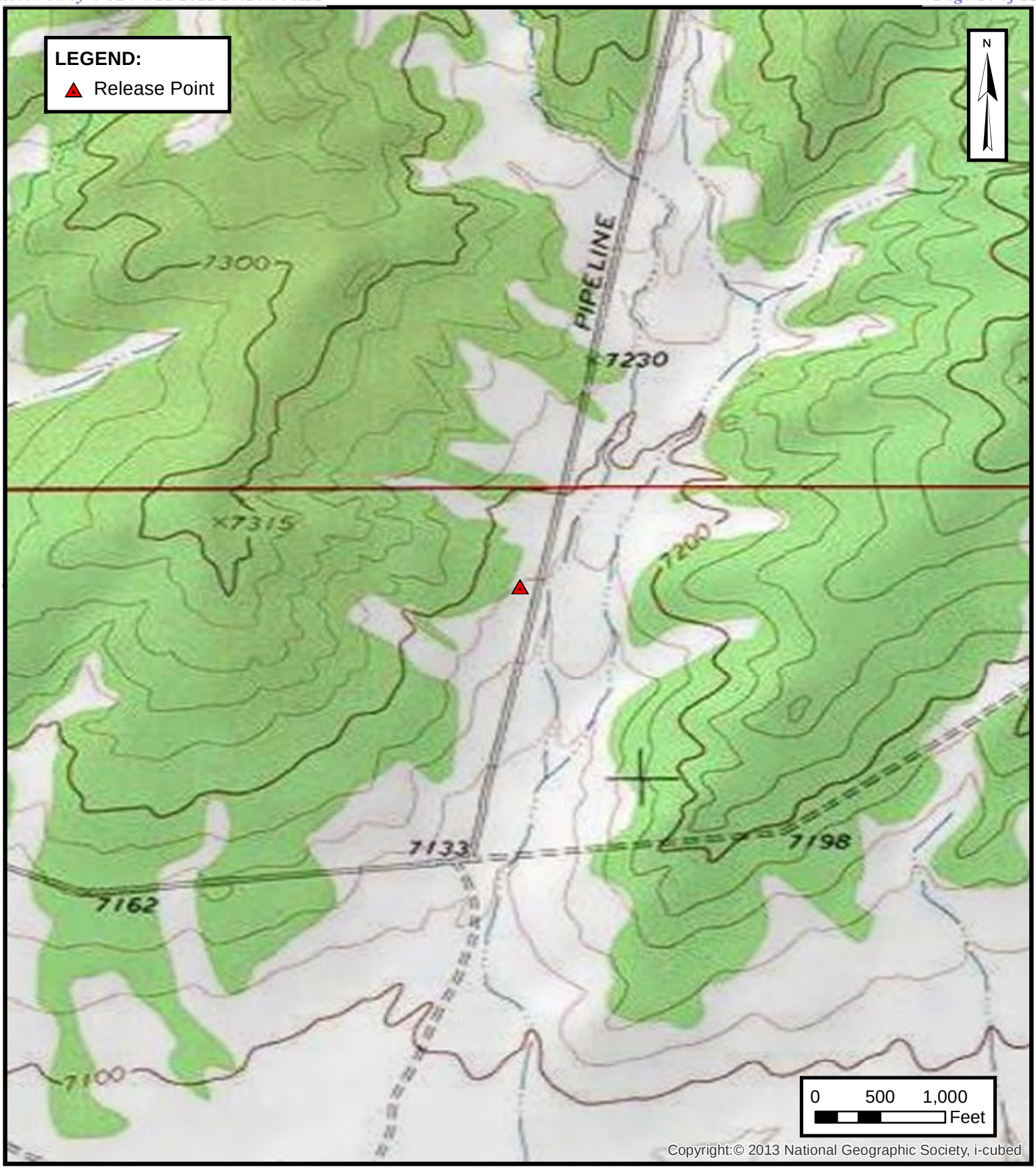
This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Enterprise and Ensolum. Any unauthorized distribution 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.

Released to Imaging: 3/7/2022 10:10:27 AM

ENSOLUM

APPENDIX A

Figures



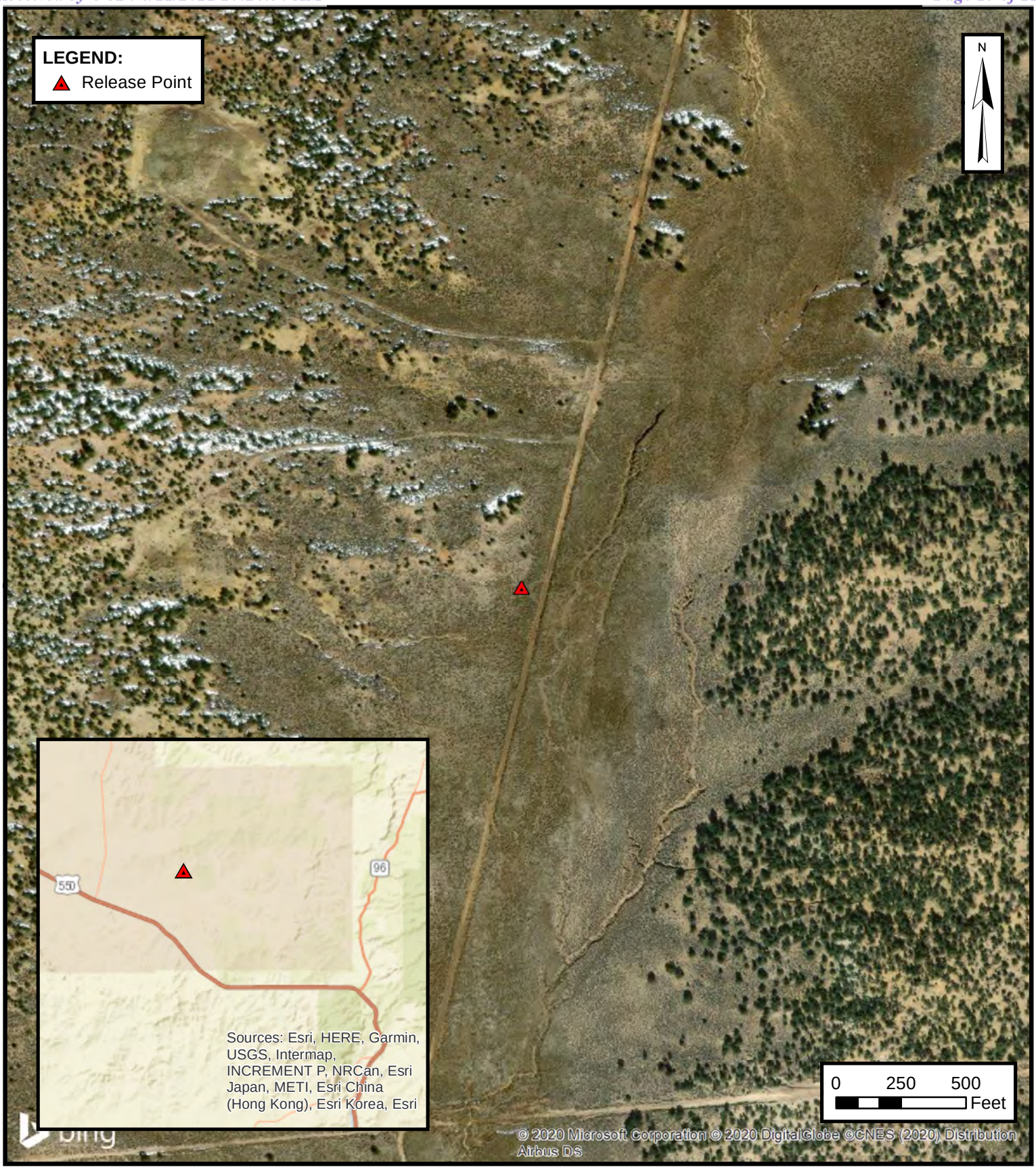
ENSOLUM
Environmental & Hydrogeologic Consultants

TOPOGRAPHIC MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-79
NW ¼, S4 T22N R3W, Sandoval County, New Mexico
36.170690° N, 107.169768° W

PROJECT NUMBER: 05A1226102

FIGURE
1



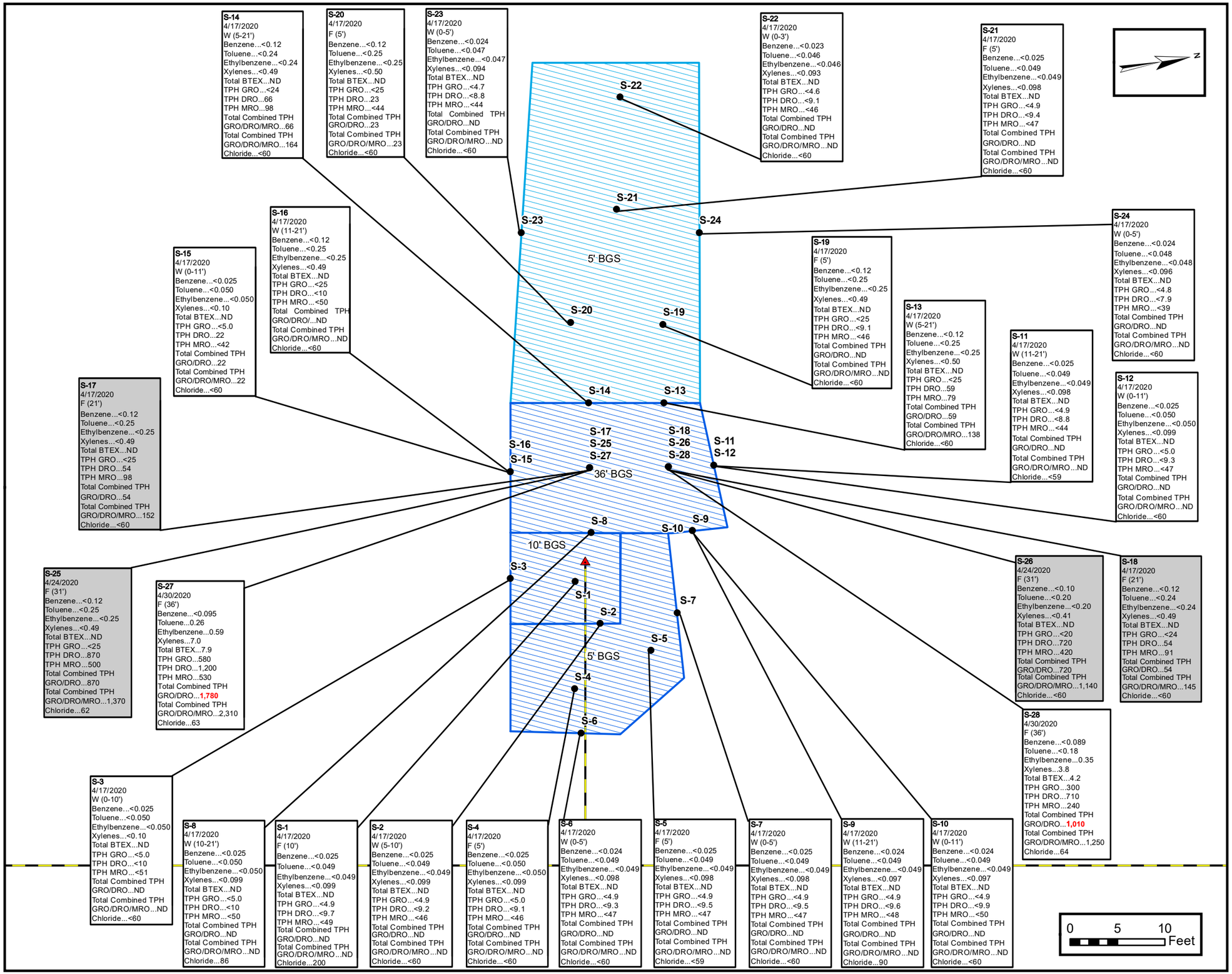
ENSOLUM
Environmental & Hydrogeologic Consultants

SITE VICINITY MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-79
NW ¼, S4 T22N R3W, Sandoval County, New Mexico
36.170690° N, 107.169768° W

PROJECT NUMBER: 05A1226102

FIGURE
2



LEGEND:

- Release Point
- Composite Soil Sample Location
- Extent of Excavation
- Sloped Ramp
- Pipeline
- W — Wall Sample
- F — Floor Sample

NOTES:
All Concentrations Are Listed in mg/Kg.

Concentrations in **Red** Exceed the Applicable NM EMNRD OCD Closure Criteria.

Analytical Callouts in Gray Denote Sampling Location Removed by Excavation.

All Depths Are Listed in Feet BGS.

ENSOLUM
Environmental & Hydrogeologic Consultants

SITE MAP WITH SOIL ANALYTICAL RESULTS

ENTERPRISE FIELD SERVICES
LATERAL 2C-79

NW ¼, S4 T22N R3W, Sandoval County, New Mexico
36.170690° N, 107.169768° W

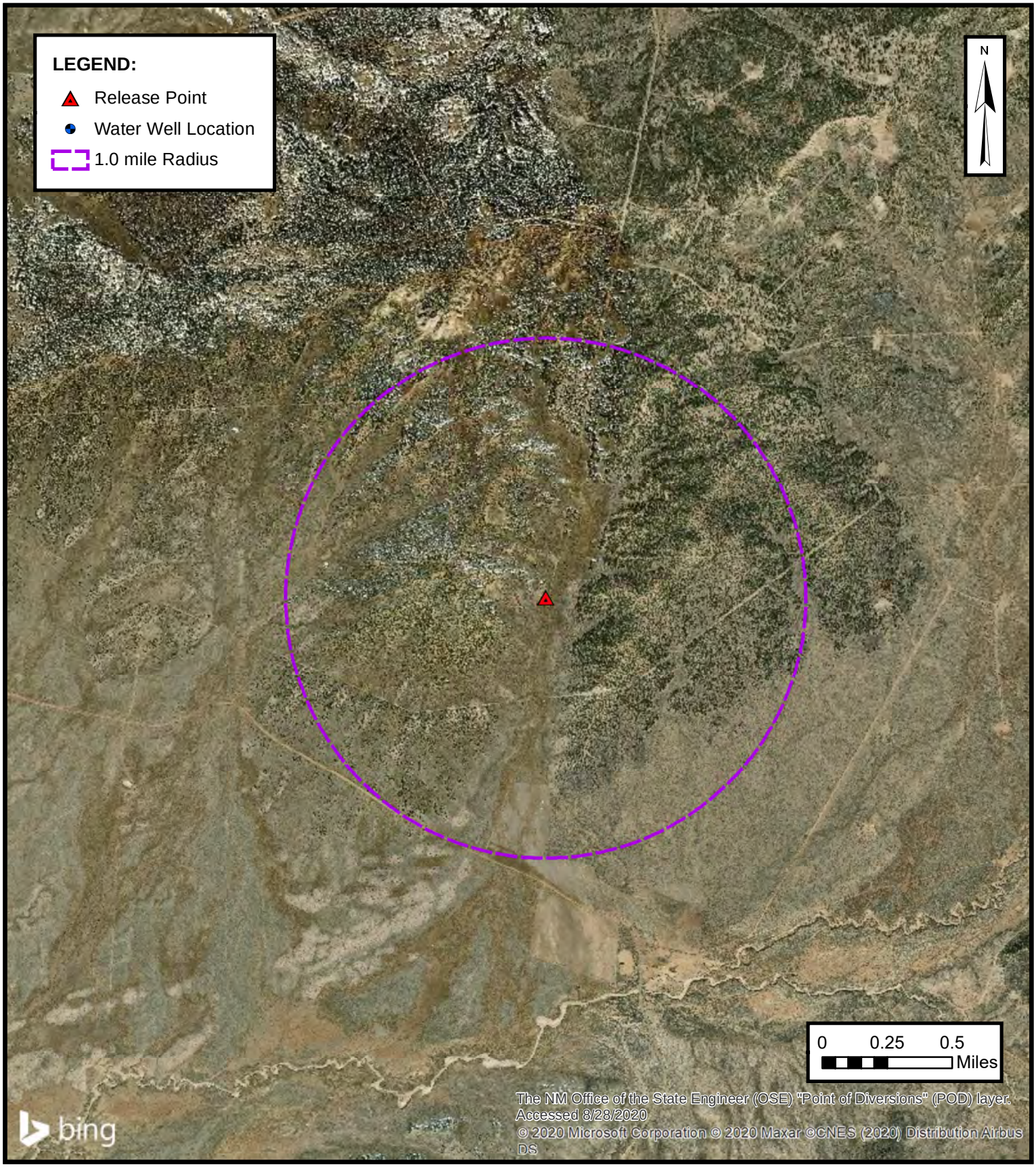
FIGURE
3

PROJECT NUMBER: 05A1226102

ENSOLUM

APPENDIX B

Siting Figures and Documentation



ENSOLUM
Environmental & Hydrogeologic Consultants

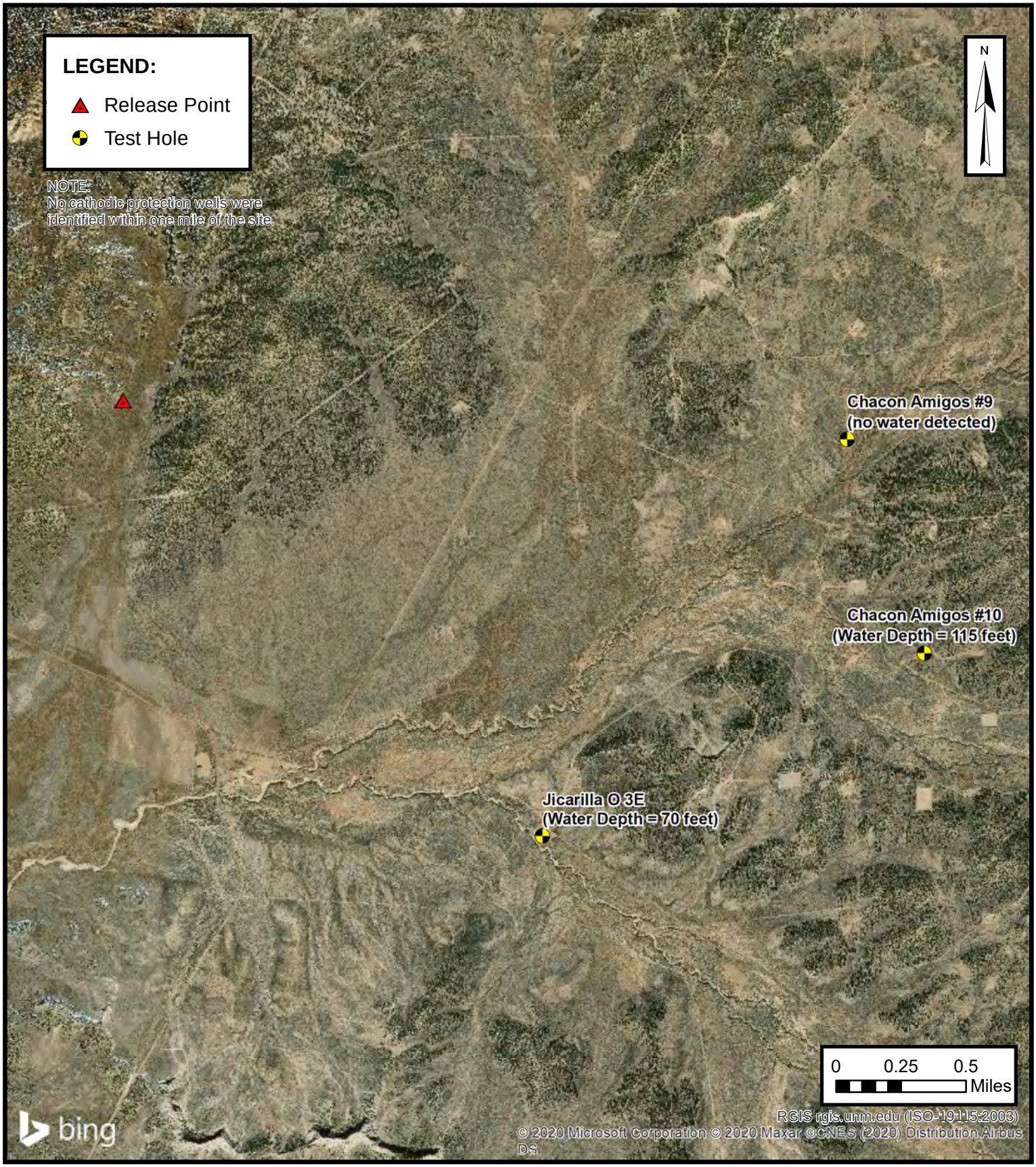
1.0 MILE RADIUS WATER WELL MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-79
NW ¼, S4 T22N R3W, Sandoval County, New Mexico
36.170690° N, 107.169768° W

PROJECT NUMBER: 05A1226102

FIGURE

A



ENSOLUM
Environmental & Hydrogeologic Consultants

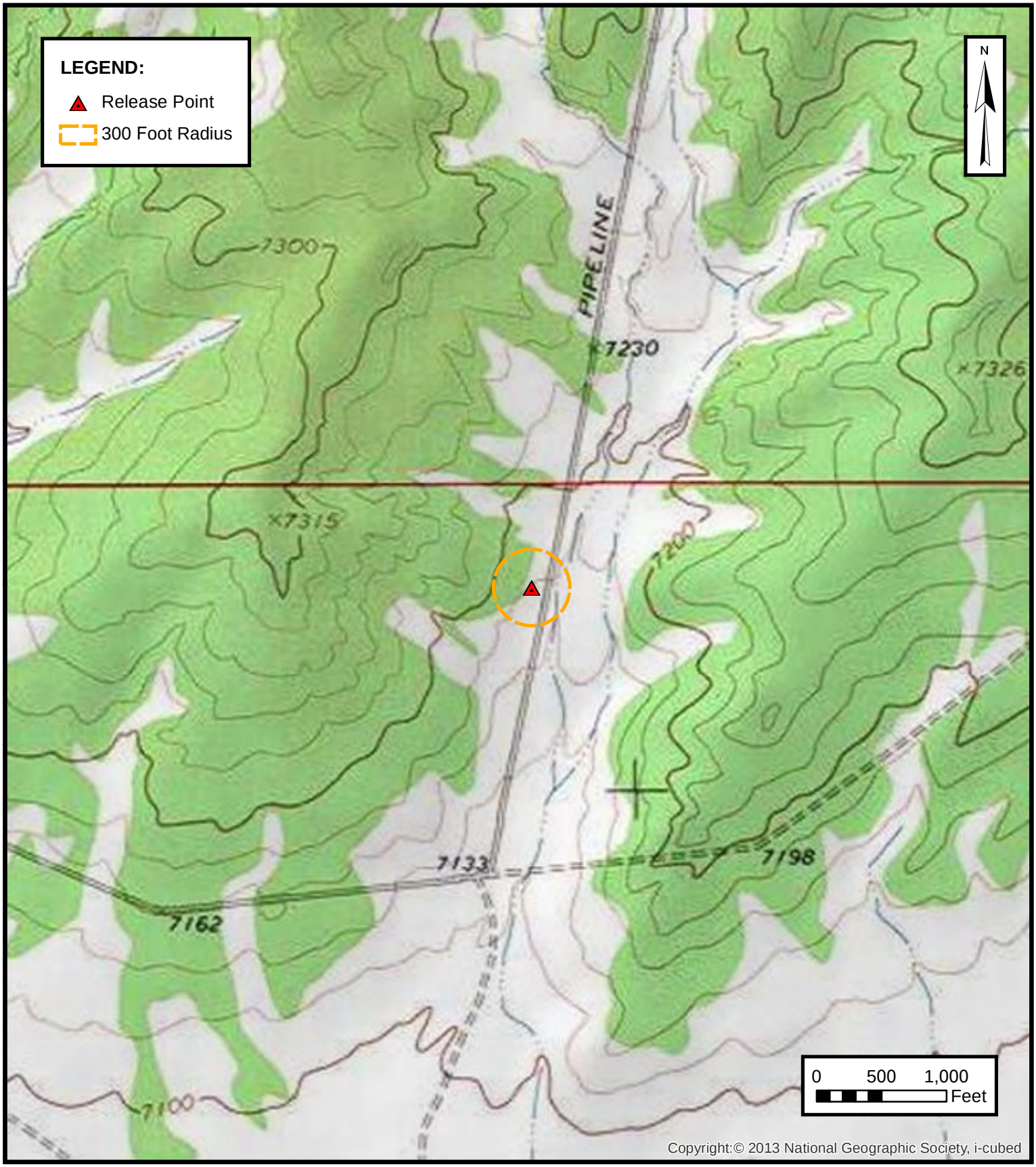
CATHODIC PROTECTION WELL AND TEST HOLE RECORDED DEPTH TO WATER

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-79
NW ¼, S4 T22N R3W, San Juan County, New Mexico
36.170690° N, 107.169768° W

PROJECT NUMBER: 05A1226102

FIGURE

B

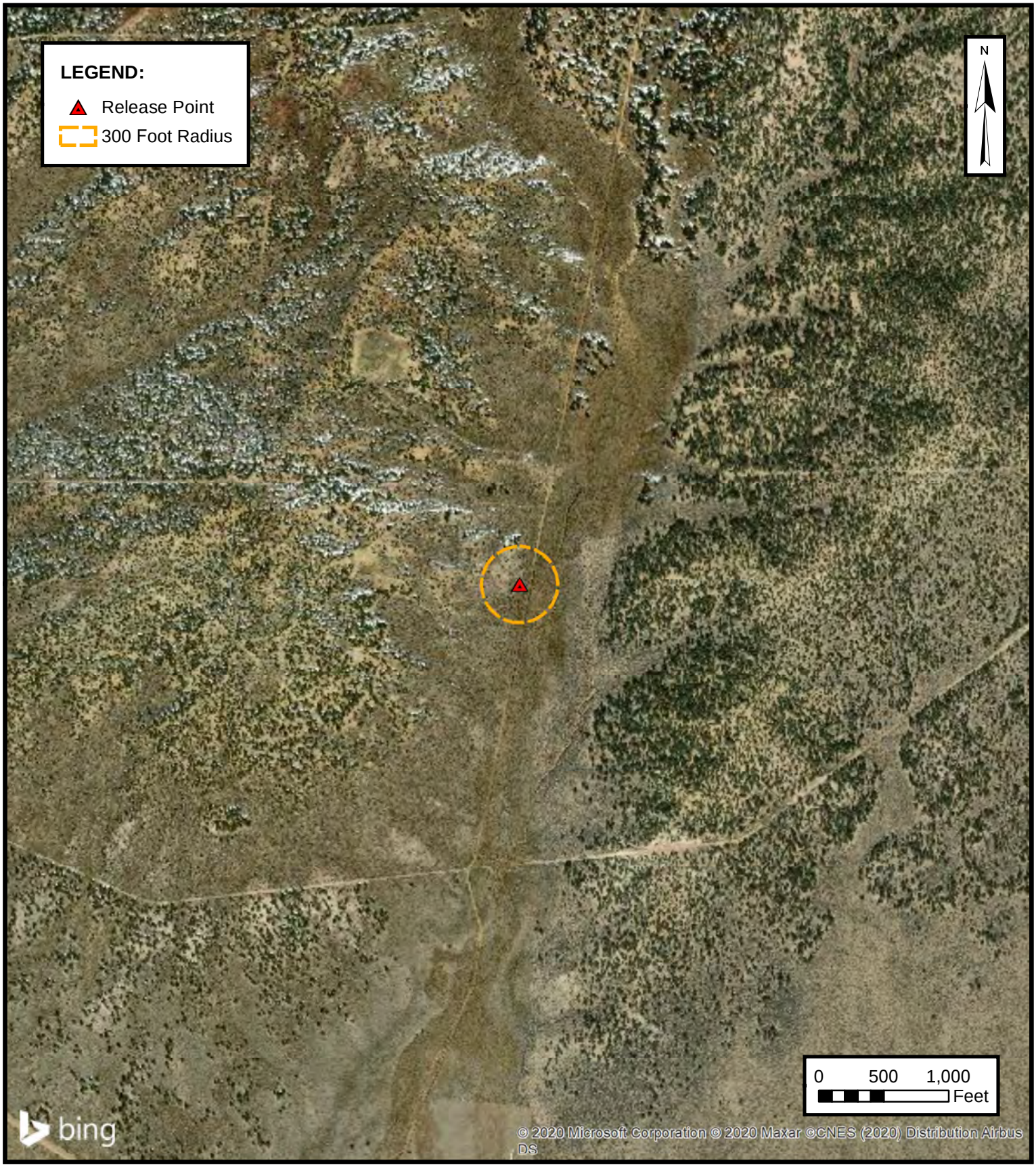


ENSOLUM
Environmental & Hydrogeologic Consultants

300 FOOT RADIUS
WATERCOURSE AND DRAINAGE IDENTIFICATION
ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-79
NW ¼, S4 T22N R3W, Sandoval County, New Mexico
36.170690° N, 107.169768° W

PROJECT NUMBER: 05A1226102

FIGURE
C



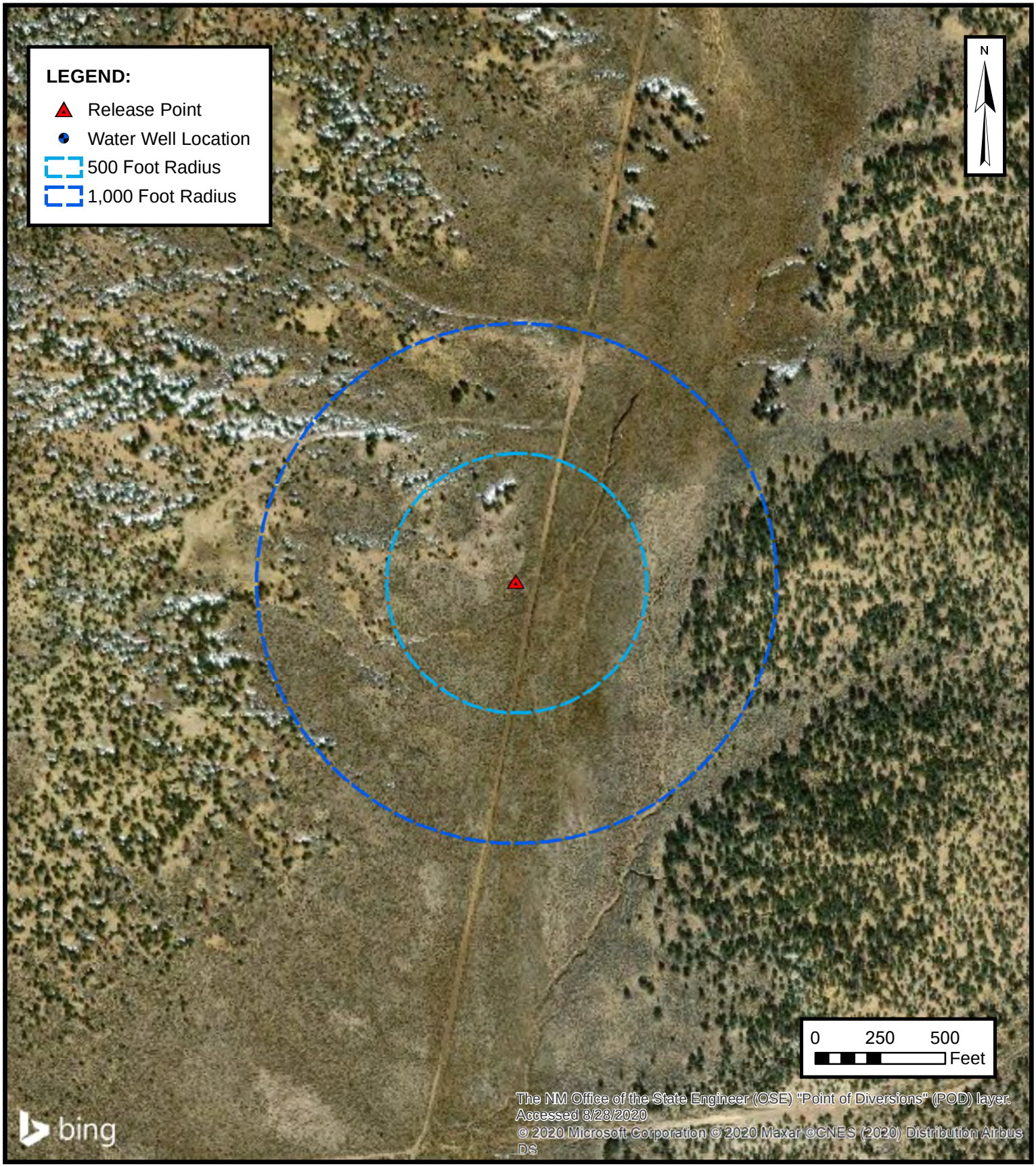
ENSOLUM
Environmental & Hydrogeologic Consultants

300 FOOT RADIUS
OCCUPIED STRUCTURE IDENTIFICATION

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-79
NW ¼, S4 T22N R3W, Sandoval County, New Mexico
36.170690° N, 107.169768° W

PROJECT NUMBER: 05A1226102

FIGURE
D



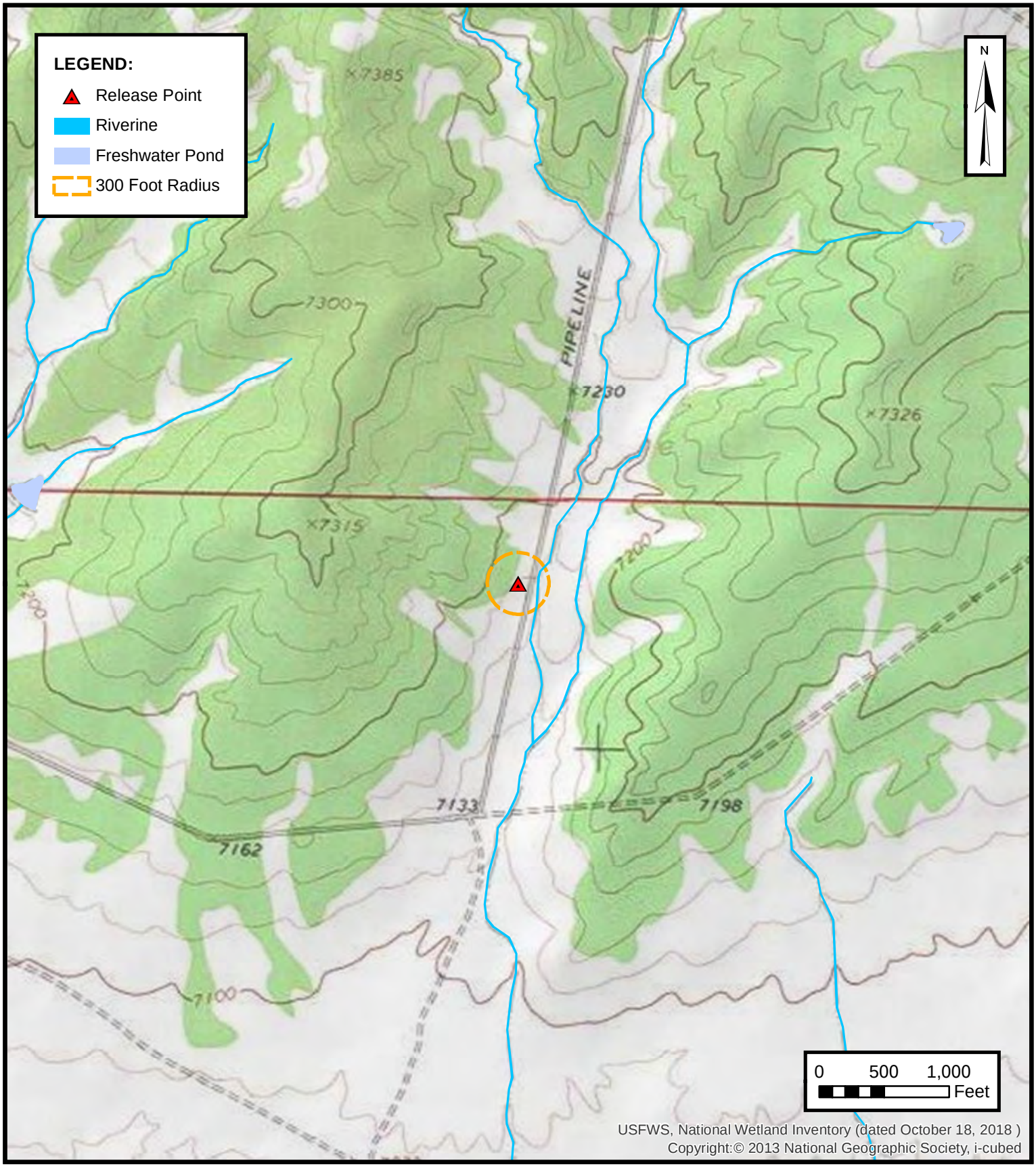
ENSOLUM
Environmental & Hydrogeologic Consultants

WATER WELL AND NATURAL SPRING LOCATION

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-79
NW ¼, S4 T22N R3W, Sandoval County, New Mexico
36.170690° N, 107.169768° W

PROJECT NUMBER: 05A1226102

FIGURE
E



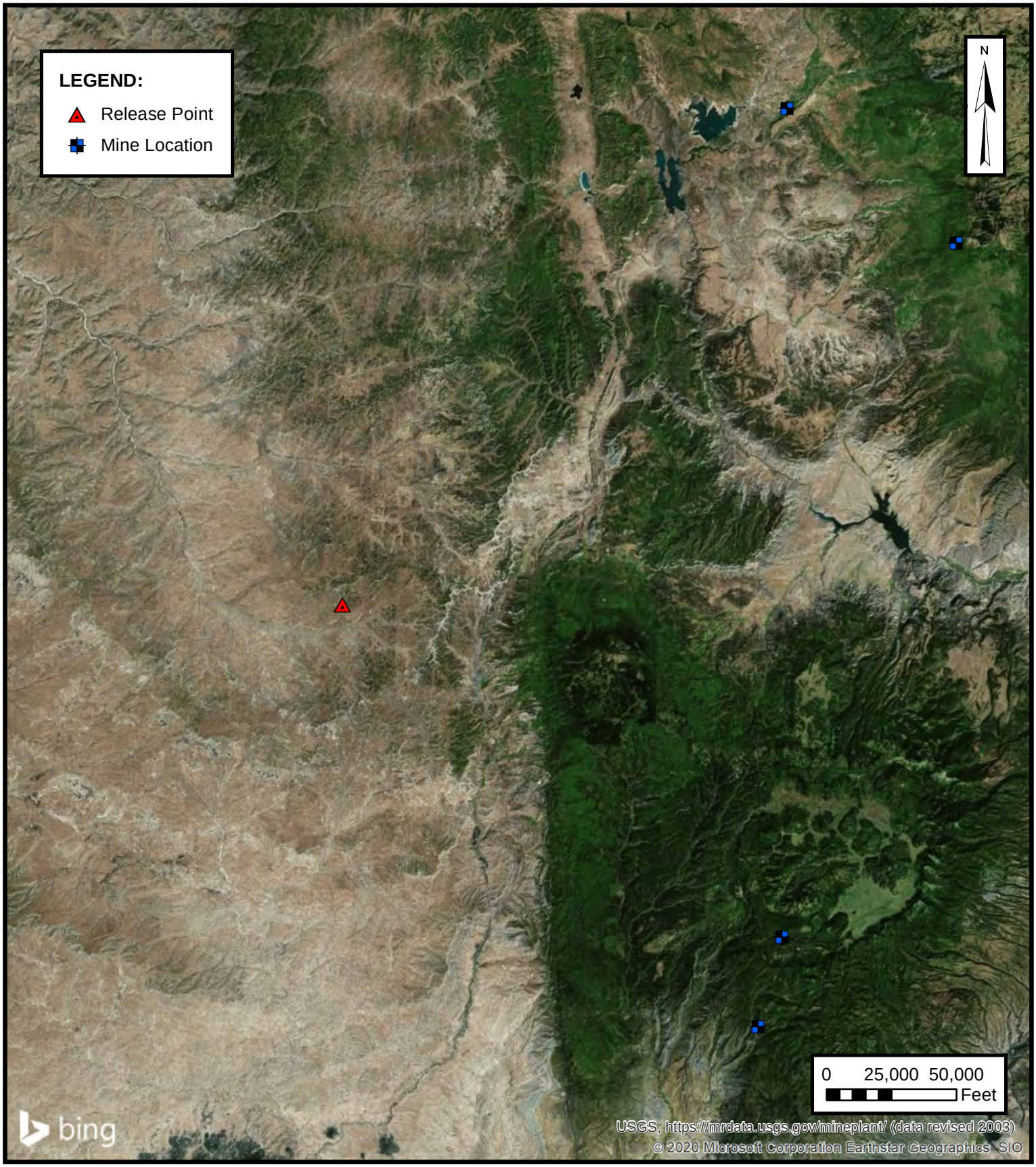
ENSOLUM
Environmental & Hydrogeologic Consultants

WETLANDS

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-79
NW ¼, S4 T22N R3W, San Juan County, New Mexico
36.170690° N, 107.169768° W

PROJECT NUMBER: 05A1226102

FIGURE
F



ENSOLUM
Environmental & Hydrogeologic Consultants

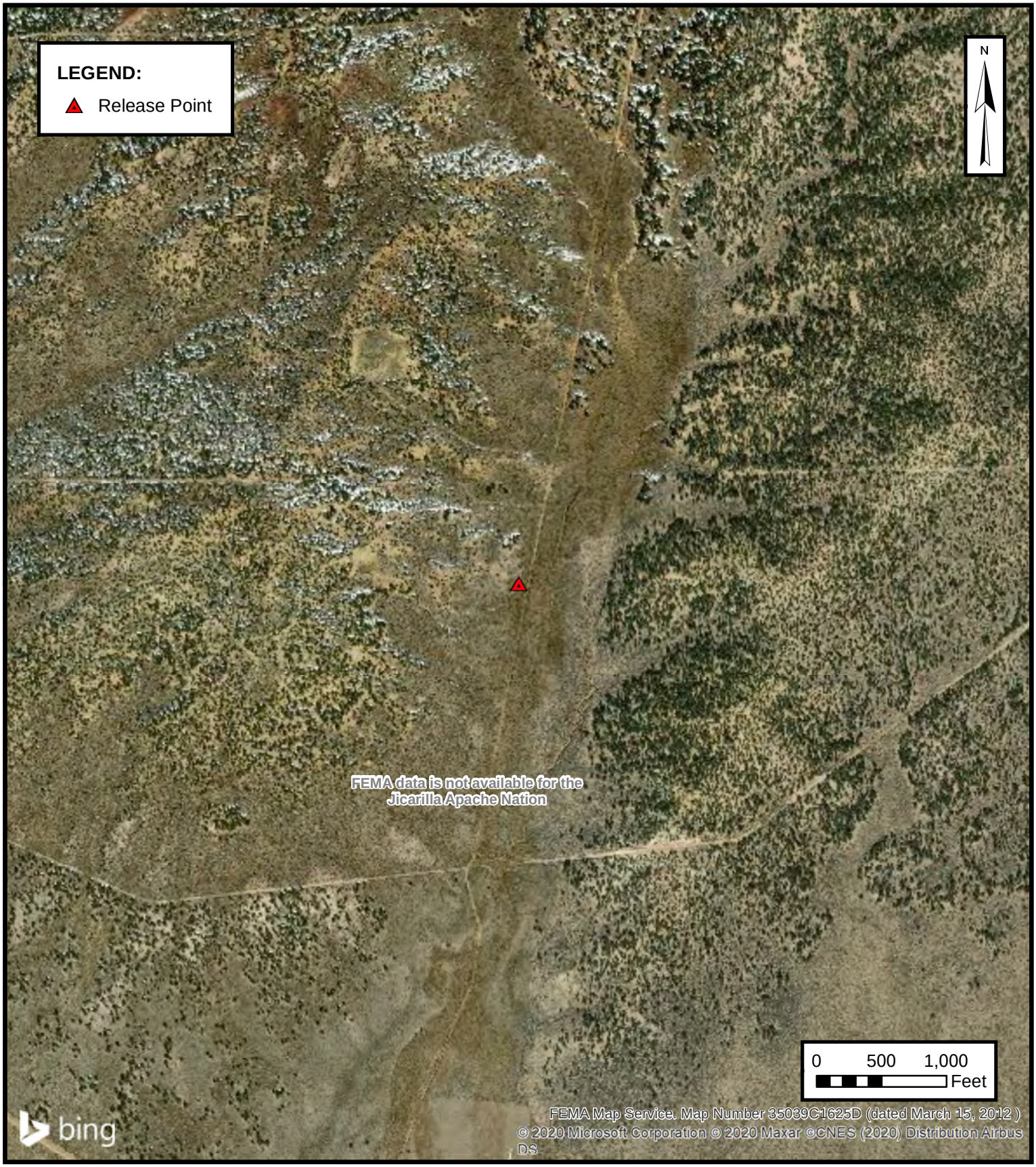
MINES, MILLS AND QUARRIES

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-79
NW ¼, S4 T22N R3W, Sandoval County, New Mexico
36.170690° N, 107.169768° W

PROJECT NUMBER: 05A1226102

FIGURE

G



ENSOLUM
Environmental & Hydrogeologic Consultants

100-YEAR FLOOD PLAIN MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-79
NW ¼, S4 T22N R3W, Sandoval County, New Mexico
36.170690° N, 107.169768° W

PROJECT NUMBER: 05A1226102

FIGURE
H

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

No records found.

PLSS Search:

Section(s): 3, 4, 5, 8, 9, 10 **Township:** 22N **Range:** 03W

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.

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

No records found.

PLSS Search:

Section(s): 32, 33, 34 **Township:** 23N **Range:** 03W

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.

Received by OCD: 8/11/2021 10:24:30 AM

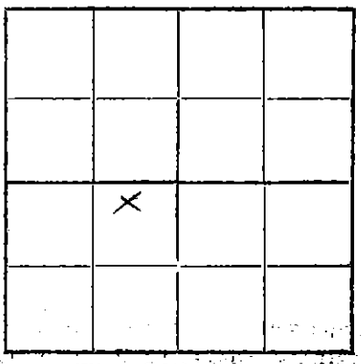
TRN 226090

Form WR-23 STATE ENGINEER OFFICE

WELL RECORD

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the nearest district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1A and Section 5 need be completed.

Section 1



(Plat of 640 acres)

(A) Owner of well N.M. State Highway Department
Street and Number 1120 Cerillos Rd., P.O. Box 1149
City Santa Fe State New Mexico
Well was drilled under Permit No. HC 76 809 and is located in the
¼ NE ¼ SW ¼ of Section 9 Twp. 22 N. Rge. 4 W.
(B) Drilling Contractor N.M.S.D.H. License No. WD 319
Street and Number P.O. Box 1149
City Santa Fe State New Mexico
Drilling was commenced November 28, 19 78
Drilling was completed April 19, 19 79

Elevation at top of casing in feet above sea level 6850.9 Total depth of well 322 feet
State whether well is shallow or artesian shallow Depth to water upon completion 145'

Section 2 PRINCIPAL WATER-BEARING STRATA

No.	Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation
1	145	300	155	All sandstone layers through this interval
2				
3				
4				
5				

Section 3 RECORD OF CASING

Dia in.	Pounds ft.	Threads In	Depth Top	Depth Bottom	Feet	Type Shoe	Perforations From	Perforations To
6 6/8	18.5	welded	0	325	325	None	264	325

Section 4 RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Diameter Hole in in.	Tons Clay	No. Sacks of Cement	Methods Used

'79 JUN 4 AM 8 33
STATE ENGINEER SANTA FE, N.M.

Section 5 PLUGGING RECORD

Name of Plugging Contractor did not plug License No.
Street and Number City State
Tons of Clay used Tons of Roughage used Type of roughage
Plugging method used Date Plugged 19
Plugging approved by:
Basin Supervisor

Cement Plugs were placed as follows:

No.	Depth of Plug From	Depth of Plug To	No. of Sacks Used

FOR USE OF STATE ENGINEER ONLY
Date Received 5-15-79
79 MAY 15 AM 11 : 38

File No. SJ-809 Use Dom & Son Location No. 22N 4W 9 Z30

Sandoval County

Released to Imaging: 3/7/2022 10:10:27 AM

Section 6

LOG OF WELL

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color	Type of Material Encountered
0.0	16.0		tan	dry silty clay
16.0	49.0		tan	silty sand
49.0	72.0		tan	silty sand w/thin layers stiff clay
72.0	101.0		Yellow	sand or soft sandstone with porous streaks stiff clay
101.0	134.0		Blue-gray	clay
134.0	264.0		Gray to Brown	interbedded shale and sandstone
264.0	302.0		Gray	soft sandstone
302.0	322.0		Blue Grey	clay shale
				Casing set 1:00 PM, 4-18-79
				cleaned 100' sand from hole 4-19-79
				back flushed and gravel packed hole 4-19-79
				Production with air compressor blowing at 200'= 60 gpm for 4 hours. strong odor hyd. sul. gas
				Draw-down test began 5-8-79
				3 HP Reda - pumped well
				48 hours @ 30 gpm - pump set 250'.
				Recovery completed May 11, 1979

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described well.

NMSHD

Arlen D. Lovelace

Well Driller

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 - 1108

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

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

Invoicing Information
PayKeyRB21200
AFE: N47821

2. Originating Site:
Lateral 2C-79 Pipeline

3. Location of Material (Street Address, City, State or ULSTR):
UL C Section 4 T22N R3W; 36.17069 -107.169768

Apr. 1 2020

4. Source and Description of Waste:
Source: Hydrocarbon impacted soil from remediation activities associated with a natural gas pipeline release.
Description: Hydrocarbon impacted soil from remediation activities associated with a natural gas pipeline release.
Estimated Volume 50 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 1062 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 4-9-2020, 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: 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: Envtl Manager DATE: 4/9/2020

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

ENSOLUM

APPENDIX D

Photographic Documentation

SITE PHOTOGRAPHS

Enterprise Field Services, LLC
Closure Report
Lateral 2C-79
Ensolum Project No. 05A1226102

ENSOLUM

Photograph 1 Photograph Description: View of in process excavation activities.	
Photograph 2 Photograph Description: View of in process excavation activities.	
Photograph 3 Photograph Description: View of the initial excavation during the first sampling event.	

SITE PHOTOGRAPHS

Enterprise Field Services, LLC
Closure Report
Lateral 2C-79
Ensolum Project No. 05A1226102

ENSOLUM

Photograph 4 Photograph Description: View of the initial excavation during the first sampling event.	
Photograph 5 Photograph Description: View of in process excavation activities, subsequent to the first sampling event.	
Photograph 6 Photograph Description: View of the final excavation. The final depth of the excavation measured approximately 36 feet below grade surface.	

SITE PHOTOGRAPHS

Enterprise Field Services, LLC
Closure Report
Lateral 2C-79
Ensolum Project No. 05A1226102

ENSOLUM

Photograph 7 Photograph Description: View of the application of potassium permanganate.	
Photograph 8 Photograph Description: View of the excavation after potassium permanganate application.	
Photograph 9 Photograph Description: View of the excavation after potassium permanganate application.	

SITE PHOTOGRAPHS

Enterprise Field Services, LLC
Closure Report
Lateral 2C-79
Ensolum Project No. 05A1226102

ENSOLUM

Photograph 10 Photograph Description: View of the excavation after initial restoration.	
Photograph 11 Photograph Description: View of the excavation after initial restoration.	

ENSOLUM

APPENDIX E

Table 1 – Soil Analytical Summary

ENSOLUM

TABLE 1
Lateral 2C-79
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 (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total Combined TPH (GRO/DRO) (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 II)				10	NE	NE	NE	50				1,000	2,500	10,000
Composite Soil Samples Removed by Excavation and Transported to the Landfarm for Disposal/Remediation														
S-17	4.17.20	C	21	<0.12	<0.25	<0.25	<0.49	ND	<25	54	98	54	152	<60
S-18	4.17.20	C	21	<0.12	<0.24	<0.24	<0.49	ND	<24	54	91	54	145	<60
S-25	4.24.20	C	31	<0.12	<0.25	<0.25	<0.49	ND	<25	870	500	870	1,370	62
S-26	4.24.20	C	31	<0.10	<0.20	<0.20	<0.41	ND	<20	720	420	720	1,140	<60
Stockpiled Soil Sample Reused as Backfill														
SP-1	4.17.20	C	Stockpile	<0.025	<0.050	<0.050	<0.10	ND	<5.0	<10	<51	ND	ND	<60
Excavation Composite Soil Samples														
S-1	4.17.20	C	10	<0.025	<0.049	<0.049	<0.099	ND	<4.9	<9.7	<49	ND	ND	200
S-2	4.17.20	C	5 to 10	<0.025	<0.049	<0.049	<0.099	ND	<4.9	<9.2	<46	ND	ND	<60
S-3	4.17.20	C	0 to 10	<0.025	<0.050	<0.050	<0.10	ND	<5.0	<10	<51	ND	ND	<60
S-4	4.17.20	C	5	<0.025	<0.050	<0.050	<0.099	ND	<5.0	<9.1	<46	ND	ND	<60
S-5	4.17.20	C	5	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<9.5	<47	ND	ND	<59
S-6	4.17.20	C	0 to 5	<0.024	<0.049	<0.049	<0.098	ND	<4.9	<9.3	<47	ND	ND	<60
S-7	4.17.20	C	0 to 5	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<9.5	<47	ND	ND	<60
S-8	4.17.20	C	10 to 21	<0.025	<0.050	<0.050	<0.099	ND	<5.0	<10	<50	ND	ND	86
S-9	4.17.20	C	11 to 21	<0.024	<0.049	<0.049	<0.097	ND	<4.9	<9.6	<48	ND	ND	90
S-10	4.17.20	C	0 to 11	<0.024	<0.049	<0.049	<0.097	ND	<4.9	<9.9	<50	ND	ND	<60
S-11	4.17.20	C	11 to 21	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<8.8	<44	ND	ND	<59
S-12	4.17.20	C	0 to 11	<0.025	<0.050	<0.050	<0.099	ND	<5.0	<9.3	<47	ND	ND	<60
S-13	4.17.20	C	5 to 21	<0.12	<0.25	<0.25	<0.50	ND	<25	59	79	59	138	<60
S-14	4.17.20	C	5 to 21	<0.12	<0.24	<0.24	<0.49	ND	<24	66	98	66	164	<60
S-15	4.17.20	C	0 to 11	<0.025	<0.050	<0.050	<0.10	ND	<5.0	22	<42	22	22	<60
S-16	4.17.20	C	11 to 21	<0.12	<0.25	<0.25	<0.49	ND	<25	<10	<50	ND	ND	<60
S-19	4.17.20	C	5	<0.12	<0.25	<0.25	<0.49	ND	<25	<9.1	<46	ND	ND	<60
S-20	4.17.20	C	5	<0.12	<0.25	<0.25	<0.50	ND	<25	23	<44	23	23	<60
S-21	4.17.20	C	5	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<9.4	<47	ND	ND	<60
S-22	4.17.20	C	0 to 3	<0.023	<0.046	<0.046	<0.093	ND	<4.6	<9.1	<46	ND	ND	<60
S-23	4.17.20	C	0 to 5	<0.024	<0.047	<0.047	<0.094	ND	<4.7	<8.8	<44	ND	ND	<60
S-24	4.17.20	C	0 to 5	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<7.9	<39	ND	ND	<60
S-27	4.30.20	C	36	<0.095	0.26	0.59	7.0	7.9	580	1,200	530	**1,780**	2,310	63
S-28	4.30.20	C	36	<0.089	<0.18	0.35	3.8	4.2	300	710	240	**1,010**	1,250	64

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

ND = Not Detected above the Practical Quantitation Limits or Reporting Limits

NA = Not Analyzed

NE = Not Established

mg/kg = milligram per kilogram

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

TPH = Total Petroleum Hydrocarbon

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics

ENSOLUM

APPENDIX F

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 23, 2020

Kyle Summers

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

RE: Lateral 2C-79 OrderNo.: 2004846

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 25 sample(s) on 4/18/2020 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 **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-1
Project: Lateral 2C-79
Collection Date: 4/17/2020 10:10:00 AM
Lab ID: 2004846-001 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	200	60		mg/Kg	20	4/20/2020 10:54:24 PM	51972
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/20/2020 9:39:16 PM	51943
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/20/2020 9:39:16 PM	51943
Surr: DNOP	87.0	55.1-146		%Rec	1	4/20/2020 9:39:16 PM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/21/2020 2:18:36 PM	51936
Surr: BFB	98.7	66.6-105		%Rec	1	4/21/2020 2:18:36 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/21/2020 2:18:36 PM	51936
Toluene	ND	0.049		mg/Kg	1	4/21/2020 2:18:36 PM	51936
Ethylbenzene	ND	0.049		mg/Kg	1	4/21/2020 2:18:36 PM	51936
Xylenes, Total	ND	0.099		mg/Kg	1	4/21/2020 2:18:36 PM	51936
Surr: 4-Bromofluorobenzene	97.2	80-120		%Rec	1	4/21/2020 2:18:36 PM	51936

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-2
Project: Lateral 2C-79
Collection Date: 4/17/2020 10:15:00 AM
Lab ID: 2004846-002 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/20/2020 11:06:45 PM	51972
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/20/2020 10:51:58 PM	51943
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/20/2020 10:51:58 PM	51943
Surr: DNOP	95.9	55.1-146		%Rec	1	4/20/2020 10:51:58 PM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/21/2020 3:28:58 PM	51936
Surr: BFB	100	66.6-105		%Rec	1	4/21/2020 3:28:58 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/21/2020 3:28:58 PM	51936
Toluene	ND	0.049		mg/Kg	1	4/21/2020 3:28:58 PM	51936
Ethylbenzene	ND	0.049		mg/Kg	1	4/21/2020 3:28:58 PM	51936
Xylenes, Total	ND	0.099		mg/Kg	1	4/21/2020 3:28:58 PM	51936
Surr: 4-Bromofluorobenzene	99.0	80-120		%Rec	1	4/21/2020 3:28:58 PM	51936

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-3
Project: Lateral 2C-79
Collection Date: 4/17/2020 10:20:00 AM
Lab ID: 2004846-003 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/20/2020 11:19:06 PM	51972
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/20/2020 11:16:06 PM	51943
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	4/20/2020 11:16:06 PM	51943
Surr: DNOP	89.3	55.1-146		%Rec	1	4/20/2020 11:16:06 PM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/21/2020 4:39:20 PM	51936
Surr: BFB	102	66.6-105		%Rec	1	4/21/2020 4:39:20 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/21/2020 4:39:20 PM	51936
Toluene	ND	0.050		mg/Kg	1	4/21/2020 4:39:20 PM	51936
Ethylbenzene	ND	0.050		mg/Kg	1	4/21/2020 4:39:20 PM	51936
Xylenes, Total	ND	0.10		mg/Kg	1	4/21/2020 4:39:20 PM	51936
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	4/21/2020 4:39:20 PM	51936

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-4
Project: Lateral 2C-79
Collection Date: 4/17/2020 10:25:00 AM
Lab ID: 2004846-004 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/20/2020 11:31:27 PM	51972
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	4/20/2020 11:40:12 PM	51943
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/20/2020 11:40:12 PM	51943
Surr: DNOP	83.3	55.1-146		%Rec	1	4/20/2020 11:40:12 PM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/21/2020 5:02:50 PM	51936
Surr: BFB	102	66.6-105		%Rec	1	4/21/2020 5:02:50 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/21/2020 5:02:50 PM	51936
Toluene	ND	0.050		mg/Kg	1	4/21/2020 5:02:50 PM	51936
Ethylbenzene	ND	0.050		mg/Kg	1	4/21/2020 5:02:50 PM	51936
Xylenes, Total	ND	0.099		mg/Kg	1	4/21/2020 5:02:50 PM	51936
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	4/21/2020 5:02:50 PM	51936

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-5
Project: Lateral 2C-79
Collection Date: 4/17/2020 10:30:00 AM
Lab ID: 2004846-005 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	59		mg/Kg	20	4/20/2020 11:43:47 PM	51972
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/21/2020 12:04:14 AM	51943
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/21/2020 12:04:14 AM	51943
Surr: DNOP	98.9	55.1-146		%Rec	1	4/21/2020 12:04:14 AM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/21/2020 5:26:23 PM	51936
Surr: BFB	97.7	66.6-105		%Rec	1	4/21/2020 5:26:23 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/21/2020 5:26:23 PM	51936
Toluene	ND	0.049		mg/Kg	1	4/21/2020 5:26:23 PM	51936
Ethylbenzene	ND	0.049		mg/Kg	1	4/21/2020 5:26:23 PM	51936
Xylenes, Total	ND	0.098		mg/Kg	1	4/21/2020 5:26:23 PM	51936
Surr: 4-Bromofluorobenzene	97.1	80-120		%Rec	1	4/21/2020 5:26:23 PM	51936

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-6
Project: Lateral 2C-79
Collection Date: 4/17/2020 10:35:00 AM
Lab ID: 2004846-006 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/20/2020 11:56:08 PM	51972
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/21/2020 12:52:14 AM	51943
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/21/2020 12:52:14 AM	51943
Surr: DNOP	94.6	55.1-146		%Rec	1	4/21/2020 12:52:14 AM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/21/2020 5:49:53 PM	51936
Surr: BFB	98.5	66.6-105		%Rec	1	4/21/2020 5:49:53 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	4/21/2020 5:49:53 PM	51936
Toluene	ND	0.049		mg/Kg	1	4/21/2020 5:49:53 PM	51936
Ethylbenzene	ND	0.049		mg/Kg	1	4/21/2020 5:49:53 PM	51936
Xylenes, Total	ND	0.098		mg/Kg	1	4/21/2020 5:49:53 PM	51936
Surr: 4-Bromofluorobenzene	98.4	80-120		%Rec	1	4/21/2020 5:49:53 PM	51936

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-7
Project: Lateral 2C-79
Collection Date: 4/17/2020 10:40:00 AM
Lab ID: 2004846-007 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	4/21/2020 1:22:33 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**CLP**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/21/2020 1:16:12 AM	51943
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/21/2020 1:16:12 AM	51943
Surr: DNOP	93.8	55.1-146		%Rec	1	4/21/2020 1:16:12 AM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/21/2020 6:13:24 PM	51936
Surr: BFB	97.1	66.6-105		%Rec	1	4/21/2020 6:13:24 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025		mg/Kg	1	4/21/2020 6:13:24 PM	51936
Toluene	ND	0.049		mg/Kg	1	4/21/2020 6:13:24 PM	51936
Ethylbenzene	ND	0.049		mg/Kg	1	4/21/2020 6:13:24 PM	51936
Xylenes, Total	ND	0.098		mg/Kg	1	4/21/2020 6:13:24 PM	51936
Surr: 4-Bromofluorobenzene	96.9	80-120		%Rec	1	4/21/2020 6:13:24 PM	51936

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-8
Project: Lateral 2C-79
Collection Date: 4/17/2020 10:45:00 AM
Lab ID: 2004846-008 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	86	60		mg/Kg	20	4/21/2020 1:34:53 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**CLP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/21/2020 1:40:09 AM	51943
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/21/2020 1:40:09 AM	51943
Surr: DNOP	100	55.1-146		%Rec	1	4/21/2020 1:40:09 AM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/21/2020 6:36:58 PM	51936
Surr: BFB	102	66.6-105		%Rec	1	4/21/2020 6:36:58 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025		mg/Kg	1	4/21/2020 6:36:58 PM	51936
Toluene	ND	0.050		mg/Kg	1	4/21/2020 6:36:58 PM	51936
Ethylbenzene	ND	0.050		mg/Kg	1	4/21/2020 6:36:58 PM	51936
Xylenes, Total	ND	0.099		mg/Kg	1	4/21/2020 6:36:58 PM	51936
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	4/21/2020 6:36:58 PM	51936

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-9
Project: Lateral 2C-79
Collection Date: 4/17/2020 10:50:00 AM
Lab ID: 2004846-009 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	90	60		mg/Kg	20	4/21/2020 1:47:14 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**CLP**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/21/2020 2:04:05 AM	51943
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/21/2020 2:04:05 AM	51943
Surr: DNOP	87.6	55.1-146		%Rec	1	4/21/2020 2:04:05 AM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/21/2020 7:00:40 PM	51936
Surr: BFB	100	66.6-105		%Rec	1	4/21/2020 7:00:40 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	4/21/2020 7:00:40 PM	51936
Toluene	ND	0.049		mg/Kg	1	4/21/2020 7:00:40 PM	51936
Ethylbenzene	ND	0.049		mg/Kg	1	4/21/2020 7:00:40 PM	51936
Xylenes, Total	ND	0.097		mg/Kg	1	4/21/2020 7:00:40 PM	51936
Surr: 4-Bromofluorobenzene	99.6	80-120		%Rec	1	4/21/2020 7:00:40 PM	51936

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-10
Project: Lateral 2C-79
Collection Date: 4/17/2020 10:55:00 AM
Lab ID: 2004846-010 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	4/21/2020 1:59:35 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**CLP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/21/2020 2:28:00 AM	51943
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/21/2020 2:28:00 AM	51943
Surr: DNOP	92.2	55.1-146		%Rec	1	4/21/2020 2:28:00 AM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/21/2020 8:34:39 PM	51936
Surr: BFB	101	66.6-105		%Rec	1	4/21/2020 8:34:39 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	4/21/2020 8:34:39 PM	51936
Toluene	ND	0.049		mg/Kg	1	4/21/2020 8:34:39 PM	51936
Ethylbenzene	ND	0.049		mg/Kg	1	4/21/2020 8:34:39 PM	51936
Xylenes, Total	ND	0.097		mg/Kg	1	4/21/2020 8:34:39 PM	51936
Surr: 4-Bromofluorobenzene	99.8	80-120		%Rec	1	4/21/2020 8:34:39 PM	51936

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-11
Project: Lateral 2C-79
Collection Date: 4/17/2020 11:00:00 AM
Lab ID: 2004846-011 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	59		mg/Kg	20	4/21/2020 2:11:56 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	4/21/2020 2:51:52 AM	51943
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	4/21/2020 2:51:52 AM	51943
Surr: DNOP	89.4	55.1-146		%Rec	1	4/21/2020 2:51:52 AM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/21/2020 8:57:58 PM	51936
Surr: BFB	103	66.6-105		%Rec	1	4/21/2020 8:57:58 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/21/2020 8:57:58 PM	51936
Toluene	ND	0.049		mg/Kg	1	4/21/2020 8:57:58 PM	51936
Ethylbenzene	ND	0.049		mg/Kg	1	4/21/2020 8:57:58 PM	51936
Xylenes, Total	ND	0.098		mg/Kg	1	4/21/2020 8:57:58 PM	51936
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	4/21/2020 8:57:58 PM	51936

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-12
Project: Lateral 2C-79
Collection Date: 4/17/2020 11:05:00 AM
Lab ID: 2004846-012 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/21/2020 2:24:17 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/21/2020 3:15:44 AM	51943
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/21/2020 3:15:44 AM	51943
Surr: DNOP	92.1	55.1-146		%Rec	1	4/21/2020 3:15:44 AM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/21/2020 9:21:46 PM	51936
Surr: BFB	102	66.6-105		%Rec	1	4/21/2020 9:21:46 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/21/2020 9:21:46 PM	51936
Toluene	ND	0.050		mg/Kg	1	4/21/2020 9:21:46 PM	51936
Ethylbenzene	ND	0.050		mg/Kg	1	4/21/2020 9:21:46 PM	51936
Xylenes, Total	ND	0.099		mg/Kg	1	4/21/2020 9:21:46 PM	51936
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	4/21/2020 9:21:46 PM	51936

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-13
Project: Lateral 2C-79
Collection Date: 4/17/2020 11:10:00 AM
Lab ID: 2004846-013 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	4/21/2020 2:36:36 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**CLP**
Diesel Range Organics (DRO)	59	9.0		mg/Kg	1	4/21/2020 3:39:35 AM	51943
Motor Oil Range Organics (MRO)	79	45		mg/Kg	1	4/21/2020 3:39:35 AM	51943
Surr: DNOP	101	55.1-146		%Rec	1	4/21/2020 3:39:35 AM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	25	D	mg/Kg	5	4/21/2020 9:45:43 PM	51936
Surr: BFB	105	66.6-105	SD	%Rec	5	4/21/2020 9:45:43 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.12	D	mg/Kg	5	4/21/2020 9:45:43 PM	51936
Toluene	ND	0.25	D	mg/Kg	5	4/21/2020 9:45:43 PM	51936
Ethylbenzene	ND	0.25	D	mg/Kg	5	4/21/2020 9:45:43 PM	51936
Xylenes, Total	ND	0.50	D	mg/Kg	5	4/21/2020 9:45:43 PM	51936
Surr: 4-Bromofluorobenzene	104	80-120	D	%Rec	5	4/21/2020 9:45:43 PM	51936

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-14
Project: Lateral 2C-79
Collection Date: 4/17/2020 11:15:00 AM
Lab ID: 2004846-014 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/21/2020 2:48:57 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	66	10		mg/Kg	1	4/21/2020 4:03:28 AM	51943
Motor Oil Range Organics (MRO)	98	50		mg/Kg	1	4/21/2020 4:03:28 AM	51943
Surr: DNOP	96.3	55.1-146		%Rec	1	4/21/2020 4:03:28 AM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	24	D	mg/Kg	5	4/21/2020 10:09:21 PM	51936
Surr: BFB	102	66.6-105	D	%Rec	5	4/21/2020 10:09:21 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.12	D	mg/Kg	5	4/21/2020 10:09:21 PM	51936
Toluene	ND	0.24	D	mg/Kg	5	4/21/2020 10:09:21 PM	51936
Ethylbenzene	ND	0.24	D	mg/Kg	5	4/21/2020 10:09:21 PM	51936
Xylenes, Total	ND	0.49	D	mg/Kg	5	4/21/2020 10:09:21 PM	51936
Surr: 4-Bromofluorobenzene	101	80-120	D	%Rec	5	4/21/2020 10:09:21 PM	51936

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-15
Project: Lateral 2C-79
Collection Date: 4/17/2020 11:20:00 AM
Lab ID: 2004846-015 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/21/2020 3:50:39 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	22	8.5		mg/Kg	1	4/21/2020 4:51:08 AM	51943
Motor Oil Range Organics (MRO)	ND	42		mg/Kg	1	4/21/2020 4:51:08 AM	51943
Surr: DNOP	105	55.1-146		%Rec	1	4/21/2020 4:51:08 AM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/21/2020 10:32:49 PM	51936
Surr: BFB	103	66.6-105		%Rec	1	4/21/2020 10:32:49 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	4/21/2020 10:32:49 PM	51936
Toluene	ND	0.050		mg/Kg	1	4/21/2020 10:32:49 PM	51936
Ethylbenzene	ND	0.050		mg/Kg	1	4/21/2020 10:32:49 PM	51936
Xylenes, Total	ND	0.10		mg/Kg	1	4/21/2020 10:32:49 PM	51936
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	4/21/2020 10:32:49 PM	51936

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-16
Project: Lateral 2C-79
Collection Date: 4/17/2020 11:25:00 AM
Lab ID: 2004846-016 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/21/2020 4:03:00 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/21/2020 5:14:58 AM	51943
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/21/2020 5:14:58 AM	51943
Surr: DNOP	96.2	55.1-146		%Rec	1	4/21/2020 5:14:58 AM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	25	D	mg/Kg	5	4/21/2020 10:56:39 PM	51936
Surr: BFB	105	66.6-105	SD	%Rec	5	4/21/2020 10:56:39 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.12	D	mg/Kg	5	4/21/2020 10:56:39 PM	51936
Toluene	ND	0.25	D	mg/Kg	5	4/21/2020 10:56:39 PM	51936
Ethylbenzene	ND	0.25	D	mg/Kg	5	4/21/2020 10:56:39 PM	51936
Xylenes, Total	ND	0.49	D	mg/Kg	5	4/21/2020 10:56:39 PM	51936
Surr: 4-Bromofluorobenzene	104	80-120	D	%Rec	5	4/21/2020 10:56:39 PM	51936

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-17
Project: Lateral 2C-79
Collection Date: 4/17/2020 11:30:00 AM
Lab ID: 2004846-017 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	4/21/2020 4:15:20 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	54	8.8		mg/Kg	1	4/21/2020 8:34:02 PM	51943
Motor Oil Range Organics (MRO)	98	44		mg/Kg	1	4/21/2020 8:34:02 PM	51943
Surr: DNOP	96.6	55.1-146		%Rec	1	4/21/2020 8:34:02 PM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	25	D	mg/Kg	5	4/21/2020 11:20:28 PM	51936
Surr: BFB	105	66.6-105	D	%Rec	5	4/21/2020 11:20:28 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.12	D	mg/Kg	5	4/21/2020 11:20:28 PM	51936
Toluene	ND	0.25	D	mg/Kg	5	4/21/2020 11:20:28 PM	51936
Ethylbenzene	ND	0.25	D	mg/Kg	5	4/21/2020 11:20:28 PM	51936
Xylenes, Total	ND	0.49	D	mg/Kg	5	4/21/2020 11:20:28 PM	51936
Surr: 4-Bromofluorobenzene	103	80-120	D	%Rec	5	4/21/2020 11:20:28 PM	51936

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-18
Project: Lateral 2C-79
Collection Date: 4/17/2020 11:35:00 AM
Lab ID: 2004846-018 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	4/21/2020 4:27:40 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	54	9.6		mg/Kg	1	4/21/2020 8:58:40 PM	51943
Motor Oil Range Organics (MRO)	91	48		mg/Kg	1	4/21/2020 8:58:40 PM	51943
Surr: DNOP	98.6	55.1-146		%Rec	1	4/21/2020 8:58:40 PM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	24	D	mg/Kg	5	4/21/2020 11:44:13 PM	51936
Surr: BFB	103	66.6-105	D	%Rec	5	4/21/2020 11:44:13 PM	51936
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.12	D	mg/Kg	5	4/21/2020 11:44:13 PM	51936
Toluene	ND	0.24	D	mg/Kg	5	4/21/2020 11:44:13 PM	51936
Ethylbenzene	ND	0.24	D	mg/Kg	5	4/21/2020 11:44:13 PM	51936
Xylenes, Total	ND	0.49	D	mg/Kg	5	4/21/2020 11:44:13 PM	51936
Surr: 4-Bromofluorobenzene	102	80-120	D	%Rec	5	4/21/2020 11:44:13 PM	51936

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-19
Project: Lateral 2C-79
Collection Date: 4/17/2020 11:40:00 AM
Lab ID: 2004846-019 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/21/2020 4:40:01 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	4/21/2020 6:26:30 AM	51943
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/21/2020 6:26:30 AM	51943
Surr: DNOP	109	55.1-146		%Rec	1	4/21/2020 6:26:30 AM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	25	D	mg/Kg	5	4/22/2020 12:07:49 AM	51936
Surr: BFB	103	66.6-105	D	%Rec	5	4/22/2020 12:07:49 AM	51936
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.12	D	mg/Kg	5	4/22/2020 12:07:49 AM	51936
Toluene	ND	0.25	D	mg/Kg	5	4/22/2020 12:07:49 AM	51936
Ethylbenzene	ND	0.25	D	mg/Kg	5	4/22/2020 12:07:49 AM	51936
Xylenes, Total	ND	0.49	D	mg/Kg	5	4/22/2020 12:07:49 AM	51936
Surr: 4-Bromofluorobenzene	101	80-120	D	%Rec	5	4/22/2020 12:07:49 AM	51936

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-20
Project: Lateral 2C-79
Collection Date: 4/17/2020 11:45:00 AM
Lab ID: 2004846-020 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	4/21/2020 4:52:21 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**CLP**
Diesel Range Organics (DRO)	23	8.8		mg/Kg	1	4/21/2020 6:50:21 AM	51943
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	4/21/2020 6:50:21 AM	51943
Surr: DNOP	102	55.1-146		%Rec	1	4/21/2020 6:50:21 AM	51943
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	25	D	mg/Kg	5	4/22/2020 1:43:11 AM	51936
Surr: BFB	104	66.6-105	D	%Rec	5	4/22/2020 1:43:11 AM	51936
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.12	D	mg/Kg	5	4/22/2020 1:43:11 AM	51936
Toluene	ND	0.25	D	mg/Kg	5	4/22/2020 1:43:11 AM	51936
Ethylbenzene	ND	0.25	D	mg/Kg	5	4/22/2020 1:43:11 AM	51936
Xylenes, Total	ND	0.50	D	mg/Kg	5	4/22/2020 1:43:11 AM	51936
Surr: 4-Bromofluorobenzene	102	80-120	D	%Rec	5	4/22/2020 1:43:11 AM	51936

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-21
Project: Lateral 2C-79
Collection Date: 4/17/2020 11:50:00 AM
Lab ID: 2004846-021 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	4/21/2020 5:04:42 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/20/2020 3:00:17 PM	51944
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/20/2020 3:00:17 PM	51944
Surr: DNOP	120	55.1-146		%Rec	1	4/20/2020 3:00:17 PM	51944
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/22/2020 2:07:06 AM	51937
Surr: BFB	102	66.6-105		%Rec	1	4/22/2020 2:07:06 AM	51937
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025		mg/Kg	1	4/22/2020 2:07:06 AM	51937
Toluene	ND	0.049		mg/Kg	1	4/22/2020 2:07:06 AM	51937
Ethylbenzene	ND	0.049		mg/Kg	1	4/22/2020 2:07:06 AM	51937
Xylenes, Total	ND	0.098		mg/Kg	1	4/22/2020 2:07:06 AM	51937
Surr: 4-Bromofluorobenzene	99.5	80-120		%Rec	1	4/22/2020 2:07:06 AM	51937

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-22
Project: Lateral 2C-79
Collection Date: 4/17/2020 11:55:00 AM
Lab ID: 2004846-022 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/21/2020 5:17:04 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	4/20/2020 4:36:58 PM	51944
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/20/2020 4:36:58 PM	51944
Surr: DNOP	122	55.1-146		%Rec	1	4/20/2020 4:36:58 PM	51944
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	4/22/2020 2:31:00 AM	51937
Surr: BFB	106	66.6-105	S	%Rec	1	4/22/2020 2:31:00 AM	51937
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	4/22/2020 2:31:00 AM	51937
Toluene	ND	0.046		mg/Kg	1	4/22/2020 2:31:00 AM	51937
Ethylbenzene	ND	0.046		mg/Kg	1	4/22/2020 2:31:00 AM	51937
Xylenes, Total	ND	0.093		mg/Kg	1	4/22/2020 2:31:00 AM	51937
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	4/22/2020 2:31:00 AM	51937

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-23
Project: Lateral 2C-79
Collection Date: 4/17/2020 12:00:00 PM
Lab ID: 2004846-023 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	4/21/2020 5:54:05 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	4/20/2020 5:01:14 PM	51944
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	4/20/2020 5:01:14 PM	51944
Surr: DNOP	107	55.1-146		%Rec	1	4/20/2020 5:01:14 PM	51944
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/22/2020 2:54:43 AM	51937
Surr: BFB	104	66.6-105		%Rec	1	4/22/2020 2:54:43 AM	51937
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	4/22/2020 2:54:43 AM	51937
Toluene	ND	0.047		mg/Kg	1	4/22/2020 2:54:43 AM	51937
Ethylbenzene	ND	0.047		mg/Kg	1	4/22/2020 2:54:43 AM	51937
Xylenes, Total	ND	0.094		mg/Kg	1	4/22/2020 2:54:43 AM	51937
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	4/22/2020 2:54:43 AM	51937

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-24
Project: Lateral 2C-79
Collection Date: 4/17/2020 12:05:00 PM
Lab ID: 2004846-024 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/21/2020 6:06:26 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	7.9		mg/Kg	1	4/20/2020 5:25:31 PM	51944
Motor Oil Range Organics (MRO)	ND	39		mg/Kg	1	4/20/2020 5:25:31 PM	51944
Surr: DNOP	104	55.1-146		%Rec	1	4/20/2020 5:25:31 PM	51944
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/22/2020 3:18:28 AM	51937
Surr: BFB	106	66.6-105	S	%Rec	1	4/22/2020 3:18:28 AM	51937
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	4/22/2020 3:18:28 AM	51937
Toluene	ND	0.048		mg/Kg	1	4/22/2020 3:18:28 AM	51937
Ethylbenzene	ND	0.048		mg/Kg	1	4/22/2020 3:18:28 AM	51937
Xylenes, Total	ND	0.096		mg/Kg	1	4/22/2020 3:18:28 AM	51937
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	4/22/2020 3:18:28 AM	51937

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	Value above quantitation range
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		

Analytical Report
Lab Order **2004846**
Date Reported: **4/23/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: SP-1
Project: Lateral 2C-79
Collection Date: 4/17/2020 12:10:00 PM
Lab ID: 2004846-025 **Matrix:** SOIL **Received Date:** 4/18/2020 10:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	4/21/2020 6:18:46 AM	51974
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**TOM**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/20/2020 5:49:56 PM	51944
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	4/20/2020 5:49:56 PM	51944
Surr: DNOP	103	55.1-146		%Rec	1	4/20/2020 5:49:56 PM	51944
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/22/2020 3:42:13 AM	51937
Surr: BFB	105	66.6-105	S	%Rec	1	4/22/2020 3:42:13 AM	51937
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025		mg/Kg	1	4/22/2020 3:42:13 AM	51937
Toluene	ND	0.050		mg/Kg	1	4/22/2020 3:42:13 AM	51937
Ethylbenzene	ND	0.050		mg/Kg	1	4/22/2020 3:42:13 AM	51937
Xylenes, Total	ND	0.10		mg/Kg	1	4/22/2020 3:42:13 AM	51937
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	4/22/2020 3:42:13 AM	51937

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	Value above quantitation range
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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2004846**

23-Apr-20

Client: ENSOLUM

Project: Lateral 2C-79

Sample ID: **MB-51972** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **51972** RunNo: **68286**

Prep Date: **4/20/2020** Analysis Date: **4/20/2020** SeqNo: **2362383** Units: **mg/Kg**

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

Sample ID: **LCS-51972** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **51972** RunNo: **68286**

Prep Date: **4/20/2020** Analysis Date: **4/20/2020** SeqNo: **2362384** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.0	90	110			

Sample ID: **MB-51974** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **51974** RunNo: **68286**

Prep Date: **4/20/2020** Analysis Date: **4/21/2020** SeqNo: **2362415** Units: **mg/Kg**

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

Sample ID: **LCS-51974** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **51974** RunNo: **68286**

Prep Date: **4/20/2020** Analysis Date: **4/21/2020** SeqNo: **2362416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.2	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2004846**

23-Apr-20

Client: ENSOLUM

Project: Lateral 2C-79

Sample ID: **2004846-021AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-21**	Batch ID: **51944**	RunNo: **68265**
Prep Date: **4/19/2020**	Analysis Date: **4/20/2020**	SeqNo: **2361880** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.6	47.94	3.234	92.5	47.4	136			
Surr: DNOP	4.9		4.794		102	55.1	146			

Sample ID: **2004846-021AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-21**	Batch ID: **51944**	RunNo: **68265**
Prep Date: **4/19/2020**	Analysis Date: **4/20/2020**	SeqNo: **2361881** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	9.6	47.89	3.234	107	47.4	136	13.9	43.4	
Surr: DNOP	5.7		4.789		119	55.1	146	0	0	

Sample ID: **LCS-51944**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **51944**	RunNo: **68265**
Prep Date: **4/19/2020**	Analysis Date: **4/20/2020**	SeqNo: **2361901** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	113	70	130			
Surr: DNOP	6.2		5.000		124	55.1	146			

Sample ID: **LCS-51945**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **51945**	RunNo: **68265**
Prep Date: **4/19/2020**	Analysis Date: **4/20/2020**	SeqNo: **2361902** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.7		5.000		73.6	55.1	146			

Sample ID: **MB-51944**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **51944**	RunNo: **68265**
Prep Date: **4/19/2020**	Analysis Date: **4/20/2020**	SeqNo: **2361903** 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	12		10.00		115	55.1	146			

Sample ID: **MB-51945**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **51945**	RunNo: **68265**
Prep Date: **4/19/2020**	Analysis Date: **4/20/2020**	SeqNo: **2361904** Units: **%Rec**

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

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2004846**

23-Apr-20

Client: ENSOLUM

Project: Lateral 2C-79

Sample ID: **MB-51945**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **51945**	RunNo: **68265**							
Prep Date: **4/19/2020**	Analysis Date: **4/20/2020**	SeqNo: **2361904**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.4		10.00		74.4	55.1	146			

Sample ID: **MB-51938**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **51938**	RunNo: **68249**							
Prep Date: **4/19/2020**	Analysis Date: **4/20/2020**	SeqNo: **2362082**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.4		10.00		84.4	55.1	146			

Sample ID: **LCS-51938**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **51938**	RunNo: **68249**							
Prep Date: **4/19/2020**	Analysis Date: **4/20/2020**	SeqNo: **2362083**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		5.000		82.9	55.1	146			

Sample ID: **MB-51943**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **51943**	RunNo: **68249**							
Prep Date: **4/19/2020**	Analysis Date: **4/20/2020**	SeqNo: **2362294**	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	9.5		10.00		94.7	55.1	146			

Sample ID: **LCS-51943**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **51943**	RunNo: **68249**							
Prep Date: **4/19/2020**	Analysis Date: **4/20/2020**	SeqNo: **2362295**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.6	70	130			
Surr: DNOP	4.5		5.000		91.0	55.1	146			

Sample ID: **2004846-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **S-1**	Batch ID: **51943**	RunNo: **68249**							
Prep Date: **4/19/2020**	Analysis Date: **4/20/2020**	SeqNo: **2362300**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	9.7	48.54	6.220	96.0	47.4	136			
Surr: DNOP	4.5		4.854		93.2	55.1	146			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2004846**
23-Apr-20

Client: ENSOLUM
Project: Lateral 2C-79

Sample ID: **2004846-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-1** Batch ID: **51943** RunNo: **68249**
Prep Date: **4/19/2020** Analysis Date: **4/20/2020** SeqNo: **2362301** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.15	6.220	87.4	47.4	136	5.34	43.4	
Surr: DNOP	4.1		5.015		82.4	55.1	146	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2004846**

23-Apr-20

Client: ENSOLUM

Project: Lateral 2C-79

Sample ID: **mb-51936**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **51936**	RunNo: **68306**
Prep Date: **4/19/2020**	Analysis Date: **4/21/2020**	SeqNo: **2363111** 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		101	66.6	105			

Sample ID: **lcs-51936**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **51936**	RunNo: **68306**
Prep Date: **4/19/2020**	Analysis Date: **4/21/2020**	SeqNo: **2363112** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	83.4	80	120			
Surr: BFB	1100		1000		112	66.6	105			S

Sample ID: **2004846-002ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-2**	Batch ID: **51936**	RunNo: **68306**
Prep Date: **4/19/2020**	Analysis Date: **4/21/2020**	SeqNo: **2363115** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.9	24.56	0	85.8	80	120			
Surr: BFB	1100		982.3		109	66.6	105			S

Sample ID: **2004846-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-2**	Batch ID: **51936**	RunNo: **68306**
Prep Date: **4/19/2020**	Analysis Date: **4/21/2020**	SeqNo: **2363116** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.9	24.63	0	84.4	80	120	1.35	20	
Surr: BFB	1100		985.2		110	66.6	105	0	0	S

Sample ID: **mb-51937**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **51937**	RunNo: **68306**
Prep Date: **4/19/2020**	Analysis Date: **4/22/2020**	SeqNo: **2363135** 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		101	66.6	105			

Sample ID: **lcs-51937**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **51937**	RunNo: **68306**
Prep Date: **4/19/2020**	Analysis Date: **4/22/2020**	SeqNo: **2363136** Units: **mg/Kg**

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

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2004846**
23-Apr-20

Client: ENSOLUM
Project: Lateral 2C-79

Sample ID: **lcs-51937** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **51937** RunNo: **68306**
Prep Date: **4/19/2020** Analysis Date: **4/22/2020** SeqNo: **2363136** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	84.6	80	120			
Surr: BFB	1100		1000		112	66.6	105			S

Sample ID: **2004846-022ams** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-22** Batch ID: **51937** RunNo: **68317**
Prep Date: **4/19/2020** Analysis Date: **4/22/2020** SeqNo: **2364451** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.6	23.06	0	84.9	80	120			
Surr: BFB	1000		922.5		112	66.6	105			S

Sample ID: **2004846-022amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-22** Batch ID: **51937** RunNo: **68317**
Prep Date: **4/19/2020** Analysis Date: **4/22/2020** SeqNo: **2364452** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.8	24.15	0	84.2	80	120	3.77	20	
Surr: BFB	1100		966.2		112	66.6	105	0	0	S

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2004846**

23-Apr-20

Client: ENSOLUM

Project: Lateral 2C-79

Sample ID: **mb-51936** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **51936** RunNo: **68306**

Prep Date: **4/19/2020** Analysis Date: **4/21/2020** SeqNo: **2363158** 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		101	80	120			

Sample ID: **LCS-51936** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **51936** RunNo: **68306**

Prep Date: **4/19/2020** Analysis Date: **4/21/2020** SeqNo: **2363159** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.025	1.000	0	84.4	80	120			
Toluene	0.87	0.050	1.000	0	87.1	80	120			
Ethylbenzene	0.88	0.050	1.000	0	87.9	80	120			
Xylenes, Total	2.7	0.10	3.000	0	88.3	80	120			
Surr: 4-Bromofluorobenzene	0.99		1.000		99.1	80	120			

Sample ID: **2004846-001ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S-1** Batch ID: **51936** RunNo: **68306**

Prep Date: **4/19/2020** Analysis Date: **4/21/2020** SeqNo: **2363161** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.025	0.9970	0	87.3	78.5	119			
Toluene	0.91	0.050	0.9970	0.01254	89.7	75.7	123			
Ethylbenzene	0.93	0.050	0.9970	0	92.9	74.3	126			
Xylenes, Total	2.8	0.10	2.991	0.01935	92.7	72.9	130			
Surr: 4-Bromofluorobenzene	1.0		0.9970		101	80	120			

Sample ID: **2004846-001amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S-1** Batch ID: **51936** RunNo: **68306**

Prep Date: **4/19/2020** Analysis Date: **4/21/2020** SeqNo: **2363162** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	0.9980	0	89.4	78.5	119	2.53	20	
Toluene	0.92	0.050	0.9980	0.01254	91.2	75.7	123	1.70	20	
Ethylbenzene	0.94	0.050	0.9980	0	94.0	74.3	126	1.28	20	
Xylenes, Total	2.8	0.10	2.994	0.01935	93.9	72.9	130	1.30	20	
Surr: 4-Bromofluorobenzene	1.0		0.9980		101	80	120	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2004846**

23-Apr-20

Client: ENSOLUM

Project: Lateral 2C-79

Sample ID: **mb-51937** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **51937** RunNo: **68306**

Prep Date: **4/19/2020** Analysis Date: **4/22/2020** SeqNo: **2363182** 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	80	120			

Sample ID: **LCS-51937** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **51937** RunNo: **68306**

Prep Date: **4/19/2020** Analysis Date: **4/22/2020** SeqNo: **2363183** 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	89.0	80	120			
Toluene	0.92	0.050	1.000	0	91.8	80	120			
Ethylbenzene	0.94	0.050	1.000	0	94.0	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.3	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID: **2004846-021ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S-21** Batch ID: **51937** RunNo: **68317**

Prep Date: **4/19/2020** Analysis Date: **4/22/2020** SeqNo: **2364495** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.80	0.023	0.9294	0	86.0	78.5	119			
Toluene	0.83	0.046	0.9294	0	89.3	75.7	123			
Ethylbenzene	0.86	0.046	0.9294	0	92.1	74.3	126			
Xylenes, Total	2.6	0.093	2.788	0	92.0	72.9	130			
Surr: 4-Bromofluorobenzene	0.94		0.9294		101	80	120			

Sample ID: **2004846-021amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S-21** Batch ID: **51937** RunNo: **68317**

Prep Date: **4/19/2020** Analysis Date: **4/22/2020** SeqNo: **2364496** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.024	0.9497	0	88.1	78.5	119	4.65	20	
Toluene	0.87	0.047	0.9497	0	91.7	75.7	123	4.78	20	
Ethylbenzene	0.90	0.047	0.9497	0	94.4	74.3	126	4.68	20	
Xylenes, Total	2.7	0.095	2.849	0	94.6	72.9	130	4.98	20	
Surr: 4-Bromofluorobenzene	0.98		0.9497		103	80	120	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
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 AZTEC** Work Order Number: **2004846** RcptNo: **1**

Received By: **Isaiah Ortiz** **4/18/2020 10:20:00 AM** I-Ox

Completed By: **Isaiah Ortiz** **4/18/2020 11:24:46 AM** I-Ox

Reviewed By: dkm 4/18/2020

Chain of Custody

1. Is Chain of Custody sufficiently 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 ☐	

IO 4/18/20

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

Adjusted? _____

Checked by: _____

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	0.3	Good	Yes			

Released to Imaging: 3/7/2022 10:10:27 AM
Received by OCD: 8/11/2021 10:24:30 AM

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 6060 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: 3-DAY
☐ Standard ☒ Rush

Project Name: Lateral 2C-79

Project #: See notes

Project Manager: KSummers

Sampler: RDeechilly
On Ice: ☑ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 0.3-0(CF)0.3 (°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. 2004846	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)	Chlorides
4/17/20	1010	S	S-1	1x4oz Jar	cool	-001	X	X									X
4/17/20	1015	S	S-2	1x4oz Jar	cool	-002	X	X									X
4/17/20	1020	S	S-3	1x4oz Jar	cool	-003	X	X									X
4/17/20	1025	S	S-4	1x4oz Jar	cool	-004	X	X									X
4/17/20	1030	S	S-5	1x4oz Jar	cool	-005	X	X									X
4/17/20	1035	S	S-6	1x4oz Jar	cool	-006	X	X									X
4/17/20	1040	S	S-7	1x4oz Jar	cool	-007	X	X									X
4/17/20	1045	S	S-8	1x4oz Jar	cool	-008	X	X									X
4/17/20	1050	S	S-9	1x4oz Jar	cool	-009	X	X									X
4/17/20	1055	S	S-10	1x4oz Jar	cool	-010	X	X									X
4/17/20	1100	S	S-11	1x4oz Jar	cool	-011	X	X									X
4/17/20	1105	S	S-12	1x4oz Jar	cool	-012	X	X									X

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
4/17/20	1445		Cristen Waeln		4/17/20	1445
4/17/20	1753	Cristen Waeln		Courier	4/18/20	1020

Remarks:
3-DAY Turnaround
PM - Tom Long (EPROD)
Pay Key - RB21200
Non AFE - N47821

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.

Released to Imaging: 3/7/2022 10:10:27 AM
Received by OCD: 8/11/2021 10:24:30 AM

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 1006 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: 3-DAY
☐ Standard ☒ Rush

Project Name: Lateral 2C-79

Project #: see notes

Project Manager: KSummers

Sampler: RDeechilly
On Ice: ☒ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 0.3-0 [+] 0.3 (°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. 2004846	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
4/17/20	1110	S	S-13	1x 4oz Jar	cool	-013	X	X									X
4/17/20	1115	S	S-14	1x 4oz Jar	cool	-014	X	X									X
4/17/20	1120	S	S-15	1x 4oz Jar	cool	-015	X	X									X
4/17/20	1125	S	S-16	1x 4oz Jar	cool	-016	X	X									X
4/17/20	1130	S	S-17	1x 4oz Jar	cool	-017	X	X									X
4/17/20	1135	S	S-18	1x 4oz Jar	cool	-018	X	X									X
4/17/20	1140	S	S-19	1x 4oz Jar	cool	-019	X	X									X
4/17/20	1145	S	S-20	1x 4oz Jar	cool	-020	X	X									X
4/17/20	1150	S	S-21	1x 4oz Jar	cool	-021	X	X									X
4/17/20	1155	S	S-22	1x 4oz Jar	cool	-022	X	X									X
4/17/20	1200	S	S-23	1x 4oz Jar	cool	-023	X	X									X
4/17/20	1205	S	S-24	1x 4oz Jar	cool	-024	X	X									X

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
4/17/20	1445				4/17/20	1445
4/17/20	1753			courier	4/18/20	1020

Remarks:
3-DAY Turnaround
PM - Tom Long (EPROD)
PayKey - RB21200
Non AFE - NV47821

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.

Released to Imaging: 3/7/2022 10:10:27 AM
Received by OCD: 8/11/2021 10:24:30 AM

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: 3-DAY
☐ Standard ☒ Rush

Project Name: Lateral 2C-79

Project #: see notes

Project Manager: KSummers

Sampler: RDeechilly
On Ice: ☒ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 0.3-0(CF)=0.3(°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. 2004846	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)	Chlorides
4/17/20	1210	S	SP-1	1x4oz Jar	COOL	-005	X	X									X

Analysis Request

Relinquished by:	Received by:	Via:	Date	Time
Date: 4/17/20 Time: 1445	Christen Waeta		4/17/20	1445
Date: 4/17/20 Time: 1753		Courier	4/18/2010	2

Remarks:
3-DAY Turn around
PM - Tom Long (EPROD)
Pay Key - RB321200
Non AFE - N47821

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

April 28, 2020

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

RE: Lateral 2C 79 OrderNo.: 2004B00

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/25/2020 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 **2004B00**
Date Reported: **4/28/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-25
Project: Lateral 2C 79 **Collection Date:** 4/24/2020 3:00:00 PM
Lab ID: 2004B00-001 **Matrix:** MEOH (SOIL) **Received Date:** 4/25/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	62	60		mg/Kg	20	4/26/2020 10:25:57 AM	52088
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	870	93		mg/Kg	10	4/27/2020 10:03:02 AM	52097
Motor Oil Range Organics (MRO)	500	470		mg/Kg	10	4/27/2020 10:03:02 AM	52097
Surr: DNOP	0	55.1-146	S	%Rec	10	4/27/2020 10:03:02 AM	52097
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	4/26/2020 8:18:29 PM	52018
Surr: BFB	114	66.6-105	S	%Rec	5	4/26/2020 8:18:29 PM	52018
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.12		mg/Kg	5	4/26/2020 8:18:29 PM	52018
Toluene	ND	0.25		mg/Kg	5	4/26/2020 8:18:29 PM	52018
Ethylbenzene	ND	0.25		mg/Kg	5	4/26/2020 8:18:29 PM	52018
Xylenes, Total	ND	0.49		mg/Kg	5	4/26/2020 8:18:29 PM	52018
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	5	4/26/2020 8:18:29 PM	52018

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2004B00**
Date Reported: **4/28/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-26
Project: Lateral 2C 79 **Collection Date:** 4/24/2020 3:05:00 PM
Lab ID: 2004B00-002 **Matrix:** MEOH (SOIL) **Received Date:** 4/25/2020 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/26/2020 10:38:18 AM	52088
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	720	46		mg/Kg	5	4/27/2020 10:52:00 AM	52097
Motor Oil Range Organics (MRO)	420	230		mg/Kg	5	4/27/2020 10:52:00 AM	52097
Surr: DNOP	88.5	55.1-146		%Rec	5	4/27/2020 10:52:00 AM	52097
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	20		mg/Kg	5	4/26/2020 8:42:09 PM	52018
Surr: BFB	110	66.6-105	S	%Rec	5	4/26/2020 8:42:09 PM	52018
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.10		mg/Kg	5	4/26/2020 8:42:09 PM	52018
Toluene	ND	0.20		mg/Kg	5	4/26/2020 8:42:09 PM	52018
Ethylbenzene	ND	0.20		mg/Kg	5	4/26/2020 8:42:09 PM	52018
Xylenes, Total	ND	0.41		mg/Kg	5	4/26/2020 8:42:09 PM	52018
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	5	4/26/2020 8:42:09 PM	52018

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	Value above quantitation range
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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2004B00**

28-Apr-20

Client: ENSOLUM

Project: Lateral 2C 79

Sample ID: **MB-52088** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **52088** RunNo: **68426**

Prep Date: **4/26/2020** Analysis Date: **4/26/2020** SeqNo: **2367609** Units: **mg/Kg**

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

Sample ID: **LCS-52088** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **52088** RunNo: **68426**

Prep Date: **4/26/2020** Analysis Date: **4/26/2020** SeqNo: **2367610** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.1	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2004B00**

28-Apr-20

Client: ENSOLUM

Project: Lateral 2C 79

Sample ID: **LCS-52097** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **52097** RunNo: **68435**

Prep Date: **4/27/2020** Analysis Date: **4/27/2020** SeqNo: **2367989** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.6	70	130			
Surr: DNOP	4.5		5.000		90.9	55.1	146			

Sample ID: **MB-52097** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **52097** RunNo: **68435**

Prep Date: **4/27/2020** Analysis Date: **4/27/2020** SeqNo: **2367990** 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	9.7		10.00		97.5	55.1	146			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2004B00**

28-Apr-20

Client: ENSOLUM

Project: Lateral 2C 79

Sample ID: **mb-52018**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **52018**	RunNo: **68422**
Prep Date: **4/22/2020**	Analysis Date: **4/26/2020**	SeqNo: **2367394** 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		102	66.6	105			

Sample ID: **lcs-52018**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **52018**	RunNo: **68422**
Prep Date: **4/22/2020**	Analysis Date: **4/26/2020**	SeqNo: **2367395** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.6	80	120			
Surr: BFB	1100		1000		114	66.6	105			S

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2004B00**

28-Apr-20

Client: ENSOLUM

Project: Lateral 2C 79

Sample ID: **mb-52018**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **PBS**	Batch ID: **52018**	RunNo: **68422**							
Prep Date: **4/22/2020**	Analysis Date: **4/26/2020**	SeqNo: **2367486**	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		101	80	120			

Sample ID: **LCS-52018**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **LCSS**	Batch ID: **52018**	RunNo: **68422**							
Prep Date: **4/22/2020**	Analysis Date: **4/26/2020**	SeqNo: **2367487**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.2	80	120			
Toluene	0.93	0.050	1.000	0	92.9	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.0	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.8	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
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 AZTEC** Work Order Number: **2004B00** RcptNo: **1**

Received By: **Desiree Dominguez** **4/25/2020 9:15:00 AM**

Completed By: **Desiree Dominguez** **4/25/2020 9:22:53 AM**

Reviewed By: CINDY MATTHIASEN 04/25/2020

Chain of Custody

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

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: DAD 4/24/20

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	0.9	Good	Yes			

Released to Imaging: 3/7/2022 10:10:27 AM
Received by OCD: 8/11/2021 10:24:30 AM

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 6006 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 2C-79

Project #: see notes

Project Manager: KSummers

Sampler: RDeechilly
On Ice: ☒ Yes ☐ No
# of Coolers: 1
Cooler Temp (including CF): 0.6 +0.3 = 0.9 (°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. 2004800	BTEX / ~~MTBE / TMBs~~ (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)	Chlorides
4/24/20	1500	S	S-25	1x 4oz Jar	Cool	-001	X	X									X
4/24/20	1505	S	S-26	1x 4oz Jar	Cool	-002	X	X									X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
4/24/20	1747				4/24/20	1747
4/24/20	1814			Courier	4/25/20	9:15

Remarks: SAMEDAY
PM - Tom Long (EPROI)
Pay Key - RB21200
NonAPE - N47821

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 04, 2020

Kyle Summers

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

RE: Lateral 2C-79 OrderNo.: 2005004

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 5/1/2020 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 **2005004**
Date Reported: **5/4/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-27
Project: Lateral 2C-79 **Collection Date:** 4/30/2020 12:00:00 PM
Lab ID: 2005004-001 **Matrix:** MEOH (SOIL) **Received Date:** 5/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	63	60		mg/Kg	20	5/1/2020 9:34:27 AM	52210
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	1200	44		mg/Kg	5	5/1/2020 10:41:07 AM	52208
Motor Oil Range Organics (MRO)	530	220		mg/Kg	5	5/1/2020 10:41:07 AM	52208
Surr: DNOP	118	55.1-146		%Rec	5	5/1/2020 10:41:07 AM	52208
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	580	19		mg/Kg	5	5/1/2020 12:26:09 PM	52195
Surr: BFB	1010	66.6-105	S	%Rec	5	5/1/2020 12:26:09 PM	52195
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.095		mg/Kg	5	5/1/2020 12:26:09 PM	52195
Toluene	0.26	0.19		mg/Kg	5	5/1/2020 12:26:09 PM	52195
Ethylbenzene	0.59	0.19		mg/Kg	5	5/1/2020 12:26:09 PM	52195
Xylenes, Total	7.0	0.38		mg/Kg	5	5/1/2020 12:26:09 PM	52195
Surr: 4-Bromofluorobenzene	114	80-120		%Rec	5	5/1/2020 12:26:09 PM	52195

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	Value above quantitation range
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		

Analytical Report
Lab Order **2005004**
Date Reported: **5/4/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-28
Project: Lateral 2C-79 **Collection Date:** 4/30/2020 12:05:00 PM
Lab ID: 2005004-002 **Matrix:** MEOH (SOIL) **Received Date:** 5/1/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	64	60		mg/Kg	20	5/1/2020 9:46:52 AM	52210
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	710	9.7		mg/Kg	1	5/1/2020 10:17:00 AM	52208
Motor Oil Range Organics (MRO)	240	48		mg/Kg	1	5/1/2020 10:17:00 AM	52208
Surr: DNOP	110	55.1-146		%Rec	1	5/1/2020 10:17:00 AM	52208
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	300	18		mg/Kg	5	5/1/2020 1:13:05 PM	52195
Surr: BFB	822	66.6-105	S	%Rec	5	5/1/2020 1:13:05 PM	52195
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.089		mg/Kg	5	5/1/2020 1:13:05 PM	52195
Toluene	ND	0.18		mg/Kg	5	5/1/2020 1:13:05 PM	52195
Ethylbenzene	0.35	0.18		mg/Kg	5	5/1/2020 1:13:05 PM	52195
Xylenes, Total	3.8	0.35		mg/Kg	5	5/1/2020 1:13:05 PM	52195
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	5	5/1/2020 1:13:05 PM	52195

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	Value above quantitation range
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		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2005004**
04-May-20

Client: ENSOLUM
Project: Lateral 2C-79

Sample ID: **MB-52210** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **52210** RunNo: **68572**
Prep Date: **5/1/2020** Analysis Date: **5/1/2020** SeqNo: **2374227** Units: **mg/Kg**

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

Sample ID: **LCS-52210** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **52210** RunNo: **68572**
Prep Date: **5/1/2020** Analysis Date: **5/1/2020** SeqNo: **2374228** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.1	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
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		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2005004**

04-May-20

Client: ENSOLUM

Project: Lateral 2C-79

Sample ID: **MB-52208**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **52208**	RunNo: **68568**
Prep Date: **5/1/2020**	Analysis Date: **5/1/2020**	SeqNo: **2372797** 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	8.9		10.00		89.2	55.1	146			

Sample ID: **LCS-52208**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **52208**	RunNo: **68568**
Prep Date: **5/1/2020**	Analysis Date: **5/1/2020**	SeqNo: **2372798** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.1	70	130			
Surr: DNOP	4.1		5.000		82.1	55.1	146			

Sample ID: **2005004-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-27**	Batch ID: **52208**	RunNo: **68568**
Prep Date: **5/1/2020**	Analysis Date: **5/1/2020**	SeqNo: **2372805** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	1400	44	44.25	1193	360	47.4	136			S
Surr: DNOP	6.5		4.425		147	55.1	146			S

Sample ID: **2005004-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-27**	Batch ID: **52208**	RunNo: **68568**
Prep Date: **5/1/2020**	Analysis Date: **5/1/2020**	SeqNo: **2372806** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	960	46	46.13	1193	-509	47.4	136	34.1	43.4	S
Surr: DNOP	6.2		4.613		134	55.1	146	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2005004**

04-May-20

Client: ENSOLUM

Project: Lateral 2C-79

Sample ID: **lcs-52195**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **52195**	RunNo: **68583**
Prep Date: **4/30/2020**	Analysis Date: **5/1/2020**	SeqNo: **2372944** 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	94.2	80	120			
Surr: BFB	1100		1000		105	66.6	105			S

Sample ID: **mb-52195**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **52195**	RunNo: **68583**
Prep Date: **4/30/2020**	Analysis Date: **5/1/2020**	SeqNo: **2372945** 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		101	66.6	105			

Sample ID: **lcs-52191**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **52191**	RunNo: **68583**
Prep Date: **4/30/2020**	Analysis Date: **5/1/2020**	SeqNo: **2373046** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		112	66.6	105			S

Sample ID: **mb-52191**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **52191**	RunNo: **68583**
Prep Date: **4/30/2020**	Analysis Date: **5/1/2020**	SeqNo: **2373048** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	66.6	105			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2005004**

04-May-20

Client: ENSOLUM

Project: Lateral 2C-79

Sample ID: **LCS-52195**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **52195**	RunNo: **68583**
Prep Date: **4/30/2020**	Analysis Date: **5/1/2020**	SeqNo: **2372949** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.6	80	120			
Toluene	0.98	0.050	1.000	0	97.6	80	120			
Ethylbenzene	0.98	0.050	1.000	0	97.6	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.5	80	120			
Surr: 4-Bromofluorobenzene	0.99		1.000		99.0	80	120			

Sample ID: **mb-52195**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **52195**	RunNo: **68583**
Prep Date: **4/30/2020**	Analysis Date: **5/1/2020**	SeqNo: **2372950** 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	0.97		1.000		97.2	80	120			

Sample ID: **LCS-52191**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **52191**	RunNo: **68583**
Prep Date: **4/30/2020**	Analysis Date: **5/1/2020**	SeqNo: **2373083** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID: **mb-52191**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **52191**	RunNo: **68583**
Prep Date: **4/30/2020**	Analysis Date: **5/1/2020**	SeqNo: **2373085** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		99.4	80	120			

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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
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 AZTEC** Work Order Number: **2005004** RcptNo: **1**

Received By: **Scott Anderson** **5/1/2020 8:00:00 AM**

Completed By: **Desiree Dominguez** **5/1/2020 8:18:14 AM** DD

Reviewed By: DAD 5/1/20

Chain of Custody

1. Is Chain of Custody sufficiently 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: JR 5/1/20

JR 5/1/20

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	Not Present			

Released to Imaging: 3/7/2022 10:10:27 AM
Received by OCD: 8/11/2021 10:24:30 AM

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 2C-79

Project #: See notes

Project Manager: KSummers

Sampler: RDeechilly
On Ice: ☒ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 1.6 - 0.2 = 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. 2005004
4/30/20	1206	S	S-27	1x4oz Jar	cool	-001
4/30/20	1205	S	S-28	1x4oz Jar	cool	-002

Analysis Request

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)	Chlorides
X	X									X
X	X									X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
4/30/20	1443				4/30/2020	1443
4/30/20	1749		SPA	CDO	5/1/20	8:00

Remarks:
SAME DAY
PM - Tom Long (EPROD)
Pay Key - RB21200
NonAFE - N047821

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.

ENSOLUM

APPENDIX G

Regulatory Correspondence

From: Long, Thomas
To: "Yahoo Warning"; "Smith, Cory, EMNRD (Cory.Smith@state.nm.us)"
Cc: "Kurt.sandoval@bia.gov"; Stone, Brian
Subject: FW: [EXTERNAL] Re: [EXT] Re: Lateral 2C-79 - UL C Section 4 T22N R3W; 36.17069 -107.169768
Date: Wednesday, May 6, 2020 9:24:00 AM
Attachments: potassium_permanganate.pdf

Keith,

Sorry, I accidentally hit send before I was finished typing. Please find the attached SDS for the potassium permanganate. We have the contractor available to apply the solution to the Lateral 2C-79 excavation on Friday. They should start about 9:00 a.m. After applying the potassium permanganate the excavation will be backfilled. 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: Long, Thomas
Sent: Wednesday, May 6, 2020 9:20 AM
To: 'Yahoo Warning' <kcmanwell@yahoo.com>; 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Cc: 'Kurt.sandoval@bia.gov' <Kurt.sandoval@bia.gov>; Stone, Brian <bmstone@eprod.com>
Subject: RE: [EXTERNAL] Re: [EXT] Re: Lateral 2C-79 - UL C Section 4 T22N R3W; 36.17069 -107.169768

Keith,

Please find the attached

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: Yahoo Warning <kcmanwell@yahoo.com>
Sent: Tuesday, May 5, 2020 2:03 PM
To: Long, Thomas <tjlong@eprod.com>
Subject: [EXTERNAL] Re: [EXT] Re: Lateral 2C-79 - UL C Section 4 T22N R3W; 36.17069 -107.169768

[Use caution with links/attachments]
Thomas,

yes to your question about fertilizer, include an MSDS to me via email. when are we back filling the 2C-79?

Thnx, KC
On Tuesday, May 5, 2020, 8:19:04 AM MDT, Long, Thomas <tjlong@eprod.com> wrote:

Keith,

Would you still like a potassium permanganate solution applied to the excavation prior to backfilling?

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: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Sent: Monday, May 4, 2020 3:23 PM
To: Yahoo Warning <kcmanwell@yahoo.com>; Long, Thomas <tjlong@eprod.com>
Cc: Kurt Sandoval <kurt.sandoval@bia.gov>
Subject: [EXTERNAL] RE: [EXT] Re: Lateral 2C-79 - UL C Section 4 T22N R3W; 36.17069 -107.169768

[Use caution with links/attachments]

Tom,

Please include Keith's approval in your final C-141.

Thank you,

Cory Smith

Environmental Specialist

Oil Conservation Division

Energy, Minerals, & Natural Resources

1000 Rio Brazos, Aztec, NM 87410

(505)334-6178 ext 115

cory.smith@state.nm.us

From: Yahoo Warning <kcmanwell@yahoo.com>
Sent: Monday, May 4, 2020 3:05 PM
To: Long, Thomas <tjlong@eprod.com>
Cc: Kurt Sandoval <kurt.sandoval@bia.gov>; Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Subject: [EXT] Re: Lateral 2C-79 - UL C Section 4 T22N R3W; 36.17069 -107.169768

Thomas,

On behalf of Jicarilla Apache Nation Environmental Protection Office(JAN-EPO) we are in agreement with the proposed closure recommendation on behalf of Enterprise lateral 2C-79. As mentioned during our conversation, the safety of personnel is of Great importance and the protection of ground water is considered. JAN-EPO has given permission to continue with the proposed closure method. Please include in your plan all we have discussed, should you have any questions or comments please contact myself at 505-330-8031 or e-mail. Thank You and have a Great week.

Thank You,

K.C. Manwell, Environmental Specialist

Jicarilla Apache Nation Environmental Protection Office

On Monday, May 4, 2020, 11:33:57 AM MDT, Long, Thomas <tjlong@eprod.com> wrote:

Keith/Cory,

Please find the attached site sketch and laboratory reports for the Lateral 2C-79 excavation. We still have soil samples exceeding the NOMCOD Tier I standards. S-13 and S-14 (side walls) and S-27 and S-28 (base at 36 feet below ground surface). It is my understanding that Jicarilla EPO would like to close this release site by an alternative closure method. This release site is currently a NMOCD Tier I remediation site based on the distance to a surface water feature (blue line on a Topo Map). Enterprise has located Jicarilla O 3E BGT registration within 2.3 miles of the release site. No catholic protection wells were located with 5 miles of the release site. The depth to water at the Jicarilla O 3E is documented at 101 feet below ground surface. The Jicarilla O3E is also located near major wash where groundwater is more likely to occur swallower, unlike the Lateral 2C-79 release site. The Lateral 2C-79 release site has a surface elevation of 7,182 feet and the Jicarilla O 3E has a surface elevation of 7, 080 feet. That is a difference of 102 feet. Based off this information, the anticipated depth to water at the Lateral 2C-79 release site would be 203 feet below ground surface. Entperise is requesting a site ranking/remediation standard variance for the Lateral 2C-79 release site. Enterprise requests this release site be closed per the NMOD Tier II standard with 10 ppm Benzene, 50 ppm BTEX, 2, 500 ppm TPH. 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: Long, Thomas
Sent: Wednesday, April 29, 2020 3:21 PM
To: 'kcmanwell@yahoo.com' <kcmanwell@yahoo.com>; 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>; 'Kurt.sandoval@bia.gov' <Kurt.sandoval@bia.gov>
Subject: FW: Lateral 2C-79 - UL C Section 4 T22N R3W; 36.17069 -107.169768

Keith/Cory,

This is a follow up to our phone conversation earlier. Enterprise will now be collecting soil samples for laboratory analysis at the Lateral 2C-79 excavation tomorrow April 30, 2020 at 10:00 a.m. If you have any questions, please call.

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: Long, Thomas
Sent: Wednesday, April 29, 2020 1:38 PM
To: 'kcmanwell@yahoo.com' <kcmanwell@yahoo.com>; 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>; 'Kurt.sandoval@bia.gov' <Kurt.sandoval@bia.gov>
Subject: FW: Lateral 2C-79 - UL C Section 4 T22N R3W; 36.17069 -107.169768

Keith/Cory,

This email is a notification that Enterprise will be collecting soil samples for laboratory analysis on Thursday, April 30, 2020 at 2:00 p.m. at the Lateral 2C-79 excavation. 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

From: Long, Thomas
Sent: Tuesday, April 28, 2020 2:43 PM
To: 'kcmanwell@yahoo.com' <kcmanwell@yahoo.com>; 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>; 'Kurt.sandoval@bia.gov' <Kurt.sandoval@bia.gov>
Subject: FW: Lateral 2C-79 - UL C Section 4 T22N R3W; 36.17069 -107.169768

Keith/Cory,

This email is a notification that Enterprise will be collecting soil samples for laboratory analysis on Wednesday, April 29, 2020 at 2:00 p.m. We did not continue remediation activities today as that field personnel had other duties. 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

From: Long, Thomas
Sent: Monday, April 27, 2020 11:25 AM
To: 'kcmanwell@yahoo.com' <kcmanwell@yahoo.com>; 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>; 'Kurt.sandoval@bia.gov' <Kurt.sandoval@bia.gov>
Subject: FW: Lateral 2C-79 - UL C Section 4 T22N R3W; 36.17069 -107.169768

Keith/Cory,

This email is a notification that Enterprise will be collecting soil samples for laboratory analysis on Tuesday, April 28, 2020 at 2:00 p.m. In addition, we are waiting for the lab report for the samples collected last Friday. 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: Long, Thomas

Sent: Thursday, April 23, 2020 9:13 AM
To: 'kcmanwell@yahoo.com' <kcmanwell@yahoo.com>; 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Cc: 'Kurt.sandoval@bia.gov' <Kurt.sandoval@bia.gov>; 'Hobson Sandoval' <hsandoval2012@gmail.com>; Stone, Brian <bmstone@eprod.com>
Subject: FW: Lateral 2C-79 - UL C Section 4 T22N R3W; 36.17069 -107.169768

Keith/Cory,

This email is to notify you that Entperise will continue the remediation activities at the Lateral 2C-79 release site tomorrow. In addition, Entperise anticipates collecting soil samples for laboratory analysis tomorrow, April 24, 2020 at 2:00 p.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

Enterprise Products

From: Long, Thomas
Sent: Thursday, April 23, 2020 8:32 AM
To: 'kcmanwell@yahoo.com' <kcmanwell@yahoo.com>; 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>; 'Kurt.sandoval@bia.gov' <Kurt.sandoval@bia.gov>; 'Hobson Sandoval' <hsandoval2012@gmail.com>
Subject: FW: Lateral 2C-79 - UL C Section 4 T22N R3W; 36.17069 -107.169768

Keith/Cory,

Please find the attached site sketch and lab report for the Lateral 2C-79 excavation. All sample results are below NMOCD Tier I remediation standards except for S-13 (138 ppm TPH), S-14 (164 ppm TPH), S-17 (152 ppm TPH) and S-18 (145 ppm TPH). Enterprise will excavate more in these areas and then resample. Entperise will notify you when samples are anticipated to be collected for laboratory analysis. 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: Long, Thomas
Sent: Thursday, April 16, 2020 2:01 PM
To: 'kcmanwell@yahoo.com' <kcmanwell@yahoo.com>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: FW: Lateral 2C-79 - UL C Section 4 T22N R3W; 36.17069 -107.169768

Keith,

Please see the notification that I sent to Hobson Sandoval, Kurt Sandoval and NMOCD I earlier today. 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: Long, Thomas
Sent: Thursday, April 16, 2020 12:36 PM
To: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>; 'Hobson Sandoval' <hsandoval2012@gmail.com>; 'Kurt.sandoval@bia.gov' <Kurt.sandoval@bia.gov>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: FW: Lateral 2C-79 - UL C Section 4 T22N R3W; 36.17069 -107.169768

Cory/Hobson/Kurt,

This email is to notify you Entperise will be collecting soil samples for laboratory analysis at the Lateral 2C-79 excavation tomorrow, April 17, 2020 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

Enterprise Products

From: Long, Thomas
Sent: Thursday, April 9, 2020 4:05 PM
To: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: FW: Lateral 2C-79 - UL C Section 4 T22N R3W; 36.17069 -107.169768

Cory,

Please see the correspondence to Jicarilla Apache Tribe below. This release became reportable today. I will submit the Initial C-141. I will also keep you informed as to when we will collect soil samples for laboratory analysis. 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

From: Long, Thomas
Sent: Thursday, April 9, 2020 7:48 AM
To: 'Hobson Sandoval' <hsandoval2012@gmail.com>; 'Kurt.sandoval@bia.gov' <Kurt.sandoval@bia.gov>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: FW: Lateral 2C-79 - UL C Section 4 T22N R3W; 36.17069 -107.169768

Hobson,

This is a follow up to our phone conversation this morning. Enterprise will begin the remediation activities at the Lateral 2C-79 release site today. I will let you know when we will be collecting soil samples for laboratory analysis. 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

From: Long, Thomas
Sent: Tuesday, April 7, 2020 11:51 AM
To: 'Hobson Sandoval' <hsandoval2012@gmail.com>; 'Kurt.sandoval@bia.gov' <Kurt.sandoval@bia.gov>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: Lateral 2C-79 - UL C Section 4 T22N R3W; 36.17069 -107.169768

Hobson/Kurt,

This email is to notify you that Enterprise had a release of condensate on the Lateral 2C-79 pipeline yesterday. An area of approximately five feet in diameter was affected by the release fluids. No washes were affected. The release site is located at UL C Section 4 T22N R3W; 36.17069 -107.169768. I have attached a picture for reference. I will keep you informed as to when we will schedule remediation activities. 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

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.

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 41280

CONDITIONS

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 41280
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	3/7/2022