



ENTERPRISE PRODUCTS PARTNERS L.P.
ENTERPRISE PRODUCTS GP, LLC
(General Partner)

ENTERPRISE PRODUCTS OPERATING LLC

February 25, 2022

Submitted online via OCD E-Permitting:

<https://wwwapps.emnrd.state.nm.us/OCD/OCDPermitting/default.aspx>

Mr. Nelson Velez
New Mexico Energy, Minerals & Natural Resources
Department – Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: 2020 Supplemental Environmental Site Investigation and Groundwater Monitoring Report
(Ensolum, February 4, 2022)
Enterprise Field Services, LLC
Lateral K-12 Y#3 Condensate Tank Release (3/19/2012)
Rio Arriba Co., NM [S23, T27N R7W (36.554120° N, 107.549350° W)]
OCD RP: 3R-459; Stage 1 AP-132

Dear Mr. Velez:

Enterprise Products Operating LLC (Enterprise), on behalf of Enterprise Field Services LLC, is pleased to submit to the New Mexico (NM) Energy, Minerals & Natural Resources Department (EMNRD) – Oil Conservation Division (OCD) an electronic copy of the above-referenced document prepared by Ensolum, LLC (Ensolum) and dated February 4, 2022. The subject document is associated with the March 19, 2012 condensate release from the Enterprise Lateral K-12 Y#3 condensate tank located in Rio Arriba County at the above-referenced location (the "Site"). The attached document summarizes supplemental environmental site investigation (SESI) activities that occurred in October 2020 and ongoing semi-annual (SA) groundwater monitoring and sampling (GWM&S) activities that occurred at the Site between May 2020 and December 2020 (the "reporting period"). The SESI and GWM&S activities were performed to further define the extent of petroleum hydrocarbon impact and evaluate dissolved-phase hydrocarbon (DPH), or constituents of concern (COC), concentrations in groundwater.

Data presented in the attached report indicate COC concentrations below the applicable New Mexico EMNRD OCD closure criteria for soil. Additionally, data presented in the attached report indicate that DPH or COC concentrations remain at the Site more than the applicable Water Quality Control Commission (WQCC) Groundwater Quality Standards (GQSS) in five monitor wells, SVE-2, SVE-3, MW-2, MW-11, and MW-18.

Based on the data and results presented in the attached report, Enterprise plans to: 1) conduct semi-annual groundwater monitoring and sampling events, 2) further delineate the dissolved-phase groundwater plume and evaluate in-situ remediation options for source area soils, and 3) prepare a Stage 2 Abatement Plan after concurrence that the *Stage 1 Abatement Plan* is deemed administratively complete.

Enterprise appreciates the Oil Conservation Division's (OCD's) continued assistance and guidance in bringing closure to this Site. Should you have any questions, comments or concerns, or require additional information, please feel free to contact me any time at 713-381-8780, or at gemiller@eprod.com.

Sincerely,

Gregory E. Miller, P.G.
Supervisor, Environmental

Rodney M. Sartor, REM
Sr. Director, Environmental

cc: BLM, Farmington, NM – Mr. Ryan Joyner <6251 College Blvd., Suite A, Farmington, NM 87402>
ec: NMOCD, Santa Fe, NM – Mr. Nelson Velez <Nelson.Velez@state.nm.us>
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2020 Supplemental Environmental Site Investigation and Groundwater Monitoring Report

Property:

**Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
SW ¼, S23 T27N R7W
Rio Arriba County, New Mexico**

**New Mexico EMNRD OCD RP No. 3R-459
Abatement Plan No. 132**

February 4, 2022
Ensolum Project No. 05B1226001

Prepared for:

**Enterprise Field Services, LLC
P.O. Box 4324
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Attn: Mr. Greg E. Miller, P.G.**

Prepared by:

A blue ink signature of Landon Daniell, consisting of a stylized 'L' and 'D' followed by a horizontal line.

Landon Daniell
Staff Geologist

A blue ink signature of Marc E. Gentry, featuring a large, circular 'M' and 'G' followed by a horizontal line.

Marc E. Gentry
Principal



2020 Supplemental Environmental Site Investigation and Groundwater Monitoring Report Executive Summary

This report documents the 2020 supplemental environmental site investigation and groundwater monitoring activities conducted at the Lateral K-12 Y#3 Condensate Tank Release (3/19/12) site, referred to hereinafter as the "Site".

The Site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way in the southwest (SW) 1/4 of Section 23, Township 27 North, Range 7 West, in Rio Arriba County, New Mexico.

On March 19, 2012, a natural gas condensate release, estimated at less than one barrel (bbl), occurred as a result of overfilling of a condensate tank. During the excavation of impacted soils (April 2012), a suspected historical earthen pit was discovered, and the excavation was expanded to remove historical hydrocarbon affected soils. Due to the increased area of disturbance and safety factors associated with the depth of the excavation, the excavation activities were suspended by the Bureau of Land Management (BLM). Groundwater was not identified in the 35-foot below grade surface (bgs) excavation. Subsequent site investigations by Animas Environmental Services, LLC (AES) included the advancement of nine soil borings and the installation of three soil vapor extraction (SVE) wells/monitoring wells to delineate the extent of hydrocarbon affected soil and/or groundwater and provide potential "high-vacuum" remediation. Due to a change in the intended use, the SVE wells at this Site are now referred to and used as "monitoring wells." Samples collected from the soil borings and monitoring wells exhibited concentrations of benzene, toluene, ethylbenzene, and total xylenes (BTEX) and total petroleum hydrocarbons (TPH) above 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. Additionally, non-aqueous phase liquid (NAPL) was identified in monitoring well SVE-1. NAPL was removed from SVE-1 by hand bailing and did not recharge. Additional delineation activities were performed by AES during 2013 and 2014, and by Apex TITAN, Inc., (Apex) during 2016. Enterprise retained Apex to perform environmental Site investigation activities between 2016 and 2018. However, following a staffing change at Apex in February 2019, Enterprise reassigned management of the project to Ensolum, LLC (Ensolum).

In May 2019, Enterprise submitted a *Stage 1 Abatement Plan* for this Site to the New Mexico EMNRD OCD. The New Mexico EMNRD OCD has not responded or approved the plan at this time, and Enterprise has resumed semi-annual groundwater monitoring of the Site.

In October 2020, supplemental environmental site investigation (SESI) activities were implemented at the Site to further define the extent of petroleum hydrocarbon impact. In addition, groundwater monitoring events were conducted during May and December 2020 to further evaluate groundwater quality over time and monitor COC concentration trends over time at the Site.

Findings based on the SESI and groundwater monitoring activities are as follows:

- During the October 2020 SESI, four soil borings were advanced at the Site, and three of the soil borings were completed as two-inch diameter monitoring wells. Eight soil samples were collected and submitted for analysis. Soil samples collected from soil borings/well borings did not exhibit COC concentrations above the New Mexico EMNRD OCD closure criteria.
- Based on available information, the first apparent water-bearing unit at the Site (at least in the vicinity of the remediation excavation) appears very limited in thickness and volume and may be more accurately described as subsurface water (as defined in Paragraph (6) of Subsection S of Section 20.6.2.7 New Mexico Administrative Code). The water observed in the upgradient monitoring wells (SVE-1R, SVE-2, SVE-3, and MW-5) may be limited to a small volume of percolating water from precipitation events that periodically collect on or near the surface of the weathered subgrade bedrock



and, depending on the significance of the precipitation events, subsequently drains into the monitoring wells and the associated well bore annuli. This conceptual site model is supported by the lack of groundwater encountered during prior excavation activities (reaching approximately 35 feet bgs); an excavation depth that exceeded the measured apparent depth to groundwater at the Site of approximately 27 feet bgs near the source area. Furthermore, bail-down tests performed on monitoring wells SVE-2 and SVE-3 in 2013 demonstrated insignificant water recharge over several days.

- At the time of the December 2020 groundwater sampling event, monitoring well MW-11 exhibited measurable non-aqueous phase liquid (NAPL) in contact with groundwater and therefore this well was not sampled.
- The groundwater flow direction at the Site is generally towards the east and north under an apparent average gradient of 0.04 feet per foot (ft/ft).
- The May 2020 analytical results for monitoring wells SVE-2, MW-2, and MW-11 indicate BTEX constituent concentrations above the applicable WQCC GQSS. The analytical results for the remaining monitoring wells do not indicate BTEX constituent concentrations above the applicable WQCC GQSS.
- The December 2020 analytical results for monitoring wells SVE-2, SVE-3, MW-2, and MW-18 indicate BTEX constituent concentrations above the applicable WQCC GQSS. The analytical results for the remaining monitoring wells do not indicate BTEX constituent concentrations above the applicable WQCC GQSS.
- With the exception of monitoring wells SVE-3 and MW-11, 2020 groundwater data continue to demonstrate declining or stable COC concentrations in groundwater.
- Sampling data indicate increasing COC concentrations at monitoring well SVE-3. Further, NAPL is now present in contact with groundwater at monitoring well MW-11.

Ensolum offers the following recommendations:

- Report the groundwater monitoring results to the New Mexico EMNRD OCD.
- Conduct semi-annual groundwater monitoring at the Site to further evaluate the concentration of COCs in groundwater and determine if additional delineation is necessary.
- Upon approval by the New Mexico EMNRD OCD, further delineate the dissolved-phase groundwater plume, and evaluate in-situ remediation options for source area soils, as described in the Stage 1 Abatement Plan.
- Once the Stage 1 Abatement Plan is approved and fully implemented, prepare a Stage 2 Abatement Plan.

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Site Description & Background.....	1
1.2	Project Objective.....	2
2.0	SOIL AND GROUNDWATER CLOSURE CRITERIA.....	3
3.0	SUPPLEMENTAL ENVIRONMENTAL SITE INVESTIGATION (OCTOBER 2020)	4
3.1	Soil Sampling Program.....	4
3.2	Soil Laboratory Analytical Program	5
3.3	Soil Data Evaluation	5
3.4	Monitoring Well Installation.....	6
4.0	GROUNDWATER MONITORING (MAY AND DECEMBER 2020).....	6
4.1	Groundwater Sampling Program	6
4.2	Groundwater Laboratory Analytical Methods.....	7
4.3	Groundwater Flow Direction.....	7
4.4	Groundwater Data Evaluation	8
5.0	FINDINGS	9
6.0	RECOMMENDATIONS	10
7.0	STANDARDS OF CARE, LIMITATIONS, AND RELIANCE	10
7.1	Standard of Care.....	10
7.2	Limitations.....	10
7.3	Reliance	11

LIST OF APPENDICES

Appendix A:	Figures
	Figure 1 Topographic Map
	Figure 2 Site Vicinity Map
	Figure 3 Site Map
	Figure 4 2020 Soil Boring/Monitoring Well Locations with Soil Analytical Results
	Figure 5A Groundwater Gradient Map (May 2020)
	Figure 5B Groundwater Gradient Map (December 2020)
	Figure 6A Groundwater Analytical Data Map (May 2020)
	Figure 6B Groundwater Analytical Data Map (December 2020)
Appendix B:	2020 Soil Boring/Well Boring Logs
Appendix C:	Executed C-138 Solid Waste Acceptance Form
Appendix D:	Tables
	Table 1 Soil Analytical Summary
	Table 2 Groundwater Analytical Summary
	Table 3 Groundwater Elevations

**Appendix E: Laboratory Data Sheets &
Chain of Custody Documentation**

Appendix F: New Mexico Office of the State Engineer Permit Approval



2020 Supplemental Environmental Site Investigation and Groundwater Monitoring Report

New Mexico EMNRD OCD RP No. 3R-459 Abatement Plan No. 132

Ensolum Project No. 05B1226001

1.0 INTRODUCTION

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Lateral K-12 Y#3 Condensate Tank Release (3/19/12) (Site)
Location:	36.554120° North, 107.549350° West Southwest (SW) ¼ of Section 23, Township 27 North, Range 7 West Rio Arriba County, New Mexico
Property:	United States Bureau of Land Management (BLM)
Regulatory:	New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On March 19, 2012, a natural gas condensate release, estimated at less than one barrel (bbl), occurred as a result of overfilling of a condensate tank. Animas Environmental Services, LLC (AES) conducted an initial release assessment and subsequently recommended the removal of affected soils (*Release Mitigation and Investigation Report*, AES, July 18, 2012).

During excavation in April 2012, a suspected historical earthen pit was discovered during excavation. Upon discovery, the excavation was expanded to remove the historical petroleum hydrocarbon affected soils. Due to the increased area of disturbance and safety factors associated with the depth of the excavation, the BLM suspended excavation activities. Confirmation soil samples (SC-1 through SC-9) were collected by AES prior to backfill of the excavation. Groundwater was not identified in the 35-foot deep excavation. Subsequent to backfilling the excavation with clean fill, AES conducted a site investigation that included the advancement of seven soil borings (SB-1 through SB-7). Three of the soil borings (SB-1/SVE-1, SB-3/SVE-2, SB-4/SVE-3), were completed as soil-vapor-extraction (SVE) monitoring wells in anticipation of potential future remedial activities. However, an SVE well system was not employed and the SVE wells at this Site are now referred to and used as "monitoring wells."

On July 19, 2013, AES conducted a monitoring event of the SVE wells. Water was present in three SVE wells and non-aqueous phase liquid (NAPL) was present also in monitoring well SVE-1 (1.07 feet thick). The NAPL was removed by hand bailing and did not recharge. AES also advanced two soil borings (SB-8 and SB-9) adjacent to the former excavation, which demonstrated minimal natural attenuation of constituent of concern (COC) concentrations since the backfilling of the excavation. On July 22, 2013, AES collected water samples from monitoring wells SVE-2 and SVE-3 for laboratory analysis of total dissolved solids (TDS) and chlorides. Laboratory analytical results indicated TDS concentrations of 1,160 milligrams per liter (mg/L) and 740 mg/L in SVE-2 and SVE-3, respectively. Chloride concentrations were 110 mg/L and 23 mg/L in SVE-2 and SVE-3, respectively (*Continued Site Investigation Report*, AES, October 4, 2013).

Based on available information, the first apparent water-bearing unit at the Site (at least in the vicinity of the remediation excavation) appears very limited in thickness and volume and may be more accurately described as subsurface water (as defined in Paragraph (6) of Subsection S of Section 20.6.2.7 New Mexico Administrative Code (NMAC)). The water observed in the upgradient monitoring wells (SVE-1R,

2020 Supplemental Environmental Site Investigation and Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
February 4, 2022



SVE-2, SVE-3, and MW-5) may be limited to a small volume of percolating water from precipitation events that periodically collect on or near the surface of the weathered subgrade bedrock. Depending on the significance of the precipitation events, water subsequently drains into the monitoring wells and the associated well bore annuli. This conceptual site model is supported by the lack of groundwater encountered during prior excavation activities (reaching approximately 35 feet bgs) when the bottom of the excavation was below the apparent depth to groundwater at the Site (approximately 27 feet bgs near the source area). Furthermore, bail-down tests performed on monitoring wells SVE-2 and SVE-3 in 2013 demonstrated insignificant water recharge over several days.

A groundwater monitoring and sampling event was conducted by AES on October 8, 2013. NAPL was not observed in monitoring well SVE-1 during this monitoring and sampling event. However, presumably due to settling of the backfilled excavation, the scree of monitoring well SVE-1 was damaged precluding collection of a water sample. Water samples were collected from monitoring wells SVE-2 and SVE-3 for laboratory analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX), and total petroleum hydrocarbons (TPH), gasoline range organics (GRO), diesel range organics (DRO), and motor oil/lube oil range organics (MRO) (*Groundwater Monitoring Report and Continued Site Investigation Workplan*, AES, November 15, 2013).

During January 2014, AES advanced six soil borings, five of which were completed as new groundwater monitoring wells (MW-1 through MW-5), and one (SVE-1R) replacing monitoring well SVE-1. Monitoring well SVE-1 was apparently plugged and abandoned at that time.

During August and September 2016, Apex TITAN, Inc., (Apex) conducted supplemental site investigation activities by advancing seven soil borings to further evaluate the extent of hydrocarbon affected soil and potentially impacted groundwater. Laboratory analytical results identified TPH GRO/DRO concentrations that exceeded applicable New Mexico EMNRD OCD closure criteria in the borings in which monitoring wells MW-11 and MW-13 were installed. Three soil borings were completed as groundwater monitoring wells MW-11 through MW-13. The groundwater analytical results for these wells indicated benzene, toluene, and total xylenes in excess of the WQCC Groundwater Quality Standards (GQSs) (*Supplemental Environmental Site Investigation and Annual Subsurface Water Monitoring Report*, Apex, February 24, 2017).

Semi-annual groundwater sampling was conducted in 2017 and 2018 by Apex. During these sampling events five monitoring wells (SVE-1R, SVE-2, MW-2, MW-11, and MW-13) exhibited COC concentrations above the applicable WQCC GQSs (*Annual Groundwater Monitoring Report (July and December 2017 Events*, Apex, May 24, 2018; *Lateral K-12 Y#3 Condensate Tank Release (3/19/12) 2018 Annual Groundwater Monitoring Report*, Ensolum, LLC (Ensolum), September 26, 2019).

During February 2019, Enterprise assigned management of the project to Ensolum. During March 2019, Enterprise submitted a *Stage 1 Abatement Plan* for this Site to the New Mexico EMNRD OCD (*Stage 1 Abatement Plan*, Ensolum, March 21, 2019). The New Mexico EMNRD OCD has not responded or approved this plan at this time, and Enterprise has resumed semi-annual groundwater monitoring at the Site.

A **Topographic Map** is provided as **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 locations of the monitoring wells and recent soil borings in relation to pertinent structures and general Site features, is provided as **Figure 3 of Appendix A**.

1.2 Project Objective

The objective of the supplemental environmental site investigation and groundwater monitoring events was to further define the extent of petroleum hydrocarbon impact to soil and groundwater and to further evaluate groundwater quality over time and monitor COC concentration trends over time at the Site.

2020 Supplemental Environmental Site Investigation and Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
February 4, 2022



2.0 SOIL AND GROUNDWATER CLOSURE CRITERIA

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to oil and gas releases, the New Mexico EMNRD OCD references NMAC 19.15.29 *Releases*, which establishes investigation and abatement action requirements for oil and gas release sites that are subject to reporting and/or corrective action. 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 soil closure criteria for the Site. Additionally, the New Mexico EMNRD OCD utilizes the New Mexico WQCC GQS (NMAC 20.6.2 *Ground and Surface Water Protection*) to evaluate groundwater conditions.¹ The following identifies the applicable siting criteria for the Site.

- 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). One POD (SJ-00195) was identified in the adjacent Public Land Survey System (PLSS) section. The depth to water for this POD is approximately 500 feet below grade surface (bgs). The monitoring wells installed at the Site are assigned POD number SJ-04075. The average depth to water observed in the on-Site groundwater monitoring wells is 29 feet bgs.
- The Site is located within 300 feet of a New Mexico EMNRD OCD-defined continuously flowing watercourse or significant watercourse.
- 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 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 Statutes Annotated (NMSA) 1978, Section 3-27-3.
- Based on information identified in the U.S. Fish & Wildlife Service National Wetlands Inventory Wetlands Mapper, the Site is not 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.
- Based on information provided by the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) geospatial database, the Site is unlikely to be located within a 100-year floodplain.

¹ NMAC 20.6.2 was amended (12/21/18). The New Mexico EMNRD OCD has not responded to Enterprise's inquiries regarding which closure standards will apply to sites that predate the 2018 rule change. Therefore, this document reflects the GQSs that were applicable at the time of initial remediation.

2020 Supplemental Environmental Site Investigation and Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
February 4, 2022



Based on the identified siting criteria, the applicable closure criteria for soils remaining in place at the Site include:

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

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

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

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

Cleanup goals for groundwater at the Site include:

WQCC Standards for Groundwater ¹		
Constituent*	Method	Limit
Xylenes	EPA SW-846 Method 8021 or 8260	620 µg/L
Ethylbenzene	EPA SW-846 Method 8021 or 8260	750 µg/L
Toluene	EPA SW-846 Method 8021 or 8260	750 µg/L
Benzene	EPA SW-846 Method 8021 or 8260	10 µg/L

* – Constituent concentrations are in micrograms per liter (µg/L).

3.0 SUPPLEMENTAL ENVIRONMENTAL SITE INVESTIGATION (OCTOBER 2020)

During October 2020, supplemental environmental site investigation (SESI) activities were initiated at the Site. Prior to drilling activities, the soil boring locations were “daylighted” to approximately eight feet bgs utilizing a hydro-excavation vacuum truck. Four soil borings were advanced at the Site by Ensolum. The soil boring/well boring locations were advanced utilizing a hollow-stem auger (HSA) drilling rig. **Figure 4 (Appendix A)** identifies the approximate soil boring/well sample locations.

3.1 Soil Sampling Program

Soil samples were collected continuously utilizing five-foot core barrel samplers. Samples and drill cuttings were screened for visual and olfactory evidence of petroleum hydrocarbon impact. A field soil headspace analysis was conducted on each available soil sample interval by placing a representative portion of the sample into a plastic Ziplock[®] bag. The plastic bag was sealed, and the sample allowed to volatilize. The air above the sample, the headspace, was then evaluated using a photoionization detector (PID) capable of detecting VOCs. The PID was calibrated utilizing an isobutylene standard prior to use in the field. PID readings of samples collected from the soil borings ranged from zero parts per million (ppm) to 1,132 ppm (MW-18 (28'-32')). The field screening results are presented on soil boring logs included in **Appendix B**.

During the completion of each soil boring, an Ensolum professional documented the subsurface lithology, color, and moisture content. A continuous profile of the soil column encountered from the ground surface to the boring terminus was prepared. Soil samples from each boring location were visually inspected and classified in general accordance with the Unified Soil Classification System (USCS). The lithologies

¹ NMAC 20.6.2 was amended (12/21/18). The New Mexico EMNRD OCD has not responded to Enterprise's inquiries regarding which closure standards will apply to sites that predate the 2018 rule change. Therefore, this document reflects the QGSs that were applicable at the time of initial remediation.

2020 Supplemental Environmental Site Investigation and Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
February 4, 2022



observed during the advancement of soil borings generally consisted of silt, sand, silty clay, and silty sand underlain by sandstone. Detailed lithologic descriptions are presented on the soil boring logs included in **Appendix B**.

Up to two soil samples were collected for laboratory analysis from each soil boring. Samples were selected for analysis based on the following:

- The depth interval exhibiting the highest concentration of VOCs based on PID evidence;
- An interval exhibiting visual/olfactory evidence of impairment;
- The capillary fringe zone;
- From a change in lithology; or,
- From the bottom of the boring.

Drill cuttings were transported to the Envirotech landfarm for remediation/disposal. The executed C-138 solid waste acceptance form is provided in **Appendix C**.

All soil samples were collected and placed in laboratory prepared glassware. Sample 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 (HEAL) of Albuquerque, New Mexico, under proper chain-of-custody procedures.

3.2 Soil Laboratory Analytical Program

The soil samples collected during the characterization activities were analyzed for TPH GRO/DRO/MRO utilizing United States (U.S) Environmental Protection Agency (EPA) SW-846 Method# 8015; BTEX utilizing EPA SW-846 Method #8260; and chloride utilizing EPA Method #300.0.

A summary of the analytes, sample type, and US EPA or other approved methods is presented in the following table:

Analytes	Sample Type	No. of Samples	Method
TPH GRO/DRO/MRO	Soil	8	EPA SW-846 8015
BTEX	Soil	8	EPA SW-846 8260
Chloride	Soil	8	EPA 300.0

The soil analytical results for the SESI are included in **Table 1 (Appendix D)**. The executed chain-of-custody forms and laboratory data sheets for the SESI are provided in **Appendix E**.

3.3 Soil Data Evaluation

Ensolum compared the BTEX, TPH, and chloride laboratory analytical results or laboratory practical quantitation limits (PQLs) / reporting limits (RLs) associated with soil samples (MW-18 (10'-12'), MW-18 (28'-32'), MW-19 (12'-14'), MW-19 (28'-30'), SB-20 (16'-18'), SB-20 (32'-34'), MW-21 (12'-14'), and MW-21 (32'-34')) to the New Mexico EMNRD OCD closure criteria. All soil analytical data (both current and historical) collected to date is presented in **Table 1 (Appendix D)**.

2020 Supplemental Environmental Site Investigation and Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
February 4, 2022



- The laboratory analytical results for the soil samples collected from the borings/monitoring wells indicate benzene 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 mg/kg.
- The laboratory analytical results for the soil samples collected from the borings/monitoring wells 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 soil samples MW-18 (28'-32'), and MW-21 (32'-34') indicate combined TPH GRO/DRO/MRO concentrations of 9.1 mg/kg and 18 mg/kg, respectively, which are less than the applicable New Mexico EMNRD OCD closure criteria of 100 mg/kg. The laboratory analytical results for all other soil samples collected from the borings/monitoring wells indicate total 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 100 mg/kg.
- The laboratory analytical result for soil sample MW-21 (12'-14') indicates a chloride concentration of 92 mg/kg, which is less than the applicable New Mexico EMNRD OCD closure criteria of 600 mg/kg. The laboratory analytical results for all other soil samples collected from the borings/monitoring wells 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 600 mg/kg.

3.4 Monitoring Well Installation

Three soil borings were completed as two-inch permanent groundwater monitoring wells. The monitoring wells were completed using the following methodology:

- Installation of 10 feet of two-inch diameter, 0.010-inch machine-slotted polyvinyl chloride (PVC) well screen with a threaded bottom cap;
- Installation of two-inch inside diameter, threaded flush joint PVC riser pipe to above the ground surface;
- Addition of pre-sieved, 10/20 grade, annular silica sand pack from the bottom of the soil boring to two feet above the top of the well screen;
- Placement of two or more feet of hydrated bentonite pellets above the sand pack;
- Addition of cement/bentonite slurry to the surface; and,
- Installation of a well pad and an above-grade steel riser with an integrated padlock hasp.

The well completion details are presented on the soil boring logs included in **Appendix B**. The monitoring wells were permitted and approved by the New Mexico OSE. The approved permits are provided in **Appendix F**.

4.0 GROUNDWATER MONITORING (MAY AND DECEMBER 2020)

4.1 Groundwater Sampling Program

Groundwater sampling events were conducted during May and December 2020 by Ensolum. The groundwater sampling program consisted of the collection of one groundwater sample from each of the viable monitoring wells at the Site. During both sampling events in 2020 monitoring wells MW-3 and MW-4 were dry, and MW-5 had insufficient water column to allow collection of samples. The three new monitoring wells (MW-18, MW-19, and MW-21), that were installed in October 2020, were included in the December 2020 sampling event. However, monitoring well MW-21 did not produce a sufficient volume of water to allow for sample collection in December 2020.



The 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 December 2020 sampling event, monitoring well MW-11 exhibited a measurable thickness of NAPL and was not sampled.
- Monitoring wells were sampled utilizing micro-purge low-flow sampling techniques with dedicated or decontaminated sampling equipment. Following the completion of the micro-purge process, one groundwater sample was collected from each monitoring well.
- Low-flow or low-stress sampling refers to sampling methods that are intended to minimize stress that is imparted to the formation pore water in the immediate vicinity of the well screen. Water level drawdown provides the best indication of the stress imparted by a given flow-rate for a given hydrological situation. Pumping rates on the order of 0.1 to 0.5 liters per minute (L/min) are typically maintained during the low-flow/low-stress sampling activities.
- 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. Measurements are taken every three to five minutes while purging. Purging is considered complete once key parameters (especially pH and conductivity) have stabilized for three consecutive readings.
- Groundwater samples were collected in laboratory supplied containers (pre-preserved by the laboratory with mercuric chloride (HgCl_2)). Sample containers were labeled and sealed using the laboratory supplied labels and custody seals and were stored on ice in a cooler. The groundwater samples were relinquished to the courier for HEAL of Albuquerque, New Mexico under proper chain-of-custody procedures.

4.2 Groundwater Laboratory Analytical Methods

The groundwater samples collected from the monitoring wells during the groundwater sampling events were analyzed for BTEX utilizing U.S EPA SW-846 Method #8260.

A summary of the analytes, sample matrix, sample frequency, and EPA-approved analytical methods for the two sampling events are presented on the following table.

Analytes	Sample Matrix	No. of Samples (May/December)	EPA Method
BTEX	Groundwater	8/9	SW-846 8021

Laboratory analytical results are summarized in **Table 2** in **Appendix D**. The executed chain-of-custody forms and laboratory data sheets are provided in **Appendix E**.

4.3 Groundwater Flow Direction

Each monitoring well has been geospatially surveyed or re-surveyed to determine the top-of-casing (TOC) elevation. Based on gauging data from the May 2020 and December 2020 sampling events, the groundwater flow direction (gradient) at the Site is generally toward the east and north under an apparent average gradient of approximately 0.04 feet per foot (ft/ft).



Groundwater elevation data collected during May 2020 and December 2020 (as well as historical gauging data) are presented in **Table 3 (Appendix D)**. Groundwater gradient maps developed for the May 2020 and December 2020 sampling events are included as **Figure 5A** and **Figure 5B (Appendix A)**, respectively.

4.4 Groundwater Data Evaluation

Ensolum compared the BTEX laboratory analytical results or laboratory PQLs/RLs associated with the groundwater samples collected from monitoring wells during the May 2020 and December 2020 sampling events to the New Mexico WQCC GQSs.¹ The results of the groundwater sample analyses are summarized in **Table 2 of Appendix D**. Groundwater analytical data maps are provided as **Figures 6A** and **6B of Appendix A**.

Monitoring wells MW-3 and MW-4 were effectively dry during both 2020 sampling events and no samples were collected. Monitoring well MW-5 did not produce a sufficient volume of water to allow for the collection of water samples during 2020. The three new monitoring wells (MW-18, MW-19, and MW-21), that were installed in October 2020, were included in the December 2020 sampling event. However, monitoring well MW-21 did not produce a sufficient volume of water to allow for sample collection.

May 2020 Sampling Event:

- The analytical results for monitoring wells SVE-2, MW-2, and MW-11 indicate benzene concentrations ranging from 260 micrograms per liter (µg/L) (MW-11) to 1,500 µg/L (MW-2), which exceed the WQCC GQS of 10 µg/L.¹ The analytical results for monitoring wells SVE-1R and SVE-3 indicate benzene concentrations of 1.9 µg/L and 2.5 µg/L, respectively, which are below the WQCC GQS of 10 µg/L.¹ The analytical results for monitoring wells for the remaining monitoring wells do not indicate benzene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 10 µg/L.¹
- The analytical results for monitoring wells MW-11 and MW-13 indicate toluene concentrations of 42 µg/L and 1.3 µg/L, respectively, which are below the WQCC GQS of 750 µg/L.¹ 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 750 µg/L.¹
- The analytical results for monitoring wells SVE-1R, SVE-2, SVE-3, MW-2, MW-11, and MW-13 indicate ethylbenzene concentrations ranging from 2.5 µg/L (MW-13) to 490 µg/L (MW-11), which are below the WQCC GQS of 750 µg/L.¹ 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 750 µg/L.¹
- The analytical results for monitoring wells SVE-2, MW-2, and MW-11 indicate total xylenes concentrations of 2,600 µg/L (SVE-2 and MW-2) and 5,400 µg/L (MW-11), which exceed the WQCC GQS of 620 µg/L.¹ The analytical results for monitoring wells SVE-1R, SVE-3, MW-12, and MW-13 indicate total xylenes concentrations range from 2.7 µg/L (MW-13) to 130 µg/L (SVE-3), which are below the WQCC GQS of 620 µg/L.¹ 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.¹
- No data qualifier flags were associated with the May 2020 analytical results.

¹ NMAC 20.6.2 was amended (12/21/18). The New Mexico EMNRD OCD has not responded to Enterprise's inquiries regarding which closure standards will apply to sites that predate the 2018 rule change. Therefore, this document reflects the GQSs that were applicable at the time of initial remediation.

2020 Supplemental Environmental Site Investigation and Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
February 4, 2022



December 2020 Sampling Event:

Due to the presence of NAPL in contact with groundwater, monitoring well MW-11 was not sampled and is not part of the following discussion.

- The analytical results for monitoring wells SVE-2, SVE-3, MW-2, and MW-18 indicate benzene concentrations ranging from 11 µg/L (SVE-3) to 1,100 µg/L (MW-2), which exceed the WQCC GQS of 10 µg/L.¹ The analytical result for monitoring well SVE-1R indicates a benzene concentration of 2.2 µg/L, which is below the WQCC GQS of 10 µg/L.¹ 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 10 µg/L.¹
- The analytical result for monitoring well MW-18 indicates a toluene concentration of 52 µg/L, which is below the WQCC GQS of 750 µg/L.¹ 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 750 µg/L.¹
- The analytical results for monitoring wells SVE-1R, SVE-2, SVE-3, MW-2, and MW-18 indicate ethylbenzene concentrations ranging from 4.6 µg/L (SVE-1R) to 240 µg/L (SVE-2), which are below the WQCC GQS of 750 µg/L.¹ 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 750 µg/L.¹
- The analytical results for monitoring wells SVE-2 and MW-2 indicate total xylenes concentrations of 1,500 µg/L and 1,300 µg/L, respectively, which exceed the WQCC GQS of 620 µg/L.¹ The analytical results for monitoring wells SVE-1R, SVE-3, and MW-18 indicate total xylenes concentrations ranging from 4.1 µg/L (SVE-1R) to 560 µg/L (MW-18), which are below the WQCC GQS of 620 µg/L.¹ 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.¹
- There are no data qualifier flags associated with the December 2020 analytical results.

5.0 FINDINGS

Based on the evaluation of the analytical results from the 2020 SESI and groundwater monitoring events, Ensolum presents the following findings:

- During the October 2020 SESI, four soil borings were advanced at the Site, and three of the soil borings were completed as two-inch diameter monitoring wells. Eight soil samples were collected and submitted for analysis. Soil samples collected from soil borings/well borings did not exhibit COC concentrations above the New Mexico EMNRD OCD closure criteria.
- At the time of the December 2020 groundwater sampling event, monitoring well MW-11 exhibited measurable NAPL in contact with groundwater and therefore this well was not sampled.
- The groundwater flow direction at the Site is generally towards the east and north under an approximate gradient of 0.04 ft/ft.

¹ NMAC 20.6.2 was amended (12/21/18). The New Mexico EMNRD OCD has not responded to Enterprise's inquiries regarding which closure standards will apply to sites that predate the 2018 rule change. Therefore, this document reflects the GQSs that were applicable at the time of initial remediation.

2020 Supplemental Environmental Site Investigation and Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
February 4, 2022



- The May 2020 analytical results for monitoring wells SVE-2, MW-2, and MW-11 indicate BTEX constituent concentrations above the applicable WQCC GQSSs.¹ The analytical results for the remaining monitoring wells do not indicate BTEX constituent concentrations above the applicable WQCC GQSSs.¹
- The December 2020 analytical results for monitoring wells SVE-2, SVE-3, MW-2, and MW-18 indicate BTEX constituent concentrations above the applicable WQCC GQSSs.¹ The analytical results for the remaining monitoring wells do not indicate BTEX constituent concentrations above the applicable WQCC GQSSs.¹
- With the exception of monitoring wells SVE-3 and MW-11, 2020 groundwater data continue to demonstrate declining or stable COC concentrations in groundwater.
- Sampling data indicate increasing COC concentrations at monitoring well SVE-3. Further, NAPL is now present in contact with groundwater at monitoring well MW-11.

6.0 RECOMMENDATIONS

Based on the results from the 2020 SESI and groundwater monitoring activities, Ensolum has the following recommendations:

- Report the SESI and groundwater monitoring results to the New Mexico EMNRD OCD.
- Conduct semi-annual groundwater monitoring at the Site to further evaluate the concentrations of COCs in groundwater and determine if additional delineation is necessary.
- Upon approval by the New Mexico EMNRD OCD, further delineate the dissolved-phase groundwater plume, and evaluate in-situ remediation options for source area soils, as described in the Stage 1 Abatement Plan.
- Once the Stage 1 Abatement Plan is approved and fully implemented, prepare a Stage 2 Abatement Plan.

7.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

7.1 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.

7.2 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

¹ NMAC 20.6.2 was amended (12/21/18). The New Mexico EMNRD OCD has not responded to Enterprise's inquiries regarding which closure standards will apply to sites that predate the 2018 rule change. Therefore, this document reflects the GQSSs that were applicable at the time of initial remediation.

2020 Supplemental Environmental Site Investigation and Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
February 4, 2022



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

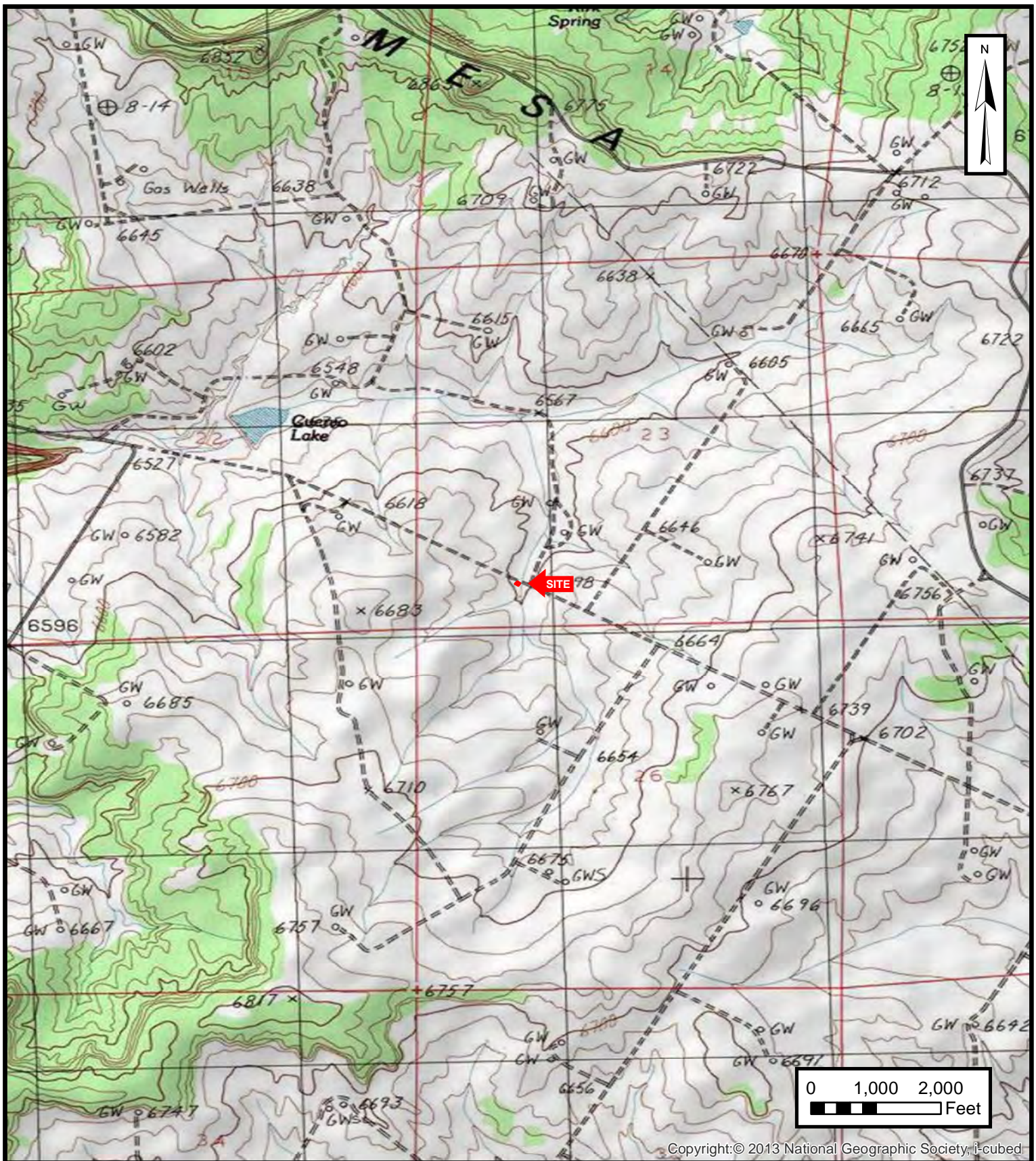
7.3 Reliance

This report has been prepared for the exclusive use of Enterprise Products Operating LLC, 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 Enterprise Products Operating LLC 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.



APPENDIX A

Figures

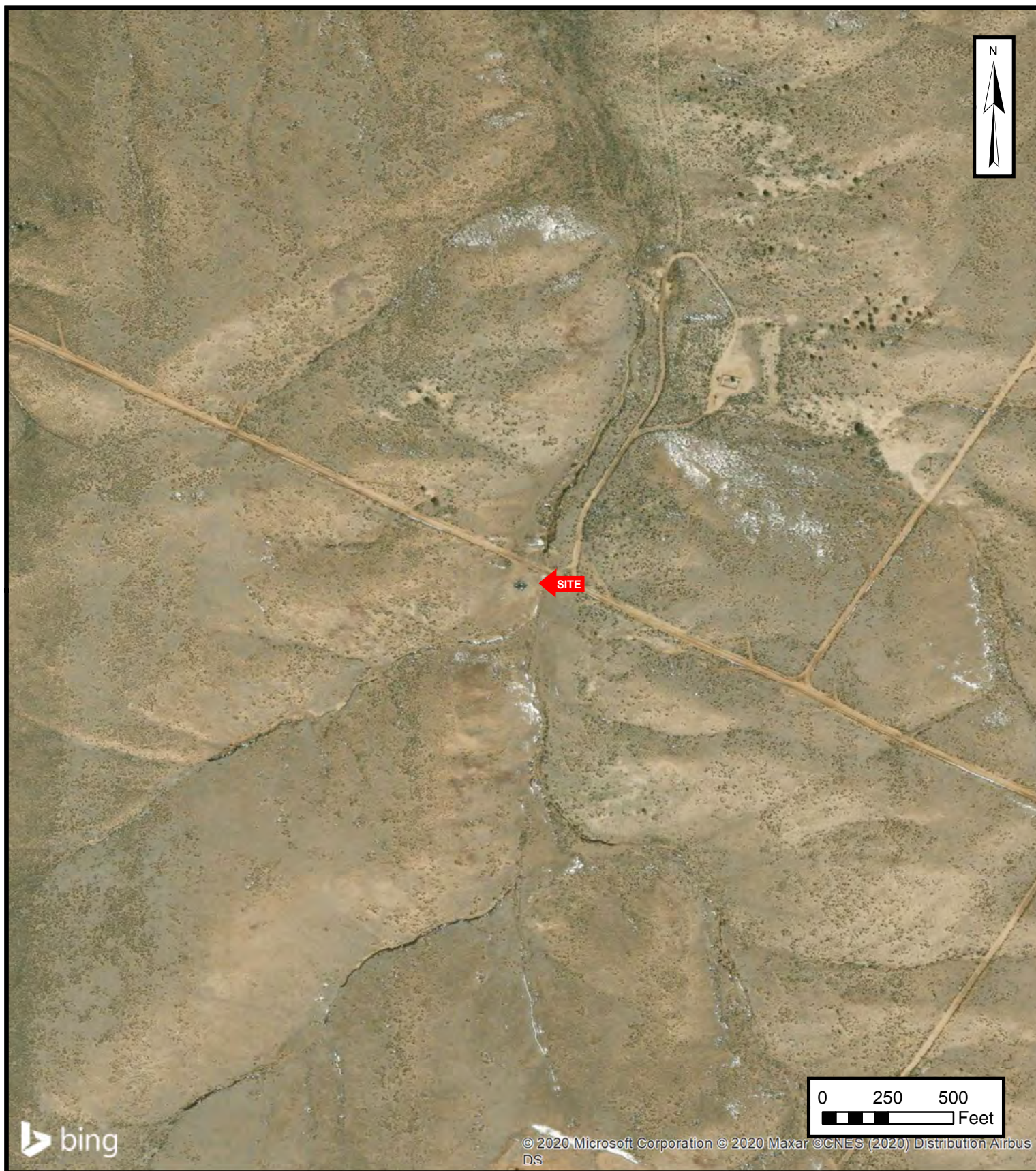


ENSOLUM
Environmental & Hydrogeologic Consultants

TOPOGRAPHIC MAP
ENTERPRISE FIELD SERVICES, LLC
K-12 Y#3 CONDENSATE TANK RELEASE
SW ¼, S23 T27N R7W, Rio Arriba County, New Mexico
36.55412° N, 107.54935° W

FIGURE
1

PROJECT NUMBER: 05B1226001



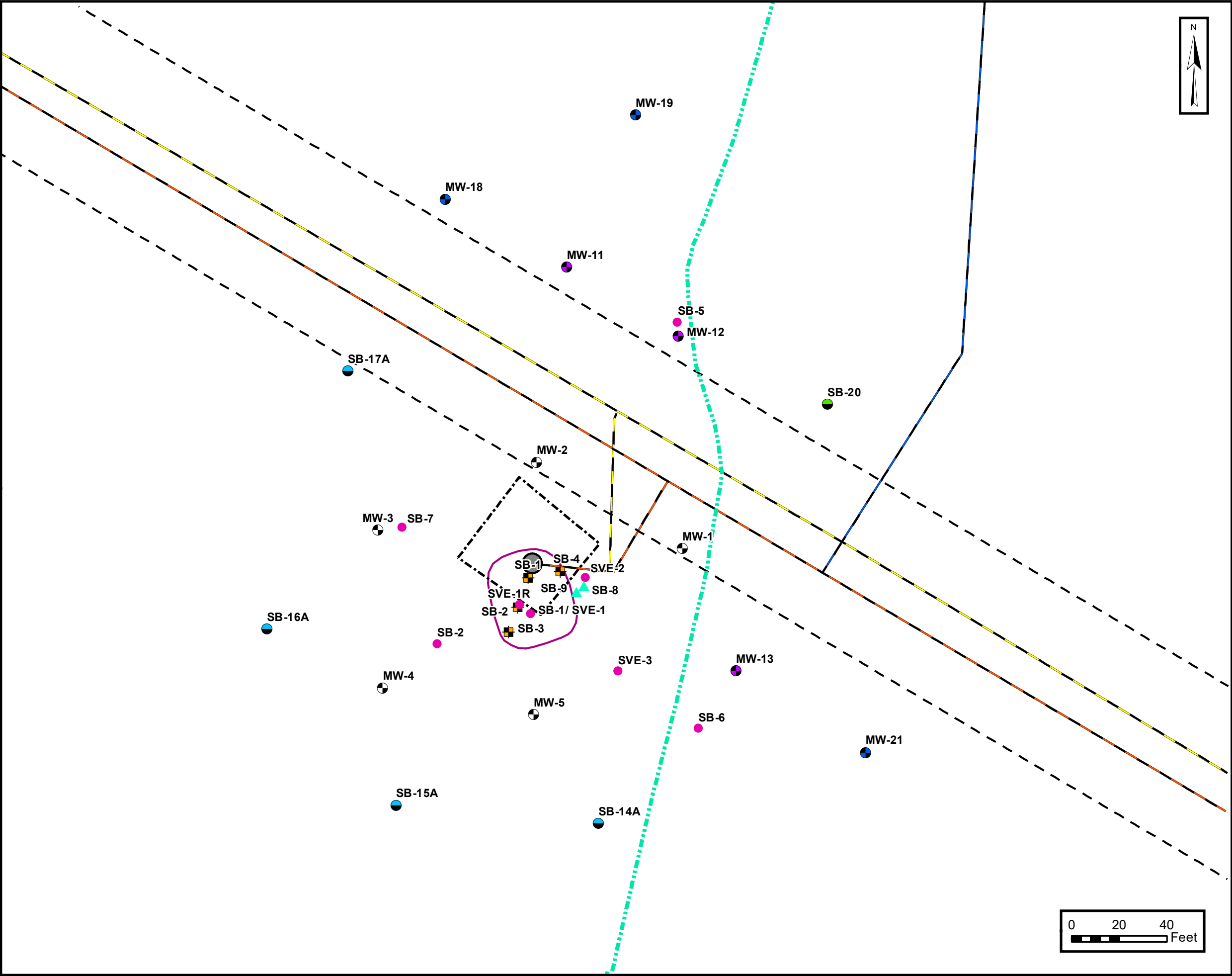
SITE VICINITY MAP

ENTERPRISE FIELD SERVICES, LLC
K-12 Y#3 CONDENSATE TANK RELEASE
SW ¼, S23 T27N R7W, Rio Arriba County, New Mexico
36.55412° N, 107.54935° W

PROJECT NUMBER: 05B1226001

FIGURE

2



LEGEND:

- Monitor Well Location (Ensolum 2020)
- Monitoring Well Location (Apex August 2016)
- Monitoring Well Location (AES January 2013)
- Soil Boring Location (Ensolum 2020)
- Soil Boring Location (Apex August & September 2016)
- Soil Boring Location (AES June 2013)
- Soil Boring Location (AES March 2012)
- Soil Boring Location (AES April 2012)
- Tank
- Fence
- Surface Wash
- 2012 Main Excavation Extent
- Estimated Pipeline Right-of-Way Boundary
- Lateral K-12 Pipeline Location
- Lateral K-12 Loop Pipeline
- X70651 Well Tie Pipeline Location



SITE MAP

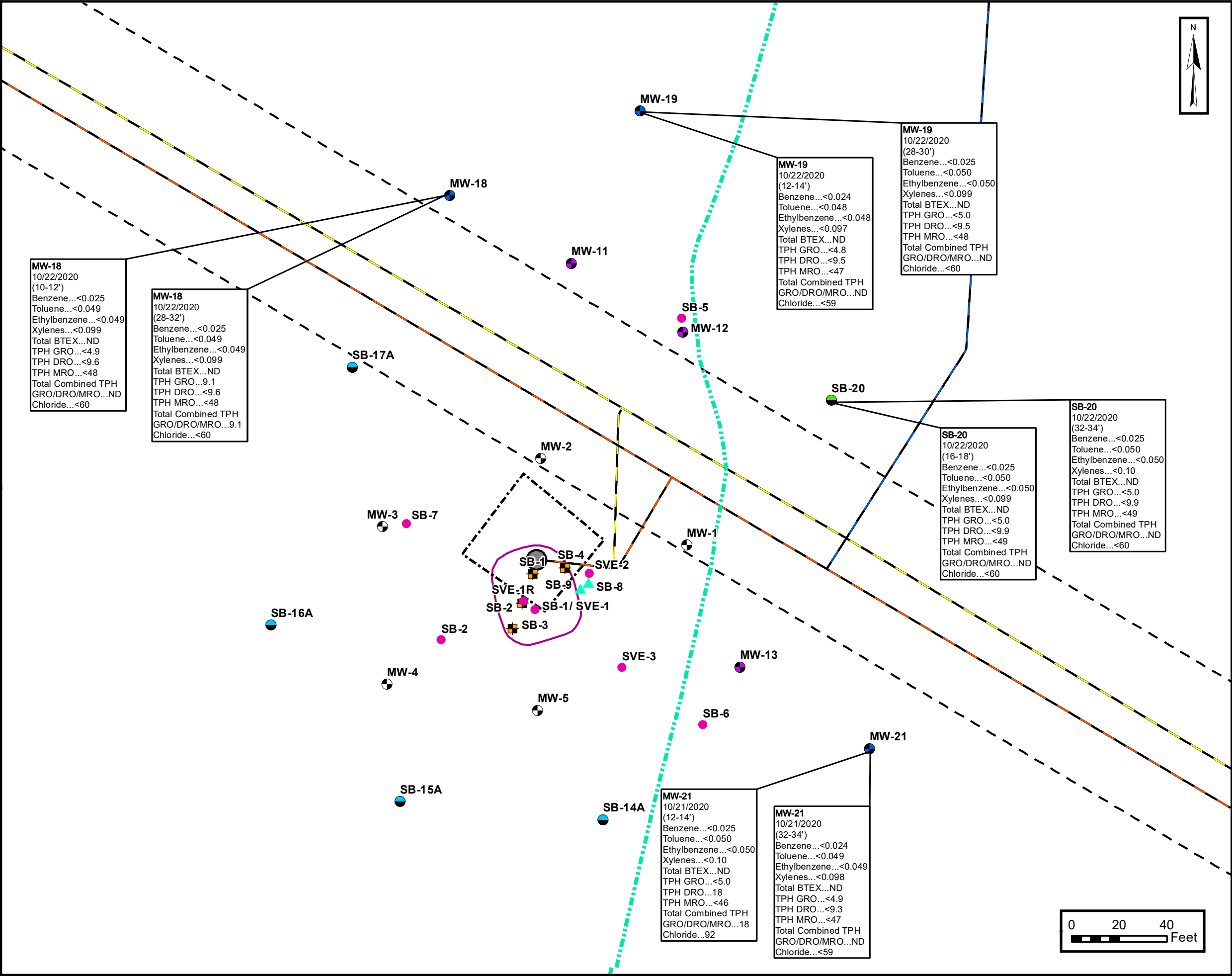
ENTERPRISE FIELD SERVICES, LLC
K-12 Y#3 CONDENSATE TANK RELEASE

SW ¼, S23 T27N R7W, Rio Arriba County, New Mexico
36.55412° N, 107.54935° W

FIGURE

3

PROJECT NUMBER: 05B1226001



LEGEND:

- Monitor Well Location (Ensolum 2020)
- Monitoring Well Location (Apex August 2016)
- Monitoring Well Location (AES January 2013)
- Soil Boring Location (Ensolum 2020)
- Soil Boring Location (Apex August & September 2016)
- Soil Boring Location (AES June 2013)
- Soil Boring Location (AES March 2012)
- Soil Boring Location (AES April 2012)
- Tank
- Fence
- Surface Wash
- 2012 Main Excavation Extent
- Estimated Pipeline Right-of-Way Boundary
- Lateral K-12 Pipeline Location
- Lateral K-12 Loop Pipeline
- X70651 Well Tie Pipeline Location

NOTE:
All concentrations are listed in mg/Kg.
All depths are listed in feet BGS.



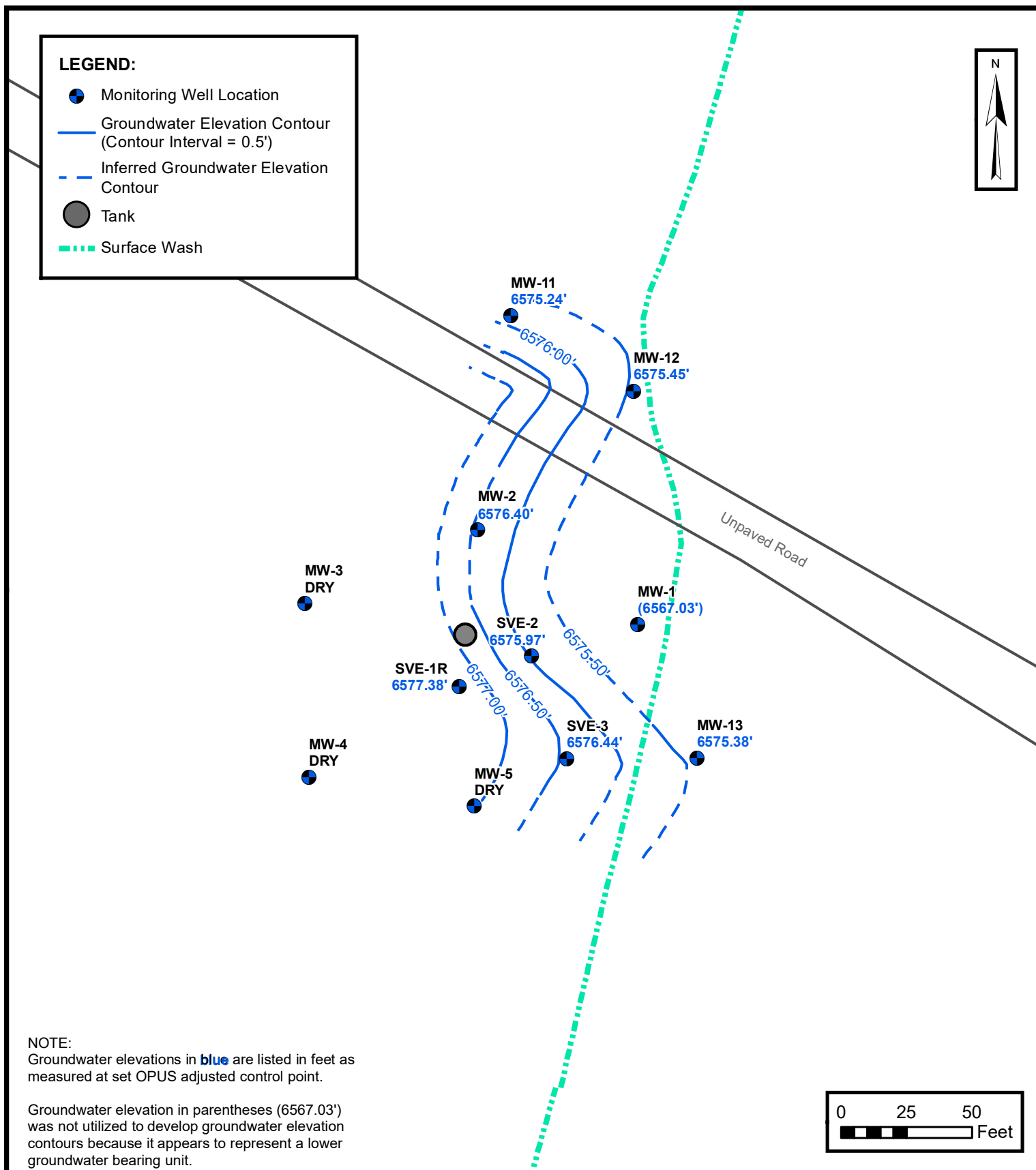
2020 SOIL BORING/MONITORING WELL LOCATIONS WITH SOIL ANALYTICAL RESULTS

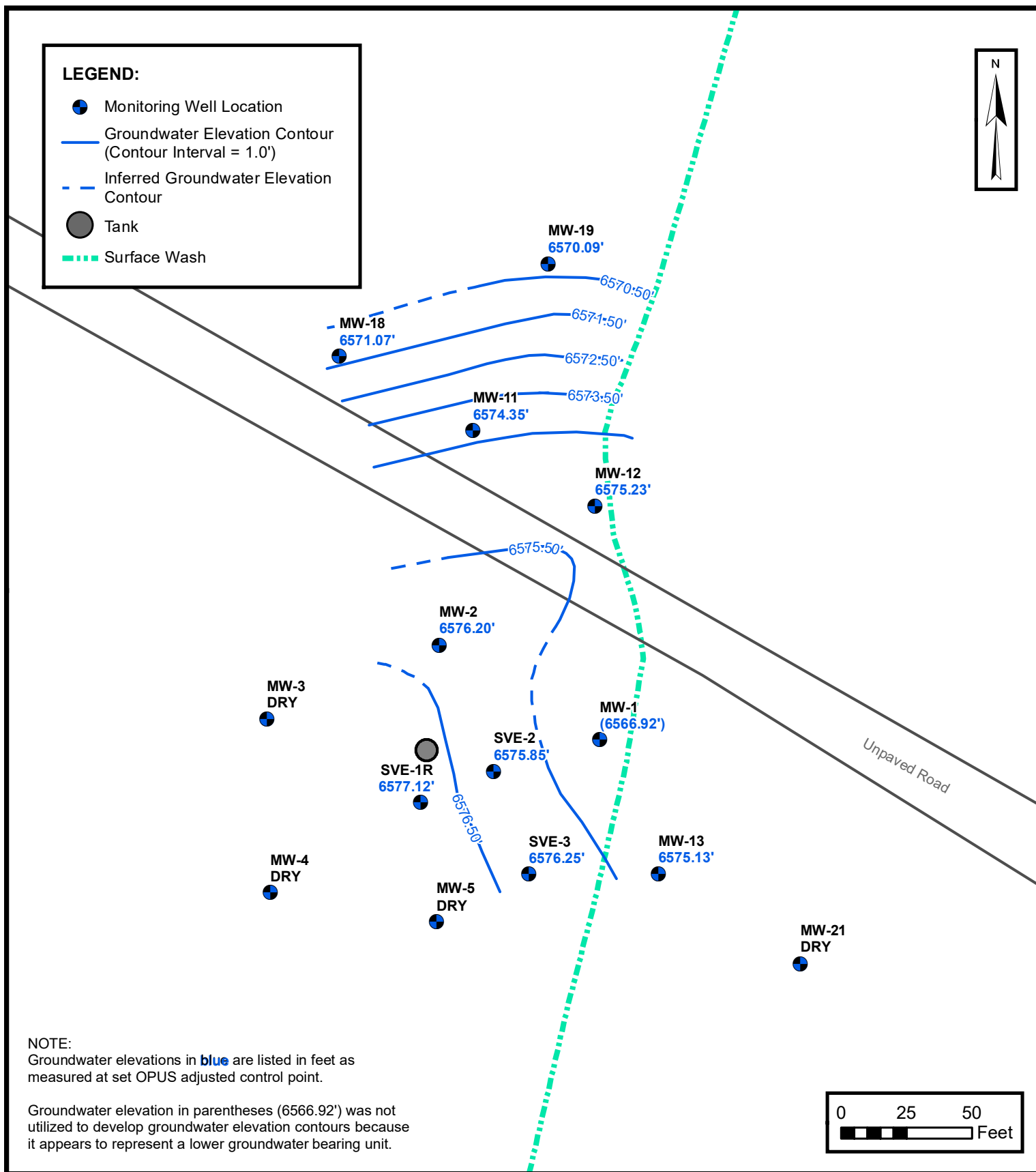
ENTERPRISE FIELD SERVICES, LLC
K-12 Y#3 CONDENSATE TANK RELEASE

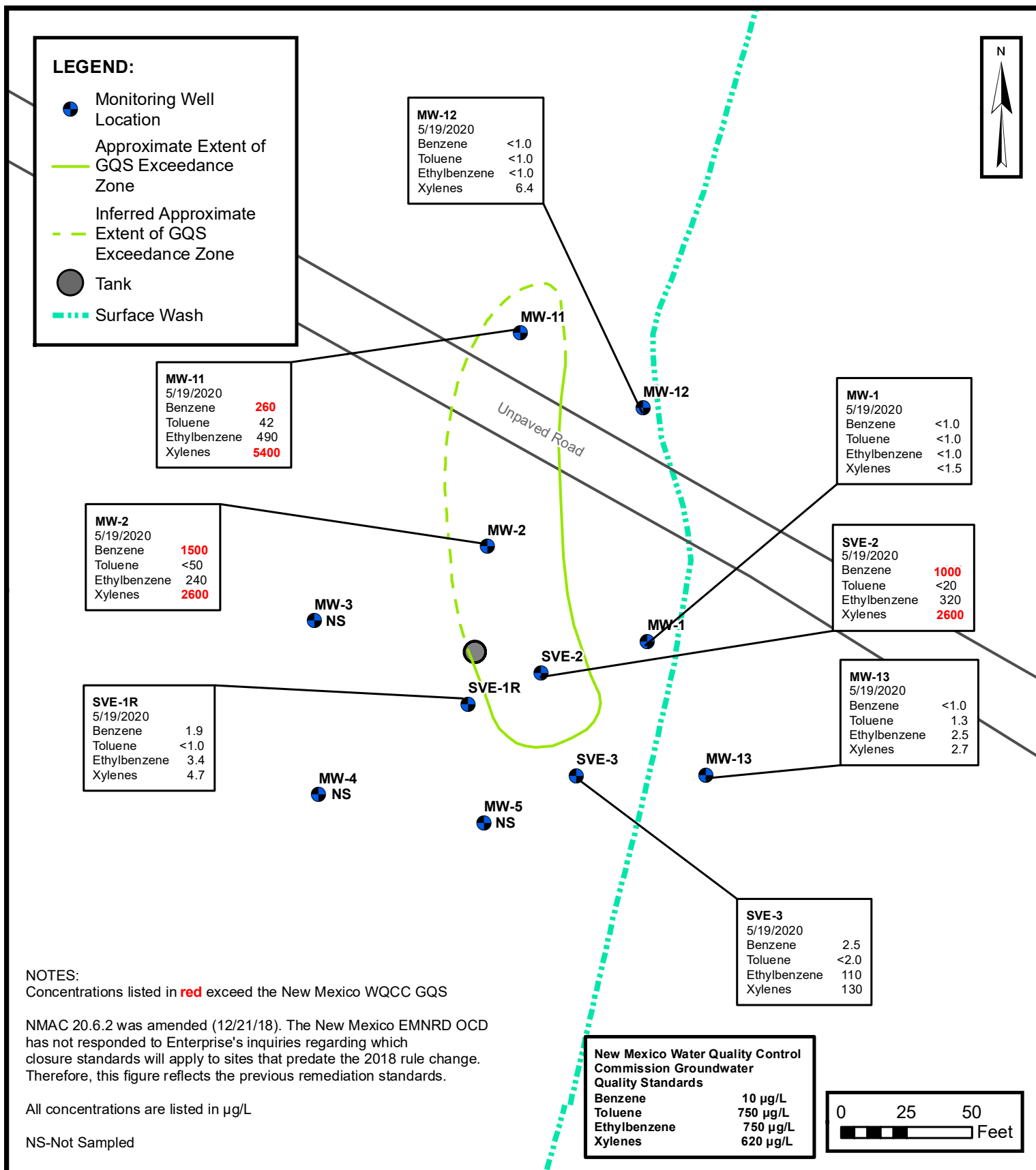
SW ¼, S23 T27N R7W, Rio Arriba County, New Mexico
36.55412° N, 107.54935° W

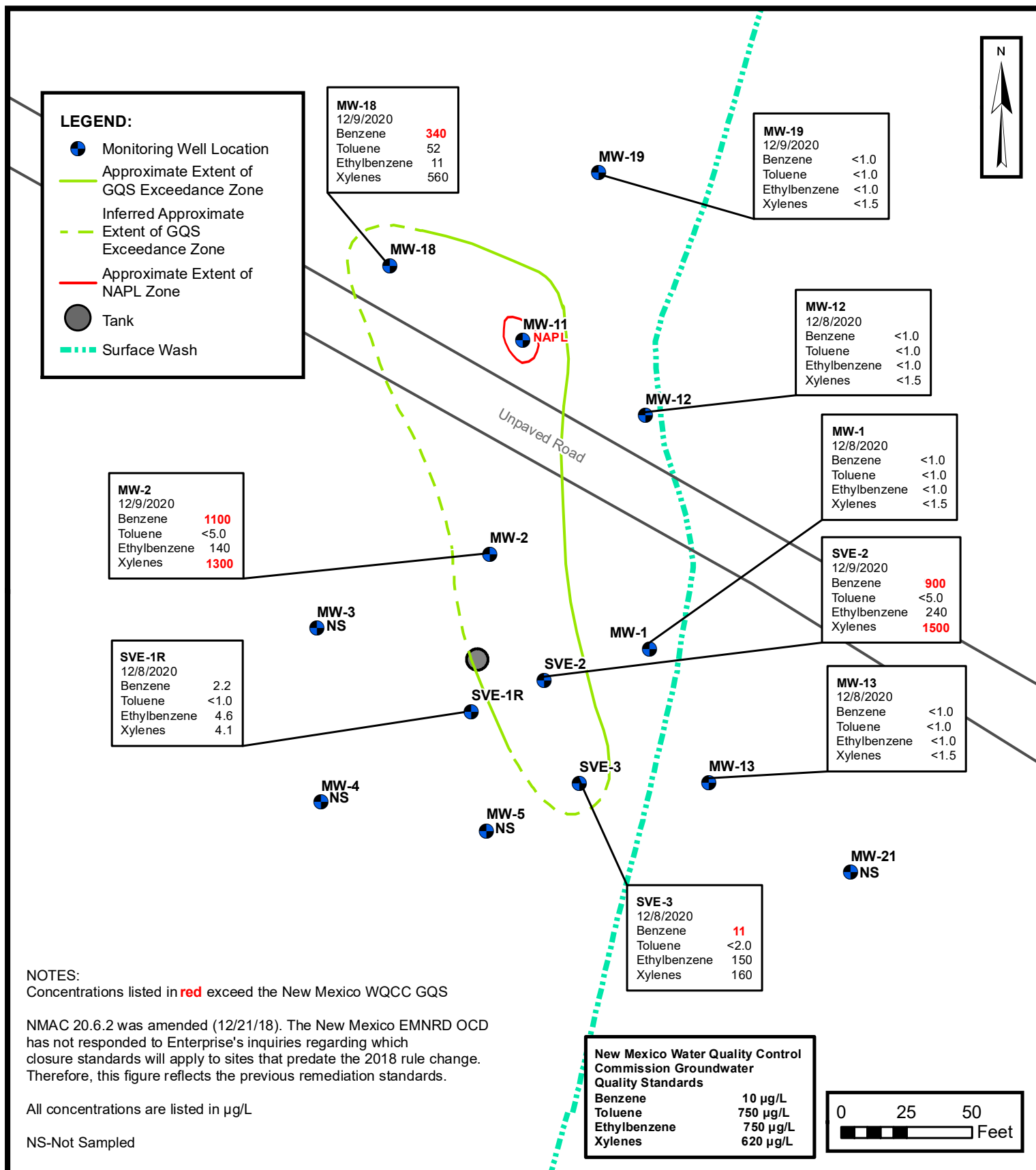
FIGURE
4

PROJECT NUMBER: 05B1226001











APPENDIX B

2020 Soil Boring/Well Boring Logs

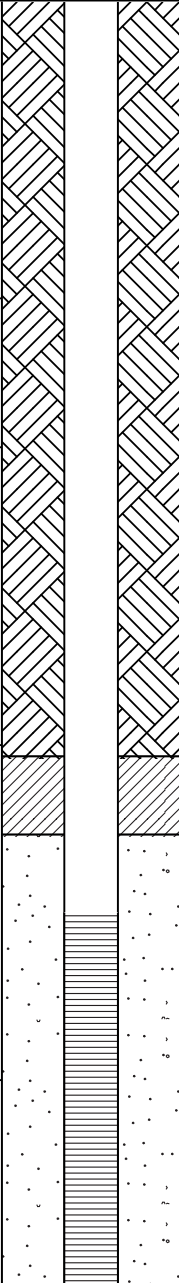


BORING LOG MW-21

PROJECT NUMBER 05B1226001 PROJECT NAME Lateral K-12 Y#3 CLIENT Enterprise Field Services, LLC LOCATION Rio Arriba County, New Mexico PROJECT MANAGER M. Gentry			DRILLING DATE October 21, 2020 DRILLER Enviro-Drill, Inc. LONGITUDE 107.54935 W LATITUDE 36.55412 N BORING METHOD Hollow Stem Auger			DIAMETER 8 in. TOTAL DEPTH 34.5-feet CASING N/A SCREEN 10 feet COMPLETION Above Ground		
COMMENTS						LOGGED BY L. Daniell CHECKED BY M. Gentry		
Depth (ft)	Samples	% Recovery	PID	Graphic Log	Water	Material Description	Well Diagram	
2			ND			Potholed to depth of 8 feet		
4								
6								
8			0.1			Sand, reddish brown, fine- to medium-grained (trace fines), slightly moist, no hydrocarbon odor		
10			0.6			-Brown to light brown, very fine- to fine-grained, slightly moist, no hydrocarbon odor from 11 to 15 feet bgs		
12	MW-21 (12 - 14')		0.7					
14			0.2					
16			0.4			Silt, gray, dry, hard, no hydrocarbon odor		
18			0.0			-3" Sandy silt at 15 feet bgs		
20			0.0			-Soft from 16.5 to 21 feet bgs		
22			0.0			-Black with trace clay from 19 to 21 feet bgs		
24			0.0			-Stiff from 21 to 25 feet bgs		
26			0.3			-Firm to hard at 25 feet bgs		
28			0.4					
30			0.3					
32	MW-21 (32 - 34')		0.4			Sandstone, gray, very fine- to fine-grained, dry, no hydrocarbon odor		
34								
36						End of Boring at 34.5 ft bgs		
38								

BORING LOG SB-20

PROJECT NUMBER 05B1226001 PROJECT NAME Lateral K-12 Y#3 CLIENT Enterprise Field Services, LLC LOCATION Rio Arriba County, New Mexico PROJECT MANAGER M. Gentry			DRILLING DATE October 22, 2020 DRILLER Enviro-Drill, Inc. LONGITUDE 107.54935 W LATITUDE 36.55412 N BORING METHOD Hollow Stem Auger			DIAMETER 8 in. TOTAL DEPTH 34.5-feet	
COMMENTS						LOGGED BY L. Daniell CHECKED BY M. Gentry	
Depth (ft)	Samples	% Recovery	PID	Graphic Log	Water	Material Description	Well Diagram
2			ND			Potholed to depth of 8 feet	
4							
6							
8			0.8			Silt, moderate yellowish brown, dry, firm to hard, no hydrocarbon odor	
10			0.8				
12			0.8				
14			0.5			Clayey Silt, light olive gray, dry, hard, no hydrocarbon odor	
16	SB-20 (16 - 18')		0.8				
18			0.3				
20			0.1			Silty Clay, olive gray, dry, firm, no hydrocarbon odor	
22			0.3			-Interbedded silty clay, light olive gray, dry, soft to firm, no hydrocarbon odor	
24			0.2			-Multiple <1" beds with dark reddish brown coloration	
26			0.2				
28			0.3				
30			ND				
32	SB-20 (32 - 34')		0.4				
34			0.4			Sandstone, gray, very fine- to fine-grained, dry, no hydrocarbon odor	
36						TD at 34.5 ft bgs	
38							

BORING LOG MW-19

PROJECT NUMBER 05B1226001 PROJECT NAME Lateral K-12 Y#3 CLIENT Enterprise Field Services, LLC LOCATION Rio Arriba County, New Mexico PROJECT MANAGER M. Gentry						DRILLING DATE October 22, 2020 DRILLER Enviro-Drill, Inc. LONGITUDE 107.54935 W LATITUDE 36.55412 N BORING METHOD Hollow Stem Auger						DIAMETER 8 in. TOTAL DEPTH 34.5-feet CASING N/A SCREEN 10 feet COMPLETION Above Ground																							
COMMENTS												LOGGED BY L. Daniell CHECKED BY M. Gentry																							
Depth (ft)		Samples		% Recovery		PID		Graphic Log		Water		Material Description												Well Diagram											
2						ND						Potholed to depth of 8 feet																							
4																																			
6																																			
8						2.1						Silt, moderate brown, dry, soft to firm, no hydrocarbon odor																							
10						9.7						-Slightly moist at 10.5 feet bgs																							
12		MW-19 (12 - 14')				10.5						-Some intervals of silt with minor sand																							
14						1.2						Silty Sand, brown, very fine- to fine-grained, slightly moist, no hydrocarbon odor																							
16						2.6						-Interbedded sandy silt, <1" thickness																							
18						ND																													
20						0.9						Sand, moderate brown, very fine- to medium-grained, slightly moist, no hydrocarbon odor																							
22						0.8						-Trace silt																							
24						0.9						-Interbedded with medium- to coarse-grained sand																							
26						ND						-Minor oxidation																							
28		MW-19 (28 - 30')				18.1						- Yellowish gray with moderate oxidation, fine- to medium-grained, dry, loose to very hard (almost consolidated), no hydrocarbon odor from 23.5 to 29 feet bgs																							
30						5.2						Sandstone, gray, very fine- to fine-grained, slightly moist, no hydrocarbon odor																							
32						2.3						-Very moist at 32.5 feet bgs																							
34						2.4																													
36												TD at 34.5 ft bgs																							
38																																			

BORING LOG MW-18

PROJECT NUMBER 05B1226001 PROJECT NAME Lateral K-12 Tank Y-3 CLIENT Enterprise Field Services, LLC LOCATION Rio Arriba County, New Mexico PROJECT MANAGER M. Gentry						DRILLING DATE October 22, 2020 DRILLER Enviro-Drill, Inc. LONGITUDE 107.54935 W LATITUDE 36.55412 N BORING METHOD Hollow Stem Auger						DIAMETER 8 in. TOTAL DEPTH 34.5-feet CASING N/A SCREEN 10 feet COMPLETION Above Ground											
COMMENTS												LOGGED BY L. Daniell CHECKED BY M. Gentry											
Depth (ft)		Samples		% Recovery		PID		Graphic Log		Water		Material Description						Well Diagram					
						ND						Potholed to depth of 8 feet						MW-18					
2																							
4																							
6																							
8						0.5						Silt, moderate brown, moist, soft to firm, no hydrocarbon odor											
10		MW-18 (10 - 12')				0.5						-Minor sand											
12						0.1						-Hard from 11 to 12 feet bgs											
14						0.1						-Dry from 13 to 15.5 feet bgs											
16						0.0																	
18						0.0						Silty Sand, yellowish gray, very fine- to fine-grained, slightly moist, soft to firm, no hydrocarbon odor											
20						0.1						-Some hard intervals											
22						0.0																	
24						0.0						Sand, yellowish orange (oxidized), fine- to medium-grained, slightly moist, loose, no hydrocarbon odor											
26						0.3						Silty Sand, grayish orange, fine- to medium-grained, slightly moist, soft to firm, no hydrocarbon odor											
28		MW-18 (28 - 32')				1132						Sandstone, gray, very fine- to fine-grained, slightly moist, no hydrocarbon odor											
30												Very moist at 32.5 feet bgs											
32						ND																	
34																							
36												TD at 34.5 ft bgs											
38																							



APPENDIX C

Executed C-138 Solid Waste Acceptance Form

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

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

Form C-138
Revised 08/01/11

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

97057-1125

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

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

2. **Originating Site: Lateral K-12 Y#3**

3. **Location of Material (Street Address, City, State or ULSTR):**
UL M S23 T27N R7W, GPS 36.55412N, 107.54935W, Rio Arriba, NM

Dec 2020

4. **Source and Description of Waste:**

Source: Hydrocarbon impacted soils and water associated with remediation activities for a natural gas pipeline release.

Description: Hydrocarbon impacted soils and water associated with remediation activities for a natural gas pipeline release.

Estimated Volume 5 yd³ (bbls) Known Volume (to be entered by the operator at the end of the haul) 5 yd³ bbls Drums

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Thomas Long, representative or authorized agent for Enterprise Field Services, LLC 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, 12-10-2020, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete

Generator Signature

the required testing/sign the Generator Waste Testing Certification.

I, Greg Crabtree, representative for Envirotech do hereby certify that

Representative/Agent Signature

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: OFT

OCD Permitted Surface Waste Management Facility

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

Address of Facility: Hilltop, NM

Method of Treatment and/or Disposal:

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

Waste Acceptance Status:

☒ APPROVED

☐ DENIED (Must Be Maintained As Permanent Record)

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

TITLE: Enviro Manager DATE: 12/10/20
TELEPHONE NO.: 505-632-0615



APPENDIX D

Tables



TABLE 1
Lateral K-12 Y #3 Condensate Tank Release
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	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/MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria			10	NE	NE	NE	50				100	600
Soil Borings Advanced by Animas Environmental Services, LLC during Initial Release Assessment (2012)												
SB-1	3.20.12	8	<1.0	36	9.9	140	186	1,800	800	NA	2,600	NA
SB-2	3.20.12	8	<0.97	5.4	6.2	90	102	1,500	1,100	NA	2,600	NA
SB-3	3.20.12	8	<0.049	<0.049	<0.049	<0.098	ND	<4.9	<10	NA	ND	NA
SB-4	3.20.12	8	<0.050	<0.050	<0.050	0.24	0.24	13	<10	NA	13	NA
Excavation Soil Samples Collected by Animas Environmental Services, LLC (2012)												
S-1	4.09.12	20 to 25	3.2	18	8.1	100	129	1,400	490	NA	1,890	<30
S-2	4.09.12	30	11	86	18	210	325	3,400	980	NA	4,380	140
SC-1	4.17.12	35	<0.93	2.3	<0.93	8.4	11	180	140	<49	320	NA
SC-2	4.17.12	35	<4.7	38	8.1	110	156	1,600	620	59	2,279	NA
SC-3	4.17.12	35	<2.3	3.9	<2.3	23	27	430	310	69	809	NA
SC-4	4.17.12	35	<2.4	24	5.9	77	107	1,200	520	68	1,788	NA
SC-5	4.17.12	35	<0.99	6.7	2.3	27	36	540	200	<49	740	NA
SC-6	4.17.12	25 to 35	2.5	35	5.5	70	113	1,200	790	<490	1,990	NA
SC-7	4.17.12	25 to 35	<0.94	4.8	1.5	18	24	410	180	<49	590	NA
SC-8	4.17.12	25 to 35	<0.048	<0.048	<0.048	<0.095	ND	<4.8	<9.9	<50	ND	NA
SC-9	4.17.12	25 to 35	<0.94	<0.94	<0.94	14	14	160	100	<48	260	NA
Soil Borings Advanced by Animas Environmental Services, LLC (2012-2014)												
SB-1/SVE-1	4.25.12	25 to 27	<0.47	0.97	0.59	7.8	9.4	150	420	61	631	NA
	4.25.12	35 to 37	<0.048	<0.048	<0.048	<0.096	ND	<4.8	<10	<52	ND	NA
SB-2	4.25.12	15 to 17	<0.049	<0.049	<0.049	<0.098	ND	<4.9	<9.9	<49	ND	NA
	4.25.12	25 to 27	<0.049	<0.049	<0.049	<0.098	ND	<4.9	<10	<50	ND	NA
	4.25.12	30 to 32	<0.050	<0.050	<0.050	<0.099	ND	<5.0	<9.6	<48	ND	NA
SB-3/SVE-2	4.25.12	20 to 22	<0.049	<0.049	<0.049	<0.098	ND	<4.9	<9.8	<49	ND	NA
	4.25.12	25 to 27	<0.97	0.99	4.1	43	48	1,100	820	97	2,017	NA
	4.25.12	30 to 32	<0.050	<0.050	<0.050	<0.10	ND	<5.0	<10	<50	ND	NA
SB-4/SVE-3	4.26.12	5 to 7	<0.097	<0.097	<0.097	<0.19	ND	<9.7	210	NA	210	NA
	4.26.12	25 to 27	<0.049	<0.049	<0.049	<0.099	ND	<4.9	15	NA	15	NA
	4.26.12	30 to 32	<0.049	<0.049	<0.049	0.37	0.37	13	<9.6	NA	13	NA



TABLE 1
Lateral K-12 Y #3 Condensate Tank Release
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	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/MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria			10	NE	NE	NE	50				100	600
SB-5	4.26.12	20 to 22	<0.049	<0.049	<0.049	<0.098	ND	<4.9	<10	NA	ND	NA
	4.26.12	25 to 27	<0.047	<0.047	<0.047	<0.095	ND	<4.7	<9.9	NA	ND	NA
SB-6	4.30.12	15 to 17	<0.049	<0.049	<0.049	<0.099	ND	<4.9	<10	NA	ND	NA
	4.30.12	20 to 22	<0.047	<0.047	<0.047	<0.093	ND	<4.7	<10	NA	ND	NA
	4.30.12	25 to 27	<0.048	<0.048	<0.048	<0.097	ND	<4.8	<10	NA	ND	NA
SB-7	4.30.12	15 to 17	<0.049	<0.049	<0.049	<0.097	ND	<4.9	<9.8	NA	ND	NA
	4.30.12	20 to 22	<0.050	<0.050	<0.050	<0.099	ND	<5.0	<9.9	NA	ND	NA
	4.30.12	25 to 27	<0.048	<0.048	<0.048	<0.097	ND	<4.8	<9.8	NA	ND	NA
SB-8	6.19.13	20 to 22	<0.12	0.50	0.96	6.4	7.9	240	28	NA	268	NA
	6.19.13	22 to 24	0.24	1.3	2.7	19	23	680	460	NA	1,140	NA
	6.19.13	24 to 25	<0.12	0.49	4.9	33	38	1,100	790	NA	1,890	NA
SB-9	6.19.13	20 to 22	<0.093	0.12	0.27	1.9	2.3	57	29	NA	85	NA
	6.19.13	22 to 24	2.2	32	10	100	144	2,000	890	NA	2,890	NA
	6.19.13	24 to 25	1.2	21	7.0	53	82	1,700	570	NA	2,270	NA
SB-10/MW-1	1.14.14	24.5 to 25	<0.001	<0.001	<0.001	<0.003	ND	<0.05	<2	NA	ND	NA
SB-11/MW-2	1.14.14	27.5 to 28	<0.006	0.05	0.3	12	12	190	270	NA	460	NA
SB-12/MW-3	1.15.14	16 to 17	<0.001	<0.001	<0.001	<0.003	ND	<0.05	<2	NA	ND	NA
SB-13/MW-4	1.16.14	16 to 17	<0.001	0.003	<0.001	<0.004	0.003	<0.06	<2	NA	ND	NA
	1.16.14	24 to 25	<0.001	<0.001	<0.001	<0.003	ND	<0.05	13	NA	13	NA
SB-14/MW-5	1.15.14	23 to 24	<0.001	<0.001	<0.001	<0.003	ND	<0.06	2	NA	2	NA
	1.15.14	27 to 28	<0.001	0.003	<0.001	<0.004	0.003	<0.06	18	NA	18	NA
SB-15/SVE-1R	1.15.14	22.5 to 23.5	<0.001	<0.001	<0.001	<0.003	ND	<0.06	<2	NA	ND	NA
Soil Borings Advanced by Apex TITAN, Inc (2016)												
MW-11	8.30.16	29 to 29.5	<0.24	<0.48	1.0	10	11	410	150	NA	560	NA
MW-12	8.30.16	27 to 27.5	<0.025	<0.050	<0.050	<0.099	ND	<5.0	<9.9	NA	ND	NA
MW-13	8.31.16	25 to 27.5	0.50	6.3	5.1	35	47	2,500	270	NA	2,770	NA
SB-14A	8.31.16	25 to 26	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<9.5	NA	ND	NA



TABLE 1
Lateral K-12 Y #3 Condensate Tank Release
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	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/MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria			10	NE	NE	NE	50				100	600
SB-15A	8.31.16	22.5 to 25	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<9.9	NA	ND	NA
SB-16A	9.1.16	20 to 22.5	<0.023	<0.047	<0.047	<0.093	ND	<4.7	<10	NA	ND	NA
SB-17A	8.30.16	23 to 23.5	<0.024	<0.047	<0.047	<0.095	ND	<4.7	<10	NA	ND	NA
Soil Borings Advanced by Ensolum, LLC (2020)												
MW-18	10.22.20	10 to 12	<0.025	<0.049	<0.049	<0.099	ND	<4.9	<9.6	<48	ND	<60
	10.22.20	28 to 32	<0.025	<0.049	<0.049	<0.099	ND	9.1	<9.6	<48	9.1	<60
MW-19	10.22.20	12 to 14	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<9.5	<47	ND	<59
	10.22.20	28 to 30	<0.025	<0.050	<0.050	<0.099	ND	<5.0	<9.5	<48	ND	<60
SB-20	10.22.20	16 to 18	<0.025	<0.050	<0.050	<0.099	ND	<5.0	<9.9	<49	ND	<60
	10.22.20	32 to 34	<0.025	<0.050	<0.050	<0.10	ND	<5.0	<9.9	<49	ND	<60
MW-21	10.21.20	12 to 14	<0.025	<0.050	<0.050	<0.10	ND	<5.0	18	<46	18	92
	10.21.20	32 to 34	<0.024	<0.049	<0.049	<0.098	ND	<4.9	<9.3	<47	ND	<59

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

mg/kg = milligram per kilogram

ND = Not Detected above the Laboratory RLs or PQLs

NE = Not established

NA = Not Analyzed

BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes

TPH = Total Petroleum Hydrocarbons

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics



TABLE 2
Lateral K-12 Y#3 Condensate Tank Release
 GROUNDWATER ANALYTICAL SUMMARY

Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH GRO (mg/L)	TPH DRO (mg/L)	TPH MRO (mg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		10 ^A	750 ^A	750 ^A	620 ^A	NE	NE	NE
Monitoring Wells Installed by Animas Environmental Services (2013-2014)								
SVE-1	10.8.13	Not Sampled - Damaged well screen						
SVE-1R	2.12.14	610	1,500	100	2,400	NA	NA	NA
	11.13.14	170	3.4	93	190	NA	NA	NA
	5.26.15	32	<5.0	93	59	NA	NA	NA
	12.2.15	220	69	57	180	NA	NA	NA
	6.14.16	150	<5.0	28	57	NA	NA	NA
	12.12.16	150	<5.0	64	190	3.5	1.6	<5.0
	7.6.17	63	<5.0	33	90	NA	NA	NA
	12.12.17	72	<5.0	26	72	NA	NA	NA
	6.28.18	3.8	<5.0	12	8.8	NA	NA	NA
	12.18.18*	5.6	1.9	12	38	NA	NA	NA
	8.29.19	26	2.2	6.4	20	NA	NA	NA
	12.27.19	45	<1.0	22	47	NA	NA	NA
SVE-2	5.19.20	1.9	<1.0	3.4	4.7	NA	NA	NA
	12.8.20	2.2	<1.0	4.6	4.1	NA	NA	NA
	10.8.13	1,600	180	270	4,200	18	15	<5.0
	2.12.14	1,500	100	360	3,100	NA	NA	NA
	11.13.14	1,300	110	270	1,900	NA	NA	NA
	5.27.15	1,600	<50	340	2,300	NA	NA	NA
	12.2.15	1,200	<50	280	2,400	NA	NA	NA
	6.14.16	1,200	<50	250	2,500	NA	NA	NA
	12.12.16	1,100	<50	330	3,200	16	13	<5.0
	7.6.17	810	<50	190	1,900	NA	NA	NA
	12.13.17	1,100	<50	200	1,800	NA	NA	NA
	6.28.18	1,200	<50	250	2,100	NA	NA	NA
SVE-3	12.18.18*	970	<50	170	1,400	NA	NA	NA
	8.29.19	810	<50	220	2,200	NA	NA	NA
	12.30.19	960	<20	220	2,000	NA	NA	NA
	5.19.20	1,000	<20	320	2,600	NA	NA	NA
	12.9.20	900	<5.0	240	1,500	NA	NA	NA
	10.8.13	110	450	210	2,000	20	9.3	<5.0
	2.12.14	78	170	160	1,500	NA	NA	NA
	11.13.14	12	6.5	68	140	NA	NA	NA
	5.26.15	3.2	<5.0	100	<10	NA	NA	NA
	12.2.15	<5.0	<5.0	91	<10	NA	NA	NA
	6.14.16	<5.0	<5.0	78	57	NA	NA	NA
	12.12.16	14	<5.0	95	140	8.1	5.5	<5.0
SVE-3	7.6.17	6.7	<5.0	110	170	NA	NA	NA
	12.12.17	3.8	<2.5	42	11	NA	NA	NA
	6.28.18	3.7	<5.0	60	11	NA	NA	NA
	12.18.18*	9.3	5.6	110	150	NA	NA	NA
	8.29.19	4.4	<5.0	94	170	NA	NA	NA
	12.27.19	9.4	<1.0	150	220	NA	NA	NA
	5.19.20	2.5	<2.0	110	130	NA	NA	NA
	12.8.20	11	<2.0	150	160	NA	NA	NA



TABLE 2
Lateral K-12 Y#3 Condensate Tank Release
 GROUNDWATER ANALYTICAL SUMMARY

Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH GRO (mg/L)	TPH DRO (mg/L)	TPH MRO (mg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		10 ^A	750 ^A	750 ^A	620 ^A	NE	NE	NE
MW-1	2.12.14	<1	<1	<1	<3	NA	NA	NA
	11.13.14	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	5.26.15	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.2.15	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	6.14.16	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.12.16	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
	7.6.17	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.12.17	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
	6.28.18	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
	12.18.18*	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	8.29.19	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.27.19	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-2	2.12.14	2,300	1,500	350	3,600	NA	NA	NA
	11.13.14	1,600	520	220	2,500	NA	NA	NA
	5.27.15	2,600	530	370	3,600	NA	NA	NA
	12.2.15	980	<50	240	2,600	NA	NA	NA
	6.14.16	1,800	<50	380	4,500	NA	NA	NA
	12.12.16	2,800	<50	390	4,700	26	7.1	<5.0
	7.06.17	2,100	<50	410	4,800	NA	NA	NA
	12.13.17	1,300	<50	160	1,800	NA	NA	NA
	6.28.18	1,700	<50	240	2,500	NA	NA	NA
	12.18.18*	2,100	<50	210	2,200	NA	NA	NA
	8.29.19	1,500	<50	180	2,100	NA	NA	NA
	12.30.19	2,600	<20	300	2,900	NA	NA	NA
MW-3	2.12.14	Not Sampled - Well Dry						
	11.13.14							
	5.26.15							
	12.2.15							
	6.14.16							
	12.12.16							
	7.06.17							
	12.12.17							
	6.28.18							
	12.18.18*							
	8.29.19							
	12.30.19							
	5.19.20							
	12.8.20							



TABLE 2
Lateral K-12 Y#3 Condensate Tank Release
 GROUNDWATER ANALYTICAL SUMMARY

Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH GRO (mg/L)	TPH DRO (mg/L)	TPH MRO (mg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		10 ^A	750 ^A	750 ^A	620 ^A	NE	NE	NE
MW-4	2.12.14	Not Sampled - Well Dry						
	11.13.14							
	5.26.15							
	12.2.15							
	6.14.16							
	12.12.16							
	7.06.17							
	12.12.17							
	6.28.18							
	12.18.18*							
	8.29.19							
	12.30.19							
	5.19.20							
12.8.20								
MW-5	2.12.14	1,100	2,900	220	1,900	NA	NA	NA
	11.13.14	Not Sampled - Insufficient volume to collect sample						
	5.26.15							
	12.2.15							
	6.14.16							
	12.12.16							
	7.06.17							
	12.13.17							
	6.28.18							
	12.18.18*							
	8.29.19							
	12.30.19							
	5.19.20							
12.8.20								
Monitoring Wells Installed by APEX TITAN, Inc. (2016)								
MW-11	9.22.16	320	240	300	3,700	NA	NA	NA
	12.12.16	430	140	450	5,000	23	1.4	<5.0
	7.6.17	390	110	390	4,200	NA	NA	NA
	12.12.17	520	170	310	3,100	NA	NA	NA
	6.28.18	590	320	350	3,400	NA	NA	NA
	12.18.18*	590	<50	280	3,000	NA	NA	NA
	8.29.19	130	<50	230	2,800	NA	NA	NA
	12.30.19	270	<20	300	3,200	NA	NA	NA
	5.19.20	260	42	490	5,400	NA	NA	NA
12.8.20	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	
MW-12	9.22.16	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.12.16	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
	7.6.17	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.12.17	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
	6.28.18	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
	12.18.18*	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	8.29.19	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.27.19	<1.0	<1.0	11	16	NA	NA	NA
	5.19.20	<1.0	<1.0	<1.0	6.4	NA	NA	NA
12.8.20	<1.0	<1.0	<1.0	<1.5	NA	NA	NA	



TABLE 2
Lateral K-12 Y#3 Condensate Tank Release
 GROUNDWATER ANALYTICAL SUMMARY

Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH GRO (mg/L)	TPH DRO (mg/L)	TPH MRO (mg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		10 ^A	750 ^A	750 ^A	620 ^A	NE	NE	NE
MW-13	9.22.16	150	1,600	270	2,400	NA	NA	NA
	1.6.17	120	660	53	880	NA	NA	NA
	7.6.17	55	290	46	470	NA	NA	NA
	12.12.17	58	110	19	150	NA	NA	NA
	6.28.18	8.5	7.5	5.9	36	NA	NA	NA
	12.18.18*	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	8.29.19	1.6	<1.0	1.1	<2.0	NA	NA	NA
	12.27.19	1.5	1.0	1.2	3.0	NA	NA	NA
	5.19.20	<1.0	1.3	2.5	2.7	NA	NA	NA
	12.8.20	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
Monitoring Wells Installed by Ensolum, LLC (2020)								
MW-18	12.9.20	340	52	11	560	NA	NA	NA
MW-19	12.9.20	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
MW-21	12.9.20	Not Sampled - Insufficient volume to collect sample						

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

A = NMAC 20.6.2 was amended (12/21/18). The New Mexico EMNRD OCD has not responded to Enterprise's inquiries regarding which closure standards will apply to sites that predate the 2018 rule change. Therefore, this table reflects the previous remediation standards.

* Interface probe malfunction during sampling event. Site gauged on 1/21/19

µg/L = microgram per liter

mg/L = milligram per liter

NAPL = Non-aqueous phase liquid

NA = Not Analyzed

NE = Not Established

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics

<1.0= the numeral (in this case "1.0") identifies the laboratory reporting or practical quantitation limit



TABLE 3 Lateral K-12 Y#3 Condensate Tank Release GROUNDWATER ELEVATIONS						
Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation (feet AMSL)
SVE-1	10.08.13	ND	27.46	ND	NA	NA
SVE-1R*	02.12.14	ND	29.06	ND	6606.09	6577.03
	11.13.14	ND	30.05	ND		6576.04
	5.26.15	ND	29.27	ND		6576.82
	12.02.15	ND	28.06	ND		6578.03
	6.14.16	ND	28.05	ND		6578.04
	9.22.16	ND	28.10	ND	6606.40	6578.30
	12.12.16	ND	28.15	ND		6578.25
	7.06.17	ND	28.24	ND		6578.16
	12.12.17	ND	28.35	ND		6578.05
	6.28.18	ND	28.80	ND		6577.60
	1.21.19**	ND	28.81	ND		6577.59
	8.29.19	ND	28.57	ND		6577.83
	12.26.19	ND	28.59	ND		6577.81
	5.19.20	ND	29.02	ND		6577.38
	12.8.20	ND	29.28	ND		6577.12
SVE-2*	10.08.13	ND	28.00	ND	6605.82	6577.82
	02.12.14	ND	29.39	ND		6576.43
	11.13.14	ND	29.42	ND		6576.40
	5.26.15	ND	29.86	ND		6575.96
	12.02.15	ND	28.74	ND		6577.08
	6.14.16	ND	28.58	ND	6606.38	6577.24
	9.22.16	ND	28.77	ND		6577.61
	12.12.16	ND	28.74	ND		6577.64
	7.06.17	ND	29.26	ND		6577.12
	12.12.17	ND	29.50	ND		6576.88
	6.28.18	ND	30.05	ND		6576.33
	1.21.19**	ND	29.82	ND		6576.56
	8.29.19	ND	30.07	ND		6576.31
	12.26.19	ND	29.90	ND		6576.48
	5.19.20	ND	30.41	ND		6575.97
	12.8.20	ND	30.53	ND		6575.85
SVE-3*	10.08.13	ND	31.85	ND	6607.46	6575.61
	02.12.14	ND	29.98	ND		6577.48
	11.13.14	ND	29.54	ND		6577.92
	5.26.15	ND	30.93	ND		6576.53
	12.02.15	ND	30.49	ND		6576.97
	6.14.16	ND	30.37	ND	6607.92	6577.09
	9.22.16	ND	30.50	ND		6577.42
	12.12.16	ND	30.28	ND		6577.64
	7.06.17	ND	31.77	ND		6576.15
	12.12.17	ND	30.79	ND		6577.13
	6.28.18	ND	31.08	ND		6576.84
	1.21.19**	ND	30.91	ND		6577.01
	8.29.19	ND	31.24	ND		6576.68
	12.26.19	ND	31.09	ND		6576.83
	5.19.20	ND	31.48	ND		6576.44
	12.8.20	ND	31.67	ND		6576.25



TABLE 3 Lateral K-12 Y#3 Condensate Tank Release GROUNDWATER ELEVATIONS						
Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation (feet AMSL)
MW-1*	02.12.14	ND	40.95	ND	6606.53	6565.58
	11.13.14	ND	38.45	ND		6568.08
	5.26.15	ND	38.78	ND		6567.75
	12.02.15	ND	39.53	ND		6567.00
	6.14.16	ND	39.97	ND		6566.56
	9.22.16	ND	39.91	ND	6607.05	6567.14
	12.12.16	ND	39.58	ND		6567.47
	7.06.17	ND	40.28	ND		6566.77
	12.12.17	ND	40.21	ND		6566.84
	6.28.18	ND	40.27	ND		6566.78
	1.21.19**	ND	39.69	ND		6567.36
	8.29.19	ND	40.05	ND		6567.00
	12.26.19	ND	38.56	ND		6568.49
	5.19.20	ND	40.02	ND		6567.03
	12.8.20	ND	40.13	ND		6566.92
MW-2*	02.12.14	ND	28.79	ND	6605.80	6577.01
	11.13.14	ND	29.27	ND		6576.53
	5.26.15	ND	29.45	ND		6576.35
	12.02.15	ND	28.28	ND		6577.52
	6.14.16	ND	28.37	ND		6577.43
	9.22.16	ND	28.62	ND	6606.28	6577.66
	12.12.16	ND	28.70	ND		6577.58
	7.06.17	ND	29.00	ND		6577.28
	12.12.17	ND	29.22	ND		6577.06
	6.28.18	ND	29.61	ND		6576.67
	1.21.19**	ND	29.35	ND		6576.93
	8.29.19	ND	29.41	ND		6576.87
	12.26.19	ND	29.61	ND		6576.67
	5.19.20	ND	29.88	ND		6576.40
	12.8.20	ND	30.08	ND		6576.20
MW-3*	02.12.14	ND	DRY	ND	6607.53	DRY
	11.13.14	ND	DRY	ND		DRY
	5.26.15	ND	DRY	ND		DRY
	12.02.15	ND	DRY	ND		DRY
	6.14.16	ND	DRY	ND		DRY
	9.22.16	ND	DRY	ND	6608.04	DRY
	12.12.16	ND	DRY	ND		DRY
	7.06.17	ND	DRY	ND		DRY
	12.12.17	ND	DRY	ND		DRY
	6.28.18	ND	DRY	ND		DRY
	1.21.19**	ND	DRY	ND		DRY
	8.29.19	ND	DRY	ND		DRY
	12.26.19	ND	DRY	ND		DRY
	5.19.20	ND	DRY	ND		DRY
	12.8.20	ND	27.38	ND		6580.66



TABLE 3 Lateral K-12 Y#3 Condensate Tank Release GROUNDWATER ELEVATIONS						
Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation (feet AMSL)
MW-4*	02.12.14	ND	DRY	ND	6609.20	DRY
	11.13.14	ND	DRY	ND		DRY
	5.26.15	ND	DRY	ND		DRY
	12.02.15	ND	DRY	ND		DRY
	6.14.16	ND	DRY	ND		DRY
	9.22.16	ND	DRY	ND	6609.66	DRY
	12.12.16	ND	DRY	ND		DRY
	7.06.17	ND	DRY	ND		DRY
	12.12.17	ND	DRY	ND		DRY
	6.28.18	ND	DRY	ND		DRY
	1.21.19**	ND	DRY	ND		DRY
	8.29.19	ND	DRY	ND		DRY
	12.26.19	ND	DRY	ND		DRY
	5.19.20	ND	DRY	ND		DRY
	12.8.20	ND	29.38	ND		6580.28
MW-5*	02.12.14	ND	29.87	ND	6607.11	6577.24
	11.13.14	ND	30.04	ND		6577.07
	5.26.15	ND	DRY	ND		DRY
	12.02.15	ND	DRY	ND		DRY
	6.14.16	ND	DRY	ND		DRY
	9.22.16	ND	30.04	ND	6607.59	6577.55
	12.12.16	ND	30.50	ND		6577.09
	7.06.17	ND	30.05	ND		6577.54
	12.12.17	ND	30.06	ND		6577.53
	6.28.18	ND	30.50	ND		6577.09
	1.21.19**	ND	30.49	ND		6577.10
	8.29.19	ND	30.52	ND		6577.07
	12.26.19	ND	30.51	ND		6577.08
	5.19.20	ND	30.58	ND		6577.01
	12.8.20	ND	30.60	ND		6576.99
MW-11	9.22.16	ND	27.71	ND	6604.64	6576.93
	12.12.16	ND	27.65	ND		6576.99
	7.06.17	ND	28.25	ND		6576.39
	12.12.17	ND	28.75	ND		6575.89
	6.28.18	ND	29.18	ND		6575.46
	1.21.19**	ND	28.41	ND		6576.23
	8.29.19	ND	28.70	ND		6575.94
	12.26.19	ND	29.12	ND		6575.52
	5.19.20	ND	29.40	ND		6575.24
	12.8.20	29.54	32.31	2.77		6574.35



TABLE 3 Lateral K-12 Y#3 Condensate Tank Release GROUNDWATER ELEVATIONS						
Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation (feet AMSL)
MW-12	9.22.16	ND	27.71	ND	6605.01	6577.30
	12.12.16	ND	27.60	ND		6577.41
	7.06.17	ND	28.32	ND		6576.69
	12.12.17	ND	28.82	ND		6576.19
	6.28.18	ND	29.23	ND		6575.78
	1.21.19**	ND	28.22	ND		6576.79
	8.29.19	ND	28.51	ND		6576.50
	12.26.19	ND	28.85	ND		6576.16
	5.19.20	ND	29.56	ND		6575.45
	12.8.20	ND	29.78	ND		6575.23
MW-13	9.22.16	ND	33.60	ND	6607.61	6574.01
	12.12.16	ND	35.10	ND		6572.51
	7.06.17	ND	31.47	ND		6576.14
	12.12.17	ND	31.42	ND		6576.19
	6.28.18	ND	31.65	ND		6575.96
	1.21.19**	ND	31.81	ND		6575.80
	8.29.19	ND	32.00	ND		6575.61
	12.26.19	ND	31.64	ND		6575.97
	5.19.20	ND	32.23	ND		6575.38
	12.8.20	ND	32.48	ND		6575.13
MW-18	12.8.20	ND	34.25	ND	6605.32	6571.07
MW-19	12.8.20	ND	34.04	ND	6604.13	6570.09
MW-21	12.8.20	ND	36.68	ND	6611.38	6574.70

Notes:

*Monitoring well resurveyed on 9/27/16.

** Interface probe malfunction during sampling event. Site gauged on 1/21/19

Monitoring wells MW-18, MW-19, and MW-21 were surveyed in January 2021.

BTOC - Below Top of Casing

AMSL - Above Mean Sea Level

TOC - Top of Casing

ND - Not detected

NA - Not applicable



APPENDIX E

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

May 28, 2020

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: K 12 Tank Y 3

OrderNo.: 2005848

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 5/20/2020 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 2005848

Date Reported: 5/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-1

Project: K 12 Tank Y 3

Collection Date: 5/19/2020 9:20:00 AM

Lab ID: 2005848-001

Matrix: AQUEOUS

Received Date: 5/20/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: CCM
Benzene	ND	1.0		µg/L	1	5/23/2020 6:39:00 PM	SL69110
Toluene	ND	1.0		µg/L	1	5/23/2020 6:39:00 PM	SL69110
Ethylbenzene	ND	1.0		µg/L	1	5/23/2020 6:39:00 PM	SL69110
Xylenes, Total	ND	1.5		µg/L	1	5/23/2020 6:39:00 PM	SL69110
Surr: 1,2-Dichloroethane-d4	98.0	70-130		%Rec	1	5/23/2020 6:39:00 PM	SL69110
Surr: Dibromofluoromethane	98.7	70-130		%Rec	1	5/23/2020 6:39:00 PM	SL69110
Surr: Toluene-d8	109	70-130		%Rec	1	5/23/2020 6:39:00 PM	SL69110

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 2005848

Date Reported: 5/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: SVE-3

Project: K 12 Tank Y 3

Collection Date: 5/19/2020 10:00:00 AM

Lab ID: 2005848-002

Matrix: AQUEOUS

Received Date: 5/20/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: CCM
Benzene	2.5	2.0		µg/L	2	5/23/2020 7:50:00 PM	SL69110
Toluene	ND	2.0		µg/L	2	5/23/2020 7:50:00 PM	SL69110
Ethylbenzene	110	2.0		µg/L	2	5/23/2020 7:50:00 PM	SL69110
Xylenes, Total	130	3.0		µg/L	2	5/23/2020 7:50:00 PM	SL69110
Surr: 1,2-Dichloroethane-d4	93.0	70-130		%Rec	2	5/23/2020 7:50:00 PM	SL69110
Surr: Dibromofluoromethane	97.2	70-130		%Rec	2	5/23/2020 7:50:00 PM	SL69110
Surr: Toluene-d8	113	70-130		%Rec	2	5/23/2020 7:50:00 PM	SL69110

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 2005848

Date Reported: 5/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-13

Project: K 12 Tank Y 3

Collection Date: 5/19/2020 10:30:00 AM

Lab ID: 2005848-003

Matrix: AQUEOUS

Received Date: 5/20/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: CCM
Benzene	ND	1.0		µg/L	1	5/23/2020 8:14:00 PM	SL69110
Toluene	1.3	1.0		µg/L	1	5/23/2020 8:14:00 PM	SL69110
Ethylbenzene	2.5	1.0		µg/L	1	5/23/2020 8:14:00 PM	SL69110
Xylenes, Total	2.7	1.5		µg/L	1	5/23/2020 8:14:00 PM	SL69110
Surr: 1,2-Dichloroethane-d4	91.0	70-130		%Rec	1	5/23/2020 8:14:00 PM	SL69110
Surr: Dibromofluoromethane	96.0	70-130		%Rec	1	5/23/2020 8:14:00 PM	SL69110
Surr: Toluene-d8	125	70-130		%Rec	1	5/23/2020 8:14:00 PM	SL69110

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 2005848

Date Reported: 5/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: SVE-1R

Project: K 12 Tank Y 3

Collection Date: 5/19/2020 11:20:00 AM

Lab ID: 2005848-004

Matrix: AQUEOUS

Received Date: 5/20/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: CCM
Benzene	1.9	1.0		µg/L	1	5/23/2020 8:37:00 PM	SL69110
Toluene	ND	1.0		µg/L	1	5/23/2020 8:37:00 PM	SL69110
Ethylbenzene	3.4	1.0		µg/L	1	5/23/2020 8:37:00 PM	SL69110
Xylenes, Total	4.7	1.5		µg/L	1	5/23/2020 8:37:00 PM	SL69110
Surr: 1,2-Dichloroethane-d4	97.6	70-130		%Rec	1	5/23/2020 8:37:00 PM	SL69110
Surr: Dibromofluoromethane	97.0	70-130		%Rec	1	5/23/2020 8:37:00 PM	SL69110
Surr: Toluene-d8	113	70-130		%Rec	1	5/23/2020 8:37:00 PM	SL69110

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 2005848

Date Reported: 5/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: SVE-2

Project: K 12 Tank Y 3

Collection Date: 5/19/2020 12:00:00 PM

Lab ID: 2005848-005

Matrix: AQUEOUS

Received Date: 5/20/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: CCM
Benzene	1000	20		µg/L	20	5/23/2020 9:01:00 PM	SL69110
Toluene	ND	20		µg/L	20	5/23/2020 9:01:00 PM	SL69110
Ethylbenzene	320	20		µg/L	20	5/23/2020 9:01:00 PM	SL69110
Xylenes, Total	2600	30		µg/L	20	5/23/2020 9:01:00 PM	SL69110
Surr: 1,2-Dichloroethane-d4	96.9	70-130		%Rec	20	5/23/2020 9:01:00 PM	SL69110
Surr: Dibromofluoromethane	95.9	70-130		%Rec	20	5/23/2020 9:01:00 PM	SL69110
Surr: Toluene-d8	111	70-130		%Rec	20	5/23/2020 9:01:00 PM	SL69110

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 2005848

Date Reported: 5/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-2

Project: K 12 Tank Y 3

Collection Date: 5/19/2020 12:40:00 PM

Lab ID: 2005848-006

Matrix: AQUEOUS

Received Date: 5/20/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: CCM
Benzene	1500	50		µg/L	50	5/23/2020 9:24:00 PM	SL69110
Toluene	ND	50		µg/L	50	5/23/2020 9:24:00 PM	SL69110
Ethylbenzene	240	50		µg/L	50	5/23/2020 9:24:00 PM	SL69110
Xylenes, Total	2600	75		µg/L	50	5/23/2020 9:24:00 PM	SL69110
Surr: 1,2-Dichloroethane-d4	96.8	70-130		%Rec	50	5/23/2020 9:24:00 PM	SL69110
Surr: Dibromofluoromethane	97.7	70-130		%Rec	50	5/23/2020 9:24:00 PM	SL69110
Surr: Toluene-d8	111	70-130		%Rec	50	5/23/2020 9:24:00 PM	SL69110

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 2005848

Date Reported: 5/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-11

Project: K 12 Tank Y 3

Collection Date: 5/19/2020 1:20:00 PM

Lab ID: 2005848-007

Matrix: AQUEOUS

Received Date: 5/20/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: CCM
Benzene	260	20		µg/L	20	5/23/2020 9:48:00 PM	SL69110
Toluene	42	20		µg/L	20	5/23/2020 9:48:00 PM	SL69110
Ethylbenzene	490	20		µg/L	20	5/23/2020 9:48:00 PM	SL69110
Xylenes, Total	5400	300		µg/L	200	5/25/2020 12:42:00 AM	R69118
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%Rec	20	5/23/2020 9:48:00 PM	SL69110
Surr: Dibromofluoromethane	95.9	70-130		%Rec	20	5/23/2020 9:48:00 PM	SL69110
Surr: Toluene-d8	111	70-130		%Rec	20	5/23/2020 9:48:00 PM	SL69110

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 2005848

Date Reported: 5/28/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-12

Project: K 12 Tank Y 3

Collection Date: 5/19/2020 2:00:00 PM

Lab ID: 2005848-008

Matrix: AQUEOUS

Received Date: 5/20/2020 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: CCM
Benzene	ND	1.0		µg/L	1	5/23/2020 10:12:00 PM	SL69110
Toluene	ND	1.0		µg/L	1	5/23/2020 10:12:00 PM	SL69110
Ethylbenzene	ND	1.0		µg/L	1	5/23/2020 10:12:00 PM	SL69110
Xylenes, Total	6.4	1.5		µg/L	1	5/23/2020 10:12:00 PM	SL69110
Surr: 1,2-Dichloroethane-d4	97.8	70-130		%Rec	1	5/23/2020 10:12:00 PM	SL69110
Surr: Dibromofluoromethane	97.8	70-130		%Rec	1	5/23/2020 10:12:00 PM	SL69110
Surr: Toluene-d8	109	70-130		%Rec	1	5/23/2020 10:12:00 PM	SL69110

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#: 2005848

28-May-20

Client: ENSOLUM
Project: K 12 Tank Y 3

Sample ID: 100ng lcs	SampType: LCS		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: LCSW	Batch ID: SL69110		RunNo: 69110							
Prep Date:	Analysis Date: 5/23/2020		SeqNo: 2394390		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70	130			
Toluene	24	1.0	20.00	0	119	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.4	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.5	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.9	70	130			
Surr: Toluene-d8	11		10.00		108	70	130			

Sample ID: mb	SampType: MBLK		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: PBW	Batch ID: SL69110		RunNo: 69110							
Prep Date:	Analysis Date: 5/23/2020		SeqNo: 2394391		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	9.6		10.00		95.9	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.4	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.3	70	130			
Surr: Toluene-d8	11		10.00		109	70	130			

Sample ID: 2005848-001a ms	SampType: MS		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: MW-1	Batch ID: SL69110		RunNo: 69110							
Prep Date:	Analysis Date: 5/23/2020		SeqNo: 2394396		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.8	70	130			
Toluene	23	1.0	20.00	0	115	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.5	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.1	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.0	70	130			
Surr: Toluene-d8	11		10.00		110	70	130			

Sample ID: 2005848-001A MSD	SampType: MSD		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: MW-1	Batch ID: SL69110		RunNo: 69110							
Prep Date:	Analysis Date: 5/23/2020		SeqNo: 2394397		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	88.8	70	130	6.57	20	
Toluene	22	1.0	20.00	0	108	70	130	6.79	20	

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 9 of 10

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

WO#: 2005848

28-May-20

Client: ENSOLUM
Project: K 12 Tank Y 3

Sample ID: 2005848-001A MSD	SampType: MSD	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: MW-1	Batch ID: SL69110	RunNo: 69110								
Prep Date:	Analysis Date: 5/23/2020	SeqNo: 2394397	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.6		10.00		96.2	70	130	0	0	
Surr: Dibromofluoromethane	9.7		10.00		96.5	70	130	0	0	
Surr: Toluene-d8	11		10.00		109	70	130	0	0	

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: LCSW	Batch ID: R69118	RunNo: 69118								
Prep Date:	Analysis Date: 5/24/2020	SeqNo: 2396553	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.9		10.00		98.6	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.5	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.2	70	130			
Surr: Toluene-d8	11		10.00		109	70	130			

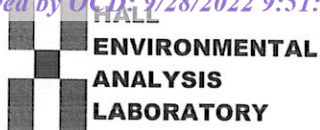
Sample ID: mb	SampType: MBLK	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: PBW	Batch ID: R69118	RunNo: 69118								
Prep Date:	Analysis Date: 5/24/2020	SeqNo: 2396554	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.9	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.9	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 10 of 10



Sample Log-In Check List

Client Name: ENSOLUM AZTEC

Work Order Number: 2005848

RcptNo: 1

Received By: Isaiah Ortiz

5/20/2020 8:10:00 AM

I-OK

Completed By: Isaiah Ortiz

5/20/2020 9:10:05 AM

I-OK

Reviewed By:

JR 5/20/20

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: EM 5/20/20

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	3.7	Good	Not Present			

Chain-of-Custody Record		Turn-Around Time:	
Client:	Ensolum, LLC	<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Rush
Mailing Address:	6006 S. Rio Grande Suite A Artec, NM 87410	Project Name:	
Phone #:	2	Project #:	K-12 Tank Y-3 05B1226001
email or Fax#:	Ksummers@ensolum.com	Project Manager:	K. Summers
QA/QC Package:	<input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)	Sampler:	L. Daniels
Accreditation:	<input type="checkbox"/> Az Compliance <input type="checkbox"/> NELAC <input type="checkbox"/> Other	On Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> EDD (Type)		# of Coolers:	1

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

email or Fax#: <u>K.summers@anscohm.com</u>	Project Manager: <u>K. Summers</u>	
QA/QC Package: <input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		
Accreditation: <input type="checkbox"/> Az Compliance <input type="checkbox"/> NELAC <input type="checkbox"/> Other _____	Sampler: <u>L. Daniels</u>	
<input type="checkbox"/> EDD (Type)	On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
	# of Coolers: <u>1</u>	

Project Manager:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other☐ EDD (Type)

--	--

Cooler Temp (including CF): 3.6 to 3.7 °C - 3.7 °C (°C)

Container Type and #	Preservative Type	HEAL No. 2005848
-------------------------	----------------------	---------------------

3x40000A	Wagb.	-001
----------	-------	------

3x40 mL VOA	H ₂ Cl ₂	-CO ₂
-------------	--------------------------------	------------------

3x40mlb1-	H ₂ Cl ₂	-003
-----------	--------------------------------	------

3x40ml VOA	H ₂ Cl ₂	-004

3x40mL VOA	AgCl ₂	-000
	" "	0001

100	100	100
100	100	100

3-44-11bA	17-01	-078
-----------	-------	------

Received by:	Via:	Date	Time
--------------	------	------	------

Gift Watch
5/19/2020
1641

Received by: _____ Via: _____ Date _____ Time _____

FD 5/20/20 0310

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.

Remarks:

Bill to Ensbury LLC



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

October 29, 2020

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

RE: Lateral K 12 Tank Y 3

OrderNo.: 2010B17

Dear M. Gentry:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/23/2020 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 light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 2010B17

Date Reported: 10/29/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-21 12'-14'

Project: Lateral K 12 Tank Y 3

Collection Date: 10/21/2020 3:50:00 PM

Lab ID: 2010B17-001

Matrix: SOIL

Received Date: 10/23/2020 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	92	61		mg/Kg	20	10/28/2020 11:42:35 PM	56084
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2020 8:51:28 PM	56003
Surr: BFB	89.6	70-130		%Rec	1	10/25/2020 8:51:28 PM	56003
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	18	9.1		mg/Kg	1	10/26/2020 5:44:45 PM	56014
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	10/26/2020 5:44:45 PM	56014
Surr: DNOP	97.8	30.4-154		%Rec	1	10/26/2020 5:44:45 PM	56014
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	10/25/2020 8:51:28 PM	56003
Toluene	ND	0.050		mg/Kg	1	10/25/2020 8:51:28 PM	56003
Ethylbenzene	ND	0.050		mg/Kg	1	10/25/2020 8:51:28 PM	56003
Xylenes, Total	ND	0.10		mg/Kg	1	10/25/2020 8:51:28 PM	56003
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	10/25/2020 8:51:28 PM	56003
Surr: 4-Bromofluorobenzene	98.7	70-130		%Rec	1	10/25/2020 8:51:28 PM	56003
Surr: Dibromofluoromethane	111	70-130		%Rec	1	10/25/2020 8:51:28 PM	56003
Surr: Toluene-d8	108	70-130		%Rec	1	10/25/2020 8:51:28 PM	56003

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 7

Analytical Report

Lab Order 2010B17

Date Reported: 10/29/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-21 32'-34'

Project: Lateral K 12 Tank Y 3

Collection Date: 10/21/2020 4:00:00 PM

Lab ID: 2010B17-002

Matrix: SOIL

Received Date: 10/23/2020 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	59		mg/Kg	20	10/29/2020 12:44:37 AM	56084
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/25/2020 9:21:11 PM	56003
Surr: BFB	87.5	70-130		%Rec	1	10/25/2020 9:21:11 PM	56003
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	10/26/2020 6:08:49 PM	56014
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/26/2020 6:08:49 PM	56014
Surr: DNOP	88.6	30.4-154		%Rec	1	10/26/2020 6:08:49 PM	56014
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	10/25/2020 9:21:11 PM	56003
Toluene	ND	0.049		mg/Kg	1	10/25/2020 9:21:11 PM	56003
Ethylbenzene	ND	0.049		mg/Kg	1	10/25/2020 9:21:11 PM	56003
Xylenes, Total	ND	0.098		mg/Kg	1	10/25/2020 9:21:11 PM	56003
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	10/25/2020 9:21:11 PM	56003
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	10/25/2020 9:21:11 PM	56003
Surr: Dibromofluoromethane	113	70-130		%Rec	1	10/25/2020 9:21:11 PM	56003
Surr: Toluene-d8	103	70-130		%Rec	1	10/25/2020 9:21:11 PM	56003

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 7

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

WO#: 2010B17

29-Oct-20

Client: ENSOLUM**Project:** Lateral K 12 Tank Y 3

Sample ID: MB-56084	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 56084	RunNo: 72997								
Prep Date: 10/28/2020	Analysis Date: 10/28/2020	SeqNo: 2566348	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-56084	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 56084	RunNo: 72997								
Prep Date: 10/28/2020	Analysis Date: 10/28/2020	SeqNo: 2566349	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.6	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 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 3 of 7

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

WO#: 2010B17

29-Oct-20

Client: ENSOLUM**Project:** Lateral K 12 Tank Y 3

Sample ID: LCS-56014	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 56014		RunNo: 72917							
Prep Date: 10/24/2020	Analysis Date: 10/26/2020		SeqNo: 2563396		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	108	70	130			
Surr: DNOP	5.3		5.000		106	30.4	154			

Sample ID: MB-56014	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 56014		RunNo: 72917							
Prep Date: 10/24/2020	Analysis Date: 10/26/2020		SeqNo: 2563397		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	11		10.00		105	30.4	154			

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#: 2010B17

29-Oct-20

Client: ENSOLUM**Project:** Lateral K 12 Tank Y 3

Sample ID: mb-56011	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 56011	RunNo: 72903								
Prep Date: 10/23/2020	Analysis Date: 10/24/2020	SeqNo: 2562545	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		103	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		104	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		109	70	130			
Surr: Toluene-d8	0.54		0.5000		108	70	130			

Sample ID: lcs-56011	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 56011	RunNo: 72903								
Prep Date: 10/23/2020	Analysis Date: 10/24/2020	SeqNo: 2562546	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		108	70	130			
Surr: Toluene-d8	0.55		0.5000		109	70	130			

Sample ID: mb-56003	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 56003	RunNo: 72903								
Prep Date: 10/23/2020	Analysis Date: 10/25/2020	SeqNo: 2562554	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: 1,2-Dichloroethane-d4	0.50		0.5000		99.1	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		105	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID: lcs-56003	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 56003	RunNo: 72903								
Prep Date: 10/23/2020	Analysis Date: 10/25/2020	SeqNo: 2562555	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.4	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.1	0.050	1.000	0	105	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		103	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.9	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#: 2010B17

29-Oct-20

Client: ENSOLUM

Project: Lateral K 12 Tank Y 3

Sample ID: Ics-56003		SampType: LCS4		TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: BatchQC		Batch ID: 56003		RunNo: 72903						
Prep Date: 10/23/2020		Analysis Date: 10/25/2020		SeqNo: 2562555			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.51		0.5000		102	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#: 2010B17

29-Oct-20

Client: ENSOLUM**Project:** Lateral K 12 Tank Y 3

Sample ID: mb-56011	SampType: MBLK			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: PBS	Batch ID: 56011			RunNo: 72903						
Prep Date: 10/23/2020	Analysis Date: 10/24/2020			SeqNo: 2562573		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	450		500.0		90.8	70	130			

Sample ID: lcs-56011	SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: LCSS	Batch ID: 56011			RunNo: 72903						
Prep Date: 10/23/2020	Analysis Date: 10/24/2020			SeqNo: 2562574		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	460		500.0		91.2	70	130			

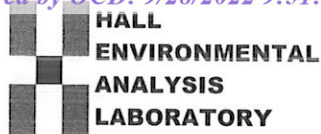
Sample ID: mb-56003	SampType: MBLK			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: PBS	Batch ID: 56003			RunNo: 72903						
Prep Date: 10/23/2020	Analysis Date: 10/25/2020			SeqNo: 2562591		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	450		500.0		89.3	70	130			

Sample ID: lcs-56003	SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: LCSS	Batch ID: 56003			RunNo: 72903						
Prep Date: 10/23/2020	Analysis Date: 10/25/2020			SeqNo: 2562592		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.4	70	130			
Surr: BFB	440		500.0		88.5	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



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: **2010B17**RcptNo: **1**Received By: **Sean Livingston** 10/23/2020 8:05:00 AMCompleted By: **Desiree Dominguez** 10/23/2020 9:13:16 AM

Reviewed By:

JR 10/23/20

San Lopez
DD

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? Yes ☒ No ☐

(Note discrepancies on chain of custody)

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? Yes ☒ No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: *SPA 10.23.20*

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: _____

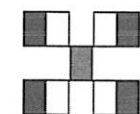
Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.5	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:
Client:	Ensolium LLC	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush
Mailing Address:	6016 S. Rio Grande Suite A	Project Name:
Alt. #:	Alt. # 87410	Project #:
Phone #:		0561226001
email or Fax#:	mgentry@ensolium.com	Project Manager:
QA/QC Package:	<input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)	M. Gentry
Accreditation:	<input type="checkbox"/> Az Compliance <input type="checkbox"/> NELAC <input type="checkbox"/> Other	Sampler:
<input type="checkbox"/> EDD (Type)		L. Daniell
		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		# of Coolers: 1



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

Remarks:

Bill To: Ensolum



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

October 29, 2020

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

RE: Lateral K 12 Y3

OrderNo.: 2010B18

Dear M. Gentry:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/23/2020 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 2010B18

Date Reported: 10/29/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: SB-20 16'-18'

Project: Lateral K 12 Y3

Collection Date: 10/22/2020 10:50:00 AM

Lab ID: 2010B18-001

Matrix: SOIL

Received Date: 10/23/2020 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	10/29/2020 12:57:02 AM	56084
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2020 9:51:07 PM	56003
Surr: BFB	85.0	70-130		%Rec	1	10/25/2020 9:51:07 PM	56003
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/26/2020 6:32:40 PM	56014
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/26/2020 6:32:40 PM	56014
Surr: DNOP	93.5	30.4-154		%Rec	1	10/26/2020 6:32:40 PM	56014
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	10/25/2020 9:51:07 PM	56003
Toluene	ND	0.050		mg/Kg	1	10/25/2020 9:51:07 PM	56003
Ethylbenzene	ND	0.050		mg/Kg	1	10/25/2020 9:51:07 PM	56003
Xylenes, Total	ND	0.099		mg/Kg	1	10/25/2020 9:51:07 PM	56003
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	10/25/2020 9:51:07 PM	56003
Surr: 4-Bromofluorobenzene	97.0	70-130		%Rec	1	10/25/2020 9:51:07 PM	56003
Surr: Dibromofluoromethane	110	70-130		%Rec	1	10/25/2020 9:51:07 PM	56003
Surr: Toluene-d8	103	70-130		%Rec	1	10/25/2020 9:51:07 PM	56003

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 12

Analytical Report

Lab Order 2010B18

Date Reported: 10/29/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: SB-20 32'-34"

Project: Lateral K 12 Y3

Collection Date: 10/22/2020 11:00:00 AM

Lab ID: 2010B18-002

Matrix: SOIL

Received Date: 10/23/2020 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	10/29/2020 1:34:15 AM	56084
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2020 10:20:27 PM	56003
Surr: BFB	89.6	70-130		%Rec	1	10/25/2020 10:20:27 PM	56003
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/26/2020 6:56:38 PM	56014
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/26/2020 6:56:38 PM	56014
Surr: DNOP	86.0	30.4-154		%Rec	1	10/26/2020 6:56:38 PM	56014
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	10/25/2020 10:20:27 PM	56003
Toluene	ND	0.050		mg/Kg	1	10/25/2020 10:20:27 PM	56003
Ethylbenzene	ND	0.050		mg/Kg	1	10/25/2020 10:20:27 PM	56003
Xylenes, Total	ND	0.10		mg/Kg	1	10/25/2020 10:20:27 PM	56003
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	10/25/2020 10:20:27 PM	56003
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	10/25/2020 10:20:27 PM	56003
Surr: Dibromofluoromethane	109	70-130		%Rec	1	10/25/2020 10:20:27 PM	56003
Surr: Toluene-d8	106	70-130		%Rec	1	10/25/2020 10:20:27 PM	56003

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 12

Analytical Report

Lab Order 2010B18

Date Reported: 10/29/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-19 12'-14'

Project: Lateral K 12 Y3

Collection Date: 10/22/2020 12:50:00 PM

Lab ID: 2010B18-003

Matrix: SOIL

Received Date: 10/23/2020 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	59		mg/Kg	20	10/29/2020 1:46:40 AM	56084
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/25/2020 10:50:08 PM	56003
Surr: BFB	88.9	70-130		%Rec	1	10/25/2020 10:50:08 PM	56003
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/26/2020 7:20:26 PM	56014
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/26/2020 7:20:26 PM	56014
Surr: DNOP	93.7	30.4-154		%Rec	1	10/26/2020 7:20:26 PM	56014
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.024		mg/Kg	1	10/25/2020 10:50:08 PM	56003
Toluene	ND	0.048		mg/Kg	1	10/25/2020 10:50:08 PM	56003
Ethylbenzene	ND	0.048		mg/Kg	1	10/25/2020 10:50:08 PM	56003
Xylenes, Total	ND	0.097		mg/Kg	1	10/25/2020 10:50:08 PM	56003
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	10/25/2020 10:50:08 PM	56003
Surr: 4-Bromofluorobenzene	96.2	70-130		%Rec	1	10/25/2020 10:50:08 PM	56003
Surr: Dibromofluoromethane	112	70-130		%Rec	1	10/25/2020 10:50:08 PM	56003
Surr: Toluene-d8	106	70-130		%Rec	1	10/25/2020 10:50:08 PM	56003

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 12

Analytical Report

Lab Order 2010B18

Date Reported: 10/29/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-19 28'-30'

Project: Lateral K 12 Y3

Collection Date: 10/22/2020 1:00:00 PM

Lab ID: 2010B18-004

Matrix: SOIL

Received Date: 10/23/2020 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	10/29/2020 1:59:05 AM	56084
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2020 11:19:37 PM	56003
Surr: BFB	87.0	70-130		%Rec	1	10/25/2020 11:19:37 PM	56003
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/26/2020 9:40:55 AM	56015
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/26/2020 9:40:55 AM	56015
Surr: DNOP	104	30.4-154		%Rec	1	10/26/2020 9:40:55 AM	56015
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	10/25/2020 11:19:37 PM	56003
Toluene	ND	0.050		mg/Kg	1	10/25/2020 11:19:37 PM	56003
Ethylbenzene	ND	0.050		mg/Kg	1	10/25/2020 11:19:37 PM	56003
Xylenes, Total	ND	0.099		mg/Kg	1	10/25/2020 11:19:37 PM	56003
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	10/25/2020 11:19:37 PM	56003
Surr: 4-Bromofluorobenzene	99.4	70-130		%Rec	1	10/25/2020 11:19:37 PM	56003
Surr: Dibromofluoromethane	113	70-130		%Rec	1	10/25/2020 11:19:37 PM	56003
Surr: Toluene-d8	102	70-130		%Rec	1	10/25/2020 11:19:37 PM	56003

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 12

Analytical Report

Lab Order 2010B18

Date Reported: 10/29/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-18 10'-12'

Project: Lateral K 12 Y3

Collection Date: 10/22/2020 2:50:00 PM

Lab ID: 2010B18-005

Matrix: SOIL

Received Date: 10/23/2020 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	10/29/2020 2:11:29 AM	56084
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/25/2020 11:48:49 PM	56003
Surr: BFB	85.1	70-130		%Rec	1	10/25/2020 11:48:49 PM	56003
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/26/2020 10:51:01 AM	56015
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/26/2020 10:51:01 AM	56015
Surr: DNOP	91.3	30.4-154		%Rec	1	10/26/2020 10:51:01 AM	56015
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	10/25/2020 11:48:49 PM	56003
Toluene	ND	0.049		mg/Kg	1	10/25/2020 11:48:49 PM	56003
Ethylbenzene	ND	0.049		mg/Kg	1	10/25/2020 11:48:49 PM	56003
Xylenes, Total	ND	0.099		mg/Kg	1	10/25/2020 11:48:49 PM	56003
Surr: 1,2-Dichloroethane-d4	99.3	70-130		%Rec	1	10/25/2020 11:48:49 PM	56003
Surr: 4-Bromofluorobenzene	99.8	70-130		%Rec	1	10/25/2020 11:48:49 PM	56003
Surr: Dibromofluoromethane	111	70-130		%Rec	1	10/25/2020 11:48:49 PM	56003
Surr: Toluene-d8	103	70-130		%Rec	1	10/25/2020 11:48:49 PM	56003

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 12

Analytical Report

Lab Order 2010B18

Date Reported: 10/29/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-18 28'-32'

Project: Lateral K 12 Y3

Collection Date: 10/22/2020 3:00:00 PM

Lab ID: 2010B18-006

Matrix: SOIL

Received Date: 10/23/2020 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	ND	60		mg/Kg	20	10/29/2020 2:48:42 AM	56084
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	9.1	4.9		mg/Kg	1	10/26/2020 12:18:13 AM	56003
Surr: BFB	89.5	70-130		%Rec	1	10/26/2020 12:18:13 AM	56003
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: mb
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/26/2020 11:14:24 AM	56015
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/26/2020 11:14:24 AM	56015
Surr: DNOP	97.9	30.4-154		%Rec	1	10/26/2020 11:14:24 AM	56015
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.025		mg/Kg	1	10/26/2020 12:18:13 AM	56003
Toluene	ND	0.049		mg/Kg	1	10/26/2020 12:18:13 AM	56003
Ethylbenzene	ND	0.049		mg/Kg	1	10/26/2020 12:18:13 AM	56003
Xylenes, Total	ND	0.099		mg/Kg	1	10/26/2020 12:18:13 AM	56003
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	10/26/2020 12:18:13 AM	56003
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	10/26/2020 12:18:13 AM	56003
Surr: Dibromofluoromethane	111	70-130		%Rec	1	10/26/2020 12:18:13 AM	56003
Surr: Toluene-d8	104	70-130		%Rec	1	10/26/2020 12:18:13 AM	56003

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 12

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

WO#: 2010B18

29-Oct-20

Client: ENSOLUM**Project:** Lateral K 12 Y3

Sample ID: MB-56084	SampType: MBLK	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 56084	RunNo: 72997								
Prep Date: 10/28/2020	Analysis Date: 10/28/2020	SeqNo: 2566348	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-56084	SampType: LCS	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 56084	RunNo: 72997								
Prep Date: 10/28/2020	Analysis Date: 10/28/2020	SeqNo: 2566349	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.6	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 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#: 2010B18

29-Oct-20

Client: ENSOLUM
Project: Lateral K 12 Y3

Sample ID: LCS-56014	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 56014			RunNo: 72917						
Prep Date: 10/24/2020	Analysis Date: 10/26/2020			SeqNo: 2563396		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	108	70	130			
Surr: DNOP	5.3		5.000		106	30.4	154			

Sample ID: MB-56014	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 56014			RunNo: 72917						
Prep Date: 10/24/2020	Analysis Date: 10/26/2020			SeqNo: 2563397		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	11		10.00		105	30.4	154			

Sample ID: 2010B18-004AMS	SampType: MS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: MW-19 28'-30'	Batch ID: 56015			RunNo: 72918						
Prep Date: 10/24/2020	Analysis Date: 10/26/2020			SeqNo: 2563408		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.8	48.88	0	87.0	15	184			
Surr: DNOP	4.9		4.888		100	30.4	154			

Sample ID: 2010B18-004AMSD	SampType: MSD			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: MW-19 28'-30'	Batch ID: 56015			RunNo: 72918						
Prep Date: 10/24/2020	Analysis Date: 10/26/2020			SeqNo: 2563409		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	9.7	48.69	0	87.1	15	184	0.317	23.9	
Surr: DNOP	4.8		4.869		98.5	30.4	154	0	0	

Sample ID: MB-56015	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 56015			RunNo: 72918						
Prep Date: 10/24/2020	Analysis Date: 10/26/2020			SeqNo: 2563417		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	10		10.00		104	30.4	154			

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#: 2010B18
29-Oct-20

Client: ENSOLUM
Project: Lateral K 12 Y3

Sample ID: LCS-56015	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 56015	RunNo: 72918								
Prep Date: 10/24/2020	Analysis Date: 10/26/2020	SeqNo: 2563418		Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.5	70	130			
Surr: DNOP	4.8		5.000		95.4	30.4	154			

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#: 2010B18

29-Oct-20

Client: ENSOLUM**Project:** Lateral K 12 Y3

Sample ID: mb-56011	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 56011	RunNo: 72903								
Prep Date: 10/23/2020	Analysis Date: 10/24/2020	SeqNo: 2562545	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		103	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		104	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		109	70	130			
Surr: Toluene-d8	0.54		0.5000		108	70	130			

Sample ID: lcs-56011	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 56011	RunNo: 72903								
Prep Date: 10/23/2020	Analysis Date: 10/24/2020	SeqNo: 2562546	Units: %Rec							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		108	70	130			
Surr: Toluene-d8	0.55		0.5000		109	70	130			

Sample ID: mb-56003	SampType: MBLK	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: PBS	Batch ID: 56003	RunNo: 72903								
Prep Date: 10/23/2020	Analysis Date: 10/25/2020	SeqNo: 2562554	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: 1,2-Dichloroethane-d4	0.50		0.5000		99.1	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		105	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID: lcs-56003	SampType: LCS4	TestCode: EPA Method 8260B: Volatiles Short List								
Client ID: BatchQC	Batch ID: 56003	RunNo: 72903								
Prep Date: 10/23/2020	Analysis Date: 10/25/2020	SeqNo: 2562555	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.025	1.000	0	92.4	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.1	0.050	1.000	0	105	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		103	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.9	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#: 2010B18

29-Oct-20

Client: ENSOLUM

Project: Lateral K 12 Y3

Sample ID: Ics-56003		SampType: LCS4		TestCode: EPA Method 8260B: Volatiles Short List						
Client ID: BatchQC		Batch ID: 56003		RunNo: 72903						
Prep Date: 10/23/2020		Analysis Date: 10/25/2020		SeqNo: 2562555			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.51		0.5000		102	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#: 2010B18

29-Oct-20

Client: ENSOLUM
Project: Lateral K 12 Y3

Sample ID: mb-56011	SampType: MBLK			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: PBS	Batch ID: 56011			RunNo: 72903						
Prep Date: 10/23/2020	Analysis Date: 10/24/2020			SeqNo: 2562573		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	450		500.0		90.8	70	130			

Sample ID: lcs-56011	SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: LCSS	Batch ID: 56011			RunNo: 72903						
Prep Date: 10/23/2020	Analysis Date: 10/24/2020			SeqNo: 2562574		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	460		500.0		91.2	70	130			

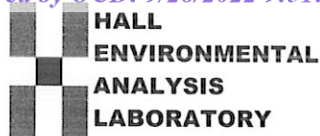
Sample ID: mb-56003	SampType: MBLK			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: PBS	Batch ID: 56003			RunNo: 72903						
Prep Date: 10/23/2020	Analysis Date: 10/25/2020			SeqNo: 2562591		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	450		500.0		89.3	70	130			

Sample ID: lcs-56003	SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: LCSS	Batch ID: 56003			RunNo: 72903						
Prep Date: 10/23/2020	Analysis Date: 10/25/2020			SeqNo: 2562592		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.4	70	130			
Surr: BFB	440		500.0		88.5	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



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: 2010B18

RcptNo: 1

Received By: Sean Livingston 10/23/2020 8:05:00 AM

Completed By: Desiree Dominguez 10/23/2020 9:20:43 AM

Reviewed By: JR 10/23/20

San Lopez
ID 2

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: SPA 10.23.20

Special Handling (if applicable)

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

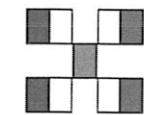
Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.5	Good	Yes			

Chain-of-Custody Record		Turn-Around Time:	
Client: Ensolum, LLC		<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Rush
Mailing Address: 606 S. Rio Grande, Suite A		Project Name:	
Aztec, NM 87410		Project #:	
Phone #: 505.874.1010		Project Manager:	
email or Fax#: mgentry@ensolum.com		M. Gentry	
QA/QC Package:			
<input type="checkbox"/> Standard	<input type="checkbox"/> Level 4 (Full Validation)		
Accreditation: <input type="checkbox"/> Az Compliance		Sampler: L. Daniell	
<input type="checkbox"/> NELAC	<input type="checkbox"/> Other	On Ice: <input type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> EDD (Type)		# of Coolers: 1	



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

Remarks:

Bill to 449100

Date:	10/22/20	Time:	1755	Relinquished by:		Received by:	Via:	Date:	Time
Date:	10/22/20	Time:	1843	Relinquished by:		Received by:	Via:	Date:	Time



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

December 23, 2020

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

RE: Lateral K 12 Y 3

OrderNo.: 2012545

Dear M. Gentry:

Hall Environmental Analysis Laboratory received 10 sample(s) on 12/10/2020 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: 2012545

Date Reported: 12/23/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Lab Order: 2012545

Project: Lateral K 12 Y 3

Lab ID: 2012545-001

Collection Date: 12/8/2020 10:40:00 AM

Client Sample ID: SVE-1R

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: DJF
Benzene	2.2	1.0		µg/L	1	12/18/2020 5:10:20 AM	SL741C
Toluene	ND	1.0		µg/L	1	12/18/2020 5:10:20 AM	SL741C
Ethylbenzene	4.6	1.0		µg/L	1	12/18/2020 5:10:20 AM	SL741C
Xylenes, Total	4.1	1.5		µg/L	1	12/18/2020 5:10:20 AM	SL741C
Surr: 1,2-Dichloroethane-d4	73.3	70-130		%Rec	1	12/18/2020 5:10:20 AM	SL741C
Surr: Dibromofluoromethane	84.9	70-130		%Rec	1	12/18/2020 5:10:20 AM	SL741C
Surr: Toluene-d8	95.6	70-130		%Rec	1	12/18/2020 5:10:20 AM	SL741C

Lab ID: 2012545-002

Collection Date: 12/8/2020 11:35:00 AM

Client Sample ID: SVE-3

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: DJF
Benzene	11	2.0		µg/L	2	12/18/2020 5:37:31 AM	SL741C
Toluene	ND	2.0		µg/L	2	12/18/2020 5:37:31 AM	SL741C
Ethylbenzene	150	2.0		µg/L	2	12/18/2020 5:37:31 AM	SL741C
Xylenes, Total	160	3.0		µg/L	2	12/18/2020 5:37:31 AM	SL741C
Surr: 1,2-Dichloroethane-d4	66.8	70-130	S	%Rec	2	12/18/2020 5:37:31 AM	SL741C
Surr: Dibromofluoromethane	89.2	70-130		%Rec	2	12/18/2020 5:37:31 AM	SL741C
Surr: Toluene-d8	96.6	70-130		%Rec	2	12/18/2020 5:37:31 AM	SL741C

Lab ID: 2012545-003

Collection Date: 12/8/2020 12:30:00 PM

Client Sample ID: MW-13

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/18/2020 6:04:45 AM	SL741C
Toluene	ND	1.0		µg/L	1	12/18/2020 6:04:45 AM	SL741C
Ethylbenzene	ND	1.0		µg/L	1	12/18/2020 6:04:45 AM	SL741C
Xylenes, Total	ND	1.5		µg/L	1	12/18/2020 6:04:45 AM	SL741C
Surr: 1,2-Dichloroethane-d4	80.1	70-130		%Rec	1	12/18/2020 6:04:45 AM	SL741C
Surr: Dibromofluoromethane	95.9	70-130		%Rec	1	12/18/2020 6:04:45 AM	SL741C
Surr: Toluene-d8	93.8	70-130		%Rec	1	12/18/2020 6:04:45 AM	SL741C

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: 2012545

Date Reported: 12/23/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Lab Order: 2012545

Project: Lateral K 12 Y 3

Lab ID: 2012545-004

Collection Date: 12/8/2020 1:15:00 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: DJF
Benzene	ND	1.0		µg/L	1	12/18/2020 6:32:05 AM	SL741C
Toluene	ND	1.0		µg/L	1	12/18/2020 6:32:05 AM	SL741C
Ethylbenzene	ND	1.0		µg/L	1	12/18/2020 6:32:05 AM	SL741C
Xylenes, Total	ND	1.5		µg/L	1	12/18/2020 6:32:05 AM	SL741C
Surr: 1,2-Dichloroethane-d4	88.4	70-130		%Rec	1	12/18/2020 6:32:05 AM	SL741C
Surr: Dibromofluoromethane	104	70-130		%Rec	1	12/18/2020 6:32:05 AM	SL741C
Surr: Toluene-d8	94.7	70-130		%Rec	1	12/18/2020 6:32:05 AM	SL741C

Lab ID: 2012545-005

Collection Date: 12/8/2020 1:50:00 PM

Client Sample ID: MW-12

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/18/2020 6:59:18 AM	SL741C
Toluene	ND	1.0		µg/L	1	12/18/2020 6:59:18 AM	SL741C
Ethylbenzene	ND	1.0		µg/L	1	12/18/2020 6:59:18 AM	SL741C
Xylenes, Total	ND	1.5		µg/L	1	12/18/2020 6:59:18 AM	SL741C
Surr: 1,2-Dichloroethane-d4	92.8	70-130		%Rec	1	12/18/2020 6:59:18 AM	SL741C
Surr: Dibromofluoromethane	107	70-130		%Rec	1	12/18/2020 6:59:18 AM	SL741C
Surr: Toluene-d8	93.7	70-130		%Rec	1	12/18/2020 6:59:18 AM	SL741C

Lab ID: 2012545-006

Collection Date: 12/9/2020 8:25:00 AM

Client Sample ID: MW-18

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: DJF
Benzene	340	5.0		µg/L	5	12/18/2020 6:16:47 PM	A74128
Toluene	52	5.0		µg/L	5	12/18/2020 6:16:47 PM	A74128
Ethylbenzene	11	5.0		µg/L	5	12/18/2020 6:16:47 PM	A74128
Xylenes, Total	560	75		µg/L	50	12/19/2020 11:11:36 AM	SL7413
Surr: 1,2-Dichloroethane-d4	82.1	70-130		%Rec	5	12/18/2020 6:16:47 PM	A74128
Surr: Dibromofluoromethane	100	70-130		%Rec	5	12/18/2020 6:16:47 PM	A74128
Surr: Toluene-d8	92.6	70-130		%Rec	5	12/18/2020 6:16:47 PM	A74128

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: 2012545

Date Reported: 12/23/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Lab Order: 2012545

Project: Lateral K 12 Y 3

Lab ID: 2012545-007

Collection Date: 12/9/2020 8:30:00 AM

Client Sample ID: MW-19

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/18/2020 7:38:16 PM	A74128
Toluene	ND	1.0		µg/L	1	12/18/2020 7:38:16 PM	A74128
Ethylbenzene	ND	1.0		µg/L	1	12/18/2020 7:38:16 PM	A74128
Xylenes, Total	ND	1.5		µg/L	1	12/18/2020 7:38:16 PM	A74128
Surr: 1,2-Dichloroethane-d4	92.8	70-130		%Rec	1	12/18/2020 7:38:16 PM	A74128
Surr: Dibromofluoromethane	110	70-130		%Rec	1	12/18/2020 7:38:16 PM	A74128
Surr: Toluene-d8	92.3	70-130		%Rec	1	12/18/2020 7:38:16 PM	A74128

Lab ID: 2012545-008

Collection Date: 12/9/2020 9:25:00 AM

Client Sample ID: SVE-2

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: DJF
Benzene	900	50		µg/L	50	12/19/2020 11:38:49 AM	SL7413
Toluene	ND	5.0		µg/L	5	12/18/2020 8:05:27 PM	A74128
Ethylbenzene	240	5.0		µg/L	5	12/18/2020 8:05:27 PM	A74128
Xylenes, Total	1500	75		µg/L	50	12/19/2020 11:38:49 AM	SL7413
Surr: 1,2-Dichloroethane-d4	80.6	70-130		%Rec	5	12/18/2020 8:05:27 PM	A74128
Surr: Dibromofluoromethane	100	70-130		%Rec	5	12/18/2020 8:05:27 PM	A74128
Surr: Toluene-d8	93.1	70-130		%Rec	5	12/18/2020 8:05:27 PM	A74128

Lab ID: 2012545-009

Collection Date: 12/9/2020 10:10:00 AM

Client Sample ID: MW-2

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: DJF
Benzene	1100	50		µg/L	50	12/19/2020 12:06:03 PM	SL7413
Toluene	ND	5.0		µg/L	5	12/18/2020 8:32:33 PM	A74128
Ethylbenzene	140	5.0		µg/L	5	12/18/2020 8:32:33 PM	A74128
Xylenes, Total	1300	7.5		µg/L	5	12/18/2020 8:32:33 PM	A74128
Surr: 1,2-Dichloroethane-d4	79.2	70-130		%Rec	5	12/18/2020 8:32:33 PM	A74128
Surr: Dibromofluoromethane	96.2	70-130		%Rec	5	12/18/2020 8:32:33 PM	A74128
Surr: Toluene-d8	91.3	70-130		%Rec	5	12/18/2020 8:32:33 PM	A74128

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: 2012545

Date Reported: 12/23/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Lab Order: 2012545

Project: Lateral K 12 Y 3

Lab ID: 2012545-010

Collection Date:

Client Sample ID: Trip Blank

Matrix: AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8260: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/18/2020 8:59:38 PM	A74128
Toluene	ND	1.0		µg/L	1	12/18/2020 8:59:38 PM	A74128
Ethylbenzene	ND	1.0		µg/L	1	12/18/2020 8:59:38 PM	A74128
Xylenes, Total	ND	1.5		µg/L	1	12/18/2020 8:59:38 PM	A74128
Surr: 1,2-Dichloroethane-d4	87.5	70-130		%Rec	1	12/18/2020 8:59:38 PM	A74128
Surr: Dibromofluoromethane	107	70-130		%Rec	1	12/18/2020 8:59:38 PM	A74128
Surr: Toluene-d8	93.2	70-130		%Rec	1	12/18/2020 8:59:38 PM	A74128

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#: 2012545

23-Dec-20

Client: ENSOLUM
Project: Lateral K 12 Y 3

Sample ID: mb1	SampType: MBLK	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: PBW	Batch ID: SL74101	RunNo: 74101								
Prep Date:	Analysis Date: 12/17/2020	SeqNo: 2614568	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	9.1		10.00		91.4	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.4	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.5		10.00		94.5	70	130			

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: LCSW	Batch ID: SL74101	RunNo: 74101								
Prep Date:	Analysis Date: 12/17/2020	SeqNo: 2614569	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	70	130			
Toluene	20	1.0	20.00	0	97.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	9.3		10.00		92.7	70	130			

Sample ID: mb1	SampType: MBLK	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: PBW	Batch ID: A74128	RunNo: 74128								
Prep Date:	Analysis Date: 12/18/2020	SeqNo: 2615687	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	9.1		10.00		91.3	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.5	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.4		10.00		94.4	70	130			

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: LCSW	Batch ID: A74128	RunNo: 74128								
Prep Date:	Analysis Date: 12/18/2020	SeqNo: 2615688	Units: µg/L							
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 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#: 2012545

23-Dec-20

Client: ENSOLUM**Project:** Lateral K 12 Y 3

Sample ID: 100ng lcs	SampType: LCS		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: LCSW	Batch ID: A74128		RunNo: 74128							
Prep Date:	Analysis Date: 12/18/2020		SeqNo: 2615688		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130			
Toluene	20	1.0	20.00	0	99.2	70	130			
Surr: 1,2-Dichloroethane-d4	8.9		10.00		89.4	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.9	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	9.6		10.00		95.6	70	130			

Sample ID: 2012545-006a ms	SampType: MS		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: MW-18	Batch ID: A74128		RunNo: 74128							
Prep Date:	Analysis Date: 12/18/2020		SeqNo: 2615690		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	450	5.0	100.0	338.9	108	70	130			
Toluene	140	5.0	100.0	52.29	91.9	70	130			
Surr: 1,2-Dichloroethane-d4	42		50.00		84.4	70	130			
Surr: 4-Bromofluorobenzene	54		50.00		108	70	130			
Surr: Dibromofluoromethane	52		50.00		105	70	130			
Surr: Toluene-d8	44		50.00		88.3	70	130			

Sample ID: 2012545-006a msd	SampType: MSD		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: MW-18	Batch ID: A74128		RunNo: 74128							
Prep Date:	Analysis Date: 12/18/2020		SeqNo: 2615691		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	430	5.0	100.0	338.9	88.4	70	130	4.57	20	
Toluene	140	5.0	100.0	52.29	85.6	70	130	4.48	20	
Surr: 1,2-Dichloroethane-d4	41		50.00		82.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	53		50.00		106	70	130	0	0	
Surr: Dibromofluoromethane	50		50.00		100	70	130	0	0	
Surr: Toluene-d8	46		50.00		91.1	70	130	0	0	

Sample ID: mb1	SampType: MBLK		TestCode: EPA Method 8260: Volatiles Short List							
Client ID: PBW	Batch ID: SL74133		RunNo: 74133							
Prep Date:	Analysis Date: 12/19/2020		SeqNo: 2615900		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.6		10.00		86.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	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 6 of 7

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

WO#: 2012545

23-Dec-20

Client: ENSOLUM
Project: Lateral K 12 Y 3

Sample ID: mb1	SampType: MBLK	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: PBW	Batch ID: SL74133	RunNo: 74133								
Prep Date:	Analysis Date: 12/19/2020	SeqNo: 2615900	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.4		10.00		93.8	70	130			

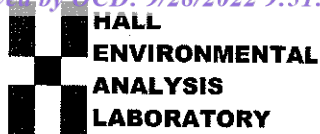
Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: LCSW	Batch ID: SL74133	RunNo: 74133								
Prep Date:	Analysis Date: 12/19/2020	SeqNo: 2615901	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.8		10.00		88.2	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.1	70	130			
Surr: Dibromofluoromethane	10		10.00		105	70	130			
Surr: Toluene-d8	8.9		10.00		89.4	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 7 of 7



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: 2012545

RcptNo: 1

Received By: Emily Mocho

12/10/2020 8:00:00 AM

Completed By: Erin Melendrez

12/10/2020 10:52:08 AM

Reviewed By:

JR 12/11/20

Chain of Custody

1. Is Chain of Custody 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 $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☐ No ☒ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐ Samples not frozen.
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 ☐

10
12/11/20

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: <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	0.4	Good				
2	1.0	Good				
3	-1.8	Good				
4	-1.1	Good				



APPENDIX F

New Mexico Office of the State Engineer
Permit Approval



STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
AZTEC

John R. D'Antonio Jr., P.E.
State Engineer

100 Gossett Drive, Suite A
Aztec, New Mexico 87410

October 7, 2020

Tom Long
Enterprise Products
614 Reilly Ave.
Farmington, NM 87401

RE: Permit Approval for Non-Consumptive Wells, SJ-4075 POD18-POD21, Enterprise Products, K-12 Y#3 Condensate Tank Release Investigation

Dear Mr. Long:

On October 5, 2020, the New Mexico Office of the State Engineer (NMOSE) received an application to drill four new soil borings and installing up to four groundwater monitoring wells associated with the above referenced location. Enclosed is a copy of the above numbered permit, which has been approved subject to the conditions set forth on the approval page and in the attached Conditions of Approval.

A standardized plugging method for the future abandonment of the seven newly permitted wells has also been included in the Conditions of Approval. This eliminates the need to submit a separate Well Plugging Plan of Operations for approval by the NMOSE prior to plugging, unless an alternate plugging method is proposed, required by a separate oversight agency, necessary due to incompatibility with actual conditions, or artesian conditions are encountered. Please be aware that there are deadlines to submit well records for the newly installed monitoring wells and plugging records for any abandoned wells. These deadlines can be found in the attached Conditions of Approval. The well and plugging records should be sent to the NMOSE District V, 100 Gossett Drive, Suite A, Aztec, NM, 87410.

If you have any questions regarding this permitting action, please feel free to contact me at (505) 383-4751.

Sincerely,

A handwritten signature in black ink, appearing to read "Miles Juett".

Miles Juett
Assistant Watermaster
Water Rights Division District V

Enclosures

cc: Aztec Reading (w/o enclosures)
SJ-4075 File
WATERS
Marc Gentry, Ensolum, LLC, via email: mgentry@ensolum.com

OFFICE OF THE STATE ENGINEER/INTERSTATE STREAM COMMISSION - AZTEC OFFICE

OFFICIAL RECEIPT NUMBER: 5 - **6674** DATE: 10-5-2020 FILE NO.: ST-4075 POD18-POD21

TOTAL: 20.00 RECEIVED: Twenty DOLLARS ☒ CASH: ☐ CHECK NO.: _____

PAYOR: Kyle Summers on behalf of ENSOLVUM ADDRESS: 6006 South Rio Grande, Suite A

CITY: Aztec STATE: NM ZIP: 87410 RECEIVED BY: MS

INSTRUCTIONS: Indicate the number of actions to the left of the appropriate type of filing. Complete the receipt information. Original to payor; pink copy to Program Support/ASD; yellow copy remains in district office; and goldenrod copy to accompany application being filed. If a mistake is made, void the original and all copies and submit to Program Support/ASD as part of the daily deposit.

A. Ground Water Filing Fees

1. Change of Ownership of Water Right	\$ 2.00
2. Application to Appropriate or Supplement Domestic 72-12-1 Well	\$ 125.00
3. Application to Repair or Deepen 72-12-1 Well	\$ 75.00
4. Application for Replacement 72-12-1 Well	\$ 75.00
5. Application to Change Purpose of Use 72-12-1 Well	\$ 75.00
6. Application for Stock Well/Temp. Use	\$ 5.00

7. Application to Appropriate Irrigation, Municipal, or Commercial Use	\$ 25.00
8. Declaration of Water Right	\$ 1.00
9. Application for Supplemental Non 72-12-1 Well	\$ 25.00
10. Application to Change Place or Purpose of Use Non 72-12-1 Well	\$ 25.00
11. Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Ground Water	\$ 50.00
12. Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Ground Water	\$ 50.00
13. Application to Change Point of Diversion of Non 72-12-1 Well	\$ 25.00
14. Application to Repair or Deepen Non 72-12-1 Well	\$ 5.00

15. Application for Test, Expl. Observ. Well	\$ 5.00
16. Application for Extension of Time	\$ 25.00
17. Proof of Application to Beneficial Use	\$ 25.00
18. Notice of Intent to Appropriate	\$ 25.00

B. Surface Water Filing Fees

1. Change of Ownership of a Water Right	\$ 5.00
2. Declaration of Water Right	\$ 10.00
3. Amended Declaration	\$ 25.00
4. Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Surface Water	\$ 200.00
5. Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Surface Water	\$ 200.00
6. Application to Change Point of Diversion	\$ 100.00
7. Application to Change Place and/or Purpose of Use	\$ 100.00
8. Application to Appropriate	\$ 25.00
9. Notice of Intent to Appropriate	\$ 25.00
10. Application for Extension of Time	\$ 50.00
11. Supplemental Well to a Surface Right	\$ 100.00
12. Return Flow Credit	\$ 100.00
13. Proof of Completion of Works	\$ 25.00
14. Proof of Application of Water to Beneficial Use	\$ 25.00
15. Water Development Plan	\$ 25.00
16. Declaration of Livestock Water Impoundment	\$ 100.00
17. Application for Livestock Water Impoundment	\$ 10.00

C. Well Driller Fees

1. Application for Well Driller's License	\$ 50.00
2. Application for Renewal of Well Driller's License	\$ 50.00

D. Reproduction of Documents

@ 25¢/copy	\$
Map(s)	\$

E. Certification

	\$
--	----

F. *Credit Card Convenience Fee

	\$
--	----

G. Other

	\$
--	----

Comments:

4 New SBs/MWS @

AK-12 YH3 Condensate

Tank Release Investigation

side

-on behalf of

Enterprise Products Company

All fees are non-refundable.

NEW MEXICO OFFICE OF THE STATE ENGINEER



WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT



(check applicable box):

For fees, see State Engineer website: <http://www.ose.state.nm.us/>

Purpose:	<input type="checkbox"/> Pollution Control And/Or Recovery	<input type="checkbox"/> Ground Source Heat Pump
<input type="checkbox"/> Exploratory Well (Pump test)	<input type="checkbox"/> Construction Site/Public Works Dewatering	<input type="checkbox"/> Other(Describe):
<input checked="" type="checkbox"/> Monitoring Well	<input type="checkbox"/> Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

<input checked="" type="checkbox"/> Temporary Request - Requested Start Date: 10/19/20	Requested End Date: Unknown
--	-----------------------------

Plugging Plan of Operations Submitted? ☐ Yes ☒ No

1. APPLICANT(S)

Name: Enterprise Products Company	Name: Ensolum, LLC
Contact or Agent: check here if Agent <input type="checkbox"/> Thomas Long	Contact or Agent: check here if Agent <input checked="" type="checkbox"/> Marc Gentry
Mailing Address: 614 Reilly Ave.	Mailing Address: 10333 Harwin Drive, Suite 470
City: Farmington	City: Houston
State: New Mexico Zip Code: 87401	State: Texas Zip Code: 77036
Phone: 505-215-4727 <input type="checkbox"/> Home <input checked="" type="checkbox"/> Cell Phone (Work):	Phone: 832-978-7700 <input type="checkbox"/> Home <input checked="" type="checkbox"/> Cell Phone (Work):
E-mail (optional): tjlong@eprod.com	E-mail (optional): mgentry@ensolum.com

FOR OSE INTERNAL USE		Application for Permit, Form WR-07, Rev 11/17/16	
File No. SJ-4075 POD18-21	Trn. No.:	Receipt No.: 5-6674	
Trans Description (optional):			
Sub-Basin:		PCW/LOG Due Date: 10-7-2021	

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84). District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.			
<input type="checkbox"/> NM State Plane (NAD83) (Feet) <input type="checkbox"/> UTM (NAD83) (Meters) <input checked="" type="checkbox"/> Lat/Long (WGS84) (to the nearest 1/10 th of second)			
<input type="checkbox"/> NM West Zone <input type="checkbox"/> Zone 12N <input type="checkbox"/> NM East Zone <input type="checkbox"/> Zone 13N <input type="checkbox"/> NM Central Zone			
Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (Quarters or Halves, Section, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
see attached	see attached	see attached	all wells are to be located in SW 1/4, S23 T27N R7W
NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions) Additional well descriptions are attached: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, how many _____			
Other description relating well to common landmarks, streets, or other: See attached			
Well is on land owned by: US BLM			
Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, how many <u>8</u>			
Approximate depth of well (feet): 35		Outside diameter of well casing (inches): 2.25	
Driller Name: Enviro-Drill, Inc.		Driller License Number: WD-1186	

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

The proposed soil boring/monitoring well locations are located on land managed by the Bureau of Land Management (BLM). The primary objective of the site investigation will be to further delineate the extent of hydrocarbon impact to soil and/or groundwater at the site. The proposed scope of work will include the advancement of up to four (4) bore holes and the completion of up to four (4) monitoring wells. Low flow or bailer sampling methods will be utilized to sample the monitoring wells, resulting in minimal water removal.

Description of a planned plugging method is provided (see attached). Plugging Plan of Operations will be submitted prior to plugging of any monitoring well(s).

POD number SJ-4075 POD14 through POD- 17 that were previously permitted in 2016 did not encounter groundwater during drilling activities. These four (4) bore hole locations were plugged using the attached plugging methodology.

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.: SJ-4075 POD18-21

Trm No.:

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory: <input type="checkbox"/> Include a description of any proposed pump test, if applicable.	Pollution Control and/or Recovery: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for the pollution control or recovery operation. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The annual diversion amount. <input type="checkbox"/> The annual consumptive use amount. <input type="checkbox"/> The maximum amount of water to be diverted and injected for the duration of the operation. <input type="checkbox"/> The method and place of discharge.	Construction De-Watering: <input type="checkbox"/> Include a description of the proposed dewatering operation, <input type="checkbox"/> The estimated duration of the operation, <input type="checkbox"/> The maximum amount of water to be diverted, <input type="checkbox"/> A description of the need for the dewatering operation, and, <input type="checkbox"/> A description of how the diverted water will be disposed of.	Mine De-Watering: <input type="checkbox"/> Include a plan for pollution control/recovery, that includes the following: <input type="checkbox"/> A description of the need for mine dewatering. <input type="checkbox"/> The estimated maximum period of time for completion of the operation. <input type="checkbox"/> The source(s) of the water to be diverted. <input type="checkbox"/> The geohydrologic characteristics of the aquifer(s). <input type="checkbox"/> The maximum amount of water to be diverted per annum. <input type="checkbox"/> The maximum amount of water to be diverted for the duration of the operation. <input type="checkbox"/> The quality of the water.
Monitoring: <input checked="" type="checkbox"/> Include the reason for the monitoring well, and, <input checked="" type="checkbox"/> The duration of the planned monitoring.	<input type="checkbox"/> The method of measurement of water produced and discharged. <input type="checkbox"/> The source of water to be injected. <input type="checkbox"/> The method of measurement of water injected. <input type="checkbox"/> The characteristics of the aquifer. <input type="checkbox"/> The method of determining the resulting annual consumptive use of water and depletion from any related stream system. <input type="checkbox"/> Proof of any permit required from the New Mexico Environment Department. <input type="checkbox"/> An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	Ground Source Heat Pump: <input type="checkbox"/> Include a description of the geothermal heat exchange project, <input type="checkbox"/> The number of boreholes for the completed project and required depths. <input type="checkbox"/> The time frame for constructing the geothermal heat exchange project, and, <input type="checkbox"/> The duration of the project. <input type="checkbox"/> Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	<input type="checkbox"/> The method of measurement of water diverted. <input type="checkbox"/> The recharge of water to the aquifer. <input type="checkbox"/> Description of the estimated area of hydrologic effect of the project. <input type="checkbox"/> The method and place of discharge. <input type="checkbox"/> An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. <input type="checkbox"/> A description of the methods employed to estimate effects on surface water rights and underground water rights. <input type="checkbox"/> Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Thomas J. Long

Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Thomas J. Long
Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☒ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 7 day of October 20 20, for the State Engineer,

John R. D'Antonio Jr., P.E.

State Engineer

By: Miles Juett
Signature

Miles Juett
Print

Title: Assistant Watermaster
Print

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.: SJ-4075 POD18-21

Trm No.:

ATTACHMENTS

SJ-4075 POD18-21

POD Number	Well Number (if Known)	Existing, New, or Proposed	X or Easting or Longitude:	Y or Northing or Latitude:	Public Land Survey System (PLSS)	Well Diameter (inches)	Approximate Well Depth (feet)	Approximate Depth to Water (feet)	Driller	Driller #	Comments
SJ-4075 POD 14	SB-14/MW-14	Existing	-107.54934	36.5538	SW 1/4 of SW 1/4, S23 T27N R7W				Enviro-Drill Inc	WD-1186	Refusal at 29' No groundwater encountered. Dry hole. Not completed as well.
SJ-4075 POD 15	SB-15/MW-15	Existing	-107.54951	36.55384	SW 1/4 of SW 1/4, S23 T27N R7W				Enviro-Drill Inc	WD-1186	Refusal at 27' No groundwater encountered. Dry hole. Not completed as well.
SJ-4075 POD 16	SB-16/MW-16	Existing	-107.54977	36.55404	SW 1/4 of SW 1/4, S23 T27N R7W				Enviro-Drill Inc	WD-1186	Refusal at 25' No groundwater encountered. Dry hole. Not completed as well.
SJ-4075 POD 17	SB-17/MW-17	Existing	-107.54988	36.55435	SW 1/4 of SW 1/4, S23 T27N R7W				Enviro-Drill Inc	WD-1186	Refusal at 30' No groundwater encountered. Dry hole. Not completed as well.
SJ-4075 POD18	SB-18/MW-18	Proposed	-107.54925	36.554541	SW 1/4 of SW 1/4, S23 T27N R7W	2	35	28	Enviro-Drill Inc	WD-1186	
SJ-4075 POD18	SB-19/MW-19	Proposed	-107.549273	36.554653	SW 1/4 of SW 1/4, S23 T27N R7W	2	35	28	Enviro-Drill Inc	WD-1186	
SJ-4075 POD20	SB-20/MW-20	Proposed	-107.549991	36.55443	SE 1/4 of SW 1/4, S23 T27N R7W	2	35	28	Enviro-Drill Inc	WD-1186	
SJ-4075 POD21	SB-21/MW-21	Proposed	-107.549927	36.553913	SE 1/4 of SW 1/4, S23 T27N R7W	2	35	28	Enviro-Drill Inc	WD-1186	

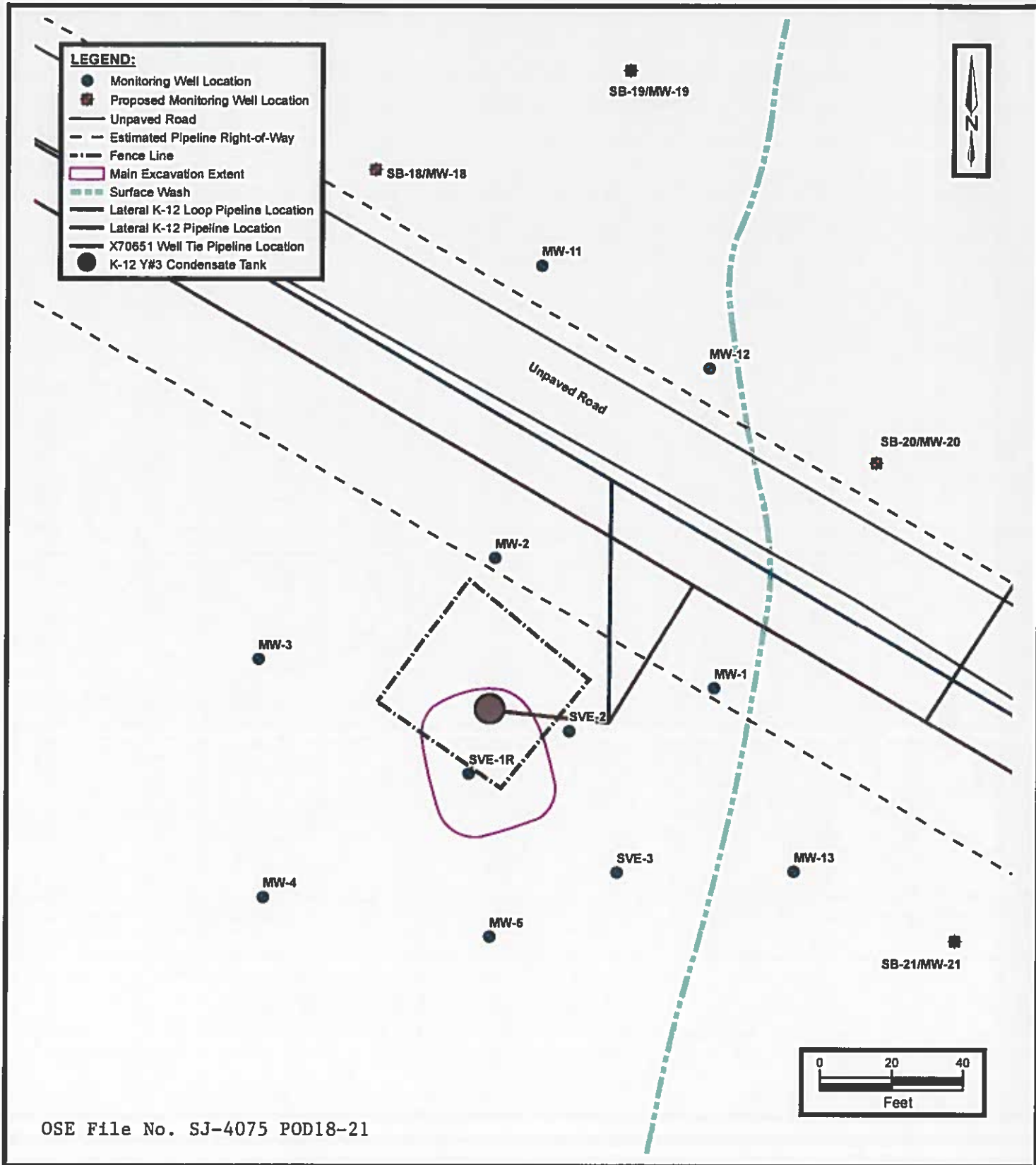
Monitoring:

- **Include the reason for the monitoring well.**

Monitoring events will be conducted at the site to evaluate constituent of concern (COC) concentrations in the groundwater over time. Low flow or bailer sampling method will be utilized to sample the wells, resulting in minimal water removal.

- **The duration of the planned monitoring.**

Monitoring will occur until the site is fully remediated.

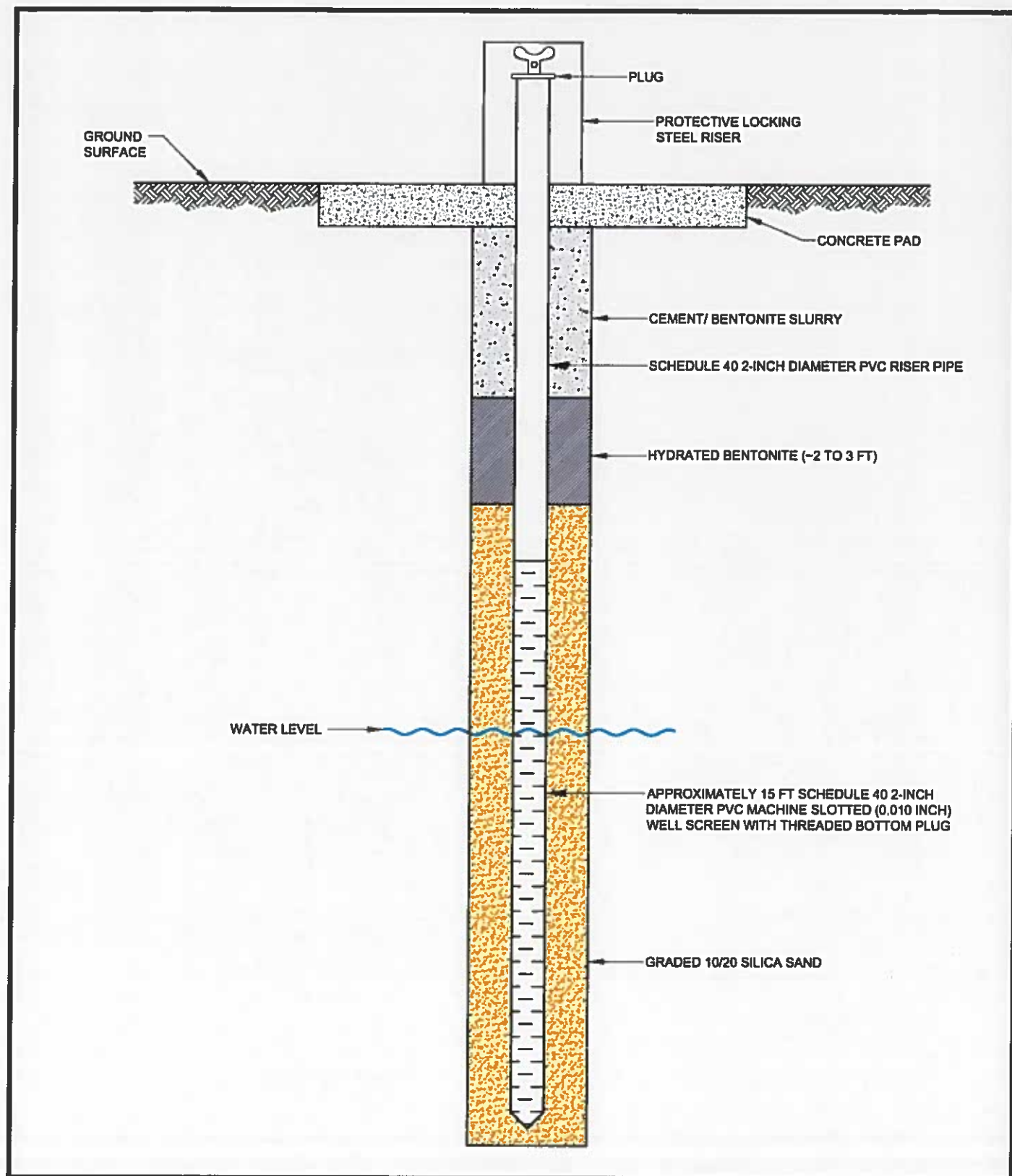


PROPOSED MONITORING WELL LOCATIONS MAP

ENTERPRISE FIELD SERVICES, LLC
 K-12 Y#3 CONDENSATE TANK RELEASE
 SW ¼, S23 T27N R7W, Rio Arriba County, New Mexico
 36.55412° N, 107.54935° W

PROJECT NUMBER: 05B1226001

**FIGURE
A**



OSE File No. SJ-4075 POD18-
21

**GROUNDWATER
MONITOR WELL SCHEMATIC**

Well-diagram.dwg

NMOSE Permit to Drill a Well(s) With No Water Right - Conditions of Approval
SJ-4075 POD18 – POD21

The New Mexico Office of the State Engineer (NMOSE) has determined that existing water rights will not be impaired by this activity. This application is approved without publication provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state. This application approval (i.e., permit) is further subject to the following conditions of approval.

1. This permit is approved as follows:

Permittee(s): Enterprise Products Company
(ENSOLUM, as Agent)
614 Reilly Ave
Farmington, NM 87401

Permit Number: SJ-4075

Application File Date: October 5, 2020

Priority: N/A

Source: Groundwater

Point(s) of Diversion: SJ-4075 POD18 through POD21 includes four newly proposed groundwater monitoring wells associated with a site investigation for the K-12 Y#3 Condensate Tank Release, located on federal land managed by the Bureau of Land Management in Rio Arriba County, New Mexico. The wells (aka, point of diversion; POD) will be located within the SW¹/₄ SW¹/₄ and the SE¹/₄ SW¹/₄ of Section 23, Township 27 North, Range 7 West, NMPM, at the following approximate point locations (Lat/Long).

POD Number and Owner's Well Name	Casing: Diameter (inches) and Depth (feet)		Longitude (decimal deg.)	Latitude (decimal deg.)
SJ-4075 POD18 (SB-18/MW-18)	2	35	-107.549555	36.554541
SJ-4075 POD19 (SB-19/MW-19)	2	35	-107.549273	36.554653
SJ-4075 POD20 (SB-20/MW-20)	2	35	-107.548991	36.5543
SJ-4075 POD21 (SB-21/MW-21)	2	35	-107.548927	36.553913

Purpose of Use: Groundwater monitoring

Place of Use: N/A

Amount of Water: N/A

2. No water shall be appropriated and beneficially used from any wells or borings approved under this permit.

3. No water shall be diverted from the well(s) except for initial well development and periodic sampling purposes. Upon completion of monitoring activities the well(s) shall be plugged in accordance with Subsection C of 19.27.4.30 NMAC, unless a permit to use water is acquired from the NMOSE.
4. The well(s) may continue to be used indefinitely for groundwater sampling or monitoring required for the current site investigation and any associated remediation, so long as they remain in good repair. **A new permit shall be obtained from the NMOSE prior to replacing a well(s) or for any change in use as approved herein.**
5. Water well drilling and well drilling activities, including well plugging, are regulated under NMOSE Regulations 19.27.4 NMAC. These regulations apply, and provide both general and specific direction regarding the drilling of wells in New Mexico. Note that the construction of any well that allows groundwater to flow uncontrolled to the land surface or to move appreciably between geologic units is prohibited.
6. In accordance with Subsection A of 19.27.4.29 NMAC, on-site supervision of well drilling/plugging is required by the holder of a New Mexico Well Driller License or a NMOSE-registered Drill Rig Supervisor. The New Mexico licensed Well Driller shall ensure that well drilling activities are completed in accordance with 19.27.4.29, 19.27.4.30 and 19.27.4.31 NMAC. However, pursuant to 72-12-12 NMSA 1978 and 19.27.4.8 NMAC, a driller's license is not required for the construction of a driven well with an outside casing diameter of 2½ inches or less and that does not require the use of a drill rig (e.g., auger) for installation. This exemption is not applicable to well plugging.
7. The permittee has not stated whether artesian conditions are likely to be encountered at the proposed well/borehole location(s). However, if artesian conditions are encountered during drilling, all rules and regulations pertaining to the drilling and casing and plugging of artesian wells shall be followed.
8. A Well Record documenting the as-built well construction and materials used shall be filed for each of the new wells in accordance with Subsection N of 19.27.4.29 NMAC. **Well Records shall be filed with the State Engineer (NMOSE District V, 100 Gossett Drive, Suite A, Aztec, NM, 87410) within 30 days after completion of the well(s).** Well installation(s) shall be complete and the well record(s) filed no later than one year from the date of approval of this permit.
9. If the required Well Record documentation is not received within one year of the date of permit approval, this permit will automatically expire.
10. When the permittee receives approval or direction to permanently abandon the well(s)/borehole(s) covered by this permit, plugging shall be performed by a New Mexico licensed well driller. The well(s)/borehole(s) shall be plugged pursuant to Subsection C of 19.27.4.30 NMAC using the following method, unless an alternate plugging method has been proposed by or on behalf of the well owner and approved by the NMOSE. If a well/borehole has encountered artesian conditions, a Well Plugging Plan of Operations shall be submitted and NMOSE approval obtained *prior* to the initiation of *any* well plugging activities concerning artesian wells. Additionally, if the following standardized plugging sealant is not appropriate for use due to incompatibility with the water quality or any soil and water contaminants encountered, a Well Plugging Plan of Operations shall be submitted and NMOSE approval obtained *prior* to the initiation of *any* well plugging activities.

- a. Obstructions in a well/borehole shall be identified and removed if possible. If an obstruction cannot be removed, the method used to grout below and around the obstruction shall be described in detail in the plugging record.
- b. Prior to plugging, calculate the theoretical volume of sealant needed for abandonment of the well/borehole based on the actual measured pluggable depth of the well/borehole and the volume factor for the casing/borehole diameter. Compare the actual volume of sealant placed in the well/borehole with the theoretical volume to verify the actual volume of sealant is equal to or exceeds the theoretical volume.
- c. Portland Type I/II cement shall be used for the plugging sealant. The water mixed with the cement to create the plugging sealant shall be potable water or of similar quality. Portland cement has a fundamental water demand of 5.2 gallons of water per 94-lb sack of cement. Up to a maximum of 6.0 gallons per 94-lb sack is acceptable to allow for greater pumpability.

Pure bentonite powder ("90 barrel yield") is allowed as a cement additive by NMOSE and American Water Works Association (AWWA) guidelines. If a bentonite additive is used, the following rates and mixing guidelines shall be followed. For a rate or a mixing procedure other than that provided below, the NMOSE District V office must be contacted for pre-approval. Neither granular bentonite nor extended-yield bentonite shall be mixed with cement for the purpose of this plugging activity. When supplementing a cement slurry with bentonite powder, water demand for the mix increases at a rate of approximately 0.65 gallon of water for each 1% increment of bentonite bdwc (by dry weight cement) above the stated base water demand of 5.2 gallons water per 94-lb sack of cement for neat cement. Bentonite powder must be hydrated separately with its required increment of water before being mixed into the wet neat cement. If water is otherwise added to the combination of dry ingredients or the dry bentonite is blended into wet cement, the alkalinity of the cement will restrict the yield of the bentonite powder, resulting in excess free water in the slurry and excessive cement shrinkage upon curing.

- d. Placement of the sealant within the well/borehole shall be by pumping through a tremie pipe extended to near the bottom of the well/borehole and kept below the top of the slurry column (i.e., immersed in the slurry) as the well/borehole is plugged from bottom upwards in a manner that displaces the standing water column.
 - e. Prior to, or upon completion of plugging, the well casing may be cut-off below grade as necessary to allow for approved construction onsite, provided a minimum six-inch thickness of reinforced abandonment plugging sealant or concrete completely covers the top of the cut-off casing. Any remaining void to the surface may be filled with native soil, concrete, or asphalt as needed to match the surrounding surface material and blended with the surface topography to prevent ponding.
 - f. **Within 30 days after completion of well/borehole plugging, a complete Plugging Record shall be filed with the State Engineer in accordance with Paragraph (3) of Subsection C of 19.27.4.30 NMAC for each well/boring plugged. The Well Plugging Record(s) shall be filed with the State Engineer at the NMOSE District V Office, 100 Gossett Drive, Suite A, Aztec, NM 87410. The required well plugging record form is available at <http://www.ose.state.nm.us/STST/wdForms.php>.**
11. In accordance with Subsection C of 19.27.4.30 NMAC, a well/borehole that does not encounter groundwater may be immediately plugged by filling with drill cuttings or clean native fill to

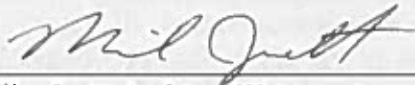
within 10 feet of land surface and by plugging the remaining 10 feet to the land surface with a sealant approved by the Office of the State Engineer. A Plugging Record shall be filed with the State Engineer as described above.

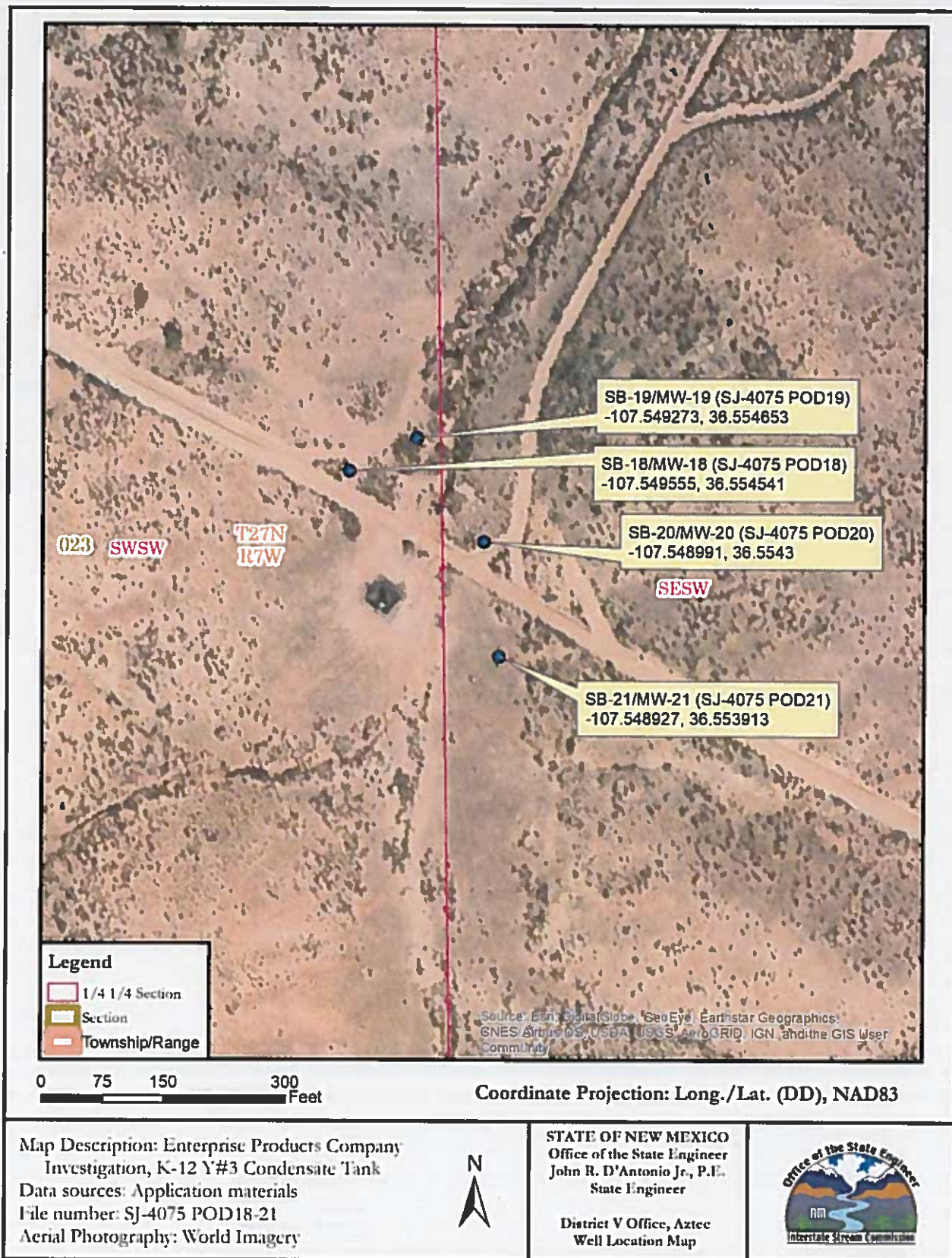
12. Should another regulatory agency sharing jurisdiction of the project authorize, or by regulation require, more stringent requirements than stated herein, the more stringent procedure should be followed. These, among others, may include provisions regarding pre-authorization to proceed, type of methods and materials used, inspection, or prohibition of free discharge of any fluid or other material to or from the well that is related to the drilling and/or monitoring process.
13. Pursuant to 72-12-3 NMSA 1978, the applicant may or may not have provided written documentation with the application, which the applicant claims as confirmation that access has been granted for the aforementioned well(s) to be located on property owned by someone other than the well owner/applicant. NMOSE approval of this permit in no way infers the right of access to land not owned by the well owner/applicant.
14. The State Engineer retains jurisdiction of this permit.

The application for drilling well(s) SJ-4075 POD18-POD21 without a water right, submitted on October 5, 2020, is hereby approved with the aforesaid conditions applied, when signed by an authorized designee of the State Engineer:

Witness my hand and seal this 7th day of October, A.D. 2020.
John R. D'Antonio Jr., P.E., State Engineer

By:


Miles Juett, Assistant Watermaster
District V Office, Water Rights Division



ENTERPRISE PRODUCTS PARTNERS L.P.
ENTERPRISE PRODUCTS GP, LLC
(General Partner)

ENTERPRISE PRODUCTS OPERATING LLC

September 21, 2022

Submitted online via OCD E-Permitting:

<https://wwwapps.emnrd.state.nm.us/OCD/OCDPermitting/default.aspx>

Mr. Nelson Velez
New Mexico Energy, Minerals & Natural Resources
Department – Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

RE: 2021 Groundwater Monitoring Report (Ensolum, March 28, 2022)
Enterprise Field Services, LLC
Lateral K-12 Y#3 Condensate Tank Release (3/19/2012)
Rio Arriba Co., NM [S23, T27N R7W (36.554120° N, 107.549350° W)]
OCD RP: 3R-459; Stage 1 AP-132

Dear Mr. Velez:

Enterprise Products Operating LLC (Enterprise), on behalf of Enterprise Field Services, LLC, is pleased to provide the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) with one electronic copy of the attached *2021 Groundwater Monitoring Report* prepared by Ensolum, LLC (Ensolum) and dated March 28, 2022. The report is associated with the Enterprise Lateral K-12 Y#3 release of natural gas condensate liquids that occurred on March 19, 2012 from a condensate storage tank, located in Rio Arriba County, New Mexico. The attached document summarized the groundwater monitoring and sampling (GWM&S) activities performed at the above-referenced location (hereinafter referred to as "the Site") during May 2021 and November 2021 (the "reporting period")..

Based on the data contained in this report, dissolved-phase hydrocarbon (DPH), or constituent of concern (COC) concentrations remain at the Site in excess of the applicable Water Quality Control Commission (WQCC) Groundwater Quality Standards (GQSs).

Based on the findings and conclusions included in the report, Enterprise plans to: 1) conduct semi-annual groundwater monitoring activities at the Site, 2) further delineate the dissolved-phase groundwater plume and evaluate in-situ remediation options for source area soils, and 3) prepare a *Stage 2 Abatement Plan* (if required) after concurrence that the *Stage 1 Abatement Plan* is deemed administratively complete .

Enterprise appreciates the New Mexico EMNRD OCD's continued assistance in bringing this Site to closure. Should you have any questions, comments or concerns, or need additional information regarding this Site, please feel free to contact me at (713) 381-8780, or via email at gemiller@eprod.com.

Sincerely,

Gregory E. Miller, P.G.
Supervisor, Environmental

Rodney M. Sartor, REM
Sr. Director, Environmental

cc: BLM, Farmington, NM – Mr. Ryan Joyner <6251 College Blvd., Suite A, Farmington, NM 87402>
ec: NMOCD, Aztec, NM - Mr. Nelson Velez <Nelson.Velez@state.nm.us>
NMOCD, Santa Fe, NM – Mr. Jim Griswold <Jim.Griswold@state.nm.us>
NMOCD, Santa Fe, NM – Mr. Brad Billings <Bradford.Billings@state.nm.us>
Ensolum, Houston, TX – Mr. Marc E. Gentry <MGentry@ensolum.com>



2021 GROUNDWATER MONITORING REPORT

Property:

**Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
SW $\frac{1}{4}$, S23 T27N R7W
Rio Arriba County, New Mexico**

**New Mexico EMNRD OCD Incident ID No. NJK1211037846
New Mexico EMNRD OCD RP No. 3R-459
Abatement Plan No. 132**

March 28, 2022
Ensolum Project No. 05B1226001

Prepared for:

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2021 Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
March 28, 2022



2021 GROUNDWATER MONITORING REPORT EXECUTIVE SUMMARY

This report documents the 2021 groundwater monitoring activities conducted at the Lateral K-12 Y#3 Condensate Tank Release (3/19/12) site, referred to hereinafter as the "Site".

The Site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way in the southwest (SW) quarter (1/4) of Section 23, Township 27 North, Range 7 West, in Rio Arriba County, New Mexico.

On March 19, 2012, a natural gas condensate release, estimated at less than one barrel (bbl), occurred as a result of overfilling of a condensate tank. During the excavation of impacted soils (April 2012), a suspected historical earthen pit was discovered, and the excavation was expanded to remove historical hydrocarbon affected soils. Due to the increased area of disturbance and safety factors associated with the depth of the excavation, the excavation activities were suspended by the Bureau of Land Management (BLM). Groundwater was not identified in the 35-foot below grade surface (bgs) excavation. Subsequent site investigations by Animas Environmental Services, LLC (AES) included the advancement of nine soil borings and the installation of three soil vapor extraction (SVE) wells/monitoring wells to delineate the extent of hydrocarbon affected soil and/or groundwater and provide potential "high-vacuum" remediation. As SVE technology was not appropriate, the SVE wells at this Site are now referred to and used as "monitoring wells". Samples collected from the soil borings and monitoring wells exhibited concentrations of benzene, toluene, ethylbenzene, and total xylenes (BTEX) and total petroleum hydrocarbons (TPH) above 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. Additionally, non-aqueous phase liquid (NAPL) was identified in monitoring well SVE-1. NAPL was removed from SVE-1 by hand bailing and did not recharge. Additional delineation activities were performed by AES during 2013 and 2014, and by Apex TITAN, Inc., (Apex) during 2016. Enterprise retained Apex to perform environmental site investigation activities between 2016 and 2018. However, following a staffing change at Apex in February 2019, Enterprise reassigned management of the project to Ensolum, LLC (Ensolum).

In May 2019, Enterprise submitted a *Stage 1 Abatement Plan* for the Site to the New Mexico EMNRD OCD. The New Mexico EMNRD OCD has not responded or approved the plan at this time, and Enterprise has resumed semi-annual groundwater monitoring.

In October 2020, Ensolum advanced four soil boring and completed three of the borings as monitoring wells. COCs were not identified in soil above the New Mexico EMNRD OCD closure criteria at any the soil boring locations. However, COCs were identified in groundwater above the WQCC GQSs. During May and November 2021, groundwater monitoring events were conducted to further evaluate groundwater quality and monitor COC concentration trends over time at the Site.

Findings based on the groundwater monitoring activities are as follows:

- Based on available information, the first apparent water-bearing unit at the Site (at least in the vicinity of the remediation excavation) appears very limited in thickness and volume and may be more accurately described as subsurface water (as defined in Paragraph (6) of Subsection S of Section 20.6.2.7 New Mexico Administrative Code). The water observed in the upgradient monitoring wells (SVE-1R, SVE-2, SVE-3, and MW-5) may be limited to a small volume of percolating water from precipitation events that periodically collects on or near the surface of the weathered subgrade bedrock and, depending on the significance of the precipitation events, subsequently drains into the monitoring wells and the associated well bore annuli. This conceptual site model is supported by the lack of groundwater encountered in the initial 35-foot deep excavation (April 2012); an excavation depth exceeding the measured apparent depth to groundwater at the Site of approximately 27 feet bgs near

Executive Summary

2021 Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
March 28, 2022



the source area. Furthermore, bail-down tests performed on monitoring wells SVE-2 and SVE-3 in 2013 demonstrated insignificant water recharge over several days.

- At the time of both groundwater sampling events, monitoring well MW-11 exhibited measurable (0.88 feet (May) and 0.95 feet (November)) non-aqueous phase liquid (NAPL) in contact with groundwater and therefore this well was not sampled.
- The groundwater flow direction at the Site is generally towards the east and north under an apparent average gradient of 0.04 feet per foot (ft/ft).
- Benzene was reported at concentrations exceeding the New Mexico WQCC GQS of 10 micrograms per liter (µg/L) in groundwater samples collected from monitoring wells SVE-2, MW-2, and MW-18 during the May 2021 and November 2021 sampling events. Total xylenes were reported at concentrations exceeding the New Mexico WQCC GQS of 620 µg/L in groundwater samples collected from monitoring wells SVE-2, MW-2, and MW-18 during the May 2021 sampling event and monitoring wells SVE-2 and MW-2 during the November 2021 sampling event. The groundwater samples collected from the remaining monitoring wells during the two 2021 sampling events do not exhibit COC concentrations above the applicable WQCC GQSs (see footnote in report).
- With the exception of monitoring well MW-11, 2021 groundwater data continue to demonstrate declining or stable COC concentrations in groundwater.

Ensolum offers the following recommendations:

- Report the groundwater monitoring results to the New Mexico EMNRD OCD.
- Conduct semi-annual groundwater monitoring at the Site to further evaluate the concentration of COCs in groundwater.
- Upon approval by the New Mexico EMNRD OCD, further delineate the dissolved-phase groundwater plume, and evaluate in-situ remediation options for source area soils, as described in the Stage 1 Abatement Plan.
- Once the Stage 1 Abatement Plan is approved and fully implemented, prepare a Stage 2 Abatement Plan.

2021 Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
March 28, 2022



TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Site Description & Background.....	1
1.2	Project Objective	3
2.0	GROUNDWATER MONITORING	3
2.1	Groundwater Sampling Program	3
2.2	Groundwater Laboratory Analytical Methods.....	4
2.3	Groundwater Flow Direction	4
2.4	Data Evaluation.....	4
3.0	FINDINGS	6
4.0	RECOMMENDATIONS	7
5.0	STANDARDS OF CARE, LIMITATIONS, AND RELIANCE.....	7
5.1	Standard of Care.....	7
5.2	Limitations.....	8
5.3	Reliance	8

LIST OF APPENDICES

Appendix A: Figures

Figure 1	Topographic Map
Figure 2	Site Vicinity Map
Figure 3	Site Map
Figure 4A	Groundwater Gradient Map (May 2021)
Figure 4B	Groundwater Gradient Map (November 2021)
Figure 5A	Groundwater Analytical Data Map (May 2021)
Figure 5B	Groundwater Analytical Data Map (November 2021)

Appendix B: Tables

Table 1	Groundwater Analytical Summary
Table 2	Groundwater Elevations

Appendix C: Laboratory Data Sheets & Chain of Custody Documentation



2021 GROUNDWATER MONITORING REPORT

**New Mexico EMNRD OCD RP No. 3RP-459
Abatement Plan No. 132**

Ensolum Project No. 05B1226001

1.0 INTRODUCTION

This report documents the 2021 groundwater monitoring activities conducted at the Lateral K-12 Y#3 Condensate Tank Release (3/19/12) 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 K-12 Y#3 Condensate Tank Release (3/19/12) (Site)
Incident ID	NJK1211037846
Location:	36.554120° North, 107.549350° West Southwest (SW) ¼ of Section 23, Township 27 North, Range 7 West Rio Arriba County, New Mexico
Property:	United States Bureau of Land Management (BLM)
Regulatory:	New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On March 19, 2012, a natural gas condensate release, estimated at less than one barrel (bbl), occurred as a result of overfilling of a condensate tank. Animas Environmental Services, LLC (AES) conducted an initial release assessment and subsequently recommended the removal of affected soils (*Release Mitigation and Investigation Report*, AES, July 18, 2012).

During excavation in April 2012, a suspected historical earthen pit was discovered. Upon discovery, the excavation was expanded to remove the historical petroleum hydrocarbon affected soils. Due to the increased area of disturbance and safety factors associated with the depth of the excavation, the BLM suspended excavation activities. Confirmation soil samples (SC-1 through SC-9) were collected by AES prior to backfill of the excavation. Groundwater was not identified in the 35-foot deep excavation. Subsequent to backfilling the excavation with clean fill, AES conducted a site investigation that included the advancement of seven soil borings (SB-1 through SB-7). Three of the soil borings (SB-1/SVE-1, SB-3/SVE-2, SB-4/SVE-3), were completed as soil-vapor-extraction (SVE) monitoring wells in anticipation of potential future remedial activities. However, an SVE well system was not employed and the SVE wells at this Site are now referred to and used as "monitoring wells".

On July 19, 2013, AES conducted a monitoring event of the SVE wells. Water was present in three SVE wells and non-aqueous phase liquid (NAPL) was present also in monitoring well SVE-1 (1.07 feet thick). The NAPL was removed by hand bailing and did not recharge. AES also advanced two soil borings (SB-8 and SB-9) adjacent to the former excavation; soil sample data demonstrated minimal natural attenuation of constituent of concern (COC) concentrations since the backfilling of the excavation. On July 22, 2013, AES collected water samples from monitoring wells SVE-2 and SVE-3 for laboratory analysis of total dissolved solids (TDS) and chlorides. Laboratory analytical results indicated TDS concentrations of 1,160 milligrams per liter (mg/L) and 740 mg/L in SVE-2 and SVE-3, respectively. Chloride concentrations were 110 mg/L

2021 Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
March 28, 2022



and 23 mg/L in SVE-2 and SVE-3, respectively (*Continued Site Investigation Report*, AES, October 4, 2013).

Based on available information, the first apparent water-bearing unit at the Site (at least in the vicinity of the remediation excavation) appears very limited in thickness and volume and may be more accurately described as subsurface water (as defined in Paragraph (6) of Subsection S of Section 20.6.2.7 New Mexico Administrative Code (NMAC)). The water observed in the upgradient monitoring wells (SVE-1R, SVE-2, SVE-3, and MW-5) may be limited to a small volume of percolating water from precipitation events that periodically collect on or near the surface of the weathered subgrade bedrock. Depending on the significance of the precipitation events, water subsequently drains into the monitoring wells and the associated well bore annuli. This conceptual site model is supported by the lack of groundwater encountered during prior excavation activities (reaching approximately 35 feet bgs) when the bottom of the excavation was below the apparent depth to groundwater at the Site (approximately 27 feet bgs near the source area). Furthermore, bail-down tests performed on monitoring wells SVE-2 and SVE-3 in 2013 demonstrated insignificant water recharge over several days.

A groundwater monitoring and sampling event was conducted by AES on October 8, 2013. NAPL was not observed in monitoring well SVE-1 during this monitoring and sampling event. However, presumably due to settling of the backfilled excavation, the screen of monitoring well SVE-1 was damaged precluding collection of a water sample. Water samples were collected from monitoring wells SVE-2 and SVE-3 for laboratory analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX), and total petroleum hydrocarbons (TPH), gasoline range organics (GRO), diesel range organics (DRO), and motor oil/lube oil range organics (MRO) (*Groundwater Monitoring Report and Continued Site Investigation Workplan*, AES, November 15, 2013).

During January 2014, AES advanced six soil borings, five of which were completed as new groundwater monitoring wells (MW-1 through MW-5), and one (SVE-1R) replacing monitoring well SVE-1. Monitoring well SVE-1 was apparently plugged and abandoned at that time.

During August and September 2016, Apex TITAN, Inc., (Apex) conducted supplemental site investigation activities by advancing seven soil borings to further evaluate the extent of hydrocarbon affected soil and potentially impacted groundwater. Laboratory analytical results identified TPH GRO/DRO concentrations in soil that exceeded applicable New Mexico EMNRD OCD closure criteria in the borings in which monitoring wells MW-11 and MW-13 were installed. Three soil borings were completed as groundwater monitoring wells MW-11 through MW-13. The groundwater analytical results for these wells indicated benzene, toluene, and total xylenes in excess of the WQCC Groundwater Quality Standards (GQSs) (*Supplemental Environmental Site Investigation and Annual Subsurface Water Monitoring Report*, Apex, February 24, 2017).

Semi-annual groundwater sampling was conducted in 2017 and 2018 by Apex. During these sampling events five monitoring wells (SVE-1R, SVE-2, MW-2, MW-11, and MW-13) exhibited COC concentrations above the applicable WQCC GQSs (*Annual Groundwater Monitoring Report (July and December 2017 Events)*, Apex, May 24, 2018; *Lateral K-12 Y#3 Condensate Tank Release (3/19/12) 2018 Annual Groundwater Monitoring Report*, Ensolum, LLC (Ensolum), September 26, 2019).

During February 2019, Enterprise assigned management of the project to Ensolum. In March 2019, Enterprise submitted a *Stage 1 Abatement Plan* for this Site to the New Mexico EMNRD OCD (*Stage 1 Abatement Plan*, Ensolum, March 21, 2019). The New Mexico EMNRD OCD has not responded or approved this plan at this time, and Enterprise has resumed semi-annual groundwater monitoring at the Site.

During October 2020, supplemental environmental site investigation (SESI) activities were implemented at the Site to further define the extent of petroleum hydrocarbon impact. Four soil borings were advanced at the Site. Soil laboratory analytical results did not indicate COC concentrations above the applicable New

Mexico EMNRD OCD closure criteria in any of the borings. Three of the soil borings were completed as permanent monitoring wells (MW-18, MW-19, and MW-21). The groundwater analytical results for one well (MW-18) indicated benzene in excess of the WQCC GQS (2020 *Supplemental Environmental Site Investigation and Groundwater Monitoring Report*, Ensolum, February 4, 2022)

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to oil and gas releases, the New Mexico EMNRD OCD references New Mexico Administrative Code (NMAC) 19.15.29 *Releases*, which establishes investigation and abatement action requirements for sites that are subject to reporting and/or corrective action. Additionally, the New Mexico EMNRD OCD utilizes the New Mexico WQCC GQS (NMAC 20.6.2 *Ground and Surface Water Protection*) to evaluate groundwater conditions.¹

A **Topographic Map** is provided as **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 locations of the monitoring wells and recent soil borings in relation to pertinent structures and general Site features, is provided as **Figure 3 of Appendix A**.

1.2 Project Objective

The objective of the groundwater monitoring events was to further evaluate groundwater quality over time and monitor COC concentration trends over time at the Site.

2.0 GROUNDWATER MONITORING

2.1 Groundwater Sampling Program

Groundwater sampling events were conducted during May and November 2021 by Ensolum. The groundwater sampling program consisted of the collection of one groundwater sample from each of the viable monitoring wells at the Site. During both sampling events in 2021 monitoring wells MW-3 and MW-4 were dry, and MW-5 and MW-21 had insufficient water column to allow collection of samples.

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 both 2021 sampling events, monitoring well MW-11 exhibited measurable thickness of NAPL and was not sampled.
- Monitoring wells were sampled utilizing micro-purge low-flow sampling techniques with dedicated or decontaminated sampling equipment. Following the completion of the micro-purge process, one groundwater sample was collected from each monitoring well.
- Low-flow or low-stress sampling refers to sampling methods that are intended to minimize stress that is imparted to the formation pore water in the immediate vicinity of the well screen. Water level drawdown provides the best indication of the stress imparted by a given flow-rate for a given hydrological situation. Pumping rates on the order of 0.1 to 0.5 liters per minute (L/min) are typically maintained during the low-flow/low-stress sampling activities.

¹ NMAC 20.6.2 was amended (12/21/18). The New Mexico EMNRD OCD has not responded to Enterprise's inquiries regarding which closure standards will apply to sites that predate the 2018 rule change. Therefore, this document reflects the GQSs that were applicable at the time of initial remediation.

- 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. Measurements are taken every three to five minutes while purging. Purging is considered complete once key parameters (especially pH and conductivity) have stabilized for three consecutive readings.
- Groundwater samples were collected in laboratory supplied containers (pre-preserved by the laboratory with mercuric chloride (HgCl_2)). Sample containers were labeled and sealed using the laboratory supplied labels and custody seals and were 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 sampling events were analyzed for BTEX utilizing United States (US) Environmental Protection Agency (EPA) SW-846 Method #8021.

A summary of the analytes, sample matrix, sample frequency, and EPA-approved analytical methods for the two sampling events are presented on the following table.

Analytes	Sample Matrix	No. of Samples (per event)	EPA Method
BTEX	Groundwater	9	SW-846 8021

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 or re-surveyed to determine the top-of-casing (TOC) elevation. Based on gauging data from the May and November 2021 sampling events, the groundwater flow direction (gradient) at the Site is generally toward the east and north under an apparent average gradient of approximately 0.04 feet per foot (ft/ft) across the Site.

Groundwater elevation data collected during May 2021 and November 2021 (as well as historical gauging data) are presented in **Table 2** (**Appendix B**). Groundwater gradient maps developed for the May 2021 and November 2021 sampling events are included as **Figure 4A** and **Figure 4B** (**Appendix A**), respectively.

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 during the May 2021 and November 2021 groundwater sampling events to the New Mexico WQCC GQSs.¹ The results of the analyses are summarized in **Table 1** of **Appendix B**. Groundwater analytical data maps are provided as **Figure 5A** and **Figure 5B** of **Appendix A**.

¹ NMAC 20.6.2 was amended (12/21/18). The New Mexico EMNRD OCD has not responded to Enterprise's inquiries regarding which closure standards will apply to sites that predate the 2018 rule change. Therefore, this document reflects the GQSs that were applicable at the time of initial remediation.

2021 Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
March 28, 2022



May 2021

- Due to the presence of NAPL in contact with groundwater, monitoring well MW-11 was not sampled and is not part of the following discussion.
- The analytical results for monitoring wells SVE-2, MW-2, and MW-18 indicate benzene concentrations ranging from 650 micrograms per liter (µg/L) (SVE-2) to 1,200 µg/L (MW-2), which exceed the WQCC GQS of 10 µg/L.¹ The analytical results for monitoring wells SVE-3 and MW-13 indicate benzene concentrations of 7.6 µg/L and 2.3 µg/L, respectively, which are below the WQCC GQS of 10 µg/L.¹ 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 10 µg/L.¹
- The analytical result for monitoring well MW-18 indicates a toluene concentration of 24 µg/L, which is below the WQCC GQS of 750 µg/L.¹ 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 750 µg/L.¹
- The analytical results for monitoring wells SVE-1R, SVE-2, SVE-3, MW-2, MW-13, and MW-18 indicate ethylbenzene concentrations ranging from 1.1 µg/L (MW-13) to 170 µg/L (MW-2 and SVE-2), which are below the WQCC GQS of 750 µg/L.¹ 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 750 µg/L.¹
- The analytical results for monitoring wells SVE-2, MW-2, and MW-18 indicate total xylenes concentrations of 1,100 µg/L, 1,100 µg/L, and 960 µg/L, respectively, which exceed the WQCC GQS of 620 µg/L.¹ The analytical results for monitoring wells SVE-3 and MW-13 indicate total xylenes concentrations of 130 µg/L and 3.0 µg/L, respectively, which are below the WQCC GQS of 620 µg/L.¹ 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.¹

Data Qualifier Flags		
Sample ID	Data Qualifier Flag	Comments/Reactions
SVE-3 (collected 5/12/2021)	SW-846 Method 8021 BTEX Surrogate Recovery was outside the accepted recovery limits.	The BTEX data is suitable for use as an estimated value. The BTEX Surrogate recovery was slightly outside the acceptable recovery range due to matrix interference.

November 2021

- Due to the presence of NAPL in contact with groundwater, monitoring well MW-11 was not sampled and is not part of the following discussion.
- The analytical results for monitoring wells SVE-2, MW-2, and MW-18 indicate benzene concentrations ranging from 560 µg/L (SVE-2) to 1,600 µg/L (MW-2), which exceed the WQCC GQS of 10 µg/L.¹ The analytical result for monitoring well SVE-3 indicates a benzene concentration of 9.1 µg/L, which is below the WQCC GQS of 10 µg/L.¹ 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 10 µg/L.¹

¹ NMAC 20.6.2 was amended (12/21/18). The New Mexico EMNRD OCD has not responded to Enterprise's inquiries regarding which closure standards will apply to sites that predate the 2018 rule change. Therefore, this document reflects the GQSs that were applicable at the time of initial remediation.

2021 Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
March 28, 2022



- The analytical result for monitoring well MW-18 indicates a toluene concentration of 4.2 µg/L, which is below the WQCC GQS of 750 µg/L.¹ 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 750 µg/L.¹
- The analytical results for monitoring wells SVE-1R, SVE-2, SVE-3, MW-2, and MW-18 indicate ethylbenzene concentrations ranging from 1.6 µg/L (SVE-1R) to 180 µg/L (MW-2), which are below the WQCC GQS of 750 µg/L.¹ The analytical result for the remaining monitoring wells do not indicate ethylbenzene concentrations above the laboratory PQLs/RLs, which are below the WQCC GQS of 750 µg/L.¹
- The analytical results for monitoring wells SVE-2 and MW-2 indicate total xylenes concentrations of 1,200 µg/L and 1,100 µg/L, respectively, which exceed the WQCC GQS of 620 µg/L.¹ The analytical results for monitoring wells SVE-3 and MW-18 indicate total xylenes concentrations of 170 µg/L and 220 µg/L, respectively, which are below the WQCC GQS of 620 µg/L.¹ 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.¹

Data Qualifier Flags		
Sample ID	Data Qualifier Flag	Comments/Reactions
SVE-2 (collected 11/29/2021)	SW-846 Method 8021 BTEX Surrogate Recovery was outside the accepted recovery limits.	The BTEX data is suitable for use as an estimated value. The BTEX Surrogate recovery was slightly outside the acceptable recovery range due to matrix interference.
SVE-3 (collected 11/29/2021)	SW-846 Method 8021 BTEX Surrogate Recovery was outside the accepted recovery limits.	The BTEX data is suitable for use as an estimated value. The BTEX Surrogate recovery was slightly outside the acceptable recovery range due to matrix interference.
MW-18 (collected 11/29/2021)	SW-846 Method 8021 BTEX Surrogate Recovery was outside the accepted recovery limits.	The BTEX data is suitable for use as an estimated value. The BTEX Surrogate recovery was slightly outside the acceptable recovery range due to matrix interference.

3.0 FINDINGS

Based on the evaluation of the analytical results from the May 2021 and November 2021 groundwater sampling events, Ensolum presents the following findings:

- Based on available information, the first apparent water-bearing unit at the Site (at least in the vicinity of the remediation excavation) appears very limited in thickness and volume and may be more accurately described as subsurface water (as defined in Paragraph (6) of Subsection S of Section 20.6.2.7 NMAC). The water observed in the upgradient monitoring wells (SVE-1R, SVE-2, SVE-3, and MW-5) may be limited to a small volume of percolating water from precipitation events that periodically collect on or near the surface of the weathered subgrade bedrock and, depending on the significance of the precipitation events, subsequently drains into the monitoring wells and the associated well bore annuli. This conceptual site model is supported by the lack of groundwater encountered in the initial 35-foot deep excavation (April 2012); an excavation depth that exceeded the measured apparent depth

¹ NMAC 20.6.2 was amended (12/21/18). The New Mexico EMNRD OCD has not responded to Enterprise's inquiries regarding which closure standards will apply to sites that predate the 2018 rule change. Therefore, this document reflects the GQSs that were applicable at the time of initial remediation.

to groundwater at the Site of approximately 27 feet bgs near the source area. Furthermore, bail-down tests performed on monitoring wells SVE-2 and SVE-3 in 2013 demonstrated insignificant water recharge over several days.

- At the time of both groundwater sampling events, monitoring well MW-11 exhibited measurable (0.88 ft (May) and 0.95 ft (November)) NAPL in contact with groundwater and therefore this well was not sampled.
- The groundwater flow direction at the Site is generally towards the east and north under an apparent average gradient of 0.04 ft/ft.
- Benzene was reported at concentrations exceeding the New Mexico WQCC GQS of 10 µg/L in groundwater samples collected from monitoring wells SVE-2, MW-2, and MW-18 during the May 2021 and November 2021 sampling events. Total xylenes were reported at concentrations exceeding the New Mexico WQCC GQS of 620 µg/L in groundwater samples collected from monitoring wells SVE-2, MW-2, and MW-18 during the May 2021 sampling event and monitoring wells SVE-2 and MW-2 during the November 2021 sampling event. The groundwater samples collected from the remaining monitoring wells during the two 2021 sampling events do not exhibit COC concentrations above the applicable WQCC GQSs.¹
- With the exception of monitoring well MW-11, 2021 groundwater data continue to demonstrate declining or stable COC concentrations in groundwater.

4.0 RECOMMENDATIONS

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

- Report the groundwater monitoring results to the New Mexico EMNRD OCD.
- Conduct semi-annual groundwater monitoring at the Site to further evaluate the concentration of COCs in groundwater.
- Upon approval by the New Mexico EMNRD OCD, further delineate the dissolved-phase groundwater plume, and evaluate in-situ remediation options for source area soils, as described in the Stage 1 Abatement Plan.
- Once the Stage 1 Abatement Plan is approved and fully implemented, prepare a Stage 2 Abatement Plan.

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

¹ NMAC 20.6.2 was amended (12/21/18). The New Mexico EMNRD OCD has not responded to Enterprise's inquiries regarding which closure standards will apply to sites that predate the 2018 rule change. Therefore, this document reflects the GQSs that were applicable at the time of initial remediation.

2021 Groundwater Monitoring Report
Enterprise Field Services, LLC
Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
March 28, 2022



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 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.

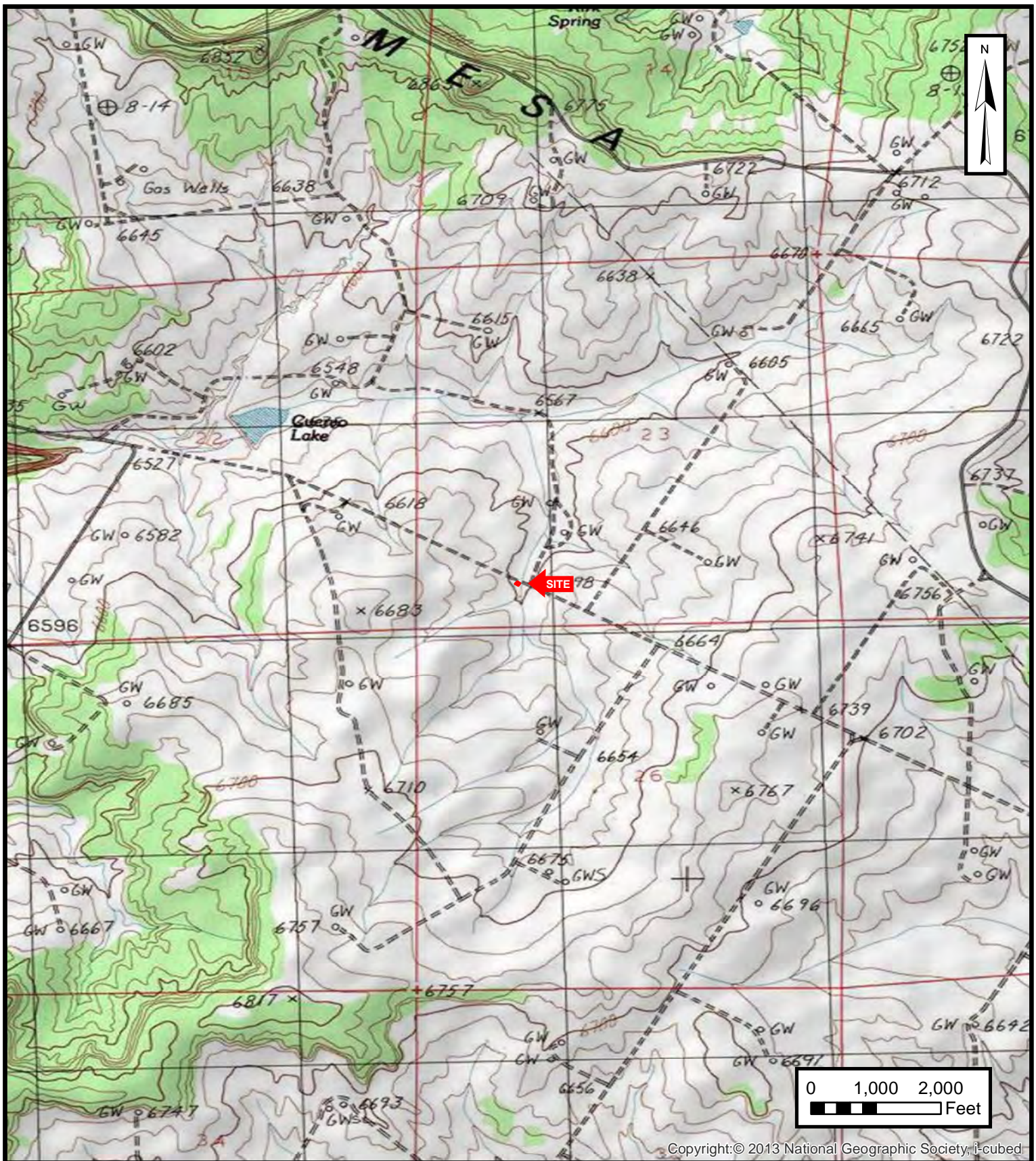
5.3 Reliance

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



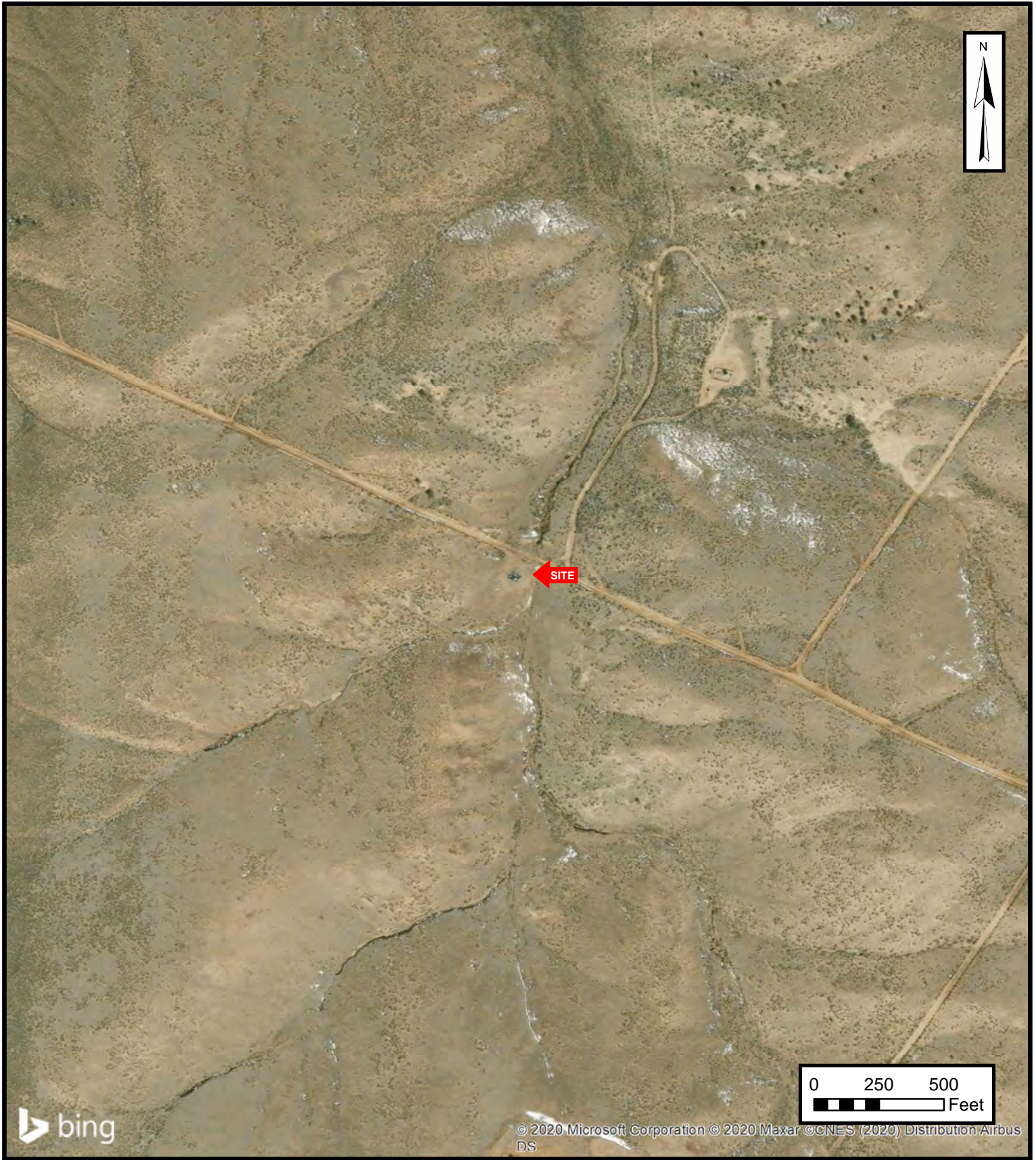
ENSOLUM
Environmental & Hydrogeologic Consultants

TOPOGRAPHIC MAP

ENTERPRISE FIELD SERVICES, LLC
K-12 Y#3 CONDENSATE TANK RELEASE
SW ¼, S23 T27N R7W, Rio Arriba County, New Mexico
36.55412° N, 107.54935° W

PROJECT NUMBER: 05B1226001

FIGURE
1



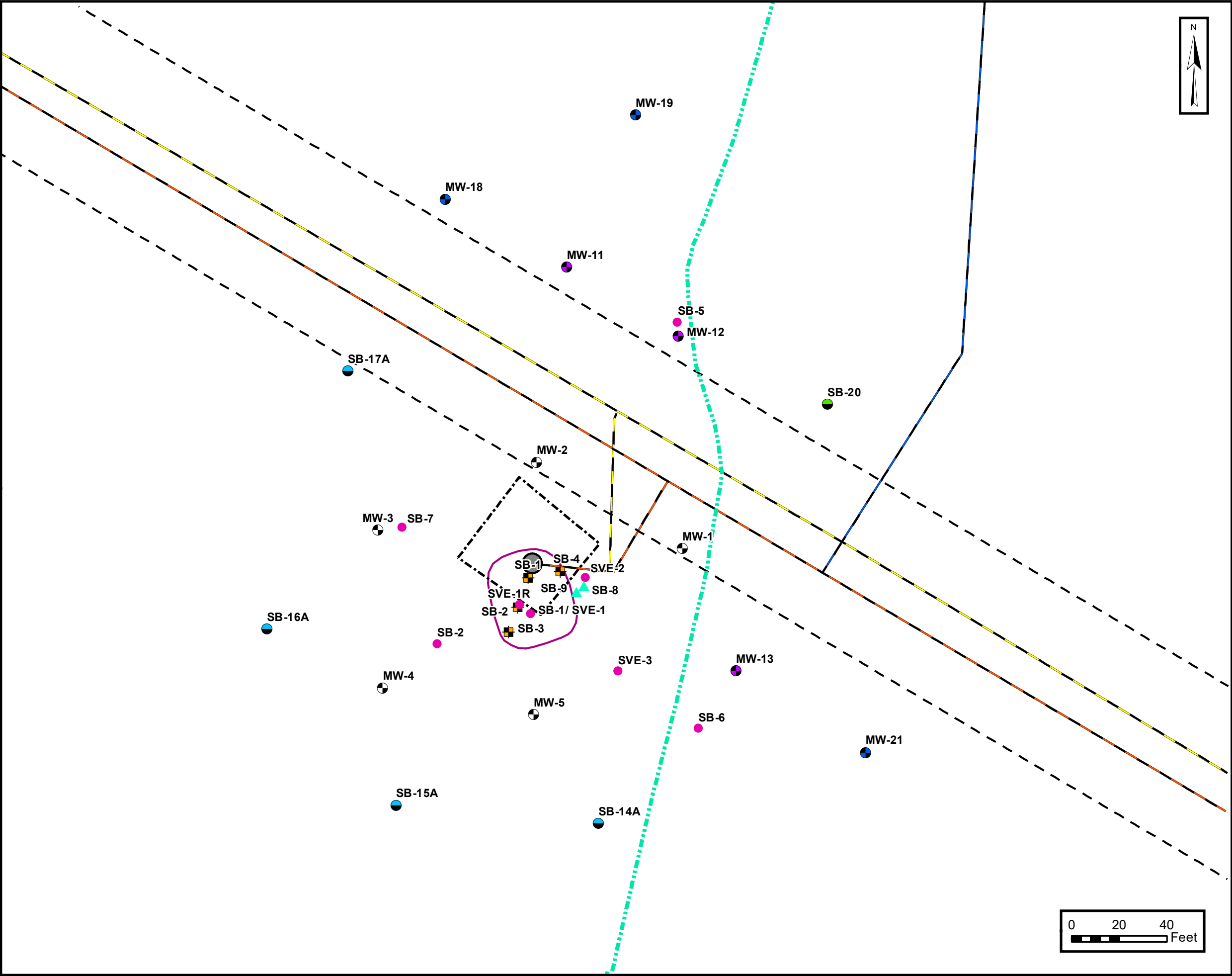
SITE VICINITY MAP

ENTERPRISE FIELD SERVICES, LLC
K-12 Y#3 CONDENSATE TANK RELEASE
SW ¼, S23 T27N R7W, Rio Arriba County, New Mexico
36.55412° N, 107.54935° W

PROJECT NUMBER: 05B1226001

FIGURE

2



LEGEND:

- Monitor Well Location (Ensolum 2020)
- Monitoring Well Location (Apex August 2016)
- Monitoring Well Location (AES January 2013)
- Soil Boring Location (Ensolum 2020)
- Soil Boring Location (Apex August & September 2016)
- Soil Boring Location (AES June 2013)
- Soil Boring Location (AES March 2012)
- Soil Boring Location (AES April 2012)
- Tank
- Fence
- Surface Wash
- 2012 Main Excavation Extent
- Estimated Pipeline Right-of-Way Boundary
- Lateral K-12 Pipeline Location
- Lateral K-12 Loop Pipeline
- X70651 Well Tie Pipeline Location



SITE MAP

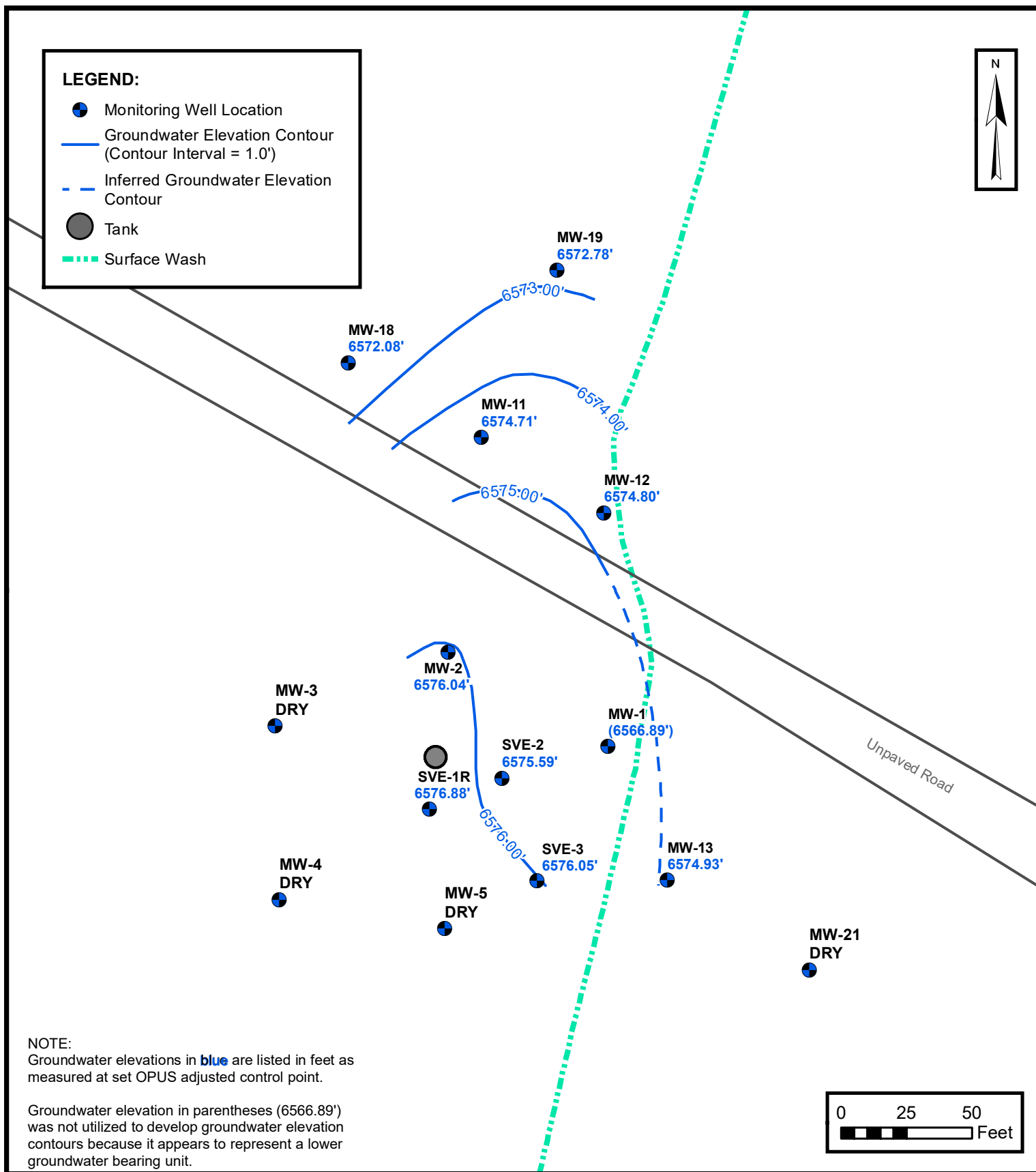
ENTERPRISE FIELD SERVICES, LLC
K-12 Y#3 CONDENSATE TANK RELEASE

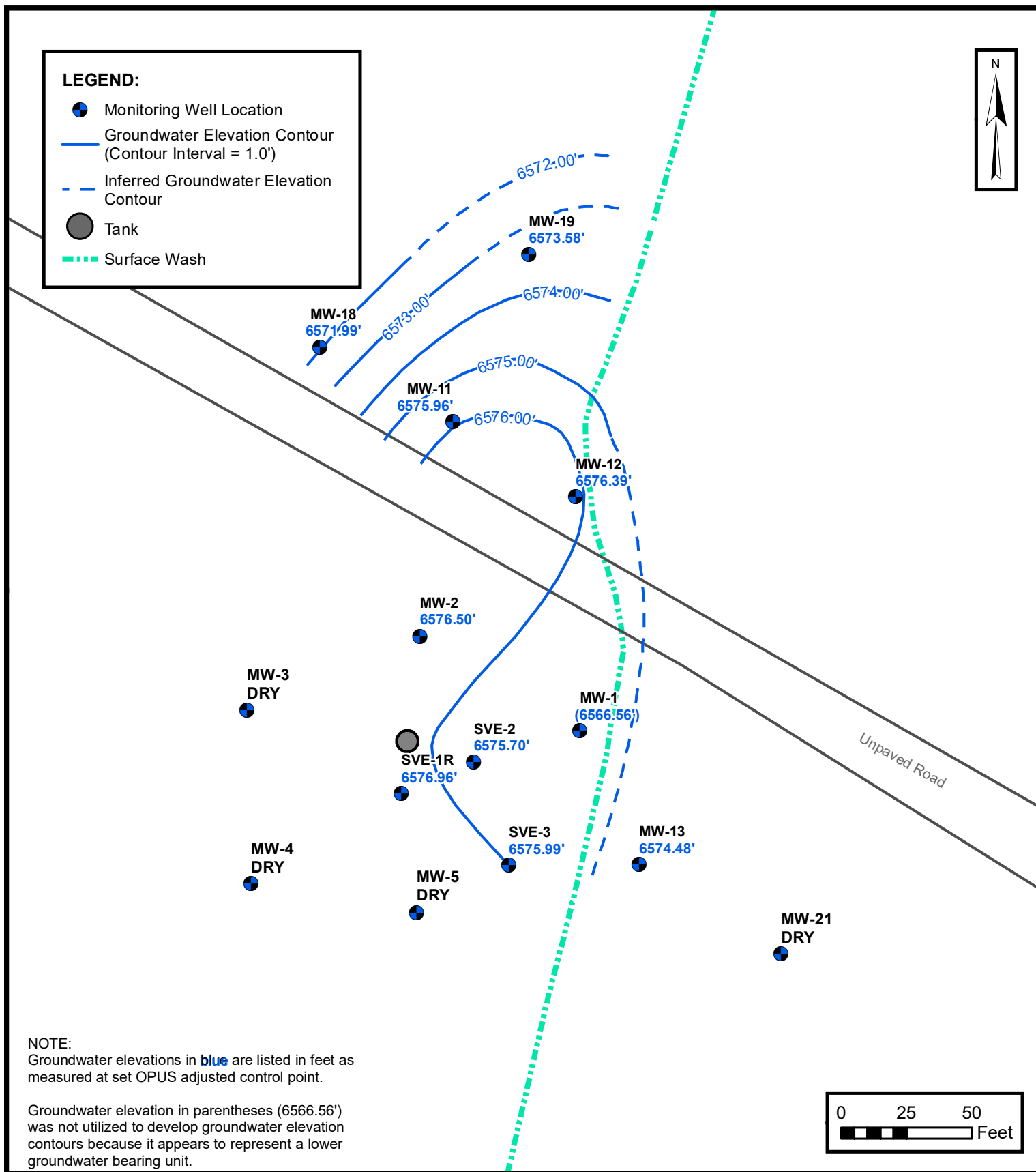
SW ¼, S23 T27N R7W, Rio Arriba County, New Mexico
36.55412° N, 107.54935° W

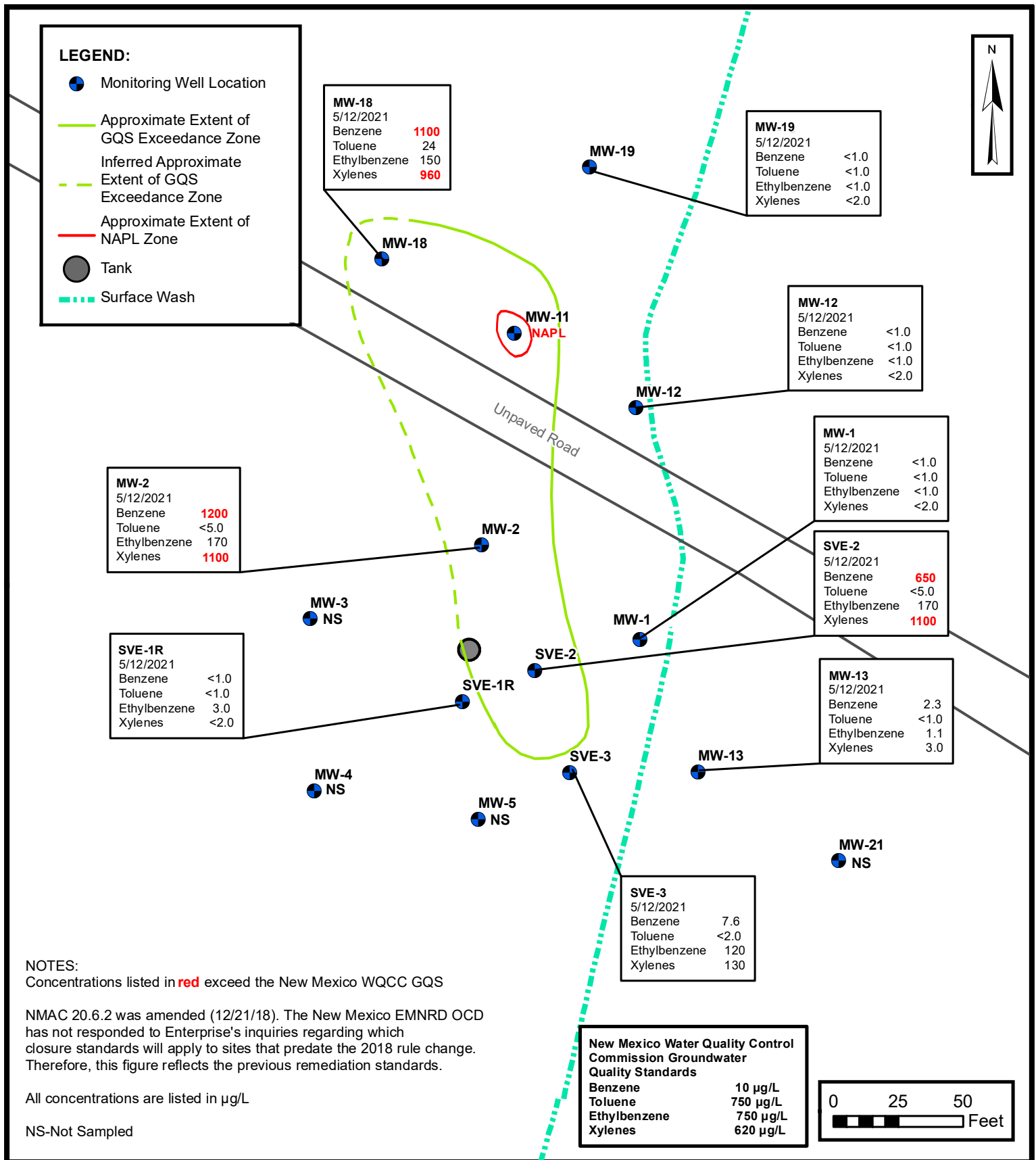
FIGURE

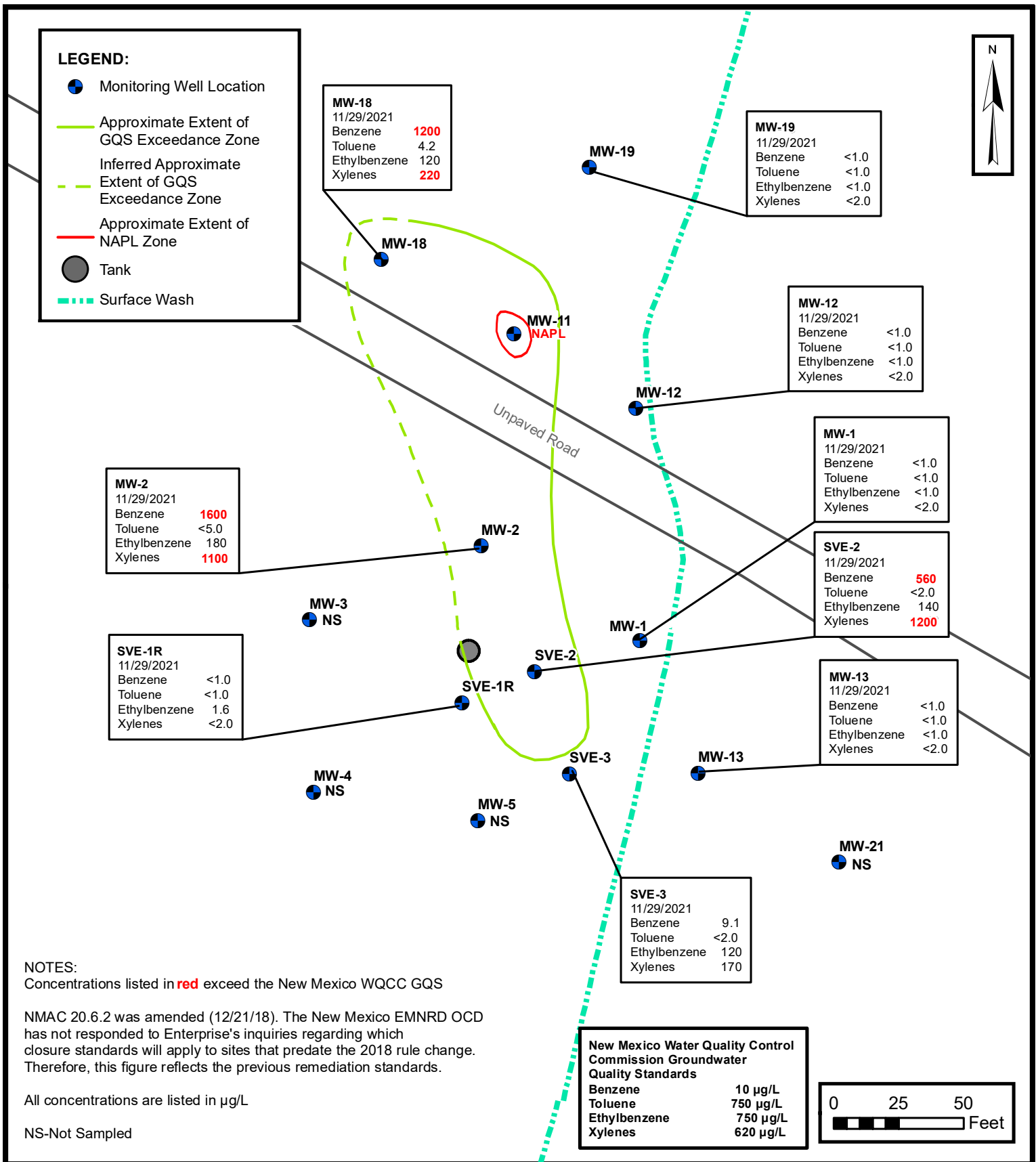
3

PROJECT NUMBER: 05B1226001











APPENDIX B

Tables



TABLE 1 Lateral K-12 Y#3 Condensate Tank Release GROUNDWATER ANALYTICAL SUMMARY								
Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH GRO (mg/L)	TPH DRO (mg/L)	TPH MRO (mg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		10 ^A	750 ^A	750 ^A	620 ^A	NE	NE	NE
Monitoring Wells Installed by Animas Environmental Services, LLC								
SVE-1	10.8.13	Not Sampled - Damaged well screen						
SVE-1R	2.12.14	610	1,500	100	2,400	NA	NA	NA
	11.13.14	170	3.4	93	190	NA	NA	NA
	5.26.15	32	<5.0	93	59	NA	NA	NA
	12.2.15	220	69	57	180	NA	NA	NA
	6.14.16	150	<5.0	28	57	NA	NA	NA
	12.12.16	150	<5.0	64	190	3.5	1.6	<5.0
	7.06.17	63	<5.0	33	90	NA	NA	NA
	12.12.17	72	<5.0	26	72	NA	NA	NA
	6.28.18	3.8	<5.0	12	8.8	NA	NA	NA
	12.18.18*	5.6	1.9	12	38	NA	NA	NA
	8.29.19	26	2.2	6.4	20	NA	NA	NA
	12.27.19	45	<1.0	22	47	NA	NA	NA
	5.19.20	1.9	<1.0	3.4	4.7	NA	NA	NA
	12.8.20	2.2	<1.0	4.6	4.1	NA	NA	NA
	5.12.21	<1.0	<1.0	3.0	<2.0	NA	NA	NA
	11.29.21	<1.0	<1.0	1.6	<2.0	NA	NA	NA
SVE-2	10.8.13	1,600	180	270	4,200	18	15	<5.0
	2.12.14	1,500	100	360	3,100	NA	NA	NA
	11.13.14	1,300	110	270	1,900	NA	NA	NA
	5.27.15	1,600	<50	340	2,300	NA	NA	NA
	12.2.15	1,200	<50	280	2,400	NA	NA	NA
	6.14.16	1,200	<50	250	2,500	NA	NA	NA
	12.12.16	1,100	<50	330	3,200	16	13	<5.0
	7.06.17	810	<50	190	1,900	NA	NA	NA
	12.13.17	1,100	<50	200	1,800	NA	NA	NA
	6.28.18	1,200	<50	250	2,100	NA	NA	NA
	12.18.18*	970	<50	170	1,400	NA	NA	NA
	8.29.19	810	<50	220	2,200	NA	NA	NA
	12.30.19	960	<20	220	2,000	NA	NA	NA
	5.19.20	1,000	<20	320	2,600	NA	NA	NA
	12.8.20	900	<5.0	240	1,500	NA	NA	NA
	5.12.21	650	<5.0	170	1,100	NA	NA	NA
	11.29.21	560	<2.0	140	1,200	NA	NA	NA
SVE-3	10.8.13	110	450	210	2,000	20	9.3	<5.0
	2.12.14	78	170	160	1,500	NA	NA	NA
	11.13.14	12	6.5	68	140	NA	NA	NA
	5.26.15	3.2	<5.0	100	<10	NA	NA	NA
	12.2.15	<5.0	<5.0	91	<10	NA	NA	NA
	6.14.16	<5.0	<5.0	78	57	NA	NA	NA
	12.12.16	14	<5.0	95	140	8.1	5.5	<5.0
	7.06.17	6.7	<5.0	110	170	NA	NA	NA
	12.12.17	3.8	<2.5	42	11	NA	NA	NA
	6.28.18	3.7	<5.0	60	11	NA	NA	NA
	12.18.18*	9.3	5.6	110	150	NA	NA	NA
	8.29.19	4.4	<5.0	94	170	NA	NA	NA
	12.27.19	9.4	<1.0	150	220	NA	NA	NA
	5.19.20	2.5	<2.0	110	130	NA	NA	NA
	12.8.20	11	<2.0	150	160	NA	NA	NA
	5.12.21	7.6	<2.0	120	130	NA	NA	NA
	11.29.21	9.1	<2.0	120	170	NA	NA	NA



TABLE 1 Lateral K-12 Y#3 Condensate Tank Release GROUNDWATER ANALYTICAL SUMMARY								
Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH GRO (mg/L)	TPH DRO (mg/L)	TPH MRO (mg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		10 ^A	750 ^A	750 ^A	620 ^A	NE	NE	NE
MW-1	2.12.14	<1	<1	<1	<3	NA	NA	NA
	11.13.14	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	5.26.15	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.2.15	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	6.14.16	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.12.16	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
	7.06.17	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.12.17	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
	6.28.18	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
	12.18.18*	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	8.29.19	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.27.19	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	5.19.20	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
	12.8.20	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
	5.12.21	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	11.29.21	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-2	2.12.14	2,300	1,500	350	3,600	NA	NA	NA
	11.13.14	1,600	520	220	2,500	NA	NA	NA
	5.27.15	2,600	530	370	3,600	NA	NA	NA
	12.2.15	980	<50	240	2,600	NA	NA	NA
	6.14.16	1,800	<50	380	4,500	NA	NA	NA
	12.12.16	2,800	<50	390	4,700	26	7.1	<5.0
	7.06.17	2,100	<50	410	4,800	NA	NA	NA
	12.13.17	1,300	<50	160	1,800	NA	NA	NA
	6.28.18	1,700	<50	240	2,500	NA	NA	NA
	12.18.18*	2,100	<50	210	2,200	NA	NA	NA
	8.29.19	1,500	<50	180	2,100	NA	NA	NA
	12.30.19	2,600	<20	300	2,900	NA	NA	NA
	5.19.20	1,500	<50	240	2,600	NA	NA	NA
	12.8.20	1,100	<5.0	140	1,300	NA	NA	NA
	5.12.21	1,200	<5.0	170	1,100	NA	NA	NA
	11.29.21	1,600	<5.0	180	1,100	NA	NA	NA
MW-3	2.12.14	Not Sampled - Well Dry						
	11.13.14							
	5.26.15							
	12.2.15							
	6.14.16							
	12.12.16							
	7.06.17							
	12.12.17							
	6.28.18							
	12.18.18*							
	8.29.19							
	12.30.19							
	5.19.20							
	12.8.20							
	5.12.21							
	11.29.21							



TABLE 1 Lateral K-12 Y#3 Condensate Tank Release GROUNDWATER ANALYTICAL SUMMARY								
Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH GRO (mg/L)	TPH DRO (mg/L)	TPH MRO (mg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		10 ^A	750 ^A	750 ^A	620 ^A	NE	NE	NE
MW-4	2.12.14	Not Sampled - Well Dry						
	11.13.14							
	5.26.15							
	12.2.15							
	6.14.16							
	12.12.16							
	7.06.17							
	12.12.17							
	6.28.18							
	12.18.18*							
	8.29.19							
	12.30.19							
	5.19.20							
	12.8.20							
5.12.21								
11.29.21								
MW-5	2.12.14	1,100	2,900	220	1,900	NA	NA	NA
	11.13.14	Not Sampled - Insufficient volume to collect sample						
	5.26.15							
	12.2.15							
	6.14.16							
	12.12.16							
	7.06.17							
	12.13.17							
	6.28.18							
	12.18.18*							
	8.29.19							
	12.30.19							
	5.19.20							
	12.8.20							
5.12.21								
11.29.21								
Monitoring Wells Installed by APEX TITAN, INC.								
MW-11	9.22.16	320	240	300	3,700	NA	NA	NA
	12.12.16	430	140	450	5,000	23	1.4	<5.0
	7.06.17	390	110	390	4,200	NA	NA	NA
	12.12.17	520	170	310	3,100	NA	NA	NA
	6.28.18	590	320	350	3,400	NA	NA	NA
	12.18.18*	590	<50	280	3,000	NA	NA	NA
	8.29.19	130	<50	230	2,800	NA	NA	NA
	12.30.19	270	<20	300	3,200	NA	NA	NA
	5.19.20	260	42	490	5,400	NA	NA	NA
	12.8.20	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL
	5.12.21	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL
	11.29.21	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL



TABLE 1 Lateral K-12 Y#3 Condensate Tank Release GROUNDWATER ANALYTICAL SUMMARY								
Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH GRO (mg/L)	TPH DRO (mg/L)	TPH MRO (mg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		10 ^A	750 ^A	750 ^A	620 ^A	NE	NE	NE
MW-12	9.22.16	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.12.16	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
	7.06.17	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.12.17	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
	6.28.18	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
	12.18.18*	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	8.29.19	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.27.19	<1.0	<1.0	11	16	NA	NA	NA
	5.19.20	<1.0	<1.0	<1.0	6.4	NA	NA	NA
	12.8.20	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
	5.19.20	<1.0	<1.0	<1.0	6.4	NA	NA	NA
	12.8.20	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
MW-13	9.22.16	150	1,600	270	2,400	NA	NA	NA
	01.06.17	120	660	53	880	NA	NA	NA
	7.06.17	55	290	46	470	NA	NA	NA
	12.12.17	58	110	19	150	NA	NA	NA
	6.28.18	8.5	7.5	5.9	36	NA	NA	NA
	12.18.18*	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	8.29.19	1.6	<1.0	1.1	<2.0	NA	NA	NA
	12.27.19	1.5	1.0	1.2	3.0	NA	NA	NA
	5.19.20	<1.0	1.3	2.5	2.7	NA	NA	NA
	12.8.20	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
	5.12.21	2.3	<1.0	1.1	3.0	NA	NA	NA
	11.29.21	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
Monitoring Wells Installed by Ensolum, LLC								
MW-18	12.8.20	340	52	11	560	NA	NA	NA
	5.12.21	1,100	24	150	960	NA	NA	NA
	11.29.21	1,200	4.2	120	220	NA	NA	NA
MW-19	12.8.20	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
	5.12.21	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	11.29.21	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-21	12.8.20	Not Sampled - Insufficient volume to collect sample						
	5.12.21							
	11.29.21							

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

A = NMACE 20.6.2 was amended (12/21/18). The New Mexico EMNRD OCD has not responded to Enterprise's inquiries regarding which closure standards will apply to sites that predate the 2018 rule change. Therefore, this table reflects the previous remediation standards.

* Interface probe malfunction during sampling event. Site gauged on 1/21/19

µg/L = microgram per liter

mg/L = milligram per liter

NAPL = Non-aqueous phase liquid

NA = Not Analyzed

NE = Not Established

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics

<1.0= the numeral (in this case "1.0") identifies the laboratory reporting or practical quantitation limit



TABLE 2 Lateral K-12 Y#3 Condensate Tank Release GROUNDWATER ELEVATIONS						
Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation ¹ (feet AMSL)
SVE-1	10.08.13	ND	27.46	ND	NA	NA
SVE-1R*	02.12.14	ND	29.06	ND	6606.09	6577.03
	11.13.14	ND	30.05	ND		6576.04
	5.26.15	ND	29.27	ND		6576.82
	12.02.15	ND	28.06	ND		6578.03
	6.14.16	ND	28.05	ND		6578.04
	9.22.16	ND	28.10	ND	6606.40	6578.30
	12.12.16	ND	28.15	ND		6578.25
	7.06.17	ND	28.24	ND		6578.16
	12.12.17	ND	28.35	ND		6578.05
	6.28.18	ND	28.80	ND		6577.60
	1.21.19**	ND	28.81	ND		6577.59
	8.29.19	ND	28.57	ND		6577.83
	12.26.19	ND	28.59	ND		6577.81
	5.19.20	ND	29.02	ND		6577.38
	12.8.20	ND	29.28	ND		6577.12
	5.12.21	ND	29.52	ND		6576.88
	11.29.21	ND	29.44	ND		6576.96
SVE-2*	10.08.13	ND	28.00	ND	6605.82	6577.82
	02.12.14	ND	29.39	ND		6576.43
	11.13.14	ND	29.42	ND		6576.40
	5.26.15	ND	29.86	ND		6575.96
	12.02.15	ND	28.74	ND		6577.08
	6.14.16	ND	28.58	ND	6606.38	6577.24
	9.22.16	ND	28.77	ND		6577.61
	12.12.16	ND	28.74	ND		6577.64
	7.06.17	ND	29.26	ND		6577.12
	12.12.17	ND	29.50	ND		6576.88
	6.28.18	ND	30.05	ND		6576.33
	1.21.19**	ND	29.82	ND		6576.56
	8.29.19	ND	30.07	ND		6576.31
	12.26.19	ND	29.90	ND		6576.48
	5.19.20	ND	30.41	ND		6575.97
	12.8.20	ND	30.53	ND		6575.85
	5.12.21	ND	30.79	ND		6575.59
	11.29.21	ND	30.68	ND		6575.70
SVE-3*	10.08.13	ND	31.85	ND	6607.46	6575.61
	02.12.14	ND	29.98	ND		6577.48
	11.13.14	ND	29.54	ND		6577.92
	5.26.15	ND	30.93	ND		6576.53
	12.02.15	ND	30.49	ND		6576.97
	6.14.16	ND	30.37	ND	6607.92	6577.09
	9.22.16	ND	30.50	ND		6577.42
	12.12.16	ND	30.28	ND		6577.64
	7.06.17	ND	31.77	ND		6576.15
	12.12.17	ND	30.79	ND		6577.13
	6.28.18	ND	31.08	ND		6576.84
	1.21.19**	ND	30.91	ND		6577.01
	8.29.19	ND	31.24	ND		6576.68
	12.26.19	ND	31.09	ND		6576.83
	5.19.20	ND	31.48	ND		6576.44
	12.8.20	ND	31.67	ND		6576.25
	5.12.21	ND	31.87	ND		6576.05
	11.29.21	ND	31.93	ND		6575.99



TABLE 2 Lateral K-12 Y#3 Condensate Tank Release GROUNDWATER ELEVATIONS						
Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation ¹ (feet AMSL)
MW-1*	02.12.14	ND	40.95	ND	6606.53	6565.58
	11.13.14	ND	38.45	ND		6568.08
	5.26.15	ND	38.78	ND		6567.75
	12.02.15	ND	39.53	ND		6567.00
	6.14.16	ND	39.97	ND		6566.56
	9.22.16	ND	39.91	ND		6567.14
	12.12.16	ND	39.58	ND	6607.05	6567.47
	7.06.17	ND	40.28	ND		6566.77
	12.12.17	ND	40.21	ND		6566.84
	6.28.18	ND	40.27	ND		6566.78
	1.21.19**	ND	39.69	ND		6567.36
	8.29.19	ND	40.05	ND		6567.00
	12.26.19	ND	38.56	ND		6568.49
	5.19.20	ND	40.02	ND		6567.03
	12.8.20	ND	40.13	ND		6566.92
	5.12.21	ND	40.16	ND		6566.89
	11.29.21	ND	40.49	ND		6566.56
MW-2*	02.12.14	ND	28.79	ND	6605.80	6577.01
	11.13.14	ND	29.27	ND		6576.53
	5.26.15	ND	29.45	ND		6576.35
	12.02.15	ND	28.28	ND		6577.52
	6.14.16	ND	28.37	ND		6577.43
	9.22.16	ND	28.62	ND	6606.28	6577.66
	12.12.16	ND	28.70	ND		6577.58
	7.06.17	ND	29.00	ND		6577.28
	12.12.17	ND	29.22	ND		6577.06
	6.28.18	ND	29.61	ND		6576.67
	1.21.19**	ND	29.35	ND		6576.93
	8.29.19	ND	29.41	ND		6576.87
	12.26.19	ND	29.61	ND		6576.67
	5.19.20	ND	29.88	ND		6576.40
	12.8.20	ND	30.08	ND		6576.20
	5.12.21	ND	30.24	ND		6576.04
	11.29.21	ND	29.78	ND		6576.50
MW-3*	02.12.14	DRY	DRY	DRY	6607.53	DRY
	11.13.14	DRY	DRY	DRY		DRY
	5.26.15	DRY	DRY	DRY		DRY
	12.02.15	DRY	DRY	DRY		DRY
	6.14.16	DRY	DRY	DRY		DRY
	9.22.16	DRY	DRY	DRY	6608.04	DRY
	12.12.16	DRY	DRY	DRY		DRY
	7.06.17	DRY	DRY	DRY		DRY
	12.12.17	DRY	DRY	DRY		DRY
	6.28.18	DRY	DRY	DRY		DRY
	1.21.19**	DRY	DRY	DRY		DRY
	8.29.19	DRY	DRY	DRY		DRY
	12.26.19	DRY	DRY	DRY		DRY
	5.19.20	DRY	DRY	DRY		DRY
	12.8.20	DRY	DRY	DRY		DRY
	5.12.21	DRY	DRY	DRY		DRY
	11.29.21	DRY	DRY	DRY		DRY



TABLE 2 Lateral K-12 Y#3 Condensate Tank Release GROUNDWATER ELEVATIONS						
Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation ¹ (feet AMSL)
MW-4*	02.12.14	DRY	DRY	DRY	6609.20	DRY
	11.13.14	DRY	DRY	DRY		DRY
	5.26.15	DRY	DRY	DRY		DRY
	12.02.15	DRY	DRY	DRY		DRY
	6.14.16	DRY	DRY	DRY		DRY
	9.22.16	DRY	DRY	DRY		DRY
	12.12.16	DRY	DRY	DRY	6609.66	DRY
	7.06.17	DRY	DRY	DRY		DRY
	12.12.17	DRY	DRY	DRY		DRY
	6.28.18	DRY	DRY	DRY		DRY
	1.21.19**	DRY	DRY	DRY		DRY
	8.29.19	DRY	DRY	DRY		DRY
	12.26.19	DRY	DRY	DRY		DRY
	5.19.20	DRY	DRY	DRY		DRY
	12.8.20	DRY	DRY	DRY		DRY
	5.12.21	DRY	DRY	DRY		DRY
	11.29.21	DRY	DRY	DRY		DRY
MW-5*	02.12.14	ND	29.87	ND	6607.11	6577.24
	11.13.14	ND	30.04	ND		6577.07
	5.26.15	DRY	DRY	DRY		DRY
	12.02.15	DRY	DRY	DRY		DRY
	6.14.16	DRY	DRY	DRY		DRY
	9.22.16	ND	30.04	ND	6607.59	6577.55
	12.12.16	ND	30.50	ND		6577.09
	7.06.17	ND	30.05	ND		6577.54
	12.12.17	ND	30.06	ND		6577.53
	6.28.18	ND	30.50	ND		6577.09
	1.21.19**	ND	30.49	ND		6577.10
	8.29.19	ND	30.52	ND		6577.07
	12.26.19	ND	30.51	ND		6577.08
	5.19.20	ND	30.58	ND		6577.01
	12.8.20	ND	30.60	ND		6576.99
	5.12.21	DRY	DRY	DRY		DRY
	11.29.21	DRY	DRY	DRY		DRY
MW-11	9.22.16	ND	27.71	ND	6604.64	6576.93
	12.12.16	ND	27.65	ND		6576.99
	7.06.17	ND	28.25	ND		6576.39
	12.12.17	ND	28.75	ND		6575.89
	6.28.18	ND	29.18	ND		6575.46
	1.21.19**	ND	28.41	ND		6576.23
	8.29.19	ND	28.70	ND		6575.94
	12.26.19	ND	29.12	ND		6575.52
	5.19.20	ND	29.40	ND		6575.24
	12.8.20	29.54	32.31	2.77		6574.35
	5.12.21	29.69	30.57	0.88		6574.71
	11.29.21	28.42	29.37	0.95		6575.96



TABLE 2 Lateral K-12 Y#3 Condensate Tank Release GROUNDWATER ELEVATIONS						
Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation ¹ (feet AMSL)
MW-12	9.22.16	ND	27.71	ND	6605.01	6577.30
	12.12.16	ND	27.60	ND		6577.41
	7.06.17	ND	28.32	ND		6576.69
	12.12.17	ND	28.82	ND		6576.19
	6.28.18	ND	29.23	ND		6575.78
	1.21.19**	ND	28.22	ND		6576.79
	8.29.19	ND	28.51	ND		6576.50
	12.26.19	ND	28.85	ND		6576.16
	5.19.20	ND	29.56	ND		6575.45
	12.8.20	ND	29.78	ND		6575.23
	5.12.21	ND	30.21	ND		6574.80
	11.29.21	ND	28.62	ND		6576.39
MW-13	9.22.16	ND	33.60	ND	6607.61	6574.01
	12.12.16	ND	35.10	ND		6572.51
	7.06.17	ND	31.47	ND		6576.14
	12.12.17	ND	31.42	ND		6576.19
	6.28.18	ND	31.65	ND		6575.96
	1.21.19**	ND	31.81	ND		6575.80
	8.29.19	ND	32.00	ND		6575.61
	12.26.19	ND	31.64	ND		6575.97
	5.19.20	ND	32.23	ND		6575.38
	12.8.20	ND	32.48	ND		6575.13
	5.12.21	ND	32.68	ND		6574.93
	11.29.21	ND	33.13	ND		6574.48
MW-18	12.8.20	ND	34.25	ND	6605.32	6571.07
	5.12.21	ND	33.24	ND		6572.08
	11.29.21	ND	33.33	ND		6571.99
MW-19	12.8.20	ND	34.04	ND	6604.13	6570.09
	5.12.21	ND	31.35	ND		6572.78
	11.29.21	ND	30.55	ND		6573.58
MW-21	12.8.20	DRY	DRY	DRY	6611.38	DRY
	5.12.21	DRY	DRY	DRY		DRY
	11.29.21	DRY	DRY	DRY		DRY

¹ = corrected for presence of phase-separated hydrocarbon using an estimated product specific gravity of 0.729

*Monitoring well resurveyed on 9/27/16.

** Interface probe malfunction during sampling event. Site gauged on 1/21/19

BTOC - below top of casing

AMSL - above mean sea level

TOC - top of casing

ND - Not detected

NA - Not applicable



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: clients.hallenvironmental.com

May 20, 2021

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

RE: Lateral K 12 Y 3

OrderNo.: 2105598

Dear Marc Gentry:

Hall Environmental Analysis Laboratory received 9 sample(s) on 5/13/2021 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 2105598

Date Reported: 5/20/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-19

Project: Lateral K 12 Y 3

Collection Date: 5/12/2021 9:40:00 AM

Lab ID: 2105598-001

Matrix: AQUEOUS

Received Date: 5/13/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	1.0		µg/L	1	5/17/2021 3:23:00 PM	R77443
Toluene	ND	1.0		µg/L	1	5/17/2021 3:23:00 PM	R77443
Ethylbenzene	ND	1.0		µg/L	1	5/17/2021 3:23:00 PM	R77443
Xylenes, Total	ND	2.0		µg/L	1	5/17/2021 3:23:00 PM	R77443
Surr: 4-Bromofluorobenzene	87.2	70-130		%Rec	1	5/17/2021 3:23:00 PM	R77443

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 11

Analytical Report

Lab Order 2105598

Date Reported: 5/20/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-18

Project: Lateral K 12 Y 3

Collection Date: 5/12/2021 10:15:00 AM

Lab ID: 2105598-002

Matrix: AQUEOUS

Received Date: 5/13/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	1100	50		µg/L	50	5/18/2021 12:25:00 PM	R77464
Toluene	24	5.0		µg/L	5	5/17/2021 3:43:00 PM	R77443
Ethylbenzene	150	5.0		µg/L	5	5/17/2021 3:43:00 PM	R77443
Xylenes, Total	960	10		µg/L	5	5/17/2021 3:43:00 PM	R77443
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	5	5/17/2021 3:43:00 PM	R77443

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 11

Analytical Report

Lab Order 2105598

Date Reported: 5/20/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-13

Project: Lateral K 12 Y 3

Collection Date: 5/12/2021 10:45:00 AM

Lab ID: 2105598-003

Matrix: AQUEOUS

Received Date: 5/13/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	2.3	1.0		µg/L	1	5/18/2021 12:05:00 PM	R77464
Toluene	ND	1.0		µg/L	1	5/18/2021 12:05:00 PM	R77464
Ethylbenzene	1.1	1.0		µg/L	1	5/18/2021 12:05:00 PM	R77464
Xylenes, Total	3.0	2.0		µg/L	1	5/18/2021 12:05:00 PM	R77464
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	5/18/2021 12:05:00 PM	R77464

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 11

Analytical Report

Lab Order 2105598

Date Reported: 5/20/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: SVE-3

Project: Lateral K 12 Y 3

Collection Date: 5/12/2021 11:20:00 AM

Lab ID: 2105598-004

Matrix: AQUEOUS

Received Date: 5/13/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	7.6	2.0		µg/L	2	5/17/2021 4:23:00 PM	R77443
Toluene	ND	2.0		µg/L	2	5/17/2021 4:23:00 PM	R77443
Ethylbenzene	120	2.0		µg/L	2	5/17/2021 4:23:00 PM	R77443
Xylenes, Total	130	4.0		µg/L	2	5/17/2021 4:23:00 PM	R77443
Surr: 4-Bromofluorobenzene	131	70-130	S	%Rec	2	5/17/2021 4:23:00 PM	R77443

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 11

Analytical Report

Lab Order 2105598

Date Reported: 5/20/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-1

Project: Lateral K 12 Y 3

Collection Date: 5/12/2021 12:00:00 PM

Lab ID: 2105598-005

Matrix: AQUEOUS

Received Date: 5/13/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	1.0		µg/L	1	5/17/2021 5:42:00 PM	R77443
Toluene	ND	1.0		µg/L	1	5/17/2021 5:42:00 PM	R77443
Ethylbenzene	ND	1.0		µg/L	1	5/17/2021 5:42:00 PM	R77443
Xylenes, Total	ND	2.0		µg/L	1	5/17/2021 5:42:00 PM	R77443
Surr: 4-Bromofluorobenzene	85.0	70-130		%Rec	1	5/17/2021 5:42:00 PM	R77443

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 11

Analytical Report

Lab Order 2105598

Date Reported: 5/20/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-12

Project: Lateral K 12 Y 3

Collection Date: 5/12/2021 12:30:00 PM

Lab ID: 2105598-006

Matrix: AQUEOUS

Received Date: 5/13/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	1.0		µg/L	1	5/17/2021 6:02:00 PM	R77443
Toluene	ND	1.0		µg/L	1	5/17/2021 6:02:00 PM	R77443
Ethylbenzene	ND	1.0		µg/L	1	5/17/2021 6:02:00 PM	R77443
Xylenes, Total	ND	2.0		µg/L	1	5/17/2021 6:02:00 PM	R77443
Surr: 4-Bromofluorobenzene	85.1	70-130		%Rec	1	5/17/2021 6:02:00 PM	R77443

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 11

Analytical Report

Lab Order 2105598

Date Reported: 5/20/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: SVE-1R

Project: Lateral K 12 Y 3

Collection Date: 5/12/2021 1:05:00 PM

Lab ID: 2105598-007

Matrix: AQUEOUS

Received Date: 5/13/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	ND	1.0		µg/L	1	5/17/2021 6:22:00 PM	R77443
Toluene	ND	1.0		µg/L	1	5/17/2021 6:22:00 PM	R77443
Ethylbenzene	3.0	1.0		µg/L	1	5/17/2021 6:22:00 PM	R77443
Xylenes, Total	ND	2.0		µg/L	1	5/17/2021 6:22:00 PM	R77443
Surr: 4-Bromofluorobenzene	89.1	70-130		%Rec	1	5/17/2021 6:22:00 PM	R77443

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 11

Analytical Report

Lab Order 2105598

Date Reported: 5/20/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: SVE-2

Project: Lateral K 12 Y 3

Collection Date: 5/12/2021 1:40:00 PM

Lab ID: 2105598-008

Matrix: AQUEOUS

Received Date: 5/13/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	650	50		µg/L	50	5/17/2021 6:42:00 PM	R77443
Toluene	ND	5.0		µg/L	5	5/17/2021 7:02:00 PM	R77443
Ethylbenzene	170	5.0		µg/L	5	5/17/2021 7:02:00 PM	R77443
Xylenes, Total	1100	100		µg/L	50	5/17/2021 6:42:00 PM	R77443
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	5	5/17/2021 7:02:00 PM	R77443

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 11

Analytical Report

Lab Order 2105598

Date Reported: 5/20/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-2

Project: Lateral K 12 Y 3

Collection Date: 5/12/2021 2:10:00 PM

Lab ID: 2105598-009

Matrix: AQUEOUS

Received Date: 5/13/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: CCM
Benzene	1200	50		µg/L	50	5/17/2021 7:41:00 PM	R77443
Toluene	ND	5.0		µg/L	5	5/17/2021 8:01:00 PM	R77443
Ethylbenzene	170	5.0		µg/L	5	5/17/2021 8:01:00 PM	R77443
Xylenes, Total	1100	100		µg/L	50	5/17/2021 7:41:00 PM	R77443
Surr: 4-Bromofluorobenzene	111	70-130		%Rec	5	5/17/2021 8:01:00 PM	R77443

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 9 of 11

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

WO#: 2105598

20-May-21

Client: ENSOLUM
Project: Lateral K 12 Y 3

Sample ID: 100ng BTEX Ics	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSW	Batch ID: R77443	RunNo: 77443								
Prep Date:	Analysis Date: 5/17/2021	SeqNo: 2748656	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.0	80	120			
Toluene	18	1.0	20.00	0	92.4	80	120			
Ethylbenzene	19	1.0	20.00	0	95.1	80	120			
Xylenes, Total	56	2.0	60.00	0	93.3	80	120			
Surr: 4-Bromofluorobenzene	17		20.00		86.5	70	130			

Sample ID: MB	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBW	Batch ID: R77443	RunNo: 77443								
Prep Date:	Analysis Date: 5/17/2021	SeqNo: 2748657	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	2.0								
Surr: 4-Bromofluorobenzene	17		20.00		86.8	70	130			

Sample ID: 100ng BTEX Ics	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSW	Batch ID: R77464	RunNo: 77464								
Prep Date:	Analysis Date: 5/18/2021	SeqNo: 2749380	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	92.2	80	120			
Toluene	18	1.0	20.00	0	92.4	80	120			
Ethylbenzene	19	1.0	20.00	0	94.3	80	120			
Xylenes, Total	56	2.0	60.00	0	93.1	80	120			
Surr: 4-Bromofluorobenzene	17		20.00		85.4	70	130			

Sample ID: MB	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBW	Batch ID: R77464	RunNo: 77464								
Prep Date:	Analysis Date: 5/18/2021	SeqNo: 2749382	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	2.0								
Surr: 4-Bromofluorobenzene	17		20.00		86.9	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#: 2105598

20-May-21

Client: ENSOLUM

Project: Lateral K 12 Y 3

Sample ID: 100ng BTEX lcs2		SampType: LCS		TestCode: EPA Method 8021B: Volatiles						
Client ID: LCSW		Batch ID: B77464		RunNo: 77464						
Prep Date:		Analysis Date: 5/18/2021		SeqNo: 2750813		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	17		20.00		86.2	70	130			

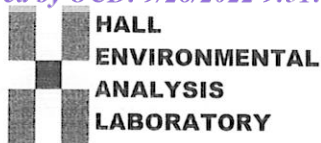
Sample ID: MB2		SampType: MBLK		TestCode: EPA Method 8021B: Volatiles						
Client ID: PBW		Batch ID: B77464		RunNo: 77464						
Prep Date:		Analysis Date: 5/18/2021		SeqNo: 2750814		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	17		20.00		86.7	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 11 of 11



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: **2105598**

RcptNo: 1

Received By: **Juan Rojas**

5/13/2021 7:10:00 AM

*Juan Rojas*Completed By: **Desiree Dominguez**

5/13/2021 11:37:05 AM

Desiree Dominguez

Reviewed By:

SPA 5.13.21

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: **DAD 5.13.21**

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	0.8	Good	Yes			
2	1.7	Good	Yes			

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

Remarks:

Bill to Ensolun

Chain-of-Custody Record													
Client: <u>Ensolium, LLC</u>		Turn-Around Time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush		Project Name: <u>Lateral K-12 Y#3</u>									
Mailing Address: <u>606 S. Rio Grande, Suite A</u>		Project #: <u>OSB1226001</u>		Project Manager: <u>M. Gentry</u>									
Phone #: <u>87410</u>		Project #: <u>OSB1226001</u>		Sampler: <u>L. Danieff</u>									
email or Fax#: <u>migentry@ensolium.com</u>		Project #: <u>OSB1226001</u>		On Ice: <input type="checkbox"/> Yes <input type="checkbox"/> No									
QA/QC Package: <input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		Project #: <u>OSB1226001</u>		# of Coolers: <u>2</u>									
Accreditation: <input type="checkbox"/> Az Compliance <input type="checkbox"/> NELAC <input type="checkbox"/> Other		Project #: <u>OSB1226001</u>		Cooler Temp (including CF): <u>0.8-0 = 0.8 (°C)</u>									
Date		Time		Matrix		Sample Name		Container Type and #		Preservative Type		HEAL No.	
5/12/21	9:40	W	MW-19	3x40ml vials	HgCl ₂	-001	1.7-0 = 1.7					2105598	
5/12/21	10:15	W	MW-18	3x40ml vials	HgCl ₂	-002							
5/12/21	10:45	W	MW-13	3x40ml vials	HgCl ₂	-003							
5/12/21	11:20	W	SVE-3	3x40ml vials	HgCl ₂	-004							
5/12/21	12:00	W	MW-1	3x40ml vials	HgCl ₂	-005							
5/12/21	12:30	W	MW-12	3x40ml vials	HgCl ₂	-006							
5/12/21	13:05	W	SVE-1R	3x40ml vials	HgCl ₂	-007							
5/12/21	13:40	W	SVE-2	3x40ml vials	HgCl ₂	-008							
5/12/21	14:10	W	MW-2	3x40ml vials	HgCl ₂	-009							
Date:		Time:		Matrix		Sample Name		Container Type and #		Preservative Type		HEAL No.	
5/12/21	16:35												
Date:		Time:		Matrix		Sample Name		Container Type and #		Preservative Type		HEAL No.	
5/12/21	18:14												
Date:		Time:		Matrix		Sample Name		Container Type and #		Preservative Type		HEAL No.	
5/12/21	18:14												
Date:		Time:		Matrix		Sample Name		Container Type and #		Preservative Type		HEAL No.	
5/12/21	18:14												
Date:		Time:		Matrix		Sample Name		Container Type and #		Preservative Type		HEAL No.	
5/12/21	18:14												
Date:		Time:		Matrix		Sample Name		Container Type and #		Preservative Type		HEAL No.	
5/12/21	18:14												
Date:		Time:		Matrix		Sample Name		Container Type and #		Preservative Type		HEAL No.	
5/12/21	18:14												
Date:		Time:		Matrix		Sample Name		Container Type and #		Preservative Type		HEAL No.	
5/12/21	18:14												
Date:		Time:		Matrix		Sample Name		Container Type and #		Preservative Type		HEAL No.	
5/12/21	18:14												
Date:		Time:		Matrix		Sample Name		Container Type and #		Preservative Type		HEAL No.	
5/12/21	18:14												
Date:		Time:		Matrix		Sample Name		Container Type and #		Preservative Type		HEAL No.	
5/12/21	18:14												
Date:		Time:		Matrix		Sample Name		Container Type and #		Preservative Type		HEAL No.	
5/12/21	18:14												
Date:		Time:		Matrix		Sample Name		Container Type and #		Preservative Type		HEAL No.	
5/12/21	18:14												
Date:		Time:		Matrix		Sample Name		Container Type and #		Preservative Type		HEAL No.	
5/12/21	18:14												
Date:													



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

December 09, 2021

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX:

RE: Lateral K 12 Y 3

OrderNo.: 2112014

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 9 sample(s) on 12/1/2021 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 2112014

Date Reported: 12/9/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-18

Project: Lateral K 12 Y 3

Collection Date: 11/29/2021 12:50:00 PM

Lab ID: 2112014-001

Matrix: AQUEOUS

Received Date: 12/1/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	1200	20		µg/L	20	12/2/2021 10:24:11 AM	R83251
Toluene	4.2	2.0		µg/L	2	12/2/2021 10:47:40 AM	R83251
Ethylbenzene	120	2.0		µg/L	2	12/2/2021 10:47:40 AM	R83251
Xylenes, Total	220	4.0		µg/L	2	12/2/2021 10:47:40 AM	R83251
Surr: 4-Bromofluorobenzene	131	70-130	S	%Rec	2	12/2/2021 10:47:40 AM	R83251

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 interference		

Page 1 of 10

Analytical Report

Lab Order 2112014

Date Reported: 12/9/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-19

Project: Lateral K 12 Y 3

Collection Date: 11/29/2021 1:20:00 PM

Lab ID: 2112014-002

Matrix: AQUEOUS

Received Date: 12/1/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	1.0		µg/L	1	12/2/2021 11:34:37 AM	R83251
Toluene	ND	1.0		µg/L	1	12/2/2021 11:34:37 AM	R83251
Ethylbenzene	ND	1.0		µg/L	1	12/2/2021 11:34:37 AM	R83251
Xylenes, Total	ND	2.0		µg/L	1	12/2/2021 11:34:37 AM	R83251
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	12/2/2021 11:34:37 AM	R83251

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 interference		

Page 2 of 10

Analytical Report

Lab Order 2112014

Date Reported: 12/9/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-13

Project: Lateral K 12 Y 3

Collection Date: 11/29/2021 1:55:00 PM

Lab ID: 2112014-003

Matrix: AQUEOUS

Received Date: 12/1/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	1.0		µg/L	1	12/2/2021 12:45:19 PM	R83251
Toluene	ND	1.0		µg/L	1	12/2/2021 12:45:19 PM	R83251
Ethylbenzene	ND	1.0		µg/L	1	12/2/2021 12:45:19 PM	R83251
Xylenes, Total	ND	2.0		µg/L	1	12/2/2021 12:45:19 PM	R83251
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	12/2/2021 12:45:19 PM	R83251

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 interference		

Page 3 of 10

Analytical Report

Lab Order 2112014

Date Reported: 12/9/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-1

Project: Lateral K 12 Y 3

Collection Date: 11/29/2021 2:35:00 PM

Lab ID: 2112014-004

Matrix: AQUEOUS

Received Date: 12/1/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	1.0		µg/L	1	12/2/2021 1:08:36 PM	R83251
Toluene	ND	1.0		µg/L	1	12/2/2021 1:08:36 PM	R83251
Ethylbenzene	ND	1.0		µg/L	1	12/2/2021 1:08:36 PM	R83251
Xylenes, Total	ND	2.0		µg/L	1	12/2/2021 1:08:36 PM	R83251
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	12/2/2021 1:08:36 PM	R83251

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 interference		

Page 4 of 10

Analytical Report

Lab Order 2112014

Date Reported: 12/9/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: SVE-3

Project: Lateral K 12 Y 3

Collection Date: 11/29/2021 3:00:00 PM

Lab ID: 2112014-005

Matrix: AQUEOUS

Received Date: 12/1/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	9.1	2.0		µg/L	2	12/2/2021 1:31:54 PM	R83251
Toluene	ND	2.0		µg/L	2	12/2/2021 1:31:54 PM	R83251
Ethylbenzene	120	2.0		µg/L	2	12/2/2021 1:31:54 PM	R83251
Xylenes, Total	170	4.0		µg/L	2	12/2/2021 1:31:54 PM	R83251
Surr: 4-Bromofluorobenzene	138	70-130	S	%Rec	2	12/2/2021 1:31:54 PM	R83251

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 interference		

Page 5 of 10

Analytical Report

Lab Order 2112014

Date Reported: 12/9/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: SVE-1R

Project: Lateral K 12 Y 3

Collection Date: 11/29/2021 3:35:00 PM

Lab ID: 2112014-006

Matrix: AQUEOUS

Received Date: 12/1/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	1.0		µg/L	1	12/2/2021 2:42:05 PM	R83251
Toluene	ND	1.0		µg/L	1	12/2/2021 2:42:05 PM	R83251
Ethylbenzene	1.6	1.0		µg/L	1	12/2/2021 2:42:05 PM	R83251
Xylenes, Total	ND	2.0		µg/L	1	12/2/2021 2:42:05 PM	R83251
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	12/2/2021 2:42:05 PM	R83251

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 interference		

Page 6 of 10

Analytical Report

Lab Order 2112014

Date Reported: 12/9/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-12

Project: Lateral K 12 Y 3

Collection Date: 11/29/2021 4:00:00 PM

Lab ID: 2112014-007

Matrix: AQUEOUS

Received Date: 12/1/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	1.0		µg/L	1	12/2/2021 3:05:34 PM	R83251
Toluene	ND	1.0		µg/L	1	12/2/2021 3:05:34 PM	R83251
Ethylbenzene	ND	1.0		µg/L	1	12/2/2021 3:05:34 PM	R83251
Xylenes, Total	ND	2.0		µg/L	1	12/2/2021 3:05:34 PM	R83251
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	12/2/2021 3:05:34 PM	R83251

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 interference		

Page 7 of 10

Analytical Report

Lab Order 2112014

Date Reported: 12/9/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: SVE-2

Project: Lateral K 12 Y 3

Collection Date: 11/29/2021 4:05:00 PM

Lab ID: 2112014-008

Matrix: AQUEOUS

Received Date: 12/1/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	560	20		µg/L	20	12/2/2021 3:29:13 PM	R83251
Toluene	ND	2.0		µg/L	2	12/2/2021 3:52:50 PM	R83251
Ethylbenzene	140	2.0		µg/L	2	12/2/2021 3:52:50 PM	R83251
Xylenes, Total	1200	40		µg/L	20	12/2/2021 3:29:13 PM	R83251
Surr: 4-Bromofluorobenzene	135	70-130	S	%Rec	2	12/2/2021 3:52:50 PM	R83251

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 interference		

Page 8 of 10

Analytical Report

Lab Order 2112014

Date Reported: 12/9/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: MW-2

Project: Lateral K 12 Y 3

Collection Date: 11/29/2021 4:40:00 PM

Lab ID: 2112014-009

Matrix: AQUEOUS

Received Date: 12/1/2021 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	1600	50		µg/L	50	12/2/2021 4:39:56 PM	R83251
Toluene	ND	5.0		µg/L	5	12/2/2021 5:03:27 PM	R83251
Ethylbenzene	180	5.0		µg/L	5	12/2/2021 5:03:27 PM	R83251
Xylenes, Total	1100	100		µg/L	50	12/2/2021 4:39:56 PM	R83251
Surr: 4-Bromofluorobenzene	115	70-130		%Rec	5	12/2/2021 5:03:27 PM	R83251

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 interference		

Page 9 of 10

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

WO#: 2112014

09-Dec-21

Client: ENSOLUM
Project: Lateral K 12 Y 3

Sample ID: mb	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBW	Batch ID: R83251	RunNo: 83251								
Prep Date:	Analysis Date: 12/2/2021	SeqNo: 2958042 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	2.0								
Surr: 4-Bromofluorobenzene	20		20.00		98.3	70	130			

Sample ID: 100ng btex lcs	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSW	Batch ID: R83251	RunNo: 83251								
Prep Date:	Analysis Date: 12/2/2021	SeqNo: 2958043 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.5	80	120			
Toluene	19	1.0	20.00	0	95.0	80	120			
Ethylbenzene	19	1.0	20.00	0	95.0	80	120			
Xylenes, Total	57	2.0	60.00	0	94.3	80	120			
Surr: 4-Bromofluorobenzene	20		20.00		97.7	70	130			

Sample ID: 2112014-002ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: MW-19	Batch ID: R83251	RunNo: 83251								
Prep Date:	Analysis Date: 12/2/2021	SeqNo: 2958048 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0.6040	94.0	80	120			
Toluene	19	1.0	20.00	0.2280	94.3	80	120			
Ethylbenzene	20	1.0	20.00	0.4140	96.0	80	120			
Xylenes, Total	58	2.0	60.00	1.174	94.7	80	120			
Surr: 4-Bromofluorobenzene	21		20.00		106	70	130			

Sample ID: 2112014-002amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: MW-19	Batch ID: R83251	RunNo: 83251								
Prep Date:	Analysis Date: 12/2/2021	SeqNo: 2958049 Units: µg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0.6040	93.7	80	120	0.279	20	
Toluene	19	1.0	20.00	0.2280	94.4	80	120	0.105	20	
Ethylbenzene	20	1.0	20.00	0.4140	95.6	80	120	0.347	20	
Xylenes, Total	58	2.0	60.00	1.174	95.5	80	120	0.783	20	
Surr: 4-Bromofluorobenzene	21		20.00		106	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix interference

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
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: 2112014

RcptNo: 1

Received By: Cheyenne Cason

12/1/2021 8:00:00 AM

Chul

Completed By: Tracy Casarrubias

12/1/2021 9:32:29 AM

Reviewed By: *jr 12/1/21*

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: *Cue 12/1/21*

Special Handling (if applicable)

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

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	Good	Not Present			

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

Remarks:

Bill to Ensolaw

Chain-of-Custody Record													
Client: <u>Ensolure, LLC</u>		Turn-Around Time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush		Project Name: <u>Lateral K-12 Y#3</u>									
Mailing Address: <u>606 S. Rio Grande, Suite A</u>		Project #: <u>05A1226010</u>		Project Manager: <u>K. Summers</u>									
Phone #: <u>505 27410</u>		Project Manager: <u>K. Summers</u>		Sampler: <u>L. Daniel</u>									
email or Fax#: <u>Ksummers@ensolure.com</u>		On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		# of Coolers: <u>1</u>									
QA/QC Package: <input type="checkbox"/> Standard <input type="checkbox"/> Level 4 (Full Validation)		Accreditation: <input type="checkbox"/> Az Compliance <input type="checkbox"/> NELAC <input type="checkbox"/> Other		Cooler Temp (including CF): <u>2.2 - 0.2 ± 2.0 (°C)</u>									
Date		Time		Matrix		Sample Name		Container Type and #		Preservative Type		HEAL No.	
11/29/21		12:50		W		MW-18		3x40al WA		H ₂ O ₂		2112014	
11/29/21		13:20		W		MW-19						001	
11/29/21		13:55		W		MW-13						002	
11/29/21		14:35		W		MW-1						003	
11/29/21		15:00		W		SVE-3						004	
11/29/21		15:35		W		SVE-1R						005	
11/29/21		16:00		W		MW-12						006	
11/29/21		16:05		W		SVE-2						007	
11/29/21		16:40		W		MW-2						008	
												009	
Date:		Time:		Relinquished by:		Received by:		Via:		Date		Time	
11/20/21		1036		<u>[Signature]</u>		<u>[Signature]</u>		<u>Post Lab</u>		12/30/21		1030	
Date:		Time:		Relinquished by:		Received by:		Via:		Date		Time	
11/30/21		1802		<u>[Signature]</u>		<u>[Signature]</u>		<u>Post Lab</u>		12/30/21		0800	

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.

REVIEWED

By Nelson Velez at 8:37 am, Oct 25, 2022

1. Adhere to 19.15.30.15B within 15 days from date of review (10/25/2022).
2. See OCD Approval Letter at end of this report.



**REVISED LATERAL K-12 CONDENSATE TANK RELEASE (3/19/12)
STAGE 1 ABATEMENT PLAN**

Property:

**Lateral K-12 Y#3 Condensate Tank Release (3/19/12)
SW 1/4, S23 T27N R7W
Rio Arriba County, New Mexico
OCD RP: 3R-459
AP-132**

Ensolum Job No: 05B1226001

Prepared for:

**Enterprise Field Services, LLC
P.O. Box 4324
Houston, Texas 77210-4324
Attn: Mr. Gregory E. Miller, P.G.**

March 21, 2019
Revised May 22, 2019

Marc E. Gentry, P.G.
Principal



Table of Contents

1	INTRODUCTION	1
1.1	STANDARD OF CARE AND LIMITATIONS	1
2	SITE DESCRIPTION AND BACKGROUND	2
3	SITE CHARACTERIZATION	3
3.1	REGIONAL GEOLOGY AND HYDROGEOLOGY	3
3.2	LOCAL GEOLOGY AND HYDROGEOLOGY	3
3.3	PROPOSED CLEANUP GOALS	4
4	SUMMARY OF SITE ASSESSMENT ACTIVITIES	5
5	PROPOSED DELINEATION ACTIVITIES	6
5.1	HEALTH AND SAFETY PLAN	6
5.2	SOIL BORING INSTALLATION	6
5.3	SOIL SAMPLING PROGRAM	7
5.4	SOIL LABORATORY ANALYTICAL PROGRAM	7
5.5	MONITOR WELL INSTALLATION	7
5.6	GROUNDWATER GRADIENT DETERMINATION	8
5.7	AQUIFER CHARACTERIZATION	8
5.8	GROUNDWATER SAMPLING PROGRAM	8
5.9	GROUNDWATER LABORATORY ANALYTICAL PROGRAM	9
5.10	STAGE 2 ABATEMENT PLAN PROPOSAL	9
5.11	QUALITY ASSURANCE	9
6	PROPOSED SCHEDULE	10

LIST OF APPENDICES

Appendix A:	Figures	
	Figure 1	Topographic Map
	Figure 2	Site Vicinity Map
	Figure 3A	Site Map
	Figure 3B	Proposed Monitoring Well Locations Map
	Figure 4A	Benzene RAL Exceedance Zone (0 to 25 Feet BGS)
	Figure 4B	BTEX RAL Exceedance Zone (0 to 25 Feet BGS)
	Figure 4C	TPH GRO/DRO/MRO RAL Exceedance Zone (0 to 25 Feet BGS)
	Figure 4D	Benzene RAL Exceedance Zone (>25 Feet BGS)
	Figure 4E	BTEX RAL Exceedance Zone (>25 Feet BGS)
	Figure 4F	TPH GRO/DRO/MRO RAL Exceedance Zone (>25 Feet BGS)
	Figure 5A	Groundwater Gradient Map (December 2017)
	Figure 5B	Groundwater Quality Standard (GQS) Exceedance Zone Map (December 2018)
Appendix B:	Tables	
	Table 1	Soil Analytical Summary
	Table 2	Groundwater Analytical Summary
	Table 3	Groundwater Water Elevations
Appendix C:	Public Notice and Landowner Table	

Mr. Greg Miller, Enterprise Field Services, LLC
Revised Stage 1 Abatement Plan – Lateral K-12 Y#3 Condensate Tank

May 22, 2019
Page 1

1 INTRODUCTION

Ensolum has prepared a Stage 1 Abatement Plan for the Enterprise Field Services, LLC (Enterprise) Lateral K-12 Y#3 condensate tank release site located within the southwest (SW) 1/4 of Section 23, Township 27 North, Range 7 West, in Rio Arriba County, New Mexico (36.55412N, 107.54935W), hereinafter referred to as the “Site” or “Subject Property”.

Based on correspondence from the State of New Mexico Energy Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD), dated January 22, 2019, Enterprise is required to submit a Stage 1 Abatement Plan no later than March 22, 2019. The Stage 1 Abatement Plan is intended to define site conditions such that an effective abatement option can be selected. Stage 2 is implementation of the remedial option. This Stage 1 Abatement Plan details the site description and background, historic site investigation and remediation activities and the geologic and hydrogeologic characteristics. Additionally, the Stage 1 Abatement Plan proposes additional delineation and monitoring activities and provides a proposed schedule to complete delineation activities in accordance with 19.15.30 NMAC. Subsequent to the successful completion and agency approval of delineation activities, a Stage 2 Abatement Plan will be developed to address the remediation of constituents of concern (COCs) remaining at the Site in excess of the applicable New Mexico EMNRD closure criteria.

1.1 Standard of Care and Limitations

Ensolum’s services will be 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 to be performed hereunder. Additionally, Ensolum does not warrant the work of third parties supplying information to be used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services will be performed in accordance with the scope of work agreed with the client and regulatory agency, as detailed in our discussions.

Findings, conclusions, and recommendations resulting from these services will be based upon information derived from public information resources and it should be noted that this information is subject to change over time. Ensolum’s findings are based solely upon data available to Ensolum at the time of these services.

This report will be prepared for the exclusive use of Enterprise Products Operating LLC (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 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 Stage 1 Abatement Plan and Ensolum’s Agreement with the client. The limitation of liability defined in the agreement is the aggregate limit of Ensolum’s liability to the client.

Mr. Greg Miller, Enterprise Field Services, LLC

May 22, 2019

Revised Stage 1 Abatement Plan – Lateral K-12 Y#3 Condensate Tank

Page 2

2 SITE DESCRIPTION AND BACKGROUND

The Site is located within the southwest (SW) 1/4 of Section 23, Township 27 North, Range 7 West, in Rio Arriba County, New Mexico (36.55412N, 107.54935W). The Site is located adjacent to an unpaved road, on land managed by the United States Bureau of Land Management (BLM). The Site is surrounded by rangeland that is periodically interrupted by oil and gas production and gathering facilities. Two (2) natural gas pipelines operated by Enterprise traverse the northeast portion of the Site, parallel to the unpaved access road. An above ground storage tank (AST) that stores condensate, which overlies a backfilled remediation excavation, is present in the central portion of the Site.

On March 19, 2012, a natural gas condensate release, estimated at less than one (1) barrel (bbl), occurred as a result of overfilling the condensate tank. During the corrective action excavation of impacted soils (April 2012), a suspected historical earthen pit was discovered, and the excavation was expanded to remove historical hydrocarbon affected soils. Due to the increased area of disturbance and safety factors associated with the depth of the excavation, the excavation activities were suspended by the BLM. Groundwater was not identified in the 35-foot below grade surface (bgs) excavation. Subsequent site investigations by Animas Environmental Services, LLC (AES) included the advancement of nine (9) soil borings and the installation of three (3) soil vapor extraction (SVE) wells/monitoring wells to delineate the extent of hydrocarbon affected soil and/or groundwater and potentially provide subsurface access for “high-vacuum” remediation. Due to a change in the intended use, the SVE wells at this Site are now referred to as “monitoring wells”. Samples collected from the soil borings and monitoring wells exhibited concentrations of benzene, toluene, ethylbenzene, and total xylenes (BTEX) and total petroleum hydrocarbons (TPH) above New Mexico EMNRD OCD *Remediation Action Levels (RALs)* in soils and above the New Mexico Water Quality Control Commission (WQCC) *Groundwater Quality Standards (GQSs)* in groundwater. Additionally, non-aqueous phase liquid (NAPL) was identified in monitoring well SVE-1. NAPL was removed from SVE-1 by bailing and did not recharge. Groundwater COC monitoring is ongoing at the Site.

A **Topographic Map** is provided as **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 locations of the monitoring wells and recent soil borings in relation to pertinent structures and general Site boundaries, is provided as **Figure 3A of Appendix A**.

3 SITE CHARACTERIZATION

3.1 Regional Geology and Hydrogeology

According to reference material published by the New Mexico Geological Society, the Site is in the San Juan Basin, which is the major structural and physical feature in the northwestern part of New Mexico. The San Juan Basin is classified as an arid region as most of the area receives less than 10 inches of precipitation a year. Mean annual precipitation in the mountainous regions along the basin margin may be as much as 30 inches a year. Surface water is rare except in areas of the San Juan River and its tributaries in the northern portion of the basin.

Based upon reference information from the New Mexico Bureau of Geology and Mineral Resources publication on the background geology of the San Juan Basin (Decision-Makers Field Conference 2002) "most of the aquifers in the San Juan Basin exist under confined or semi-confined hydrologic conditions. In Mesozoic rocks of the region, the confined sandstone aquifers are interbedded with shales that behave as aquitards. The Triassic mudrock sequence is the aquitard for the Permian Limestone. Groundwater in the alluvium along streams and in the shallow Tertiary sandstone aquifers is generally unconfined and is open to the atmosphere through pores in the overlying permeable rocks."

According to the New Mexico Bureau of Geology and Mineral Resource (Geologic Map of New Mexico 2003), the Site is located within the lower Eocene San Jose Formation which was deposited along high energy, low-sinuosity streams and on extensive muddy floodplains. The Eocene age San Jose Formation contains a mixture of clastic sedimentary rocks varying from siltstone to conglomerate, dominated by rocks containing sand-sized particles.

The major aquifer underlying the Site vicinity is listed as the Colorado Plateaus Aquifer, which is made up of four aquifers – Uinta-Anima, Mesa Verde, Dakota-Glen, and Coconino-De Chelly. The Uinta-Animas is the shallowest of these aquifers and is present in the San Juan Basin. The general composition of the aquifers is moderately to well-consolidated sedimentary rocks of an age ranging from Permian to Tertiary. Each aquifer is separated from the others by an impermeable confining unit. Two of the confining units are completely impermeable and cover the entire area of the aquifers. The other two confining units are less extensive and are thinner. These units allow water to flow between the principal aquifers.

3.2 Local Geology and Hydrogeology

Boring logs have been completed during historic site investigation activities. The boring logs recorded sample identification, depth collected, and method of collection, as well as observations of soil moisture, color, grain size, contaminant presence, and overall stratigraphy. Site lithology is characterized as consisting of fine sand from surface to approximately 15 feet bgs, sandy clay from 15 feet bgs to 25 feet bgs, and fine-grained sandstone from 25 feet to at least 35 feet bgs.

Based on boring logs from previous site investigation activities, the first apparent water-bearing unit in the vicinity of the release excavation appears very limited in thickness and volume and may be more accurately described as subsurface water (as defined in New Mexico Administrative Code 20.6.2.7 (S)). It appears that water observed in the monitoring wells near the excavation may be limited to a small volume of percolating water from precipitation events that periodically collects on or near the surface of the weathered subgrade bedrock and, depending on the significance of the precipitation events, subsequently drains into the monitoring wells and the associated well bore annuli. This speculation is further supported by the lack of water encountered during prior excavation activities (reaching 35 feet below grade surface (bgs)) which exceeded

Mr. Greg Miller, Enterprise Field Services, LLC

May 22, 2019

Revised Stage 1 Abatement Plan – Lateral K-12 Y#3 Condensate Tank

Page 4

the measured depth to groundwater at the Site of approximately 27 feet bgs near the suspected source. Additionally, bail-down tests performed by AES in 2013 demonstrated stagnant or near-stagnant water recharge over the course of several days near the former excavation. Storativity appears to increase to the east and north at the Site, resembling a more traditional fine-grained, perched water-bearing unit.

Based on Domenico and Schwartz (1990) a default hydraulic conductivity value for the impacted sand unit at the site would be, on average 2×10^{-6} m/sec which is equivalent to 0.57 feet per day (ft/day). The hydraulic conductivity of the laterally extensive fine-grained sandstone is assigned an average value of 5×10^{-8} m/sec, which is equivalent to approximately 0.014 ft/day; a low value associated with the low permeability in the unit. Additional site-specific aquifer characterization is proposed in this Stage 1 Abatement Plan.

3.3 Proposed Cleanup Goals

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. Initial Site activities were performed in accordance with the New Mexico EMNRD OCD *Guidelines for Remediation of Leaks, Spills and Releases*, in addition to the New Mexico EMNRD OCD rules, specifically New Mexico Administrative Code (NMAC) 19.15.29 *Release Notification*. This guidance established investigation and abatement action requirements for sites subject to reporting and/or corrective action prior to the update of the rule during July and August 2018. Groundwater remediation activities at the Site will be performed in accordance with NMAC 19.15.30 *Remediation*.

Ensolum utilized the general site characteristics and information available from the New Mexico Office of the State Engineer (OSE) to determine the appropriate New Mexico EMNRD OCD soil closure criteria for the Site.

- Seven (SJ 04075 POD 11 through SJ 04075 POD 17) OSE registered monitoring wells installed by Enterprise are located on-Site. Based on the groundwater monitoring wells located at the Site, depth to groundwater is less than 50 feet below grade surface (bgs). No other registered water wells were identified with the one-mile search radius on the OSE Water Rights Reporting System (WRRS) database.
- The Site is located adjacent to an ephemeral wash that is identified as a “blue line” on the USGS topographic map. The ephemeral wash is located approximately 60 feet east of the former excavation.
- 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 from domestic or stock water 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 NMSA 1978, Section 3-27-3.
- The Site is not located within 300 feet of a wetland.
- Based on information identified on the New Mexico Mining and Minerals Division’s 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 Site is not located within a 100-year floodplain.

Mr. Greg Miller, Enterprise Field Services, LLC
Revised Stage 1 Abatement Plan – Lateral K-12 Y#3 Condensate Tank

May 22, 2019
Page 5

Based on the review of site characteristics, cleanup goals for soil located at the Site include: 10 milligrams per kilogram (mg/kg) for benzene, 50 mg/kg for total BTEX, 100 mg/kg for TPH GRO/DRO/MRO, and 600 mg/kg for chlorides.

In addition, cleanup/delineation goals for subsurface water located at the Site include: 10 micrograms per liter (µg/L) for benzene, 750 µg/L for toluene, 750 µg/L for ethylbenzene, and 620 µg/L for total xylenes.

4 SUMMARY OF SITE ASSESSMENT ACTIVITIES

On March 19, 2012, a natural gas condensate release estimated at less than one (1) barrel (bbl) occurred as a result of overfilling the condensate tank. AES conducted an initial release assessment and subsequently recommended the removal of affected soils (*Release Mitigation and Investigation Report, dated July 18, 2012 – AES*).

During corrective action excavation activities in April 2012, a suspected historical earthen pit was discovered, and the excavation was expanded to remove the historical hydrocarbon affected soils. Due to the increased area of disturbance and safety factors associated with the depth of the excavation, the excavation activities were suspended by the BLM, and confirmation soil samples (SC-1 through SC-9) were collected by AES. Groundwater was not identified in the 35-foot deep excavation. Subsequent to backfilling the excavation with clean fill, AES conducted a site investigation that included the advancement of seven (7) soil borings (SB-1 through SB-7). Three (3) of the soil borings (SB-1/SVE-1, SB-3/SVE-2, SB-4/SVE-3), were completed as soil-vapor-extraction (SVE) monitoring wells in anticipation of potential future remedial activities. Due to a change in the intended use, the SVE wells at this Site are now referred to as “monitoring wells”.

On July 19, 2013, AES conducted a monitoring event of the SVE wells which identified the presence of water in the three (3) SVE wells as well as the presence of non-aqueous phase liquid (NAPL) in monitoring well SVE-1 (1.07 feet thick). This NAPL was removed by bailing and did not recharge. AES also advanced two (2) soil borings (SB-8 and SB-9) adjacent to the former excavation, which demonstrated minimal natural attenuation of constituent of concern (COC) concentrations since the backfilling of the excavation. On July 22, 2013, AES collected water samples from monitoring wells SVE-2 and SVE-3 for laboratory analysis of total dissolved solids (TDS) and chlorides. Laboratory analytical results indicated that TDS concentrations were 1,160 milligrams per liter (mg/L) and 740 mg/L in SVE-2 and SVE-3, respectively, and chloride concentrations were 110 mg/L and 23 mg/L in SVE-2 and SVE-3, respectively (*Continued Site Investigation Report, dated October 4, 2013 – AES*).

A groundwater monitoring and sampling event was conducted by AES on October 8, 2013. NAPL was not observed in monitoring well SVE-1 during this monitoring and sampling event. However, presumably due to settling associated with the backfilled excavation, the screened portion of monitoring well SVE-1 was damaged and collection of a water sample was not possible. Water samples were collected from monitoring wells SVE-2 and SVE-3 for laboratory analysis of BTEX, and total petroleum hydrocarbons (TPH) gasoline range organics (GRO), diesel range organics (DRO), and motor oil/lube oil range organics (MRO) (*Groundwater Monitoring Report and Continued Site Investigation Workplan, dated November 15, 2013 – AES*).

During January 2014, AES advanced six (6) soil borings, five (5) of which were completed as groundwater monitoring wells MW-1 through MW-5, and one (1) of which was utilized to replace

Mr. Greg Miller, Enterprise Field Services, LLC
Revised Stage 1 Abatement Plan – Lateral K-12 Y#3 Condensate Tank

May 22, 2019
Page 6

monitoring well SVE-1 with SVE-1R. Monitoring well SVE-1 was apparently plugged and abandoned at that time.

During August and September 2016, Apex TITAN, Inc., (Apex) conducted supplemental Site Investigation activities at the Site by advancing seven (7) soil borings to further evaluate the extent of hydrocarbon affected soil and potentially impacted groundwater. Laboratory analytical results identified TPH GRO/DRO concentrations that exceed applicable New Mexico EMNRDOCD RALs in monitoring well borings MW-11 and MW-13. Three (3) soil borings were completed as groundwater monitoring wells MW-11 through MW-13. The groundwater analytical results for the groundwater samples collected from these wells indicated benzene, toluene, and total xylenes in excess of the WQCC *Groundwater Quality Standards (GQSS)* (*Supplemental Environmental Site Investigation and Annual Subsurface Water Monitoring Report*, dated February 24, 2017 - Apex).

Soil laboratory results that include data from previous site investigations are provided in **Table 1 (Appendix B)**. Benzene, BTEX, and TPH RAL Exceedance Zone soil maps for the approximate vadose zone and capillary fringe are provided as **Figure 4A** through **Figure 4F (Appendix A)**. These maps depict the estimated area of soil impact based on available current and historical data. Subsurface water analytical results are summarized in **Table 2 (Appendix B)**. Subsurface water measurements (including historical data) are presented with top of casing (TOC) elevations in **Table 3 (Appendix B)**. A **Groundwater Gradient Map** and **Groundwater Quality Standards Exceedance Zone Map** based on the December 2017 exceedances are provided as **Figure 5A** and **Figure 5B**, respectively (**Appendix A**). Please note that the tables reference historic site investigation and remediation limits under the previous rule.

5 PROPOSED DELINEATION ACTIVITIES

5.1 Health and Safety Plan

Ensolum will develop a site-specific Health and Safety Plan (HSP) for the performance of the proposed scope of services described in this work plan. For the purposes of this HSP, it is assumed that the COCs include petroleum hydrocarbons. For the purposes of this work plan, it is assumed that the scope of services can be conducted under modified Level D personal protective equipment (PPE), which will include a hard hat, steel-toed boots, protective eyewear, and gloves. Should the need arise to upgrade PPE (e.g. respiratory protection), the client will be notified, and the HSP will be modified accordingly. Although it is not anticipated at this time, it should be noted that a PPE upgrade will constitute a change in scope of work, requiring a change order.

Ensolum will clear utilities through the New Mexico One Call System and will coordinate with the utility companies and Enterprise to evaluate the line locations in order to select the actual soil boring locations.

5.2 Soil Boring Installation

Subsequent to exposing the known subsurface utilities and clearing the initial five (5) to ten (10) feet (unless bedrock is encountered first) of each proposed drilling location utilizing a hydro-excavator, four (4) soil borings will be advanced utilizing a hollow-stem auger drilling rig. The soil borings will be placed in locations to further evaluate potential petroleum hydrocarbon soil and groundwater impacts. The soil borings will be advanced to a depth of approximately 30 to 35 feet bgs, five (5) feet below the initial groundwater table, or auger refusal, whichever is shallower. Proposed soil boring/monitoring well locations are shown on **Figure 3B** of **Appendix A**.

Mr. Greg Miller, Enterprise Field Services, LLC

May 22, 2019

Revised Stage 1 Abatement Plan – Lateral K-12 Y#3 Condensate Tank

Page 7

Non-disposable sampling and drilling equipment will be decontaminated using an Alconox® wash and potable water rinse prior to commencement of the project and between the advancement of each soil boring.

Soil samples will be collected continuously using core barrels or split spoon samplers to document lithology, color, relative moisture content and visual or olfactory evidence of impairment. In addition, the samples will be screened with a photoionization detector (PID) to evaluate the presence of volatile organic compounds (VOCs).

Soil boring cuttings will be stored in labeled drums until appropriate disposal measures have been determined.

5.3 Soil Sampling Program

A minimum of two (2) soil samples will be collected for laboratory analysis from each soil boring from some combination of the following intervals:

- The depth interval exhibiting the highest concentration of VOCs based on PID evidence;
- An interval exhibiting visual/olfactory evidence of impairment;
- The capillary fringe zone;
- From a change in lithology; or,
- From the bottom of the boring.

The soil samples will be collected in laboratory prepared glassware and placed on ice in a cooler. The samples will be relinquished to the courier for Hall Environmental Analysis Laboratory (HEAL) of Albuquerque, New Mexico under proper chain-of-custody procedures.

5.4 Soil Laboratory Analytical Program

Selected soil samples will be analyzed for TPH GRO/DRO/MRO utilizing Environmental Protection Agency (EPA) SW-846 Method 8015, chlorides using EPA Method 300.0 and BTEX utilizing EPA SW-846 Method 8021/8260.

A summary of the analytes, sample type, and EPA-approved methods is presented in the following table:

Analytes	Sample Type	No. of Samples	EPA Method
TPH GRO/DRO/MRO	Soil	8	SW-846 8015
Chlorides	Soil	8	EPA 300.0
BTEX	Soil	8	SW-846 8260/8021

5.5 Monitor Well Installation

Subsequent to advancement, each of the four (4) soil borings will be completed as two (2) inch diameter groundwater monitoring wells to allow the evaluation of the initial groundwater-bearing unit. The monitoring wells will be completed as follows:

- Installation of 15 to 20 feet of two (2) inch diameter, machine slotted (0.010 inch) Schedule 40 polyvinyl chloride (PVC) well screen assembly with a threaded bottom plug;

Mr. Greg Miller, Enterprise Field Services, LLC
Revised Stage 1 Abatement Plan – Lateral K-12 Y#3 Condensate Tank

May 22, 2019
Page 8

- Installation of Schedule 40 PVC riser pipe to surface;
- Addition of graded silica sand for annular sand pack around the well screen from the bottom of the well to two (2) feet above the top of the screen;
- Placement of two (2) or more feet of hydrated bentonite above the sand;
- Addition of a cement/bentonite slurry to the surface; and
- Installation of a concrete well pad and an above-grade steel riser with an integrated padlock hasp.

The monitoring wells will be developed by surging and removing groundwater until the fluid appears relatively free of fine-grained sediment. Groundwater samples will be collected following development and groundwater recharge utilizing low-flow or bailer sampling techniques.

5.6 Groundwater Gradient Determination

Following installation, the monitoring wells will be geospatially surveyed to determine the TOC and ground surface elevation for each monitoring well. The TOC elevations will allow the calculation of the groundwater elevations at each well. This information will facilitate the creation of groundwater potentiometric surface maps, which will further refine groundwater flow direction and gradient. The relative ground elevations will facilitate the creation of lithologic and/or hydrogeologic cross-sections, if deemed necessary.

5.7 Aquifer Characterization

Ensolum will evaluate site specific groundwater characteristics in the local, initial groundwater bearing unit. Ensolum's aquifer characterization program will be developed based on Ensolum's understanding of the geologic and hydrogeologic conditions present at the Site and will be conducted utilizing a bail-down method with recharge observations. In this method, the well is pumped/bailed as near as practicable to the base of the well screen and recovery is measured utilizing a pressure transducer capable of recording measurements for use by modeling software. The test is complete when groundwater is fully recharged or when the test duration reaches 4 hours, whichever comes first.

5.8 Groundwater Sampling Program

Two (2) semi-annual groundwater monitoring events will be performed at the Site. During each semi-annual groundwater sampling event, Ensolum will collect one (1) groundwater sample from each on-Site monitoring well, utilizing low-flow or bailer sampling methods.

Prior to sampling, fluid levels in each of the monitoring wells will be gauged utilizing an interface probe capable of detecting NAPL.

Low-flow refers to the velocity with which groundwater enters the pump intake and that is imparted to the formation pore water in the immediate vicinity of the well screen. Water level drawdown provides the best indication of the stress imparted by a given flow-rate for a given hydrological situation. The objective is to pump in a manner that minimizes stress (drawdown) to the system, to the extent practical, taking into account established Site sampling objectives. Flow rates on the order of 0.1 to 0.5 liters per minute (L/min) are maintained during sampling activities, using dedicated or decontaminated sampling equipment. The water level is checked periodically to monitor drawdown in the well as a guide to flow rate adjustment. The pump intake is placed within the screened interval such that the groundwater recovered is drawn in directly from the formation with little mixing of casing water or disturbance to the sampling zone.

Mr. Greg Miller, Enterprise Field Services, LLC

May 22, 2019

Revised Stage 1 Abatement Plan – Lateral K-12 Y#3 Condensate Tank

Page 9

The groundwater samples are collected from each monitoring well once produced groundwater is consistent in color, clarity, pH, temperature, and conductivity. Measurements are taken every three to five minutes while purging. Purging is considered complete once key parameters (especially pH and conductivity) have stabilized for three successive readings.

If a disposable bailer is utilized to sample the monitoring well, the monitoring well will be purged until effectively dry and once groundwater recovers to static or near static levels, a groundwater sample will be collected.

The groundwater samples will be collected in laboratory prepared glassware and placed on ice in a cooler, which will be secured with a custody seal. The samples will be transported to HEAL in Albuquerque, New Mexico, with a completed chain-of-custody form.

5.9 Groundwater Laboratory Analytical Program

Ensolum's proposed groundwater monitoring program will consist of the collection of one groundwater sample from the monitor well network on a semiannual schedule through 2019. The initial sampling event will correspond with the installation and development of the additional groundwater monitor wells included in this plan. The purpose of the semiannual groundwater monitoring program is to document dissolved-phase COC concentrations at the Site. A summary of the analytes, sample type, and EPA-approved methods is presented in the following table:

Analytes	Sample Type	No. of Samples	EPA Method
BTEX	Groundwater	30	SW-846 8021

5.10 Stage 2 Abatement Plan Proposal

Based on the data generated from the supplemental site investigation activities and subsequent groundwater sampling event, Ensolum will complete a Stage 2 Abatement Plan Proposal. The plan will include an evaluation of the cumulative laboratory analytical data to determine the description and justification for a preferred abatement option for the Site. In addition, the Stage 2 Abatement Plan Proposal will include a modification to the groundwater monitoring program, Site maintenance activities, a proposed schedule for duration of abatement activities, and public notification proposal designed to satisfy the requirement of Subsections A through C of 19.15.30.15 NMAC.

5.11 Quality Assurance

Sampling and analytical techniques have been identified in the text above and conform with the references identified in Subsection B of 20.6.2.3107 NMAC and with 20.6.4.14 NMAC of the water quality standards for interstate and intrastate surface waters in New Mexico.

Mr. Greg Miller, Enterprise Field Services, LLC
Revised Stage 1 Abatement Plan – Lateral K-12 Y#3 Condensate Tank

May 22, 2019
Page 10

6 PROPOSED SCHEDULE

Public Notice

Enterprise will provide Public Notice within 15 days of notice from NMOCD that this Abatement Plan is administratively complete as required per NMAC 19.15.30.15. Enterprise will provide written notice of the Stage 1 Abatement Plan to the following parties:

- Surface owners of record within 1 mile of the perimeter of the identified impacted area as currently delineated in the Stage 1 Abatement Plan. The list of Landowners is provided in **Table A (Appendix C)**.
- The County Commission of Rio Arriba County, New Mexico.
- The Office of Natural Resources Trustee for the State of New Mexico.

Please note the release was not identified to be within one (1) mile of any city limits or tribal boundaries.

Enterprise understands that the NM EMNRD OCD may request additional notification to persons or entities that have requested such, as well as other local, state, or federal governmental agencies upon approval of the Stage 1 Abatement Plan.

Once approval is received, Enterprise will publish the NM EMNRD OCD approved notice in the Rio Grande Sun, a newspaper circulated in Rio Arriba County, New Mexico, and in the Albuquerque Journal, a newspaper of general circulation across the state of New Mexico. The newspaper publications will run for a cycle of one (1) business day.

Enterprise will issue the public notice via the newspapers and certified mailings within 15 days after the NM EMNRD OCD has provided determination that the Stage 1 Abatement Plan is administratively complete. Proposed verbiage for the public notice and a list of landowners within a one-mile radius are provided in **Appendix C**.

If no public comments are received within 30 days of posting public notice, Ensolum will proceed with permitting and scheduling supplemental site investigation activities.

Field Activities

The additional delineation activities are proposed to be completed before the end of July 2019. The availability of drilling and hydro excavation contractors, weather conditions and public notice will dictate the drilling schedule. Prior to any field work, Ensolum and/or Enterprise will provide the NM EMNRD OCD with 48-hour notification.

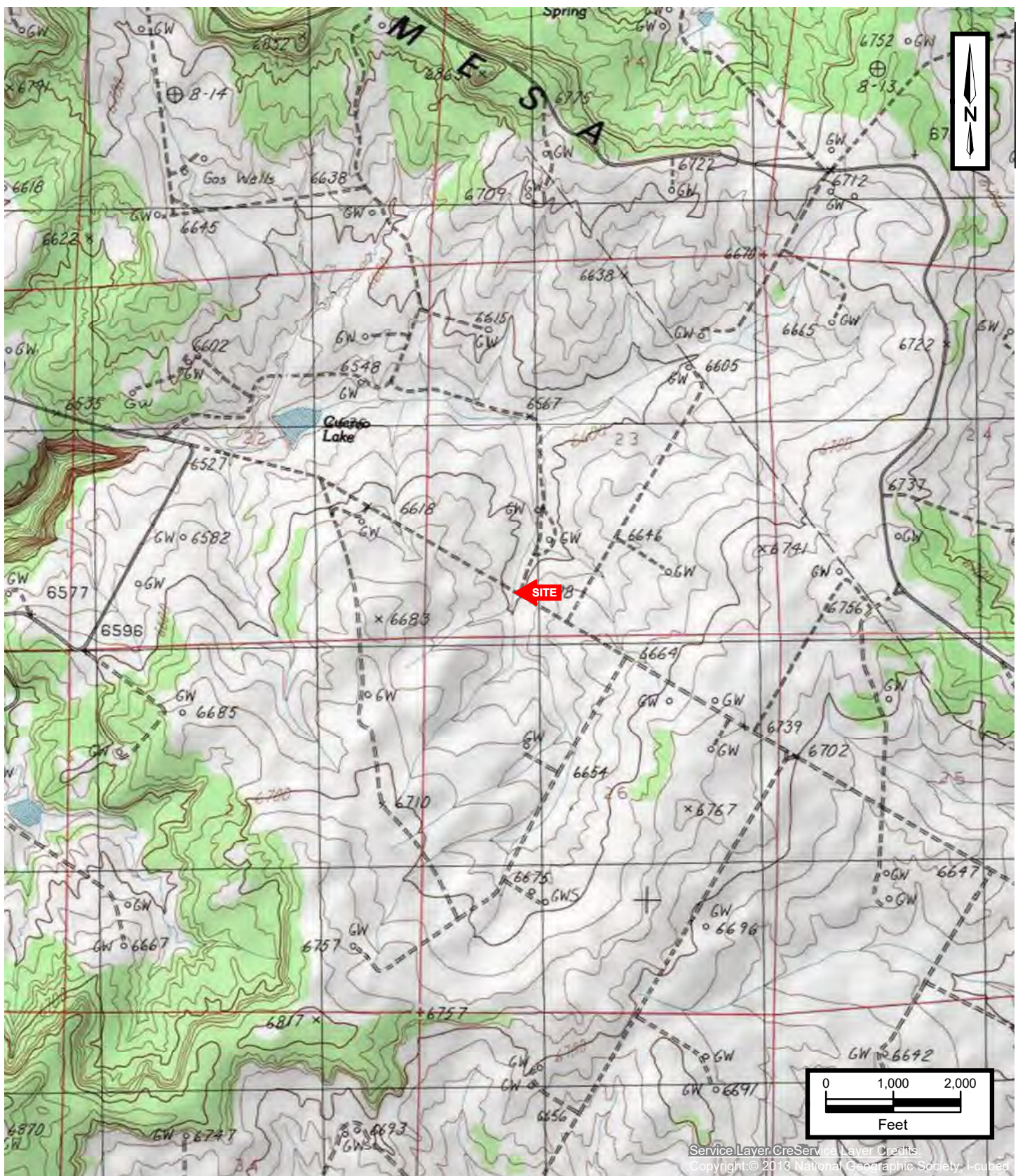
Quarterly Progress Reports

In accordance with NMAC 19.15.30.13 C. (5), Enterprise will provide the New Mexico ENMRD OCD with summary quarterly progress reports of the Stage 1 Abatement Plan implementation beginning 30 days after the approval and initiation of the Stage 1 activities. At this time the summary quarterly progress reports are anticipated to begin in July/August 2019.



APPENDIX A

Figures



ENSOLUM
Environmental & Hydrogeologic Consultants

TOPOGRAPHIC MAP

ENTERPRISE FIELD SERVICES, LLC
K-12 Y#3 CONDENSATE TANK RELEASE
SW ¼, S23 T27N R7W, Rio Arriba County, New Mexico
36.55412° N, 107.54935° W

PROJECT NUMBER: 05B1226001

FIGURE
1



ENSOLUM
Environmental & Hydrogeologic Consultants

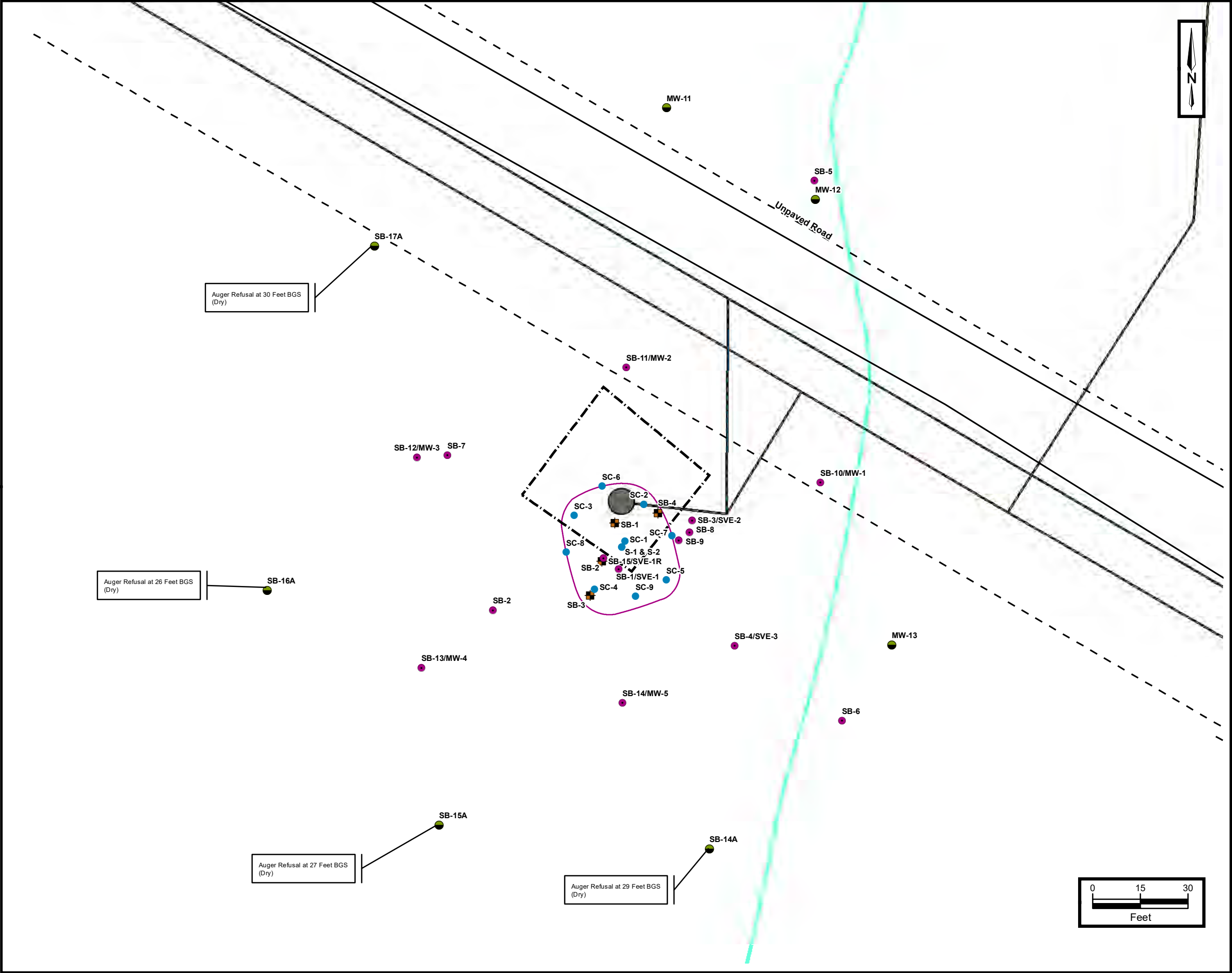
SITE VICINITY MAP

ENTERPRISE FIELD SERVICES, LLC
K-12 Y#3 CONDENSATE TANK RELEASE
SW ¼, S23 T27N R7W, Rio Arriba County, New Mexico
36.55412° N, 107.54935° W

PROJECT NUMBER: 05B1226001

FIGURE

2



SITE MAP

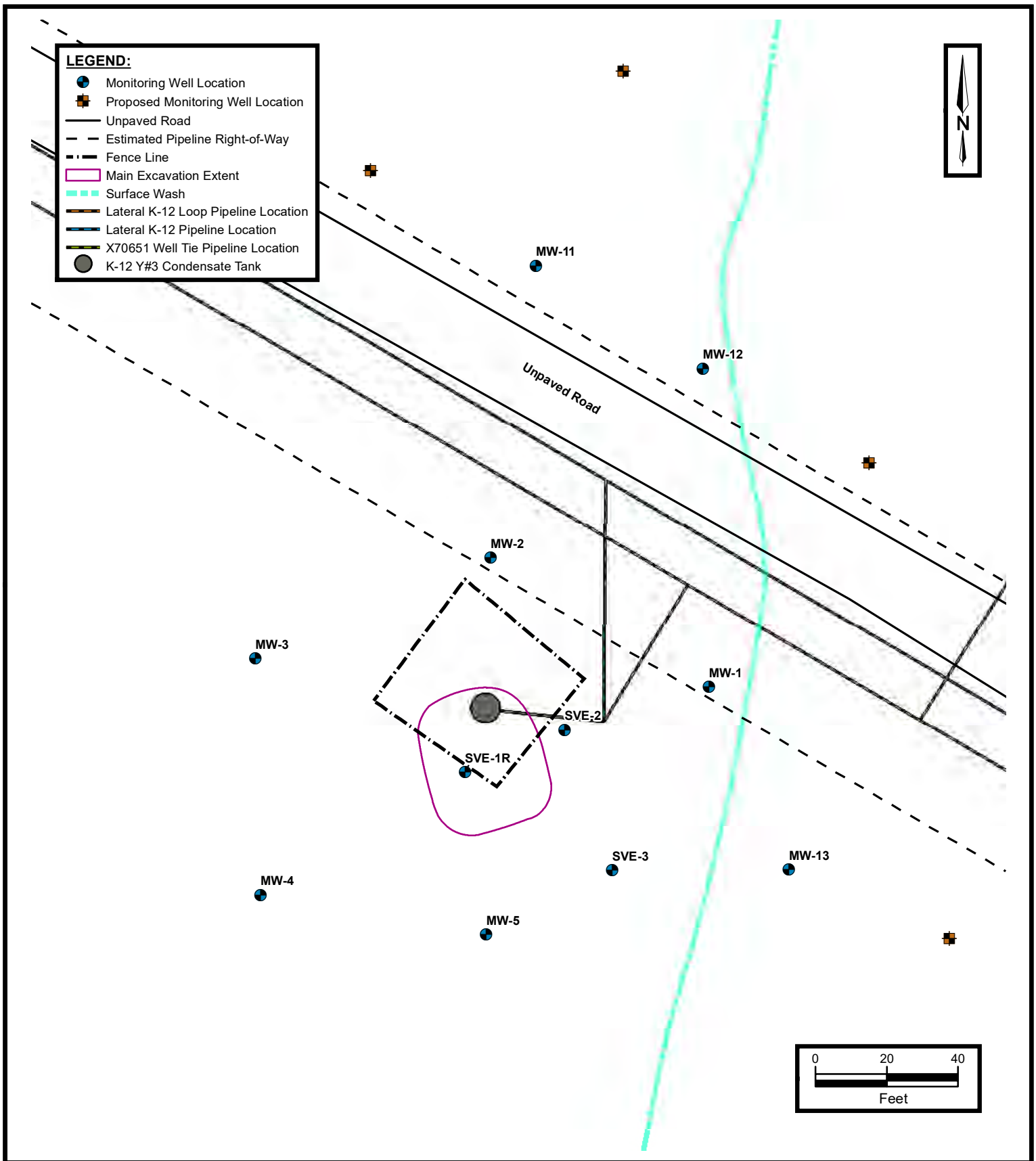
ENTERPRISE FIELD SERVICES, LLC
K-12 Y#3 CONDENSATE TANK RELEASE

SW ¼, S23 T27N R7W, Rio Arriba County, New Mexico
36.55412° N, 107.54935° W

FIGURE

3A

PROJECT NUMBER: 05B1226001

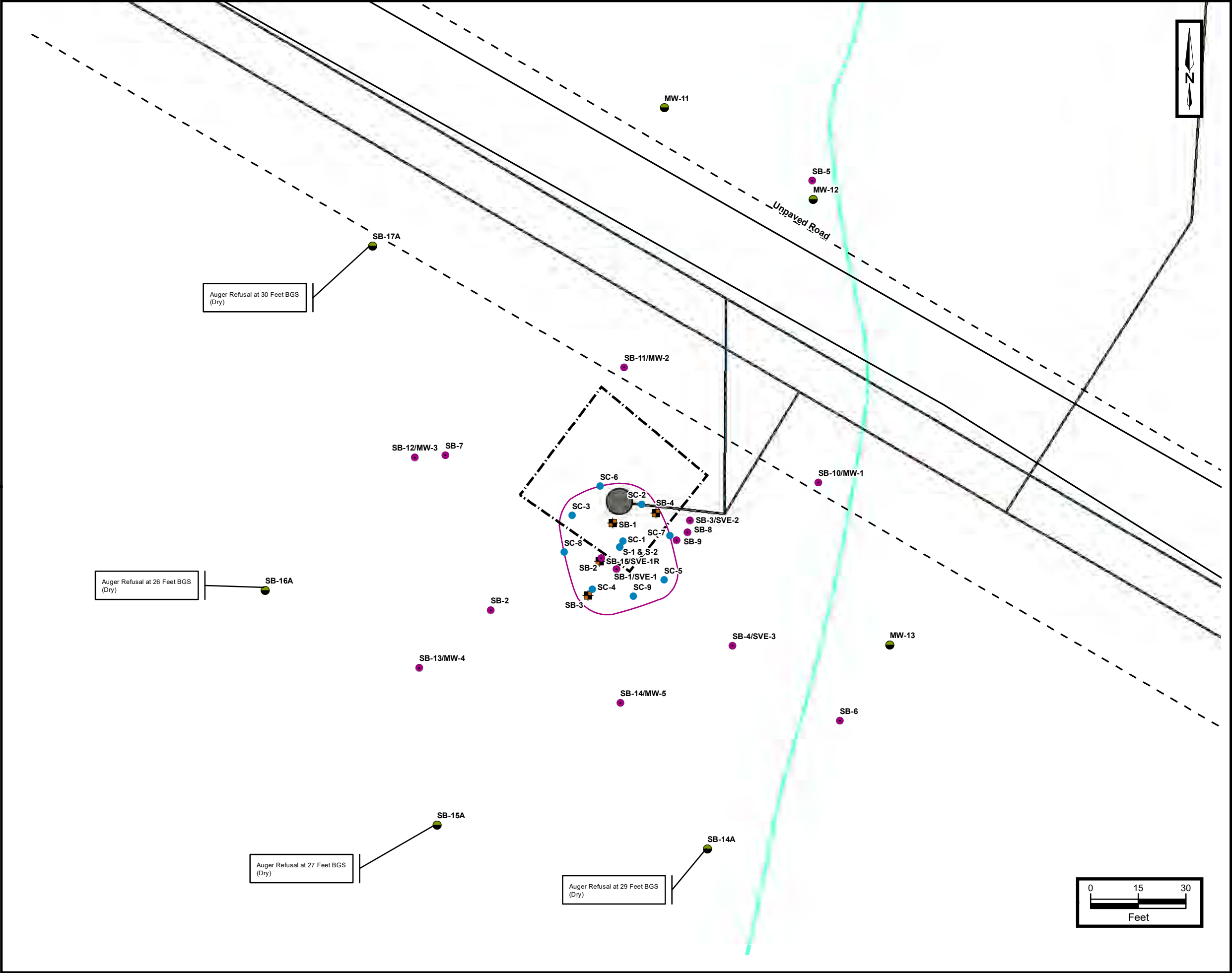


PROPOSED MONITORING WELL LOCATIONS MAP

ENTERPRISE FIELD SERVICES, LLC
K-12 Y#3 CONDENSATE TANK RELEASE
SW ¼, S23 T27N R7W, Rio Arriba County, New Mexico
36.55412° N, 107.54935° W

PROJECT NUMBER: 05B1226001

**FIGURE
3B**



- LEGEND:**
- Soil Boring Location (AES 3/2012)
 - Excavation Soil Sample Location (AES 4/2012)
 - Soil Boring Location (AES 2012-2014)
 - Soil Boring Location (Apex 2016)
 - Unpaved Road
 - Estimated Pipeline Right-of-Way
 - Fence Line
 - Main Excavation Extent
 - Surface Wash
 - Lateral K-12 Loop Pipeline Location
 - Lateral K-12 Pipeline Location
 - X70651 Well Tie Pipeline Location
 - K-12 Y#3 Condensate Tank



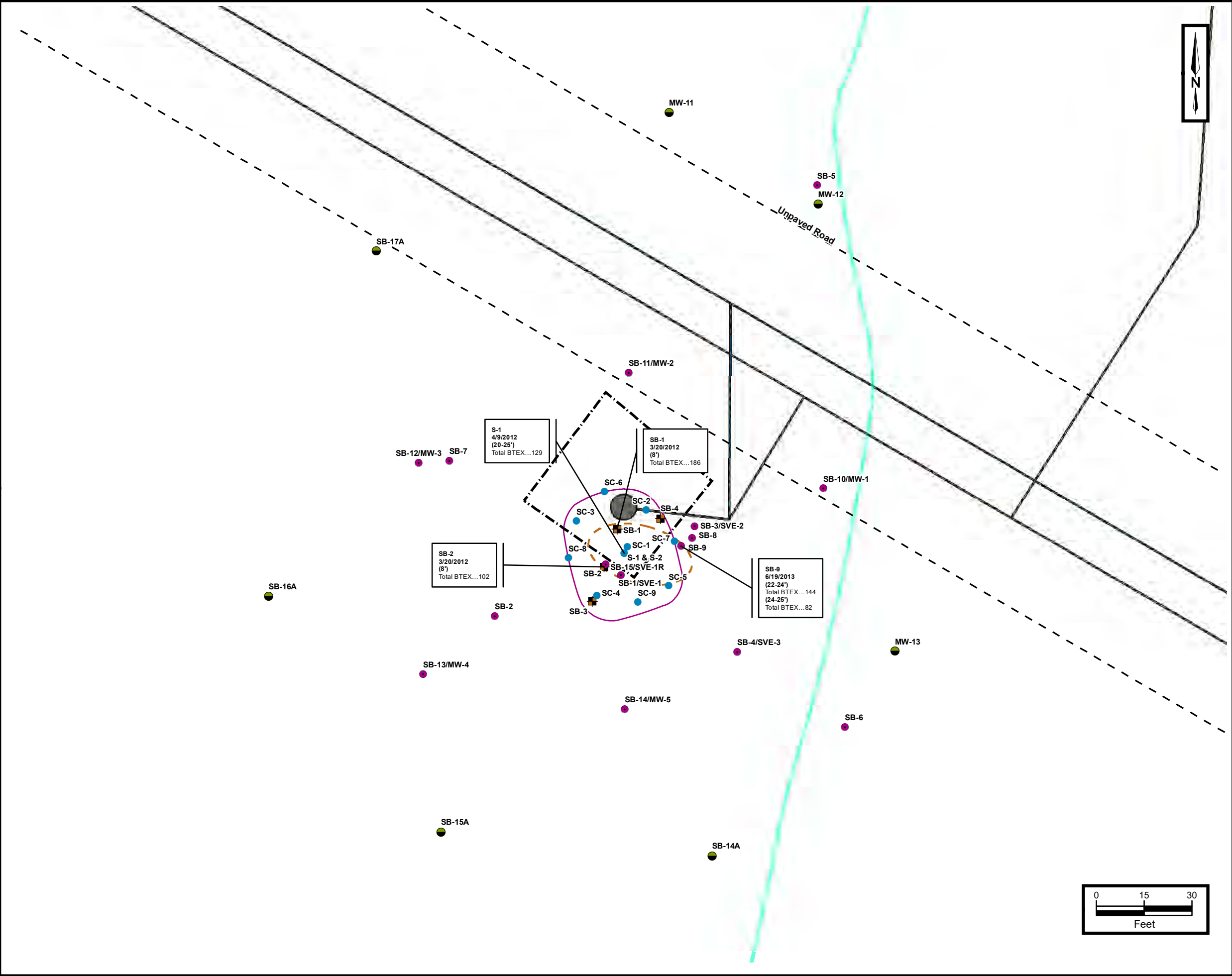
**Benzene RAL Exceedance
(0 to 25 Feet BGS)**

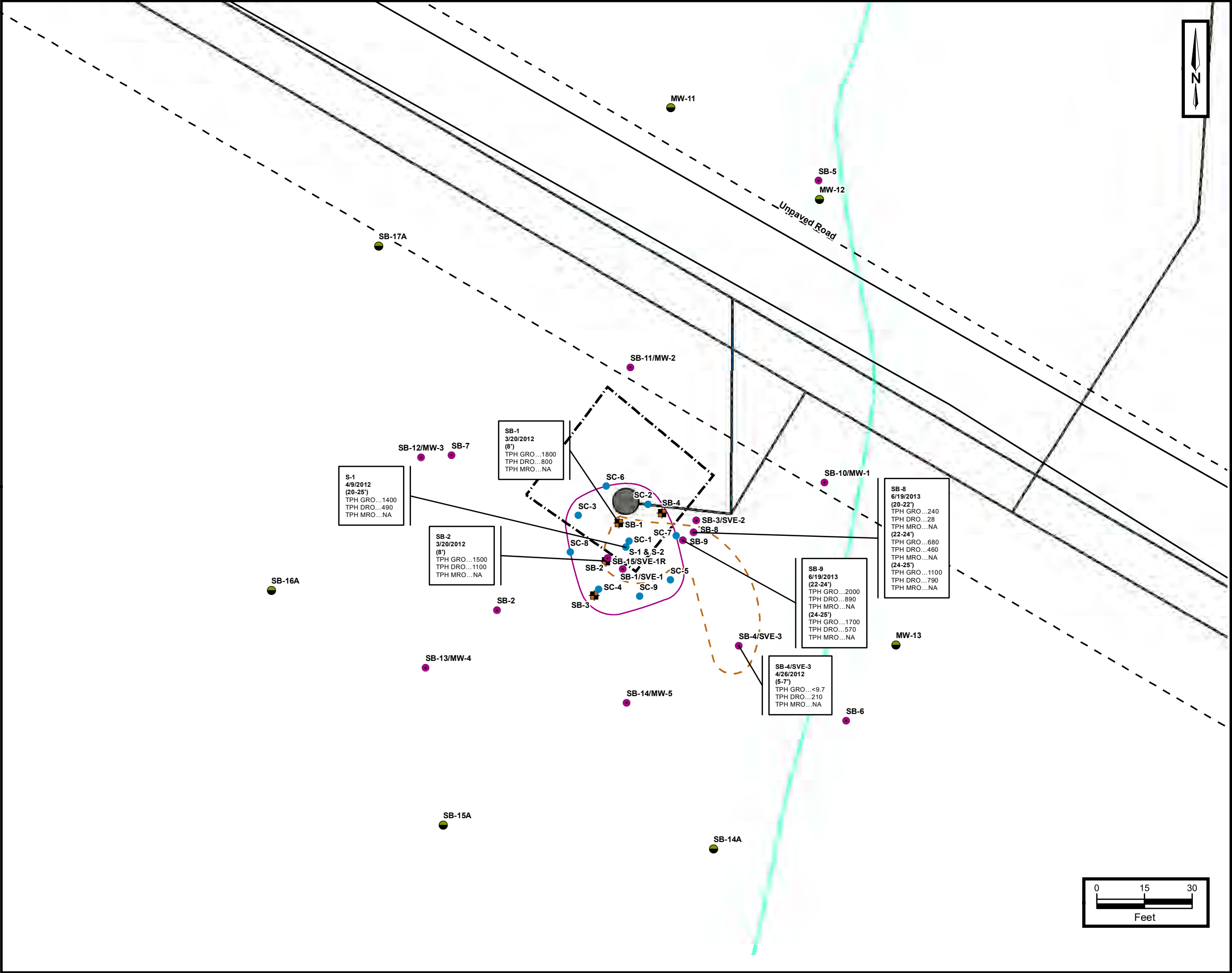
ENTERPRISE FIELD SERVICES, LLC
K-12 Y#3 CONDENSATE TANK RELEASE

SW ¼, S23 T27N R7W, Rio Arriba County, New Mexico
36.55412° N, 107.54935° W

**FIGURE
4A**

PROJECT NUMBER: 05B1226001





LEGEND:

- Soil Boring Location (AES 3/2012)
- Excavation Soil Sample Location (AES 4/2012)
- Soil Boring Location (AES 2012-2014)
- Soil Boring Location (Apex 2016)
- Approximate TPH Exceedance Zone in Soil (Vadose Zone)
- Unpaved Road
- Estimated Pipeline Right-of-Way
- Fence Line
- Main Excavation Extent
- Surface Wash
- Lateral K-12 Loop Pipeline Location
- Lateral K-12 Pipeline Location
- X70651 Well Tie Pipeline Location
- K-12 Y#3 Condensate

NOTE:

All Concentrations are Listed in mg/Kg.
All Depths are Listed in Feet BGS.



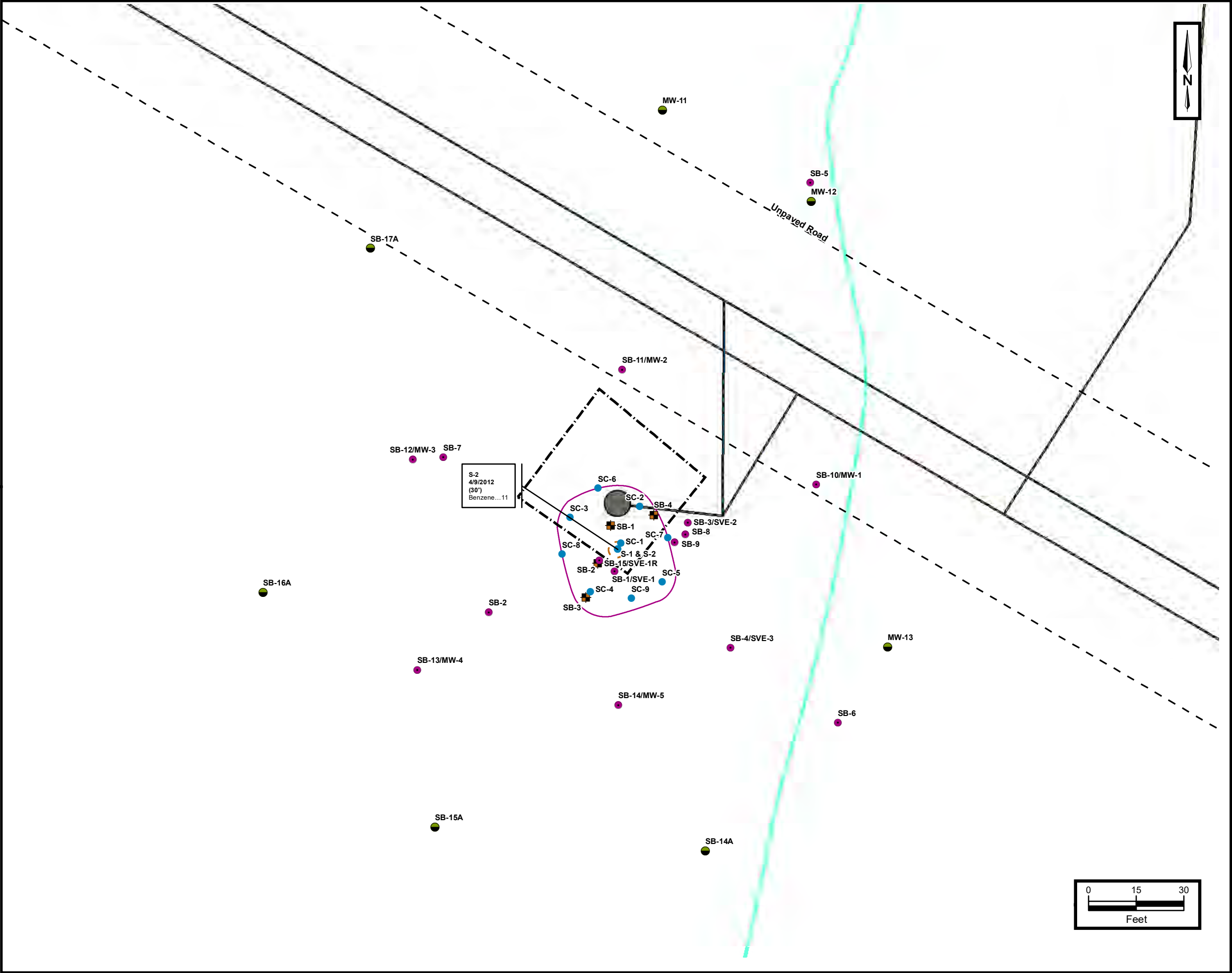
**TPH GRO/DRO/MRO RAL Exceedance
(0 to 25 Feet BGS)**

ENTERPRISE FIELD SERVICES, LLC
K-12 Y#3 CONDENSATE TANK RELEASE

SW ¼, S23 T27N R7W, Rio Arriba County, New Mexico
36.55412° N, 107.54935° W

**FIGURE
4C**

PROJECT NUMBER: 05B1226001



- LEGEND:**
- Soil Boring Location (AES 3/2012)
 - Excavation Soil Sample Location (AES 4/2012)
 - Soil Boring Location (AES 2012-2014)
 - Soil Boring Location (Apex 2016)
 - Approximate Benzene RAL Exceedance Zone in Soil (Capillary Fringe Zone)
 - Unpaved Road
 - Estimated Pipeline Right-of-Way
 - Fence Line
 - Main Excavation Extent
 - Surface Wash
 - Lateral K-12 Loop Pipeline Location
 - Lateral K-12 Pipeline Location
 - X70651 Well Tie Pipeline Location
 - K-12 Y#3 Condensate Tank

NOTE:
All Concentrations are Listed in mg/Kg.
All Depths are Listed in Feet BGS.



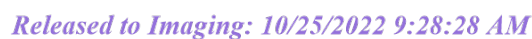
Benzene RAL Exceedance (>25 Feet BGS)

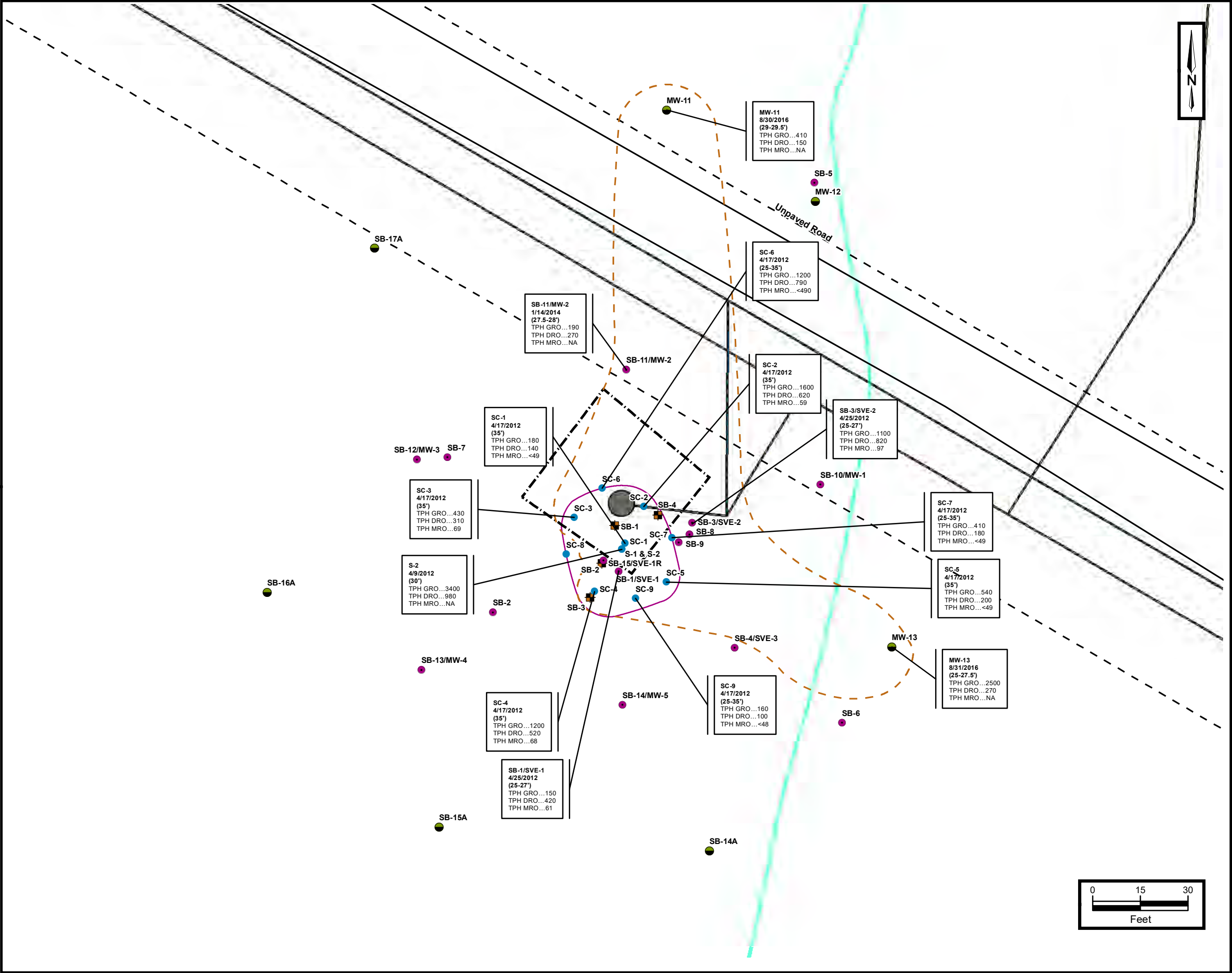
ENTERPRISE FIELD SERVICES, LLC
K-12 Y#3 CONDENSATE TANK RELEASE

SW ¼, S23 T27N R7W, Rio Arriba County, New Mexico
36.55412° N, 107.54935° W

**FIGURE
4D**

PROJECT NUMBER: 05B1226001





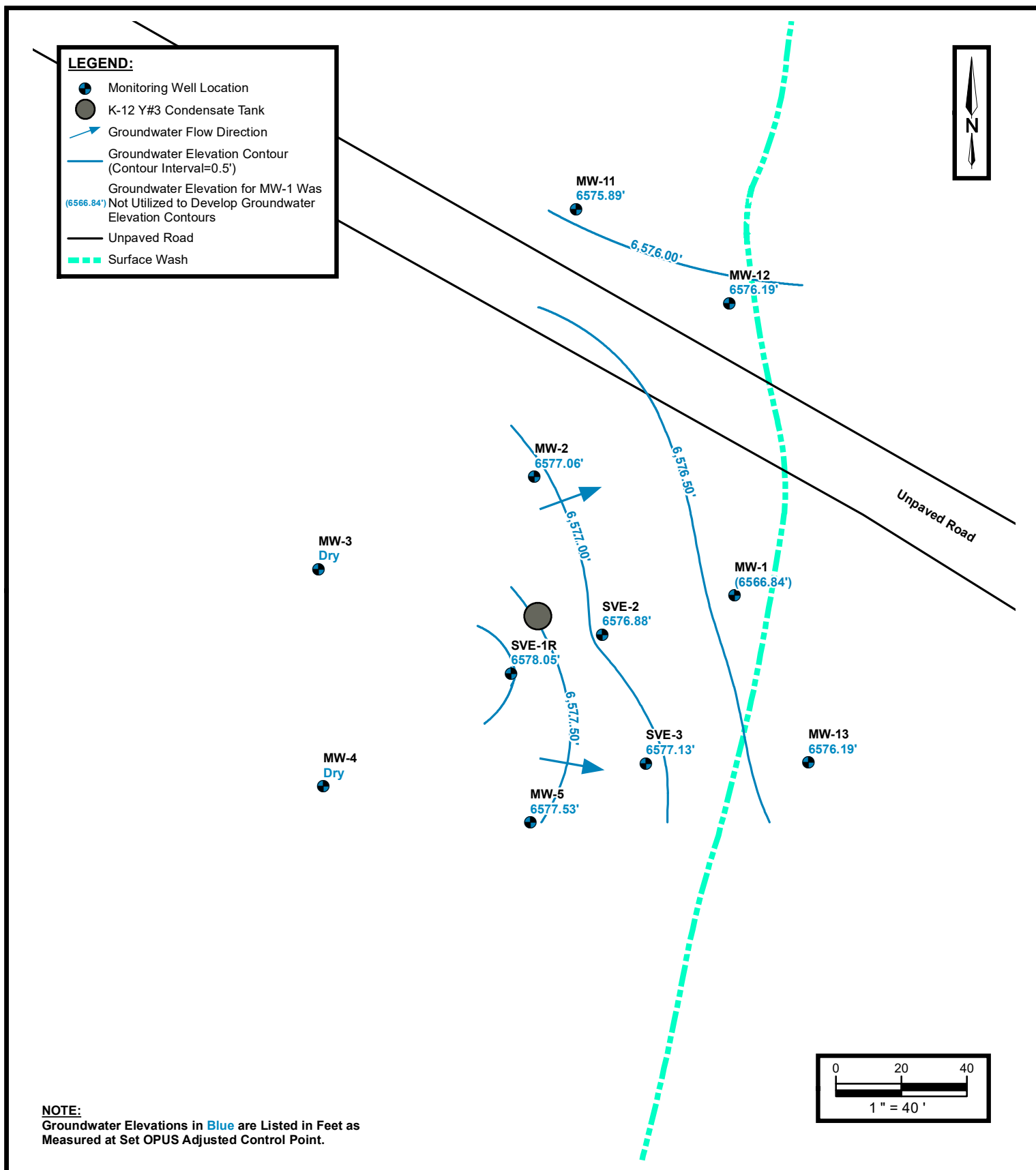
TPH GRO/DRO/MRO RAL Exceedance (>25 Feet BGS)

ENTERPRISE FIELD SERVICES, LLC
K-12 Y#3 CONDENSATE TANK RELEASE

SW ¼, S23 T27N R7W, Rio Arriba County, New Mexico
36.55412° N, 107.54935° W

FIGURE
4F

PROJECT NUMBER: 05B1226001

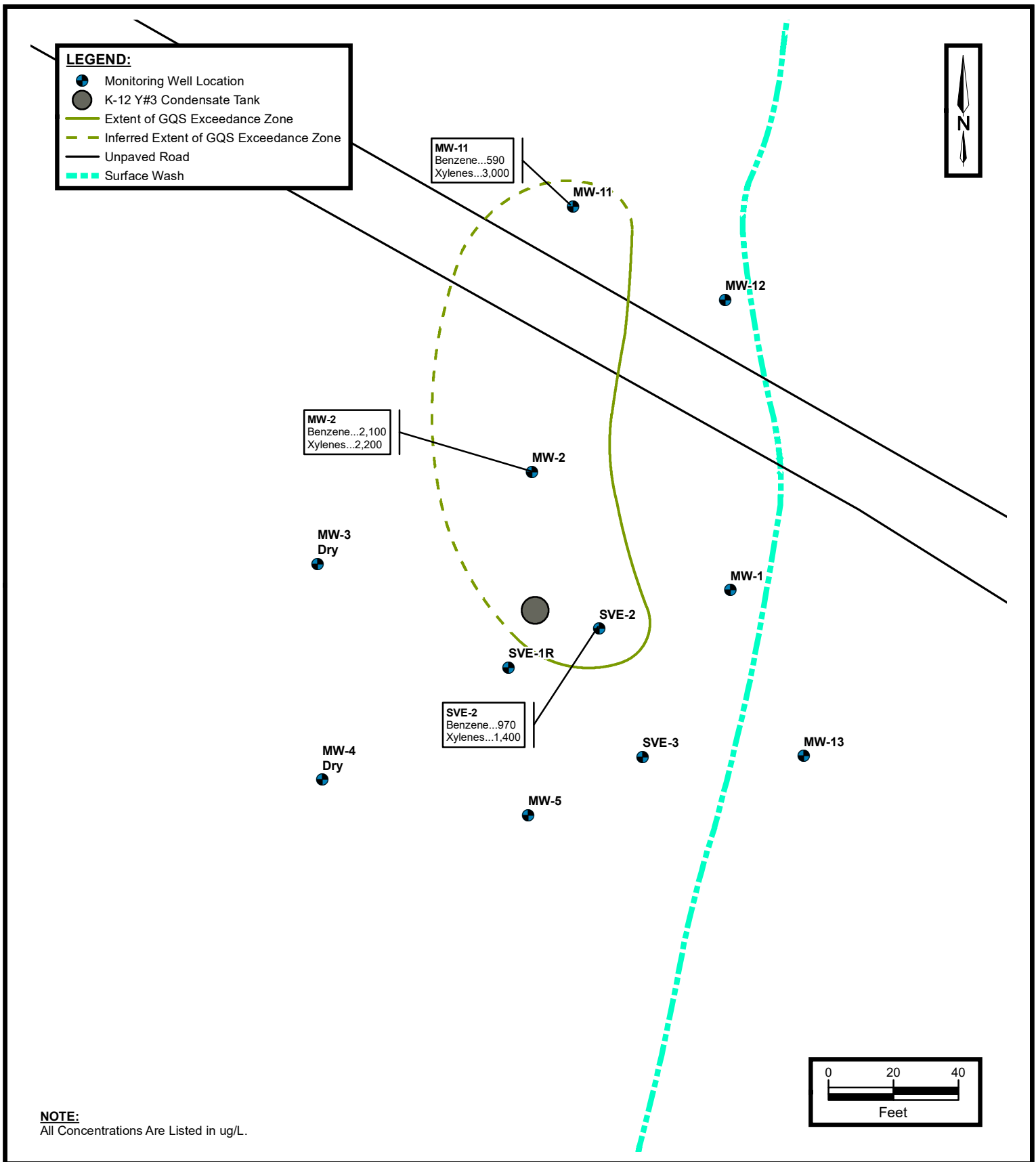


GROUNDWATER GRADIENT MAP (DECEMBER 2017)

ENTERPRISE FIELD SERVICES, LLC
K-12 Y#3 CONDENSATE TANK RELEASE
SW ¼, S23 T27N R7W, Rio Arriba County, New Mexico
36.55412° N, 107.54935° W

PROJECT NUMBER: 05B1226001

FIGURE
5A





APPENDIX B

Tables



TABLE 1
Lateral K-12 Y #3 Condensate Tank
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	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)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100			NE
Soil Borings Advanced by AES during Initial Release Assessment											
SB-1	3.20.12	8	<1.0	36	9.9	140	186	1,800	800	NA	NA
SB-2	3.20.12	8	<0.97	5.4	6.2	90	102	1,500	1,100	NA	NA
SB-3	3.20.12	8	<0.049	<0.049	<0.049	<0.098	ND	<4.9	<10	NA	NA
SB-4	3.20.12	8	<0.050	<0.050	<0.050	0.24	0.24	13	<10	NA	NA
Excavation Soil Samples Collected by AES											
S-1	4.09.12	20 to 25	3.2	18	8.1	100	129	1,400	490	NA	<30
S-2	4.09.12	30	11	86	18	210	325	3,400	980	NA	140
SC-1	4.17.12	35	<0.93	2.3	<0.93	8.4	10.7	180	140	<49	NA
SC-2	4.17.12	35	<4.7	38	8.1	110	156	1,600	620	59	NA
SC-3	4.17.12	35	<2.3	3.9	<2.3	23	27	430	310	69	NA
SC-4	4.17.12	35	<2.4	24	5.9	77	107	1,200	520	68	NA
SC-5	4.17.12	35	<0.99	6.7	2.3	27	36	540	200	<49	NA
SC-6	4.17.12	25 to 35	2.5	35	5.5	70	113	1,200	790	<490	NA
SC-7	4.17.12	25 to 35	<0.94	4.8	1.5	18	24	410	180	<49	NA
SC-8	4.17.12	25 to 35	<0.048	<0.048	<0.048	<0.095	ND	<4.8	<9.9	<50	NA
SC-9	4.17.12	25 to 35	<0.94	<0.94	<0.94	14	14	160	100	<48	NA
Soil Borings Advanced by AES											
SB-1/SVE-1	4.25.12	25 to 27	<0.47	0.97	0.59	7.8	9.4	150	420	61	NA
	4.25.12	35 to 37	<0.048	<0.048	<0.048	<0.096	ND	<4.8	<10	<52	NA
SB-2	4.25.12	15 to 17	<0.049	<0.049	<0.049	<0.098	ND	<4.9	<9.9	<49	NA
	4.25.12	25 to 27	<0.049	<0.049	<0.049	<0.098	ND	<4.9	<10	<50	NA
	4.25.12	30 to 32	<0.050	<0.050	<0.050	<0.099	ND	<5.0	<9.6	<48	NA



TABLE 1
Lateral K-12 Y #3 Condensate Tank
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	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)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100			NE
SB-3/SVE-2	4.25.12	20 to 22	<0.049	<0.049	<0.049	<0.098	ND	<4.9	<9.8	<49	NA
	4.25.12	25 to 27	<0.97	0.99	4.1	43	48	1,100	820	97	NA
	4.25.12	30 to 32	<0.050	<0.050	<0.050	<0.10	ND	<5.0	<10	<50	NA
SB-4/SVE-3	4.26.12	5 to 7	<0.097	<0.097	<0.097	<0.19	ND	<9.7	210	NA	NA
	4.26.12	25 to 27	<0.049	<0.049	<0.049	<0.099	ND	<4.9	15	NA	NA
	4.26.12	30 to 32	<0.049	<0.049	<0.049	0.37	0.37	13	<9.6	NA	NA
SB-5	4.26.12	20 to 22	<0.049	<0.049	<0.049	<0.098	ND	<4.9	<10	NA	NA
	4.26.12	25 to 27	<0.047	<0.047	<0.047	<0.095	ND	<4.7	<9.9	NA	NA
SB-6	4.30.12	15 to 17	<0.049	<0.049	<0.049	<0.099	ND	<4.9	<10	NA	NA
	4.30.12	20 to 22	<0.047	<0.047	<0.047	<0.093	ND	<4.7	<10	NA	NA
	4.30.12	25 to 27	<0.048	<0.048	<0.048	<0.097	ND	<4.8	<10	NA	NA
SB-7	4.30.12	15 to 17	<0.049	<0.049	<0.049	<0.097	ND	<4.9	<9.8	NA	NA
	4.30.12	20 to 22	<0.050	<0.050	<0.050	<0.099	ND	<5.0	<9.9	NA	NA
	4.30.12	25 to 27	<0.048	<0.048	<0.048	<0.097	ND	<4.8	<9.8	NA	NA
SB-8	6.19.13	20 to 22	<0.12	0.50	0.96	6.4	7.9	240	28	NA	NA
	6.19.13	22 to 24	0.24	1.3	2.7	19	23	680	460	NA	NA
	6.19.13	24 to 25	<0.12	0.49	4.9	33	38	1,100	790	NA	NA
SB-9	6.19.13	20 to 22	<0.093	0.12	0.27	1.9	2.3	57	29	NA	NA
	6.19.13	22 to 24	2.2	32	10	100	144	2,000	890	NA	NA
	6.19.13	24 to 25	1.2	21	7.0	53	82	1,700	570	NA	NA
SB-10/MW-1	1.14.14	24.5 to 25	<0.001	<0.001	<0.001	<0.003	ND	<0.05	<2	NA	NA
SB-11/MW-2	1.14.14	27.5 to 28	<0.006	0.05	0.3	12	12	190	270	NA	NA
SB-12/MW-3	1.15.14	16 to 17	<0.001	<0.001	<0.001	<0.003	ND	<0.05	<2	NA	NA



TABLE 1
Lateral K-12 Y #3 Condensate Tank
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	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)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100			NE
SB-13/MW-4	1.16.14	16 to 17	<0.001	0.003	<0.001	<0.004	0.003	<0.06	<2	NA	NA
	1.16.14	24 to 25	<0.001	<0.001	<0.001	<0.003	ND	<0.05	13	NA	NA
SB-14/MW-5	1.15.14	23 to 24	<0.001	<0.001	<0.001	<0.003	ND	<0.06	2	NA	NA
	1.15.14	27 to 28	<0.001	0.003	<0.001	<0.004	ND	<0.06	18	NA	NA
SB-15/SVE-1R	1.15.14	22.5 to 23.5	<0.001	<0.001	<0.001	<0.003	ND	<0.06	<2	NA	NA
Soil Borings Advanced by Apex											
MW-11	8.30.16	29 to 29.5	<0.24	<0.48	1.0	10	11	410	150	NA	NA
MW-12	8.30.16	27 to 27.5	<0.025	<0.050	<0.050	<0.099	ND	<5.0	<9.9	NA	NA
MW-13	8.31.16	25 to 27.5	0.50	6.3	5.1	35	47	2,500	270	NA	NA
SB-14A	8.31.16	25 to 26	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<9.5	NA	NA
SB-15A	8.31.16	22.5 to 25	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<9.9	NA	NA
SB-16A	9.1.16	20 to 22.5	<0.023	<0.047	<0.047	<0.093	ND	<4.7	<10	NA	NA
SB-17A	8.30.16	23 to 23.5	<0.024	<0.047	<0.047	<0.095	ND	<4.7	<10	NA	NA

Note: Concentrations in **bold** and yellow exceed the applicable OCD Remediation Action Level

mg/kg = milligram per kilogram

ND = Not Detected above the Laboratory RLs or PQLs

NE = Not established

NA = Not Analyzed

BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes

TPH = Total Petroleum Hydrocarbons

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics



TABLE 2
Lateral K-12 Y#3 Condensate Tank Release
 GROUNDWATER ANALYTICAL SUMMARY

Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH GRO (mg/L)	TPH DRO (mg/L)	TPH MRO (mg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		10	750	750	620	NE	NE	NE
Monitoring Wells Installed by AES								
SVE-1	10.8.13	Not Sampled - Damaged well screen						
SVE-1R	2.12.14	610	1,500	100	2,400	NA	NA	NA
	11.13.14	170	3.4	93	190	NA	NA	NA
	5.26.15	32	<5.0	93	59	NA	NA	NA
	12.2.15	220	69	57	180	NA	NA	NA
	6.14.16	150	<5.0	28	57	NA	NA	NA
	12.12.16	150	<5.0	64	190	3.5	1.6	<5.0
	7.06.17	63	<5.0	33	90	NA	NA	NA
	12.12.17	72	<5.0	26	72	NA	NA	NA
	6.28.18	3.8	<5.0	12	8.8	NA	NA	NA
	12.18.18*	5.6	1.9	12	38	NA	NA	NA
SVE-2	10.8.13	1,600	180	270	4,200	18	15	<5.0
	2.12.14	1,500	100	360	3,100	NA	NA	NA
	11.13.14	1,300	110	270	1,900	NA	NA	NA
	5.27.15	1,600	<50	340	2,300	NA	NA	NA
	12.2.15	1,200	<50	280	2,400	NA	NA	NA
	6.14.16	1,200	<50	250	2,500	NA	NA	NA
	12.12.16	1,100	<50	330	3,200	16	13	<5.0
	7.06.17	810	<50	190	1,900	NA	NA	NA
	12.13.17	1,100	<50	200	1,800	NA	NA	NA
	6.28.18	1,200	<50	250	2,100	NA	NA	NA
	12.18.18*	970	<50	170	1,400	NA	NA	NA
SVE-3	10.8.13	110	450	210	2,000	20	9.3	<5.0
	2.12.14	78	170	160	1,500	NA	NA	NA
	11.13.14	12	6.5	68	140	NA	NA	NA
	5.26.15	3.2	<5.0	100	<10	NA	NA	NA
	12.2.15	<5.0	<5.0	91	<10	NA	NA	NA
	6.14.16	<5.0	<5.0	78	57	NA	NA	NA
	12.12.16	14	<5.0	95	140	8.1	5.5	<5.0
	7.06.17	6.7	<5.0	110	170	NA	NA	NA
	12.12.17	3.8	<2.5	42	11	NA	NA	NA
	6.28.18	3.7	<5.0	60	11	NA	NA	NA
	12.18.18*	9.3	5.6	110	150	NA	NA	NA
MW-1	2.12.14	<1	<1	<1	<3	NA	NA	NA
	11.13.14	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	5.26.15	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.2.15	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	6.14.16	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.12.16	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
	7.06.17	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.12.17	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
	6.28.18	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
	12.18.18*	<1.0	<1.0	<1.0	<2.0	NA	NA	NA



TABLE 2 Lateral K-12 Y#3 Condensate Tank Release GROUNDWATER ANALYTICAL SUMMARY								
Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH GRO (mg/L)	TPH DRO (mg/L)	TPH MRO (mg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		10	750	750	620	NE	NE	NE
MW-2	2.12.14	2,300	1,500	350	3,600	NA	NA	NA
	11.13.14	1,600	520	220	2,500	NA	NA	NA
	5.27.15	2,600	530	370	3,600	NA	NA	NA
	12.2.15	980	<50	240	2,600	NA	NA	NA
	6.14.16	1,800	<50	380	4,500	NA	NA	NA
	12.12.16	2,800	<50	390	4,700	26	7.1	<5.0
	7.06.17	2,100	<50	410	4,800	NA	NA	NA
	12.13.17	1,300	<50	160	1,800	NA	NA	NA
	6.28.18	1,700	<50	240	2,500	NA	NA	NA
	12.18.18*	2,100	<50	210	2,200	NA	NA	NA
MW-3	2.12.14	Not Sampled - Well Dry						
	11.13.14							
	5.26.15							
	12.2.15							
	6.14.16							
	12.12.16							
	7.06.17							
	12.12.17							
	6.28.18							
	12.18.18*							
MW-4	2.12.14	Not Sampled - Well Dry						
	11.13.14							
	5.26.15							
	12.2.15							
	6.14.16							
	12.12.16							
	7.06.17							
	12.12.17							
	6.28.18							
	12.18.18*							
MW-5	2.12.14	1,100	2,900	220	1,900	NA	NA	NA
	11.13.14	Not Sampled - Insufficient volume to collect sample						
	5.26.15							
	12.2.15							
	6.14.16							
	12.12.16							
	7.06.17							
	12.13.17							
	6.28.18							
	12.18.18*							



TABLE 2 Lateral K-12 Y#3 Condensate Tank Release GROUNDWATER ANALYTICAL SUMMARY								
Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH GRO (mg/L)	TPH DRO (mg/L)	TPH MRO (mg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		10	750	750	620	NE	NE	NE
Monitoring Wells Installed by APEX								
MW-11	9.22.16	320	240	300	3,700	NA	NA	NA
	12.12.16	430	140	450	5,000	23	1.4	<5.0
	7.06.17	390	110	390	4,200	NA	NA	NA
	12.12.17	520	170	310	3,100	NA	NA	NA
	6.28.18	590	320	350	3,400	NA	NA	NA
	12.18.18*	590	<50	280	3,000	NA	NA	NA
MW-12	9.22.16	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.12.16	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0
	7.06.17	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
	12.12.17	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
	6.28.18	<1.0	<1.0	<1.0	<1.5	NA	NA	NA
	12.18.18*	<1.0	<1.0	<1.0	<2.0	NA	NA	NA
MW-13	9.22.16	150	1,600	270	2,400	NA	NA	NA
	01.06.17	120	660	53	880	NA	NA	NA
	7.06.17	55	290	46	470	NA	NA	NA
	12.12.17	58	110	19	150	NA	NA	NA
	6.28.18	8.5	7.5	5.9	36	NA	NA	NA
	12.18.18*	<1.0	<1.0	<1.0	<2.0	NA	NA	NA

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

* Interface probe malfunction during sampling event. Site gauged on 1/21/19

µg/L = microgram per liter

mg/L = milligram per liter

NA = Not Analyzed

NE = Not Established

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics

<1.0= the numeral (in this case "1.0") identifies the laboratory reporting or practical quantitation limit



TABLE 3 Lateral K-12 Y#3 Condensate Tank Release GROUNDWATER ELEVATIONS						
Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation (feet AMSL)
SVE-1	10.08.13	ND	27.46	ND	NA	NA
SVE-1R*	02.12.14	ND	29.06	ND	6606.09	6577.03
	11.13.14	ND	30.05	ND		6576.04
	5.26.15	ND	29.27	ND		6576.82
	12.02.15	ND	28.06	ND		6578.03
	6.14.16	ND	28.05	ND		6578.04
	9.22.16	ND	28.10	ND	6606.40	6578.30
	12.12.16	ND	28.15	ND		6578.25
	7.06.17	ND	28.24	ND		6578.16
	12.12.17	ND	28.35	ND		6578.05
	6.28.18	ND	28.80	ND		6577.60
	1.21.19**	ND	28.81	ND		6577.59
SVE-2*	10.08.13	ND	28.00	ND	6605.82	6577.82
	02.12.14	ND	29.39	ND		6576.43
	11.13.14	ND	29.42	ND		6576.40
	5.26.15	ND	29.86	ND		6575.96
	12.02.15	ND	28.74	ND		6577.08
	6.14.16	ND	28.58	ND		6577.24
	9.22.16	ND	28.77	ND	6606.38	6577.61
	12.12.16	ND	28.74	ND		6577.64
	7.06.17	ND	29.26	ND		6577.12
	12.12.17	ND	29.50	ND		6576.88
	6.28.18	ND	30.05	ND		6576.33
	1.21.19**	ND	29.82	ND		6576.56
SVE-3*	10.08.13	ND	31.85	ND	6607.46	6575.61
	02.12.14	ND	29.98	ND		6577.48
	11.13.14	ND	29.54	ND		6577.92
	5.26.15	ND	30.93	ND		6576.53
	12.02.15	ND	30.49	ND		6576.97
	6.14.16	ND	30.37	ND		6577.09
	9.22.16	ND	30.50	ND	6607.92	6577.42
	12.12.16	ND	30.28	ND		6577.64
	7.06.17	ND	31.77	ND		6576.15
	12.12.17	ND	30.79	ND		6577.13
	6.28.18	ND	31.08	ND		6576.84
	1.21.19**	ND	30.91	ND		6577.01
MW-1*	02.12.14	ND	40.95	ND	6606.53	6565.58
	11.13.14	ND	38.45	ND		6568.08
	5.26.15	ND	38.78	ND		6567.75
	12.02.15	ND	39.53	ND		6567.00
	6.14.16	ND	39.97	ND		6566.56
	9.22.16	ND	39.91	ND	6607.05	6567.14
	12.12.16	ND	39.58	ND		6567.47
	7.06.17	ND	40.28	ND		6566.77
	12.12.17	ND	40.21	ND		6566.84
	6.28.18	ND	40.27	ND		6566.78
	1.21.19**	ND	39.69	ND		6567.36



TABLE 3 Lateral K-12 Y#3 Condensate Tank Release GROUNDWATER ELEVATIONS						
Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation (feet AMSL)
MW-2*	02.12.14	ND	28.79	ND	6605.80	6577.01
	11.13.14	ND	29.27	ND		6576.53
	5.26.15	ND	29.45	ND		6576.35
	12.02.15	ND	28.28	ND		6577.52
	6.14.16	ND	28.37	ND		6577.43
	9.22.16	ND	28.62	ND	6606.28	6577.66
	12.12.16	ND	28.70	ND		6577.58
	7.06.17	ND	29.00	ND		6577.28
	12.12.17	ND	29.22	ND		6577.06
	6.28.18	ND	29.61	ND		6576.67
	1.21.19**	ND	29.35	ND		6576.93
MW-3*	02.12.14	ND	DRY	ND	6607.53	DRY
	11.13.14	ND	DRY	ND		DRY
	5.26.15	ND	DRY	ND		DRY
	12.02.15	ND	DRY	ND		DRY
	6.14.16	ND	DRY	ND		DRY
	9.22.16	ND	DRY	ND	6608.04	DRY
	12.12.16	ND	DRY	ND		DRY
	7.06.17	ND	DRY	ND		DRY
	12.12.17	ND	DRY	ND		DRY
	6.28.18	ND	DRY	ND		DRY
	1.21.19**	ND	DRY	ND		DRY
MW-4*	02.12.14	ND	DRY	ND	6609.20	DRY
	11.13.14	ND	DRY	ND		DRY
	5.26.15	ND	DRY	ND		DRY
	12.02.15	ND	DRY	ND		DRY
	6.14.16	ND	DRY	ND		DRY
	9.22.16	ND	DRY	ND	6609.66	DRY
	12.12.16	ND	DRY	ND		DRY
	7.06.17	ND	DRY	ND		DRY
	12.12.17	ND	DRY	ND		DRY
	6.28.18	ND	DRY	ND		DRY
	1.21.19**	ND	DRY	ND		DRY
MW-5*	02.12.14	ND	29.87	ND	6607.11	6577.24
	11.13.14	ND	30.04	ND		6577.07
	5.26.15	ND	DRY	ND		DRY
	12.02.15	ND	DRY	ND		DRY
	6.14.16	ND	DRY	ND		DRY
	9.22.16	ND	30.04	ND	6607.59	6577.55
	12.12.16	ND	30.50	ND		6577.09
	7.06.17	ND	30.05	ND		6577.54
	12.12.17	ND	30.06	ND		6577.53
	6.28.18	ND	30.50	ND		6577.09
	1.21.19**	ND	30.49	ND		6577.10



TABLE 3 Lateral K-12 Y#3 Condensate Tank Release GROUNDWATER ELEVATIONS						
Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation (feet AMSL)
MW-11	9.22.16	ND	27.71	ND	6604.64	6576.93
	12.12.16	ND	27.65	ND		6576.99
	7.06.17	ND	28.25	ND		6576.39
	12.12.17	ND	28.75	ND		6575.89
	6.28.18	ND	29.18	ND		6575.46
	1.21.19**	ND	28.41	ND		6576.23
MW-12	9.22.16	ND	27.71	ND	6605.01	6577.30
	12.12.16	ND	27.60	ND		6577.41
	7.06.17	ND	28.32	ND		6576.69
	12.12.17	ND	28.82	ND		6576.19
	6.28.18	ND	29.23	ND		6575.78
	1.21.19**	ND	28.22	ND		6576.79
MW-13	9.22.16	ND	33.60	ND	6607.61	6574.01
	12.12.16	ND	35.10	ND		6572.51
	7.06.17	ND	31.47	ND		6576.14
	12.12.17	ND	31.42	ND		6576.19
	6.28.18	ND	31.65	ND		6575.96
	1.21.19**	ND	31.81	ND		6575.80

*Monitoring well resurveyed on 9/27/16.

** Interface probe malfunction during sampling event. Site gauged on 1/21/19

BTOC - below top of casing

AMSL - above mean sea level

TOC - top of casing

ND - Not detected

NA - Not applicable



APPENDIX C

Public Notice and Landowner Table

Enterprise proposes the following verbiage for public notice:

Enterprise Field Services, LLC (Enterprise) hereby announces the publication of a Stage 1 Abatement Plan for soil and groundwater impacts identified at the Lateral K-12 Y#3 condensate tank release site located within the southwest (SW) 1/4 of Section 23, Township 27 North, Range 7 West, in Rio Arriba County, New Mexico (36.55412N, 107.54935W).

On March 19, 2012, a natural gas condensate release, estimated at less than one (1) barrel (bbl), occurred as a result of overfilling the condensate tank. Initial response activities were implemented to remediate hydrocarbon impacts at the site. Subsurface investigations concluded that soil and groundwater impacts were present above applicable New Mexico (NM) Energy, Minerals and Natural Resource Department (EMNRD) Oil Conservation Division (OCD) standards for soil and Water Quality Control Commission (WQCC) standards for groundwater. Soil remediation has been initiated at the site. No surface water was impacted.

The Director of the NM EMNRD OCD has approved a Stage 1 Abatement Plan in which Enterprise proposes to confirm delineation through the installation of soil borings that will be converted to monitoring wells at the site. Groundwater will be sampled subsequent to the installation of monitoring wells. The data obtained from the Stage 1 Abatement Plan activities will be evaluated to determine a preferred abatement plan remediation option at the site. In order to determine that the Stage 1 Abatement Plan is administratively complete, the NM EMNRD OCD Director has complied with Subsection B of 19.15.30.15 of the New Mexico Administrative Code (NMAC) by reviewing the document and concluding that it satisfies the requirements of Subsection C of 19.15.30.13 NMAC.

Members of the public may view a copy of the Stage 1 Abatement Plan at the NM EMNRD OCD's Santa Fe office located at 1220 South St Francis Drive, #3, Santa Fe, New Mexico or at the NM EMNRD OCD's district office at 1000 Rio Brazos Road, Aztec, New Mexico. Additionally, the Stage 1 Abatement Plan is available for viewing electronically on the NM EMNRD OCD public database at <http://www.emnrd.state.nm.us/OCD/>.

The NM EMNRD OCD is accepting written comments and requests for consideration if they are received within 30 days after the publication date of this public notice. Any person seeking to comment on a Stage 1 Abatement Plan should submit written comments to:

Mr. Corey Smith
Environmental Specialist
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

The NM ENMRD OCD shall distribute notice of the submittal of the Stage 1 Abatement Plan with the next division and commission hearing docket following receipt of the plan.

Additional information can be obtained from the Enterprise project contact:

Gregory E. Miller, P.G.
Supervisor, Environmental
1100 Louisiana Street
Houston, Texas 77002-5227
(713) 381-8780

Table A
Property Owners Within One (1) Mile Radius

Lateral K-12 Y #3 Pipeline Release (2012)
Rio Arriba County, New Mexico
Enterprise Field Services, LLC

Parcel Number	Owner Name	Owner Address	Owner City, State, Zip Code
No Parcel Number	Federal	6251 College Blvd., Suite A	Farmington, NM 87402

State of New Mexico
Energy, Minerals and Natural Resources Department

Michele Lujan Grisham
Governor

Sarah Cottrell Propst
Cabinet Secretary

Todd E. Leahy, JD, PhD
Deputy Cabinet Secretary

Adrienne Sandoval
Director, Oil Conservation Division



Greg E Miller
Enterprise Field Services, LLC
PO Box 4324
Houston, TX 77210

RE: Determination of Administratively Complete Stage 1 Abatement Plan & Public Notice and Participation for the Lateral K-12 Y#3 Condensate Tank Site (Incident #: NJK1211037846) 3RP-459 & AP-132

Mr. Miller,

The Oil Conservation Division (OCD) received a Stage 1 Abatement Plan as well as a Proposed Public Notice and Participation submittal prepared on Enterprise Field Services, LLC's behalf by Ensolum, LLC.

OCD has reviewed the plan and determined it to be administratively complete.

In addition, OCD also approves the proposed draft of the Public Notice and Participation Proposal. The required public notice and participation should now proceed under the provisions of Subsections A and B of 19.15.30.15 NMAC. Proof of Public Notice must be provided to the OCD.

The division shall distribute notice of an abatement plan's filing with the next division and commission hearing docket following the plan's receipt.

OCD's approval of the Stage 1 Abatement Plan does not relieve Enterprise of any other requirements imposed by any other regulatory agencies.

If you have any questions, please contact Nelson Velez of the Environmental Incident Group at (505) 469-6146 or by email at nelson.velez@emnrd.nm.gov.

Respectfully,

Adrienne Sandoval
Division Director
AES/njv

Date: 10/20/2022

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 146795

CONDITIONS

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID:
	241602
	Action Number:
	146795
Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)	

CONDITIONS

Created By	Condition	Condition Date
nvelez	1. See OCD Approval Letter at end of Stage 1 Abatement Plan Proposal document. 2. Adhere to 19.15.30.15B within 15 days from date of review (10/25/2022) for ST1-AP approval. 3. Adhere to 2021 Annual Report Recommendations. 4. Submit next annual groundwater report no later than March 31, 2023.	10/25/2022