

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

REVIEWED
By Nelson Velez at 10:59 am, Jan 07, 2022

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): NCS1923947897
Contact mailing address: 614 Reilly Ave, Farmington, NM 87401	

Location of Release Source

Latitude **36.282835** Longitude **-107.351995** (NAD 83 in decimal degrees to 5 decimal places)

Site Name Lateral 2C-15 Pigging Receiver Sump	Site Type Natural Gas Gathering Pigging Receiver Sump
Date Release Discovered: 8/15/2019	Serial Number (if applicable): NA

Unit Letter	Section	Township	Range	County
K	27	24N	5W	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)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls): 15-20 bbls	Volume Recovered (bbls): None
<input checked="" type="checkbox"/> Natural Gas	Volume Released (Mcf): < 1 MCF	Volume Recovered (Mcf): None
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units):	Volume/Weight Recovered (provide units)

Cause of Release: On August 15, 2019, Enterprise was cleaning the Lateral 2C-15 Pigging Receiver Sump and discovered that the sump had leaked. Enterprise began remediation of the release on August 16, 2019 and it was determined that the release was reportable per NMOCD regulation August 19, 2019, due to the volume of impacted subsurface soil. Approximately 3,094 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation Division approved land farm facility. Additional remediation by excavating was terminated at the request of the Jicarilla Apache Environmental Protection Office and because of the hazardous work conditions associated with the excavation. In December 2019 and February 2020, site assessments were performed utilizing a hollow stem auger drilling rig. A total of nine (9) groundwater monitoring wells were installed. Additional subsurface soil and groundwater contamination was identified from the site assessment activities. A third party groundwater monitoring report is included with this C-141.

Incident ID	
District RP	
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Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>~23</u> (ft bgs)
Did this release impact groundwater or surface water?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Page 3

Incident ID	
District RP	
Facility ID	
Application ID	

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.

Printed Name: Thomas Long Title: Senior Environmental ScientistSignature:  Date: 11/18/2021email: tjlong@eprod.com Telephone: 505-599-2286**OCD Only**

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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.

Printed Name: Thomas Long Title: Senior Environmental Scientist

Signature:  Date: 11/18/2021

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

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____



2020 GROUNDWATER MONITORING REPORT

Property:

**Lateral 2C-15 Pigging Receiver Sump (8/15/19)
SW ¼, Sec 27 T24N R5W
Rio Arriba County, New Mexico**

February 23, 2021
Ensolum Project No. 05A1226105

Prepared for:

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

Prepared by:

A handwritten signature in blue ink, reading "Rane Deechilly".

Rane Deechilly
Environmental Scientist

A handwritten signature in blue ink, reading "Kyle Summers".

Kyle Summers
Senior Project Manager



2020 GROUNDWATER MONITORING REPORT EXECUTIVE SUMMARY

This report documents the 2020 groundwater monitoring activities at the Lateral 2C-15 Pigging Receiver Sump (8/15/19) site, referred to hereinafter as the "Site".

The Site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) the Southwest Quarter (1/4) of Section 27, Township 24 North, Range 5 West, in Rio Arriba County, New Mexico.

Following a release of natural gas condensate on August 15, 2019, Enterprise initiated excavation activities to identify and remediate potential hydrocarbon impact. Rule Engineering, LLC (Rule) collected confirmation soil samples and groundwater samples from the resulting excavation. Additionally, soil samples were collected from potholes that were advanced along the nearby wash. Samples collected from the excavation exhibited concentrations of constituents of concern (COCs) above the applicable New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) closure criteria in soils, and above the New Mexico Water Quality Control Commission (WQCC) Groundwater Quality Standards (GQSs) in groundwater. The excavation was subsequently backfilled with imported fill. Petroleum hydrocarbon affected soil is still present at the Site.

During December 2019, Rule advanced five (5) soil borings at the Site, which were subsequently completed as groundwater monitoring wells (MW-1 through MW-5). Samples collected from the soil borings and monitoring wells exhibited concentrations of COCs above the applicable New Mexico EMNRD OCD closure criteria in soils, and above the New Mexico WQCC GQSs in groundwater.

During February 2020, Rule advanced four (4) additional soil borings and completed the borings as groundwater monitoring wells MW-6 through MW-9. Samples collected from the soil borings and monitoring wells exhibited concentrations of COCs above the applicable New Mexico EMNRD OCD closure criteria in soils, and above the New Mexico WQCC GQSs in groundwater.

Groundwater COC monitoring is ongoing at the Site.

Groundwater sampling events were conducted by Ensolum, LLC (Ensolum) during May 2020 and October 2020. These groundwater monitoring events were performed to further evaluate the concentrations of COCs in groundwater over time at the Site.

Findings based on these activities are as follows:

- At the time of the October 2020 groundwater sampling event, monitoring well MW-1 exhibited measurable non-aqueous phase liquid (NAPL) on the groundwater and was not sampled.
- The groundwater flow direction at the Site is generally towards the west-southwest, with an approximate gradient ranging from 0.0003 feet per foot (ft/ft) to 0.0014 ft/ft across the Site.
- The analytical results for the groundwater samples collected from monitoring wells MW-1 (during the May 2020), MW-3, MW-5, and MW-9 during the May 2020 and October 2020 sampling events indicate that benzene, toluene, and total xylenes concentrations are above the New Mexico WQCC GQSs. The analytical results for the groundwater samples collected from the remaining monitoring wells during the May 2020 and October 2020 do not indicate COC concentrations above the applicable WQCC GQSs.
- The results from the sampling events at the Site identify increasing COC concentrations at monitoring well MW-9, and NAPL is now present on the groundwater at monitoring well MW-1.



Ensolum offers the following recommendations:

- Report the groundwater monitoring results to the Jicarilla Apache Nation Environmental Protection Agency Office (JAN-EPO) and New Mexico EMNRD OCD.
- Increase the sampling frequency to quarterly groundwater monitoring as requested by the JAN-EPO.
- Perform additional site assessment activities to fully define the groundwater plume and potentially further define the source area soil impacts.
- Initiate NAPL removal activities at monitoring well MW-1.

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Site Description & Background	1
1.2	Project Objective.....	2
2.0	GROUNDWATER MONITORING.....	2
2.1	Groundwater Sampling Program	2
2.2	Groundwater Laboratory Analytical Methods.....	3
2.3	Groundwater Flow Direction	3
2.4	Data Evaluation.....	3
3.0	FINDINGS	5
4.0	RECOMMENDATIONS.....	5
5.0	STANDARDS OF CARE, LIMITATIONS, AND RELIANCE.....	5
5.1	Standard of Care.....	5
5.2	Limitations	5
5.3	Reliance	6

LIST OF APPENDICES

Appendix A:	Figures	
	Figure 1	Topographic Map
	Figure 2	Site Vicinity Map
	Figure 3	Site Map
	Figure 4A	Groundwater Gradient Map (August 2020)
	Figure 4B	Groundwater Gradient Map (October 2020)
	Figure 5A	Groundwater Quality Standard (GQS) Exceedance Zone Map (May 2020)
	Figure 5B	Groundwater Quality Standard (GQS) Exceedance Zone Map (October 2020)
Appendix B:	Tables	
	Table 1	Groundwater Analytical Summary
	Table 2	Groundwater Elevations
Appendix C:	Laboratory Data Sheets & Chain of Custody Documentation	



2020 GROUNDWATER MONITORING REPORT

1.0 INTRODUCTION

This report documents the 2020 groundwater monitoring activities at the Lateral 2C-15 Pigging Receiver Sump (8/15/19) site, referred to hereinafter as the "Site".

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Lateral 2C-15 Pigging Receiver Sump (8/15/19)
Incident ID	NCS1923947897
Location:	36.282835° North, 107.351995° West Southwest Quarter (1/4) of Section 27, Township 24 North, Range 5 West Rio Arriba County, New Mexico
Property:	Jicarilla Apache Nation
Regulatory:	Jicarilla Apache Nation Environmental Protection Office (JAN-EPO)

On August 15, 2019, natural gas condensate was released from the Enterprise Lateral 2C-15 pigging receiver sump. Subsequent to the completion of excavation activities and off-site disposal of hydrocarbon affected soils, confirmation soil samples and two (2) groundwater samples were collected from the excavation by Rule Engineering, LLC (Rule). In addition, four (4) soil samples were collected from shallow potholes advanced near the wash. Analytical results indicated COC concentration exceedances above the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) closure criteria for soils and the New Mexico Water Quality Control Commission (WQCC) Groundwater Quality Standards (GQS) for groundwater. The excavation was then backfilled with unaffected soils (*Lateral 2C-15 Pigging Receiver Sump Corrective Action Report*, dated August 8, 2020 – Rule).

During December 2019, five (5) soil borings (SB-1 through SB-5) were advanced on-Site by Rule. Subsequent to advancement, the soil borings were completed as groundwater monitoring wells (MW-1 through MW-5). Analytical results from the soil and groundwater sampling activities indicated COC concentrations were present in soil (SB-1, immediately adjacent to the release and near the groundwater interface, and SB-3, near the groundwater interface) above the applicable New Mexico EMNRD OCD closure criteria and in groundwater (monitoring wells MW-1, MW-3, and MW-5) above the New Mexico WQCC GQSs (*Lateral 2C-15 Pigging Receiver Sump Corrective Action Report*, dated August 8, 2020 – Rule).

During February 2020, four (4) soil borings/monitoring wells (SB-6/MW-6, SB-7/MW-7, SB-8/MW-8, and SB-9/MW-9) were advanced by Rule to further delineate and evaluate the extent of COCs in soil and groundwater. Analytical results indicated COC exceedances above the New Mexico EMNRD OCD closure criteria for soil (SB-7/MW-7) and above the New Mexico WQCC GQSs for groundwater (SB-7/MW-7 and MW-9) (*Lateral 2C-15 Pigging Receiver Sump Corrective Action Report*, dated August 8, 2020 – Rule).

Operation of the remediation was transferred to Ensolum, LLC (Ensolum) during May 2020.

The Site is under the jurisdiction of the Jicarilla Apache Nation and is subject to regulatory oversight by the JAN-EPO. 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

2020 Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral 2C-15 Pigging Receiver (8/15/19)
February 23, 2021



that are subject to reporting and/or corrective action. Additionally, Ensolum utilized the New Mexico WQCC GQSs (NMAC 20.6.2 *Groundwater and Surface Water Protection*) to evaluate groundwater conditions. The New Mexico WQCC Groundwater Quality Standards include the following:

New Mexico WQCC Standards for Groundwater	
Constituent	Limit
Benzene	5 µg/L
Toluene	1,000 µg/L
Ethylbenzene	700 µg/L
Total Xylenes	600 µg/L

The Site location is depicted on **Figure 1 of Appendix A** which was reproduced from a portion of a United States Geological Survey (USGS) 7.5-minute series topographic map. A **Site Vicinity Map**, created from an aerial photograph, is provided as **Figure 2**, and a **Site Map**, which indicates the approximate locations of the monitoring wells and previous soil boring and sample locations in relation to pertinent structures and general Site boundaries, is included as **Figure 3 of Appendix A**.

1.2 Project Objective

The objective of the groundwater monitoring events was to further evaluate the concentrations of COCs in groundwater at the Site.

2.0 GROUNDWATER MONITORING

2.1 Groundwater Sampling Program

Groundwater sampling events were conducted during May 2020 and October 2020 by Ensolum. Ensolum's groundwater sampling program consisted of the collection of one (1) groundwater sample from each of the viable monitoring wells at the Site.

Ensolum's groundwater sampling program consisted of the following:

- Prior to sample collection, Ensolum gauged the depth to fluids in each monitoring well using an interface probe capable of detecting non-aqueous phase liquids (NAPL). During the May 2020 sampling event, a malfunction with the interface probe occurred which resulted in inaccurate gauging data. The Site was re-gauged during August 2020. During the October 2020 sampling event, monitoring well MW-1 exhibited a measurable thickness of NAPL and was not sampled.
- Each viable two (2) inch diameter monitoring well was sampled utilizing micro-purge low-flow sampling techniques. Following the completion of the micro-purge process, one (1) groundwater sample was collected from each viable monitoring well.
- Low-flow or low-stress sampling refers to sampling methods that are intended to minimize the stress that is imparted to the formation pore water in the vicinity of the well screen. Water level drawdown provides the best indication of the stress that is imparted by a given flow rate for a given hydrological situation. Pumping rates of 0.1 to 0.5 liters per minute (L/min) are typically maintained during the low-flow/low-stress sampling activities, using dedicated or decontaminated sampling equipment.
- During low-flow sampling, the groundwater samples are collected from each monitoring well once produced groundwater is consistent in color, clarity, pH, temperature, and conductivity.

2020 Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral 2C-15 Pigging Receiver (8/15/19)
February 23, 2021



Measurements are typically observed every three to five minutes while purging. Purging is considered complete once key parameters (especially pH and conductivity) have stabilized for at least three (3) consecutive readings.

- Groundwater samples were collected in laboratory-supplied containers (pre-preserved with mercuric chloride (HgCl_2)), labeled and sealed using the laboratory supplied labels and custody seals, and stored on ice in a cooler. The groundwater samples were relinquished to the courier for Hall Environmental Analysis Laboratory (HEAL) of Albuquerque, New Mexico under proper chain-of-custody procedures.

2.2 Groundwater Laboratory Analytical Methods

The groundwater samples collected from the monitoring wells during the two (2) sampling events were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) utilizing Environmental Protection Agency (EPA) method SW-846 #8021/8260.

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

2.3 Groundwater Flow Direction

Each monitoring well has been geospatially surveyed to determine the top-of-casing (TOC) elevation. Prior to sample collection, Ensolum gauged the depth to fluids in each monitoring well. The groundwater flow direction at the Site is generally toward the west-southwest. The observed gradient during the August and October 2020 monitoring events ranged from approximately 0.0003 feet per foot (ft/ft) to 0.0014 ft/ft across the Site.

Groundwater elevation data collected during the August and October 2020 gauging events are presented in **Table 2** (**Appendix B**). Groundwater gradient maps for the two (2) gauging events are included as **Figure 4A** and **4B** (**Appendix A**).

2.4 Data Evaluation

Ensolum compared the BTEX laboratory analytical results or laboratory practical quantitation limits (PQLs) / reporting limits (RLs) associated with the groundwater samples collected from monitoring wells during the May and October 2020 groundwater sampling events to the New Mexico WQCC GQSs. The results of the analyses are summarized in **Table 1** of **Appendix B**. Groundwater Quality Standard Exceedance Zone maps are provided as **Figures 5A** and **5B** of **Appendix A**.

May 2020

The May 2020 analytical results for monitoring wells MW-1, MW-3, MW-5, and MW-9 indicate benzene concentrations ranging from 110 micrograms per liter ($\mu\text{g/L}$) (MW-5) to 1,600 $\mu\text{g/L}$ (MW-1), which exceed the WQCC GQS of 5 $\mu\text{g/L}$. The analytical results for the remaining monitoring wells do not indicate benzene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 5 $\mu\text{g/L}$.

The May 2020 analytical result for monitoring well MW-1 indicates a toluene concentration of 9,000 $\mu\text{g/L}$, which exceeds the WQCC GQS of 1,000 $\mu\text{g/L}$. The analytical result for monitoring well MW-9 indicates a toluene concentration of 72 $\mu\text{g/L}$, which is below the WQCC GQS of 1,000 $\mu\text{g/L}$. The analytical results for the remaining monitoring wells do not indicate toluene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 1,000 $\mu\text{g/L}$.

The May 2020 analytical results for monitoring wells MW-1, MW-3, MW-5, and MW-9 indicate ethylbenzene concentrations ranging from 21 $\mu\text{g/L}$ (MW-5) to 300 $\mu\text{g/L}$ (MW-1), which are below the WQCC GQS of 700

2020 Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral 2C-15 Pigging Receiver (8/15/19)
February 23, 2021



µg/L. The analytical results for the remaining monitoring wells do not indicate ethylbenzene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 700 µg/L.

The May 2020 analytical result for monitoring well MW-1 indicates a total xylene concentration of 5,100 µg/L, which exceeds the WQCC GQS of 620 µg/L. The analytical results for monitoring wells MW-2 and MW-9 indicate total xylene concentrations of 1.7 µg/L and 320 µg/L, respectively, which are below the WQCC GQS of 620 µg/L. The analytical results for the remaining monitoring wells do not indicate total xylenes concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 620 µg/L.

Data Qualifier Flags		
Sample ID	Data Qualifier Flag	Comments/Reactions
MW-3 (collected 5/28/2020)	Sample Diluted Due to Matrix.	The sample was diluted due to matrix interference. The results are usable for the intended purpose.
MW-5 (collected 5/28/2020)	Sample Diluted Due to Matrix.	The sample was diluted due to matrix interference. The results are usable for the intended purpose.

October 2020

Due to the presence of NAPL hydrocarbons in association with the initial groundwater-bearing unit, monitoring well MW-1 was not sampled and is not part of the following discussion.

The October 2020 analytical results for monitoring wells MW-3, MW-5, and MW-9 indicate benzene concentrations ranging from 110 µg/L (MW-5) to 1,100 µg/L (MW-9), which exceed the WQCC GQS of 5 µg/L. The analytical results for the remaining monitoring wells do not indicate benzene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 5 µg/L.

The October 2020 analytical result for monitoring well MW-9 indicates a toluene concentration of 1,000 µg/L, which exceeds the WQCC GQS of 1,000 µg/L. The analytical results for the remaining monitoring wells do not indicate toluene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 1,000 µg/L.

The October 2020 analytical results for monitoring wells MW-3, MW-4, MW-5, MW-7, and MW-9 indicate ethylbenzene concentrations ranging from 1.1 µg/L (MW-7) to 110 µg/L (MW-9), which are below the WQCC GQS of 700 µg/L. The analytical results for the remaining monitoring wells do not indicate ethylbenzene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 700 µg/L.

The October 2020 analytical result for monitoring well MW-9 indicates a total xylene concentration of 660 µg/L, which exceeds the WQCC GQS of 620 µg/L. The analytical results for monitoring wells MW-2, MW-5, and MW-7 indicate total xylene concentrations ranging from 19 µg/L (MW-7) to 63 µg/L (MW-2), respectively, which are below the WQCC GQS of 620 µg/L. The analytical results for the remaining monitoring wells do not indicate total xylenes concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 620 µg/L.

No data qualifier flags are associated with the October 2020 analytical results.

2020 Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral 2C-15 Pigging Receiver (8/15/19)
February 23, 2021



3.0 FINDINGS

Based on the evaluation of the analytical results from the May and October 2020 groundwater sampling events, Ensolum presents the following findings:

- At the time of the October 2020 groundwater sampling event, monitoring well MW-1 exhibited measurable NAPL on the groundwater and was not sampled.
- The groundwater flow direction at the Site is generally towards the west-southwest, with an approximate gradient ranging from 0.0003 ft/ft to 0.0014 ft/ft across the Site.
- The analytical results for the groundwater samples collected from monitoring wells MW-1 (during the May 2020), MW-3, MW-5, and MW-9 during the May 2020 and October 2020 sampling events indicate that benzene, toluene, and total xylenes concentrations are above the New Mexico WQCC GQSs. The analytical results for the groundwater samples collected from the remaining monitoring wells during the May 2020 and October 2020 do not indicate COC concentrations above the applicable WQCC GQSs.
- The results from the sampling events at the Site identify increasing COC concentrations at monitoring well MW-9, and NAPL is now present on the groundwater at monitoring well MW-1.

4.0 RECOMMENDATIONS

Based on the results of groundwater monitoring activities, Ensolum has the following recommendations:

- Report the groundwater monitoring results to the JAN-EPO and New Mexico EMNRD OCD.
- Increase the sampling frequency to quarterly groundwater monitoring as requested by the JAN-EPO.
- Perform additional site assessment activities to fully define the groundwater plume and potentially further define the source area soil impacts.
- Initiate NAPL removal activities at monitoring well MW-1.

5.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

5.1 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). This scope of services was performed in accordance with the scope of work agreed with the client, as detailed in our proposal.

5.2 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

2020 Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral 2C-15 Pigging Receiver (8/15/19)
February 23, 2021



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 recommendations are based solely upon data available to Ensolum at the time of these services.

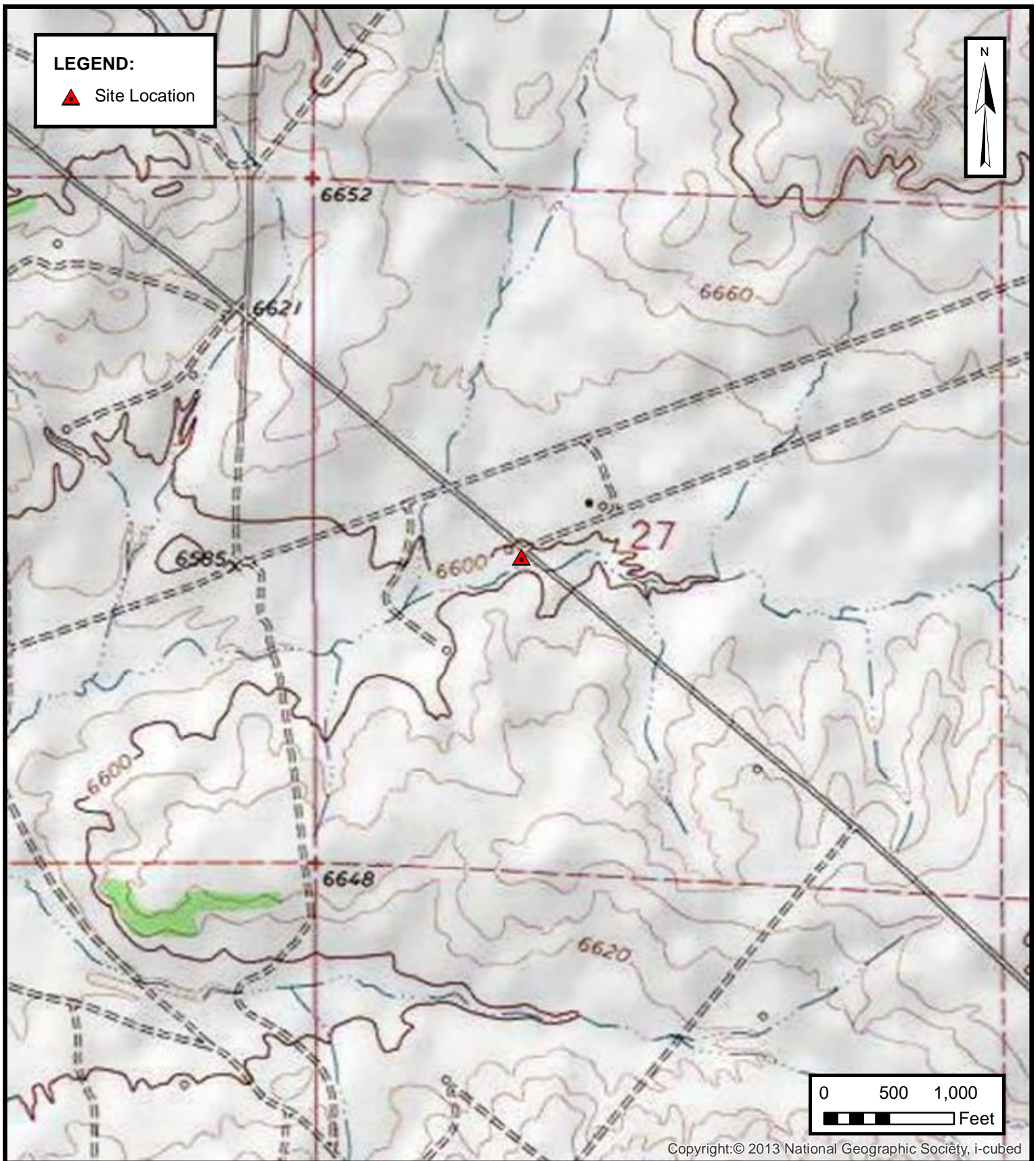
5.3 Reliance

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 report, and Ensolum's Master Services Agreement. The limitation of liability defined in the agreement is the aggregate limit of Ensolum's liability to the client.



APPENDIX A

Figures



ENSOLUM
Environmental & Hydrogeologic Consultants

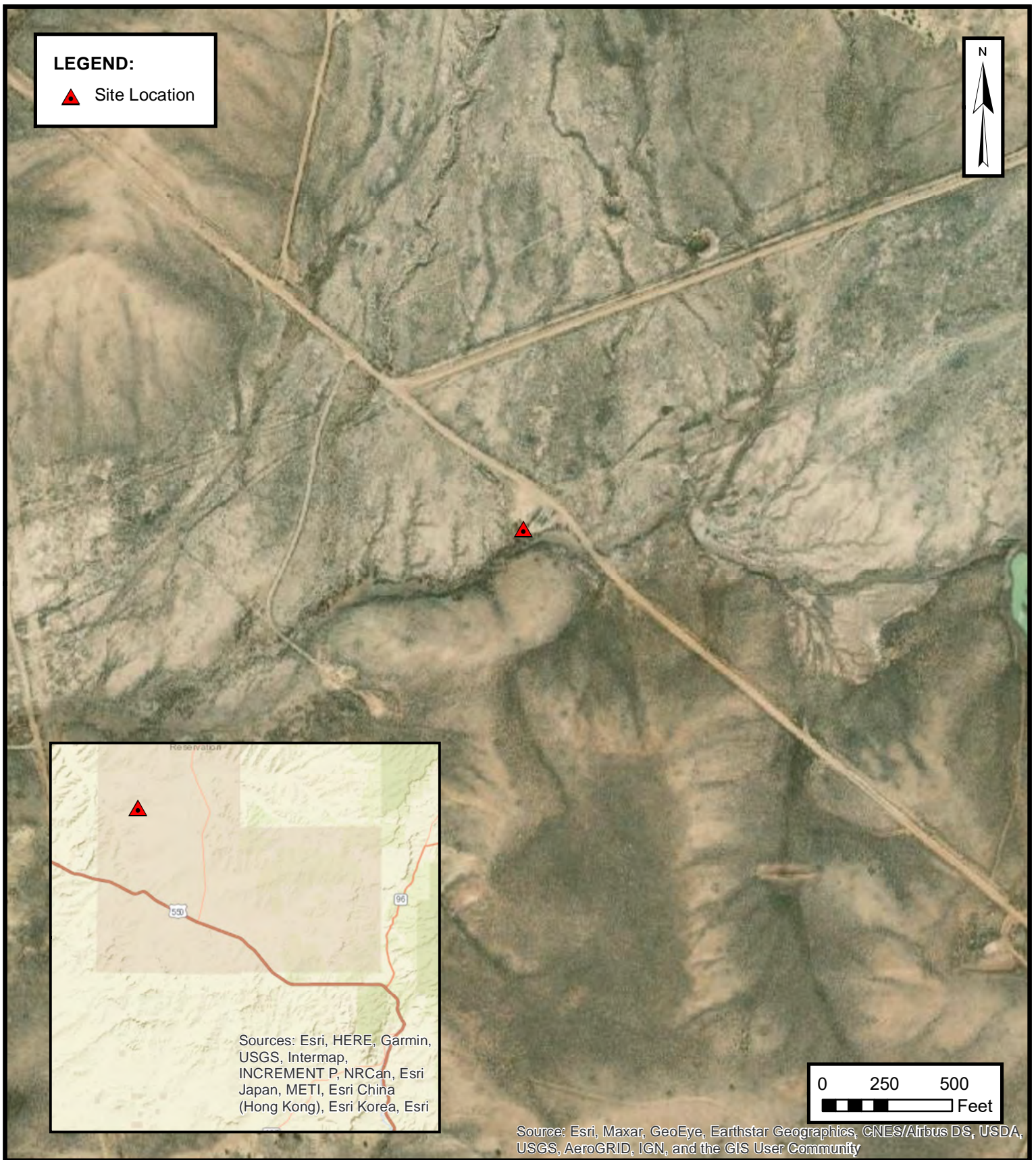
TOPOGRAPHIC MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-15 PIGGING RECEIVER SUMP (8/15/19)
SW ¼, S27 T24N R5W, Rio Arriba County, New Mexico
36.282835° N, 107.351995° W

PROJECT NUMBER: 05A1226105

FIGURE

1



SITE VICINITY MAP










ENTERPRISE FIELD SERVICES, LLC LATERAL
2C-15 PIGGING RECEIVER SUMP (8/15/19)
SW ¼, S27 T24N R5W, Rio Arriba County, New Mexico
36.282835° N, 107.351995° W

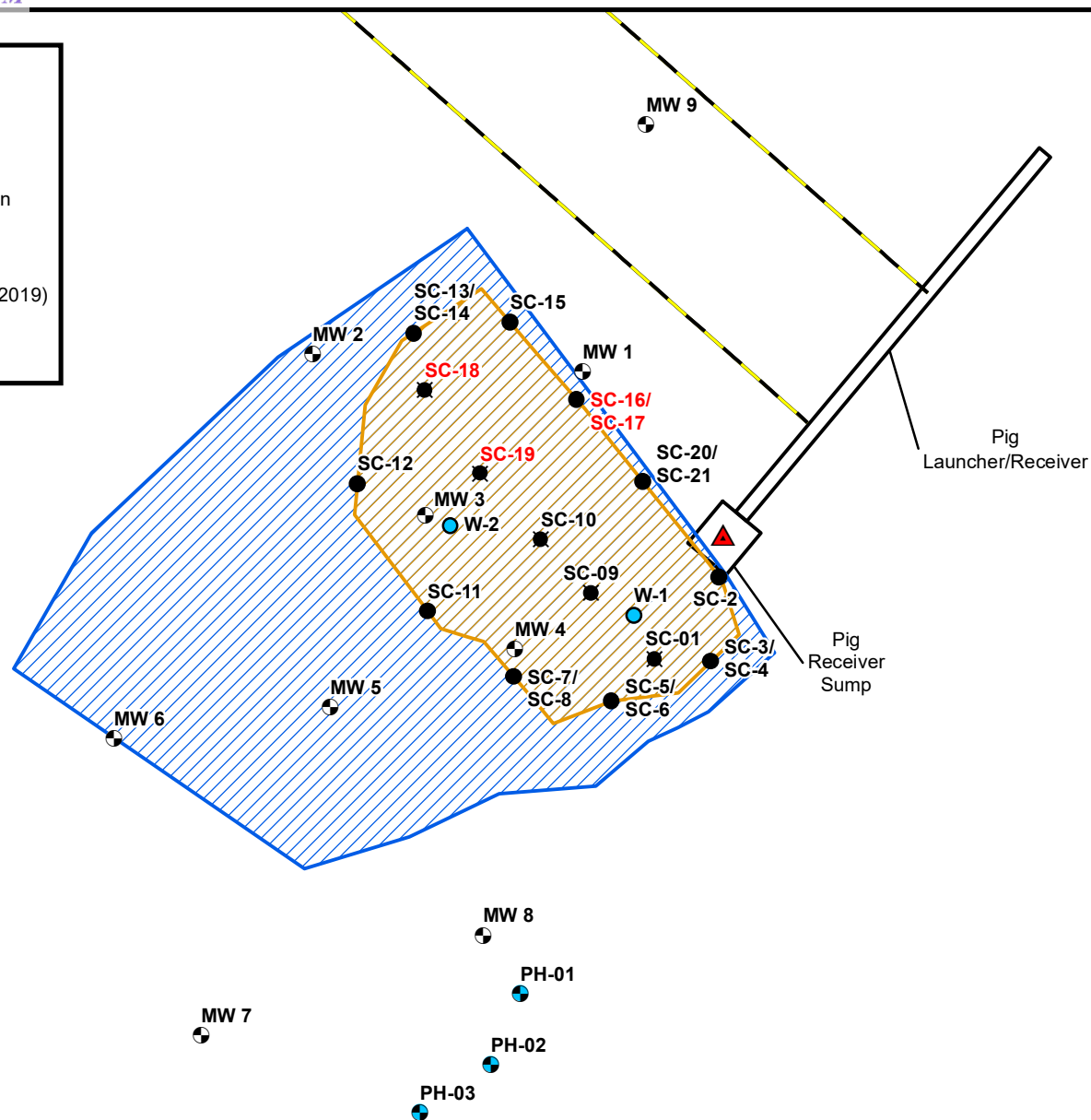
PROJECT NUMBER: 05A1226105

FIGURE

2

LEGEND:

-  Release Point
-  Monitoring Well Location
-  Composite Floor Sample Location
-  Confirmation Wall Sample Location
-  Open Excavation Water Sample
-  Wash Sample Location
-  Extent of the Former Excavation (2019)
-  Sloped Ramp (2019)
-  Approximate Pipeline Location



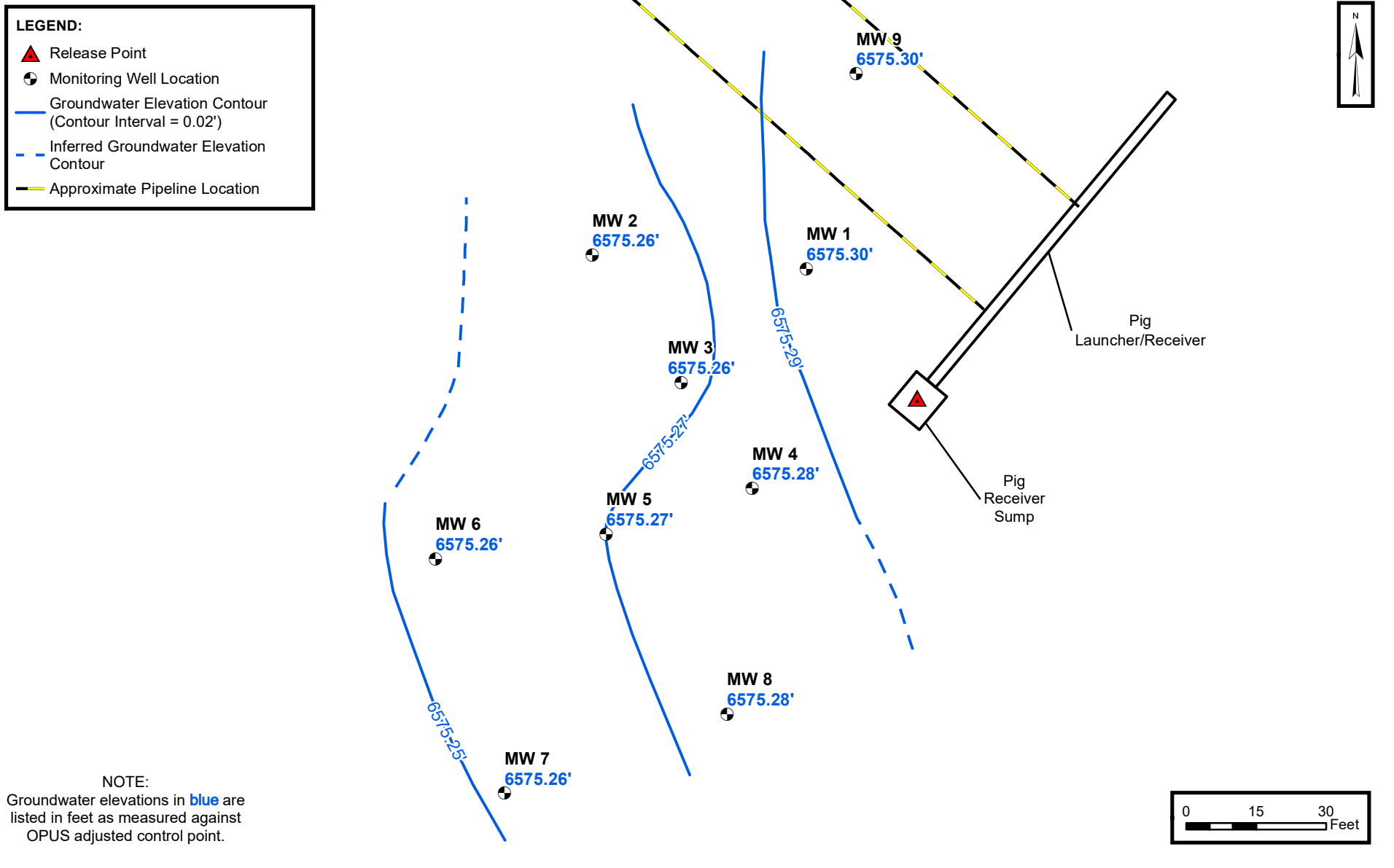
NOTE:
Sample IDs in red exceed the
applicable NM EMNRD OCD closure
criteria.

**SITE MAP**

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-15 PIGGING RECEIVER SUMP (8/15/19)
SW ¼, S27 T24N R5W, Rio Arriba County, New Mexico
36.282835° N, 107.351995° W

PROJECT NUMBER: 05A1226105

**FIGURE
3**



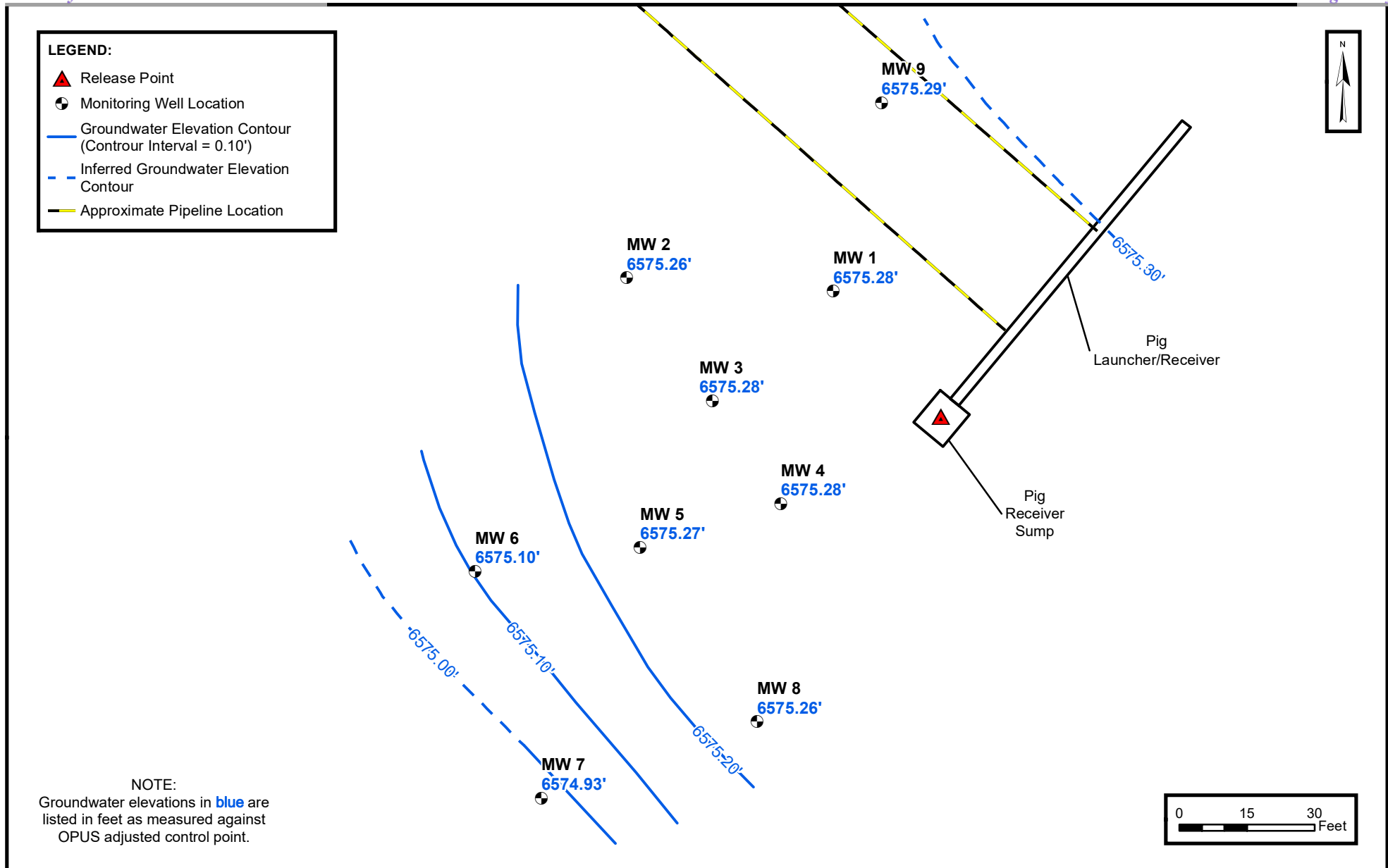
GROUNDWATER GRADIENT MAP (AUGUST 2020)

ENTERPRISE FIELD SERVICES, LLC
 LATERAL 2C-15 PIGGING RECEIVER SUMP (8/15/19)
 SW ¼, S27 T24N R5W, Rio Arriba County, New Mexico
 36.282835° N, 107.351995° W

PROJECT NUMBER: 05A1226105

ENSOLUM
 Environmental & Hydrogeologic Consultants

FIGURE
4A

**GROUNDWATER GRADIENT MAP (OCTOBER 2020)**

ENTERPRISE FIELD SERVICES, LLC
 LATERAL 2C-15 PIGGING RECEIVER SUMP (8/15/19)
 SW ¼, S27 T24N R5W, Rio Arriba County, New Mexico
 36.282835° N, 107.351995° W

PROJECT NUMBER: 05A1226105

ENSOLUM
 Environmental & Hydrogeologic Consultants

**FIGURE
4B**

LEGEND:

- ▲ Release Point
- Monitoring Well Location
- Extent of GQS Exceedance Zone
- - - Inferred Extent of GQS Exceedance Zone
- - - Approximate Pipeline Location

MW-6
5/28/2020
Benzene...<1.0
Toluene...<1.0
Ethylbenzene...<1.0
Xylenes...<1.5

MW-3
5/28/2020
Benzene...**460**
Toluene...<25
Ethylbenzene...56
Xylenes...<50

MW-2
5/28/2020
Benzene...<1.0
Toluene...<1.0
Ethylbenzene...<1.0
Xylenes...1.7

MW-7
5/28/2020
Benzene...<1.0
Toluene...<1.0
Ethylbenzene...<1.0
Xylenes...<1.5

MW-8
5/28/2020
Benzene...<1.0
Toluene...<1.0
Ethylbenzene...<1.0
Xylenes...<1.5

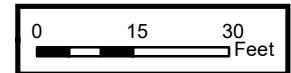
MW-5
5/28/2020
Benzene...**110**
Toluene...<10
Ethylbenzene...21
Xylenes...<15

MW-4
5/28/2020
Benzene...<1.0
Toluene...<1.0
Ethylbenzene...<1.0
Xylenes...<1.5

MW-9
5/28/2020
Benzene...**900**
Toluene...72
Ethylbenzene...65
Xylenes...320

MW-1
5/28/2020
Benzene...**1,600**
Toluene...**9,000**
Ethylbenzene...300
Xylenes...**5,100**

NOTES:
Concentrations in **red** exceed the New Mexico WQCC GQS.
All concentrations are listed in ug/L.



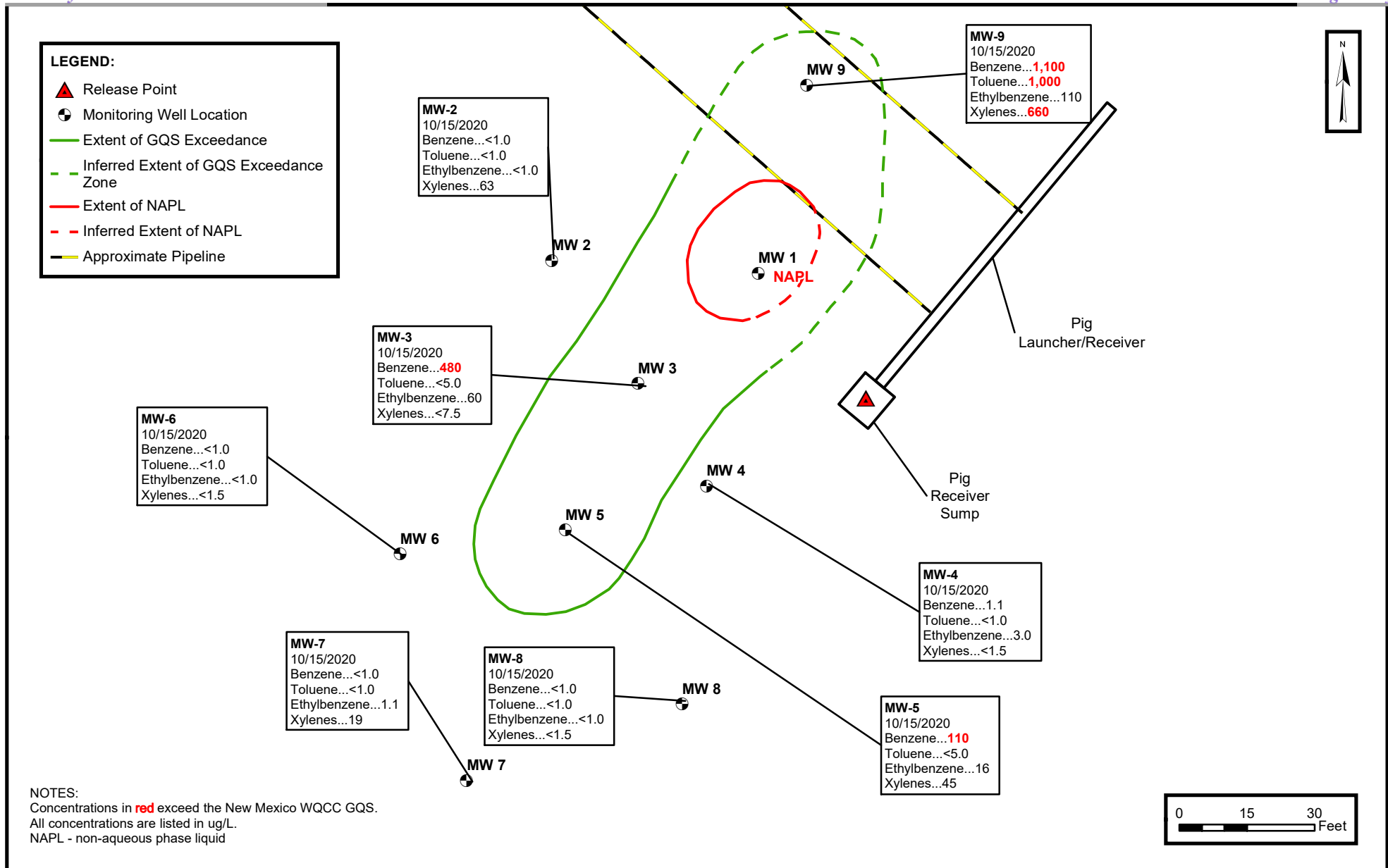
GROUNDWATER QUALITY STANDARD (GQS) EXCEEDANCE ZONE MAP (MAY 2020)

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-15 PIGGING RECEIVER SUMP (8/15/19)
SW ¼, S27 T24N R5W, Rio Arriba County, New Mexico
36.282835° N, 107.351995° W

PROJECT NUMBER: 05A1226105



**FIGURE
5A**





APPENDIX B

Tables



TABLE 1
Lateral 2C-15 Piggings Receiver Sump (8/15/19)
GROUNDWATER ANALYTICAL SUMMARY

Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		5	1,000	700	620
Monitoring Wells Installed by Rule Engineering, LLC					
MW-1	12.20.19	900	3,100	150	2,000
	5.28.20	1,600	9,000	300	5,100
	10.15.20	NAPL			
MW-2	12.21.19	<2.0	<2.0	<2.0	390
	5.28.20	<1.0	<1.0	<1.0	1.7
	10.15.20	<1.0	<1.0	<1.0	63
MW-3	12.22.19	1,200	130	180	870
	5.28.20	460	<25	56	<50
	10.15.20	480	<5.0	60	<7.5
MW-4	12.23.19	3.3	1.2	4.4	3.0
	5.28.20	<1.0	<1.0	<1.0	<1.5
	10.15.20	1.1	<1.0	3.0	<1.5
MW-5	12.24.19	270	9.7	56	530
	5.28.20	110	<10	21	<15
	10.15.20	110	<5.0	16	45
MW-6	3.05.20	<1.0	<1.0	<1.0	<2.0
	5.28.20	<1.0	<1.0	<1.0	<1.5
	10.15.20	<1.0	<1.0	<1.0	<1.5
MW-7	3.05.20	2.9	19	48	750
	5.28.20	<1.0	<1.0	<1.0	<1.5
	10.15.20	<1.0	<1.0	1.1	19
MW-8	3.05.20	<1.0	<1.0	<1.0	<2.0
	5.28.20	<1.0	<1.0	<1.0	<1.5
	10.15.20	<1.0	<1.0	<1.0	<1.5
MW-9	3.05.20	490	860	65	680
	5.28.20	900	72	65	320
	10.15.20	1,100	1,000	110	660

Note: Concentrations in **bold** and yellow exceed the applicable WQCC GQS

Monitoring wells were sampled by Ensolum, LLC beginning May 2020

NA = Not Analyzed

NE = Not Established

NAPL = Non-Aqueous Phase Liquid

µg/L = microgram per liter

<1.0 = the numeral (in this case "1.0") identifies the laboratory PQL or RL



TABLE 2
Lateral 2C-15 Piggings Receiver Sump (8/15/19)
GROUNDWATER ELEVATIONS

Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	Total Well Depth Below Top of Casing (feet)	Screen Interval Below Top of Casing (feet)	TOC Elevations (feet AMSL)	Groundwater Elevation* (feet AMSL)
MW-1	5.28.20	ND	24.32	ND	30	15-30	6599.87	6575.55
	8.18.20	24.52	24.83	0.31			6599.87	6575.30
	10.14.20	24.56	24.76	0.20			6599.87	6575.28
MW-2	5.28.20	ND	26.71	ND	32.65	17.65-32.65	6602.17	6575.46
	8.18.20	ND	26.91	ND			6602.17	6575.26
	10.14.20	ND	26.91	ND			6602.17	6575.26
MW-3	5.28.20	ND	26.20	ND	32.67	17.67-32.67	6601.65	6575.45
	8.18.20	ND	26.39	ND			6601.65	6575.26
	10.14.20	ND	26.37	ND			6601.65	6575.28
MW-4	5.28.20	ND	25.17	ND	32.27	17.27-32.27	6600.64	6575.47
	8.18.20	ND	25.36	ND			6600.64	6575.28
	10.14.20	ND	25.36	ND			6600.64	6575.28
MW-5	5.28.20	ND	25.24	ND	32.76	17.76-32.76	6600.71	6575.47
	8.18.20	ND	25.44	ND			6600.71	6575.27
	10.14.20	ND	25.44	ND			6600.71	6575.27
MW-6	5.28.20	ND	25.61	ND	28.53	13.53-28.53	6601.06	6575.45
	8.18.20	ND	25.80	ND			6601.06	6575.26
	10.14.20	ND	25.96	ND			6601.06	6575.10
MW-7	5.28.20	ND	24.37	ND	28.94	13.94-28.94	6599.83	6575.46
	8.18.20	ND	24.57	ND			6599.83	6575.26
	10.14.20	ND	24.90	ND			6599.83	6574.93
MW-8	5.28.20	ND	23.55	ND	29.02	14.02-29.02	6599.02	6575.47
	8.18.20	ND	23.74	ND			6599.02	6575.28
	10.14.20	ND	23.76	ND			6599.02	6575.26
MW-9	5.28.20	ND	26.15	ND	31	16-31	6601.63	6575.48
	8.18.20	ND	26.33	ND			6601.63	6575.30
	10.14.20	ND	26.34	ND			6601.63	6575.29

Notes:

* - corrected for presence of phase-separated hydrocarbon using an estimated product specific gravity of 0.825

The monitoring wells were surveyed on July 30, 2020

BTOC - Below Top of Casing

AMSL - Above Mean Sea Level

TOC - Top of Casing



APPENDIX C

Laboratory Data Sheets & Chain of Custody Documentation



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

June 09, 2020

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX:

RE: Lateral 2C 15

OrderNo.: 2005C39

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 9 sample(s) on 5/29/2020 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,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order: 2005C39

Date Reported: 6/9/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Lab Order: 2005C39

Project: Lateral 2C 15

Lab ID: 2005C39-001

Collection Date: 5/28/2020 2:10:00 PM

Client Sample ID: MW-1

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: RAA
Benzene	1600	50		µg/L	50	6/1/2020 3:28:00 PM	SL6939
Toluene	9000	500		µg/L	500	6/5/2020 2:31:00 PM	SL6941
Ethylbenzene	300	50		µg/L	50	6/1/2020 3:28:00 PM	SL6939
Xylenes, Total	5100	75		µg/L	50	6/1/2020 3:28:00 PM	SL6939
Surr: 1,2-Dichloroethane-d4	86.4	70-130		%Rec	50	6/1/2020 3:28:00 PM	SL6939
Surr: Dibromofluoromethane	93.1	70-130		%Rec	50	6/1/2020 3:28:00 PM	SL6939
Surr: Toluene-d8	109	70-130		%Rec	50	6/1/2020 3:28:00 PM	SL6939

Lab ID: 2005C39-002

Collection Date: 5/28/2020 12:00:00 PM

Client Sample ID: MW-2

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/1/2020 4:39:00 PM	SL6939
Toluene	ND	1.0		µg/L	1	6/1/2020 4:39:00 PM	SL6939
Ethylbenzene	ND	1.0		µg/L	1	6/1/2020 4:39:00 PM	SL6939
Xylenes, Total	1.7	1.5		µg/L	1	6/1/2020 4:39:00 PM	SL6939
Surr: 1,2-Dichloroethane-d4	83.9	70-130		%Rec	1	6/1/2020 4:39:00 PM	SL6939
Surr: Dibromofluoromethane	93.1	70-130		%Rec	1	6/1/2020 4:39:00 PM	SL6939
Surr: Toluene-d8	107	70-130		%Rec	1	6/1/2020 4:39:00 PM	SL6939

Lab ID: 2005C39-003

Collection Date: 5/28/2020 12:50:00 PM

Client Sample ID: MW-3

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: RAA
Benzene	460	25	D	µg/L	50	6/1/2020 5:02:00 PM	SL6939
Toluene	ND	25	D	µg/L	50	6/1/2020 5:02:00 PM	SL6939
Ethylbenzene	56	25	D	µg/L	50	6/1/2020 5:02:00 PM	SL6939
Xylenes, Total	ND	50	D	µg/L	50	6/1/2020 5:02:00 PM	SL6939
Surr: 1,2-Dichloroethane-d4	86.8	70-130	D	%Rec	50	6/1/2020 5:02:00 PM	SL6939
Surr: Dibromofluoromethane	94.3	70-130	D	%Rec	50	6/1/2020 5:02:00 PM	SL6939
Surr: Toluene-d8	106	70-130	D	%Rec	50	6/1/2020 5:02:00 PM	SL6939

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order: 2005C39

Date Reported: 6/9/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Lab Order: 2005C39

Project: Lateral 2C 15

Lab ID: 2005C39-004

Collection Date: 5/28/2020 10:00:00 AM

Client Sample ID: MW-4

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/1/2020 5:26:00 PM	SL6939
Toluene	ND	1.0		µg/L	1	6/1/2020 5:26:00 PM	SL6939
Ethylbenzene	ND	1.0		µg/L	1	6/1/2020 5:26:00 PM	SL6939
Xylenes, Total	ND	1.5		µg/L	1	6/1/2020 5:26:00 PM	SL6939
Surr: 1,2-Dichloroethane-d4	87.3	70-130		%Rec	1	6/1/2020 5:26:00 PM	SL6939
Surr: Dibromofluoromethane	91.7	70-130		%Rec	1	6/1/2020 5:26:00 PM	SL6939
Surr: Toluene-d8	107	70-130		%Rec	1	6/1/2020 5:26:00 PM	SL6939

Lab ID: 2005C39-005

Collection Date: 5/28/2020 11:20:00 AM

Client Sample ID: MW-5

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: RAA
Benzene	110	10	D	µg/L	10	6/1/2020 5:49:00 PM	SL6939
Toluene	ND	10	D	µg/L	10	6/1/2020 5:49:00 PM	SL6939
Ethylbenzene	21	10	D	µg/L	10	6/1/2020 5:49:00 PM	SL6939
Xylenes, Total	ND	15	D	µg/L	10	6/1/2020 5:49:00 PM	SL6939
Surr: 1,2-Dichloroethane-d4	86.8	70-130	D	%Rec	10	6/1/2020 5:49:00 PM	SL6939
Surr: Dibromofluoromethane	94.0	70-130	D	%Rec	10	6/1/2020 5:49:00 PM	SL6939
Surr: Toluene-d8	105	70-130	D	%Rec	10	6/1/2020 5:49:00 PM	SL6939

Lab ID: 2005C39-006

Collection Date: 5/28/2020 9:20:00 AM

Client Sample ID: MW-6

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/1/2020 6:13:00 PM	SL6939
Toluene	ND	1.0		µg/L	1	6/1/2020 6:13:00 PM	SL6939
Ethylbenzene	ND	1.0		µg/L	1	6/1/2020 6:13:00 PM	SL6939
Xylenes, Total	ND	1.5		µg/L	1	6/1/2020 6:13:00 PM	SL6939
Surr: 1,2-Dichloroethane-d4	86.0	70-130		%Rec	1	6/1/2020 6:13:00 PM	SL6939
Surr: Dibromofluoromethane	91.5	70-130		%Rec	1	6/1/2020 6:13:00 PM	SL6939
Surr: Toluene-d8	107	70-130		%Rec	1	6/1/2020 6:13:00 PM	SL6939

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 2 of 5

Analytical Report

Lab Order: 2005C39

Date Reported: 6/9/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Lab Order: 2005C39

Project: Lateral 2C 15

Lab ID: 2005C39-007

Collection Date: 5/28/2020 10:40:00 AM

Client Sample ID: MW-7

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/1/2020 6:36:00 PM	SL6939
Toluene	ND	1.0		µg/L	1	6/1/2020 6:36:00 PM	SL6939
Ethylbenzene	ND	1.0		µg/L	1	6/1/2020 6:36:00 PM	SL6939
Xylenes, Total	ND	1.5		µg/L	1	6/1/2020 6:36:00 PM	SL6939
Surr: 1,2-Dichloroethane-d4	85.7	70-130		%Rec	1	6/1/2020 6:36:00 PM	SL6939
Surr: Dibromofluoromethane	94.6	70-130		%Rec	1	6/1/2020 6:36:00 PM	SL6939
Surr: Toluene-d8	108	70-130		%Rec	1	6/1/2020 6:36:00 PM	SL6939

Lab ID: 2005C39-008

Collection Date: 5/28/2020 8:45:00 AM

Client Sample ID: MW-8

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/1/2020 7:00:00 PM	SL6939
Toluene	ND	1.0		µg/L	1	6/1/2020 7:00:00 PM	SL6939
Ethylbenzene	ND	1.0		µg/L	1	6/1/2020 7:00:00 PM	SL6939
Xylenes, Total	ND	1.5		µg/L	1	6/1/2020 7:00:00 PM	SL6939
Surr: 1,2-Dichloroethane-d4	82.2	70-130		%Rec	1	6/1/2020 7:00:00 PM	SL6939
Surr: Dibromofluoromethane	91.4	70-130		%Rec	1	6/1/2020 7:00:00 PM	SL6939
Surr: Toluene-d8	108	70-130		%Rec	1	6/1/2020 7:00:00 PM	SL6939

Lab ID: 2005C39-009

Collection Date: 5/28/2020 1:30:00 PM

Client Sample ID: MW-9

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: CCM
Benzene	900	10		µg/L	10	6/5/2020 3:19:00 PM	SL6941
Toluene	72	10		µg/L	10	6/5/2020 3:19:00 PM	SL6941
Ethylbenzene	65	10		µg/L	10	6/5/2020 3:19:00 PM	SL6941
Xylenes, Total	320	15		µg/L	10	6/5/2020 3:19:00 PM	SL6941
Surr: 1,2-Dichloroethane-d4	90.5	70-130		%Rec	10	6/5/2020 3:19:00 PM	SL6941
Surr: Dibromofluoromethane	100	70-130		%Rec	10	6/5/2020 3:19:00 PM	SL6941
Surr: Toluene-d8	107	70-130		%Rec	10	6/5/2020 3:19:00 PM	SL6941

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2005C39

09-Jun-20

Client: ENSOLUM
Project: Lateral 2C 15

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: LCSW	Batch ID: SL69396	RunNo: 69396								
Prep Date:	Analysis Date: 6/1/2020	SeqNo: 2406794 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	89.4	70	130			
Toluene	21	1.0	20.00	0	107	70	130			
Surr: 1,2-Dichloroethane-d4	8.6		10.00		85.5	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.1	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.9	70	130			
Surr: Toluene-d8	11		10.00		107	70	130			

Sample ID: MB	SampType: MBLK	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: PBW	Batch ID: SL69396	RunNo: 69396								
Prep Date:	Analysis Date: 6/1/2020	SeqNo: 2406795 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.5		10.00		85.3	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.3	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.2	70	130			
Surr: Toluene-d8	11		10.00		105	70	130			

Sample ID: 2005C39-001ams	SampType: MS	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: MW-1	Batch ID: SL69396	RunNo: 69396								
Prep Date:	Analysis Date: 6/1/2020	SeqNo: 2406797 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	2500	50	1000	1566	89.4	70	130			
Toluene	8400	50	1000	7431	95.9	70	130			E
Surr: 1,2-Dichloroethane-d4	440		500.0		87.5	70	130			
Surr: 4-Bromofluorobenzene	470		500.0		93.1	70	130			
Surr: Dibromofluoromethane	460		500.0		91.7	70	130			
Surr: Toluene-d8	550		500.0		110	70	130			

Sample ID: 2005C39-001amsd	SampType: MSD	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: MW-1	Batch ID: SL69396	RunNo: 69396								
Prep Date:	Analysis Date: 6/1/2020	SeqNo: 2406798 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	2400	50	1000	1566	82.6	70	130	2.78	20	
Toluene	8100	50	1000	7431	62.5	70	130	4.07	20	ES

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 Quantitative 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#: 2005C39

09-Jun-20

Client: ENSOLUM
Project: Lateral 2C 15

Sample ID: 2005C39-001amsd	SampType: MSD	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: MW-1	Batch ID: SL69396	RunNo: 69396								
Prep Date:	Analysis Date: 6/1/2020	SeqNo: 2406798 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	430		500.0		86.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	480		500.0		95.2	70	130	0	0	
Surr: Dibromofluoromethane	460		500.0		92.9	70	130	0	0	
Surr: Toluene-d8	540		500.0		108	70	130	0	0	

Sample ID: mb	SampType: MBLK	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: PBW	Batch ID: SL69410	RunNo: 69410								
Prep Date:	Analysis Date: 6/5/2020	SeqNo: 2408569 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.6		10.00		86.4	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.0	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.0	70	130			
Surr: Toluene-d8	11		10.00		107	70	130			

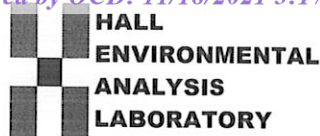
Sample ID: 100ng lcs2	SampType: LCS	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: LCSW	Batch ID: SL69410	RunNo: 69410								
Prep Date:	Analysis Date: 6/5/2020	SeqNo: 2408570 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	89.8	70	130			
Toluene	21	1.0	20.00	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	8.9		10.00		88.7	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		93.8	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.1	70	130			
Surr: Toluene-d8	11		10.00		107	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative 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

Page 5 of 5



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: 2005C39

RcptNo: 1

Received By: Isaiah Ortiz

5/29/2020 8:15:00 AM

I-OK

Completed By: Isaiah Ortiz

5/29/2020 8:35:17 AM

I-OK

Reviewed By:

JP 5/29/20

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ 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: Jim 5/29/20

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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.9	Good	Yes			

www.hallenvironmental.com

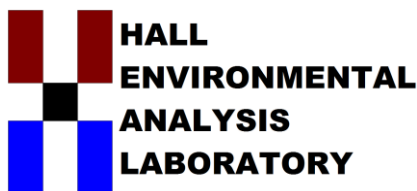
4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Chain-of-Custody Record									
Client: <u>Lab 5 Rio Grande</u>		Turn-Around Time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush							
Sut A 83410		Project Name: <u>Lateral 2C-15</u>							
Mailing Address: <u>Ensalon</u>		Project #: <u>105</u>							
Phone #: _____		Project Manager: <u>H Summers</u>							
email or Fax#: _____		Sampler: <u>CDAPort</u>							
QA/QC Package: <input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
Accreditation: <input type="checkbox"/> Az Compliance <input type="checkbox"/> NELAC <input type="checkbox"/> Other _____		# of Coolers: <u>1</u>							
<input type="checkbox"/> EDD (Type) _____		Cooler Temp (including CF): <u>49-010/49.0</u>							
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.			
5/28	1410	w	mw-1	3 Vials	Hgc/2	2005C39	-001		
5/28	1200	w	mw-2				-002		
5/28	1250	w	mw-3				-003		
5/28	1000	w	mw-4				-004		
5/28	1120	w	mw-5				-005		
5/28	920	w	mw-6				-006		
5/28	1040	w	mw-7				-007		
5/28	845	w	mw-8				-008		
5/28	1330	w	mw-9				-009		
Date: <u>5/28</u>		Time: <u>1549</u>		Relinquished by: <u>[Signature]</u>		Via: <u>Printed</u>		Date: <u>5/28/2022</u>	Time: <u>1549</u>
Date: <u>5/28</u>		Time: <u>1807</u>		Relinquished by: <u>[Signature]</u>		Via: <u>Printed</u>		Date: <u>5/28/2022</u>	Time: <u>1815</u>

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
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

October 23, 2020

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX:

RE: Lateral 2C-15

OrderNo.: 2010844

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 10/17/2020 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,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2010844

Date Reported: 10/23/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-7

Project: Lateral 2C-15

Collection Date: 10/15/2020 11:15:00 AM

Lab ID: 2010844-001

Matrix: AQUEOUS

Received Date: 10/17/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	1.0		µg/L	1	10/21/2020 4:13:57 AM	R72806
Toluene	ND	1.0		µg/L	1	10/21/2020 4:13:57 AM	R72806
Ethylbenzene	1.1	1.0		µg/L	1	10/21/2020 4:13:57 AM	R72806
Xylenes, Total	19	1.5		µg/L	1	10/21/2020 4:13:57 AM	R72806
Surr: 1,2-Dichloroethane-d4	89.5	70-130		%Rec	1	10/21/2020 4:13:57 AM	R72806
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	10/21/2020 4:13:57 AM	R72806
Surr: Dibromofluoromethane	107	70-130		%Rec	1	10/21/2020 4:13:57 AM	R72806
Surr: Toluene-d8	90.7	70-130		%Rec	1	10/21/2020 4:13:57 AM	R72806

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 1 of 10

Analytical Report

Lab Order 2010844

Date Reported: 10/23/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-8

Project: Lateral 2C-15

Collection Date: 10/15/2020 11:55:00 AM

Lab ID: 2010844-002

Matrix: AQUEOUS

Received Date: 10/17/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	1.0		µg/L	1	10/21/2020 4:42:37 AM	R72806
Toluene	ND	1.0		µg/L	1	10/21/2020 4:42:37 AM	R72806
Ethylbenzene	ND	1.0		µg/L	1	10/21/2020 4:42:37 AM	R72806
Xylenes, Total	ND	1.5		µg/L	1	10/21/2020 4:42:37 AM	R72806
Surr: 1,2-Dichloroethane-d4	92.6	70-130		%Rec	1	10/21/2020 4:42:37 AM	R72806
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	10/21/2020 4:42:37 AM	R72806
Surr: Dibromofluoromethane	104	70-130		%Rec	1	10/21/2020 4:42:37 AM	R72806
Surr: Toluene-d8	91.6	70-130		%Rec	1	10/21/2020 4:42:37 AM	R72806

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 2 of 10

Analytical Report

Lab Order 2010844

Date Reported: 10/23/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-6

Project: Lateral 2C-15

Collection Date: 10/15/2020 12:35:00 PM

Lab ID: 2010844-003

Matrix: AQUEOUS

Received Date: 10/17/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	1.0		µg/L	1	10/21/2020 5:11:11 AM	R72806
Toluene	ND	1.0		µg/L	1	10/21/2020 5:11:11 AM	R72806
Ethylbenzene	ND	1.0		µg/L	1	10/21/2020 5:11:11 AM	R72806
Xylenes, Total	ND	1.5		µg/L	1	10/21/2020 5:11:11 AM	R72806
Surr: 1,2-Dichloroethane-d4	85.1	70-130		%Rec	1	10/21/2020 5:11:11 AM	R72806
Surr: 4-Bromofluorobenzene	135	70-130	S	%Rec	1	10/21/2020 5:11:11 AM	R72806
Surr: Dibromofluoromethane	108	70-130		%Rec	1	10/21/2020 5:11:11 AM	R72806
Surr: Toluene-d8	87.1	70-130		%Rec	1	10/21/2020 5:11:11 AM	R72806

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 3 of 10

Analytical Report

Lab Order 2010844

Date Reported: 10/23/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-4

Project: Lateral 2C-15

Collection Date: 10/15/2020 1:15:00 PM

Lab ID: 2010844-004

Matrix: AQUEOUS

Received Date: 10/17/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: JMR
Benzene	1.1	1.0		µg/L	1	10/21/2020 5:39:44 AM	R72806
Toluene	ND	1.0		µg/L	1	10/21/2020 5:39:44 AM	R72806
Ethylbenzene	3.0	1.0		µg/L	1	10/21/2020 5:39:44 AM	R72806
Xylenes, Total	ND	1.5		µg/L	1	10/21/2020 5:39:44 AM	R72806
Surr: 1,2-Dichloroethane-d4	95.5	70-130		%Rec	1	10/21/2020 5:39:44 AM	R72806
Surr: 4-Bromofluorobenzene	144	70-130	S	%Rec	1	10/21/2020 5:39:44 AM	R72806
Surr: Dibromofluoromethane	110	70-130		%Rec	1	10/21/2020 5:39:44 AM	R72806
Surr: Toluene-d8	92.3	70-130		%Rec	1	10/21/2020 5:39:44 AM	R72806

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 4 of 10

Analytical Report

Lab Order 2010844

Date Reported: 10/23/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-2

Project: Lateral 2C-15

Collection Date: 10/15/2020 1:40:00 PM

Lab ID: 2010844-005

Matrix: AQUEOUS

Received Date: 10/17/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: JMR
Benzene	ND	1.0		µg/L	1	10/21/2020 6:08:15 AM	R72806
Toluene	ND	1.0		µg/L	1	10/21/2020 6:08:15 AM	R72806
Ethylbenzene	ND	1.0		µg/L	1	10/21/2020 6:08:15 AM	R72806
Xylenes, Total	63	1.5		µg/L	1	10/21/2020 6:08:15 AM	R72806
Surr: 1,2-Dichloroethane-d4	95.6	70-130		%Rec	1	10/21/2020 6:08:15 AM	R72806
Surr: 4-Bromofluorobenzene	287	70-130	S	%Rec	1	10/21/2020 6:08:15 AM	R72806
Surr: Dibromofluoromethane	102	70-130		%Rec	1	10/21/2020 6:08:15 AM	R72806
Surr: Toluene-d8	86.4	70-130		%Rec	1	10/21/2020 6:08:15 AM	R72806

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 5 of 10

Analytical Report

Lab Order 2010844

Date Reported: 10/23/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-5

Project: Lateral 2C-15

Collection Date: 10/15/2020 2:20:00 PM

Lab ID: 2010844-006

Matrix: AQUEOUS

Received Date: 10/17/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: JMR
Benzene	110	5.0		µg/L	5	10/21/2020 6:36:45 AM	R72806
Toluene	ND	5.0		µg/L	5	10/21/2020 6:36:45 AM	R72806
Ethylbenzene	16	5.0		µg/L	5	10/21/2020 6:36:45 AM	R72806
Xylenes, Total	45	7.5		µg/L	5	10/21/2020 6:36:45 AM	R72806
Surr: 1,2-Dichloroethane-d4	88.6	70-130		%Rec	5	10/21/2020 6:36:45 AM	R72806
Surr: 4-Bromofluorobenzene	162	70-130	S	%Rec	5	10/21/2020 6:36:45 AM	R72806
Surr: Dibromofluoromethane	106	70-130		%Rec	5	10/21/2020 6:36:45 AM	R72806
Surr: Toluene-d8	87.6	70-130		%Rec	5	10/21/2020 6:36:45 AM	R72806

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 6 of 10

Analytical Report

Lab Order 2010844

Date Reported: 10/23/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-3

Project: Lateral 2C-15

Collection Date: 10/15/2020 3:00:00 PM

Lab ID: 2010844-007

Matrix: AQUEOUS

Received Date: 10/17/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: JMR
Benzene	480	5.0		µg/L	5	10/21/2020 7:33:51 AM	R72806
Toluene	ND	5.0		µg/L	5	10/21/2020 7:33:51 AM	R72806
Ethylbenzene	60	5.0		µg/L	5	10/21/2020 7:33:51 AM	R72806
Xylenes, Total	ND	7.5		µg/L	5	10/21/2020 7:33:51 AM	R72806
Surr: 1,2-Dichloroethane-d4	84.2	70-130		%Rec	5	10/21/2020 7:33:51 AM	R72806
Surr: 4-Bromofluorobenzene	576	70-130	S	%Rec	5	10/21/2020 7:33:51 AM	R72806
Surr: Dibromofluoromethane	104	70-130		%Rec	5	10/21/2020 7:33:51 AM	R72806
Surr: Toluene-d8	87.8	70-130		%Rec	5	10/21/2020 7:33:51 AM	R72806

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 7 of 10

Analytical Report

Lab Order 2010844

Date Reported: 10/23/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-9

Project: Lateral 2C-15

Collection Date: 10/15/2020 4:00:00 PM

Lab ID: 2010844-008

Matrix: AQUEOUS

Received Date: 10/17/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: JMR	
Benzene	1100	100		µg/L	100	10/21/2020 6:24:39 PM	B72834
Toluene	1000	10		µg/L	10	10/21/2020 8:02:25 AM	R72806
Ethylbenzene	110	10		µg/L	10	10/21/2020 8:02:25 AM	R72806
Xylenes, Total	660	15		µg/L	10	10/21/2020 8:02:25 AM	R72806
Surr: 1,2-Dichloroethane-d4	91.1	70-130		%Rec	10	10/21/2020 8:02:25 AM	R72806
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	10	10/21/2020 8:02:25 AM	R72806
Surr: Dibromofluoromethane	112	70-130		%Rec	10	10/21/2020 8:02:25 AM	R72806
Surr: Toluene-d8	91.8	70-130		%Rec	10	10/21/2020 8:02:25 AM	R72806

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 8 of 10

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010844

23-Oct-20

Client: ENSOLUM
Project: Lateral 2C-15

Sample ID: 100ng lcs	SampType: LCS		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: LCSW	Batch ID: R72806		RunNo: 72806							
Prep Date:	Analysis Date: 10/20/2020		SeqNo: 2558923		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.5	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Surr: 1,2-Dichloroethane-d4	7.9		10.00		79.4	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	9.8		10.00		97.5	70	130			
Surr: Toluene-d8	9.5		10.00		95.5	70	130			

Sample ID: mb1	SampType: MBLK		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: PBW	Batch ID: R72806		RunNo: 72806							
Prep Date:	Analysis Date: 10/20/2020		SeqNo: 2558924		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.2	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.6	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	9.8		10.00		97.9	70	130			

Sample ID: 100ng lcs	SampType: LCS		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: LCSW	Batch ID: B72834		RunNo: 72834							
Prep Date:	Analysis Date: 10/21/2020		SeqNo: 2559903		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	88.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.7	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		108	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID: mb1	SampType: MBLK		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: PBW	Batch ID: B72834		RunNo: 72834							
Prep Date:	Analysis Date: 10/21/2020		SeqNo: 2559904		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.9	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative 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#: 2010844
23-Oct-20

Client: ENSOLUM
Project: Lateral 2C-15

Sample ID: mb1		SampType: MBLK		TestCode: EPA Method 8260: Volatiles Short List						
Client ID: PBW		Batch ID: B72834		RunNo: 72834						
Prep Date:		Analysis Date: 10/21/2020		SeqNo: 2559904		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	9.9		10.00		99.2	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

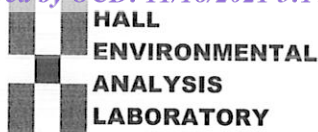
E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 10 of 10



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

Sample Log-In Check List

Client Name: ENSOLUM

Work Order Number: 2010844

RcptNo: 1

Received By: Emily Mocho

10/17/2020 8:00:00 AM

Completed By: Emily Mocho

10/19/2020 8:09:50 AM

Reviewed By: *cm*

10/19/20

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ 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 10/19/20

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	4.0	Good	Yes			

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 62664

CONDITIONS

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 62664
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Upon review of the 2020 GROUNDWATER MONITORING REPORT, OCD approves the 3rd party report recommendations as follows; 1. Report the groundwater monitoring results to the Jicarilla Apache Nation Environmental Protection 2. Agency Office (JAN-EPO) and New Mexico EMNRD OCD. 3. Increase the sampling frequency to quarterly groundwater monitoring as requested by the JAN-EPO. 4. Perform additional site assessment activities to fully define the groundwater plume and potentially further define the source area soil impacts. 5. Initiate NAPL removal activities at monitoring well MW-1.	1/7/2022