REVIEWED
By Nelson Velez at 9:20 am, Mar 10, 2022

ENSOLUM

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

Review of 2019 Groundwater Monitoring Report (GMR): **Content satisfactory**

1. Continue monitoring and sampling on semi-annual basis those wells exceeding any specified constituents of concern previously identified & addressed under 20.6.2.3103.
2. OCD pre-approves any voluntary modifications toward delineation until OCD reviews and addresses submitted Stage 1 Abatement Plan requesting it to be administratively complete.
2. Submit annual reporting no later than March 31, 2023.

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

ENSOLUM

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

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.

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

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 2x10-6 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 5x10-8 m/sec, which is equivalent to approximately 0.014ft/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 ENMRD 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.

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

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**.

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;

- 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.

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.

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.

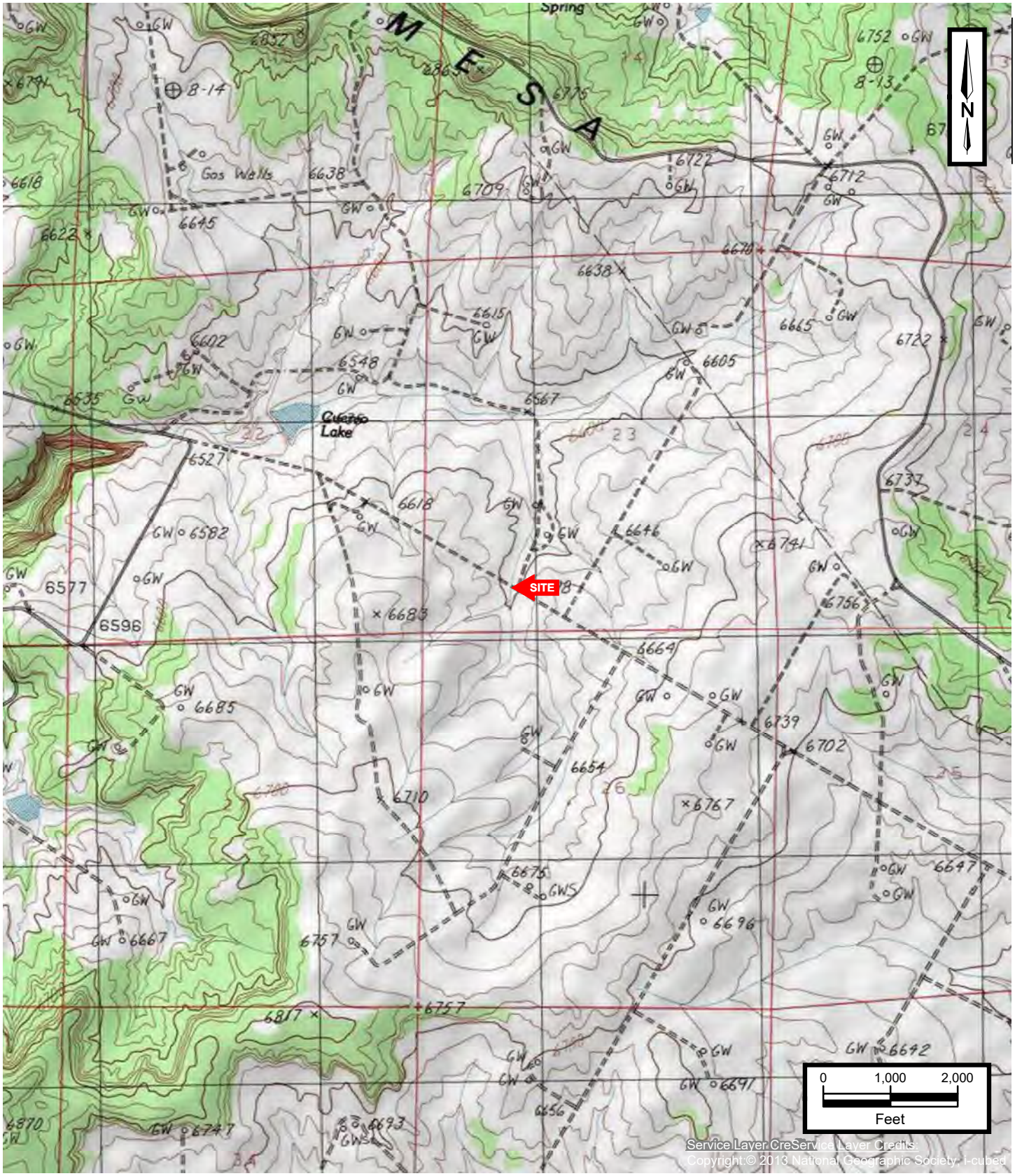
Quarterly Progress Reports

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.

ENSOLUM

APPENDIX A

Figures



ENSOLUM
Environmental & Hydrogeologic Consultants

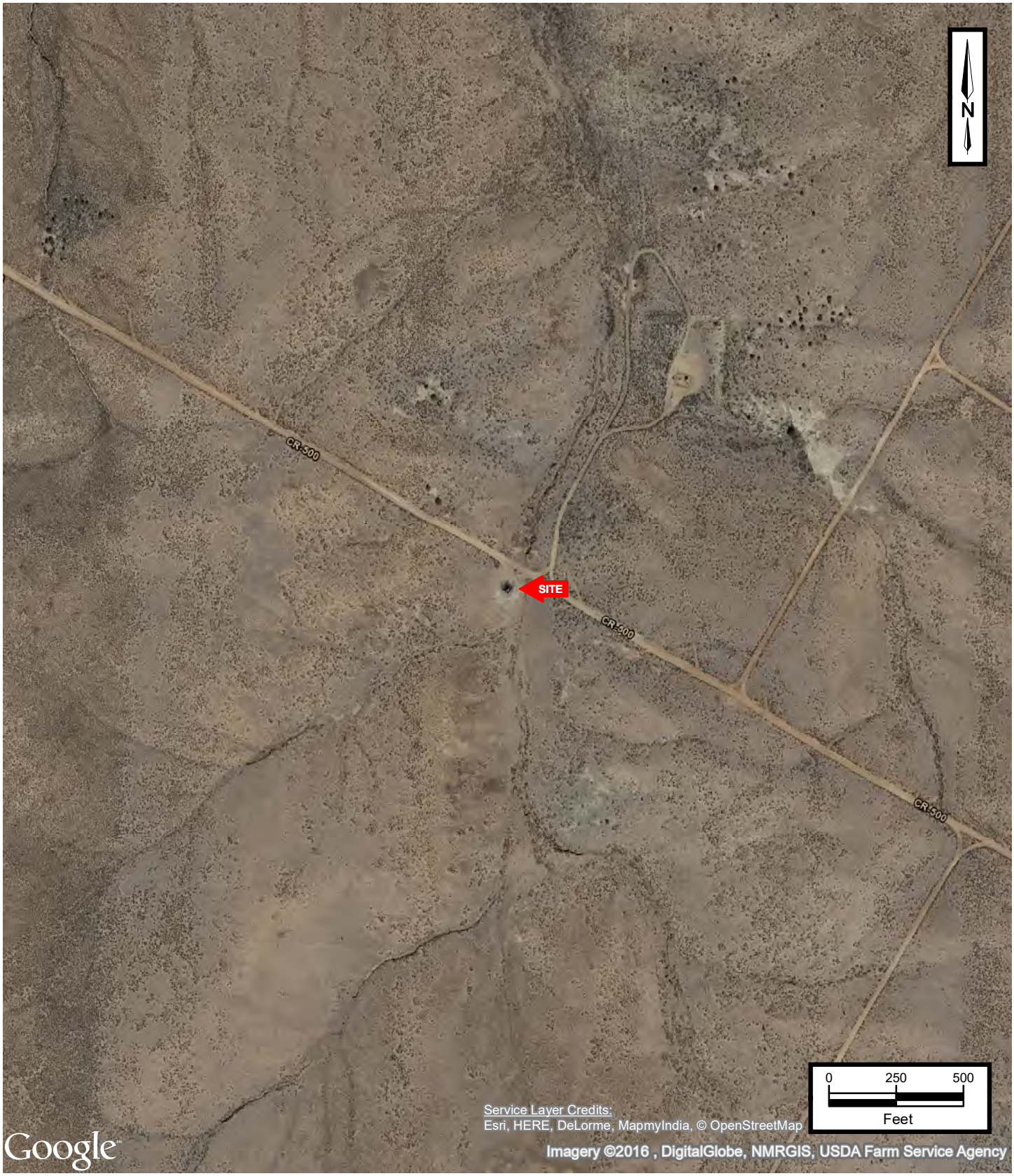
TOPOGRAPHIC MAP

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



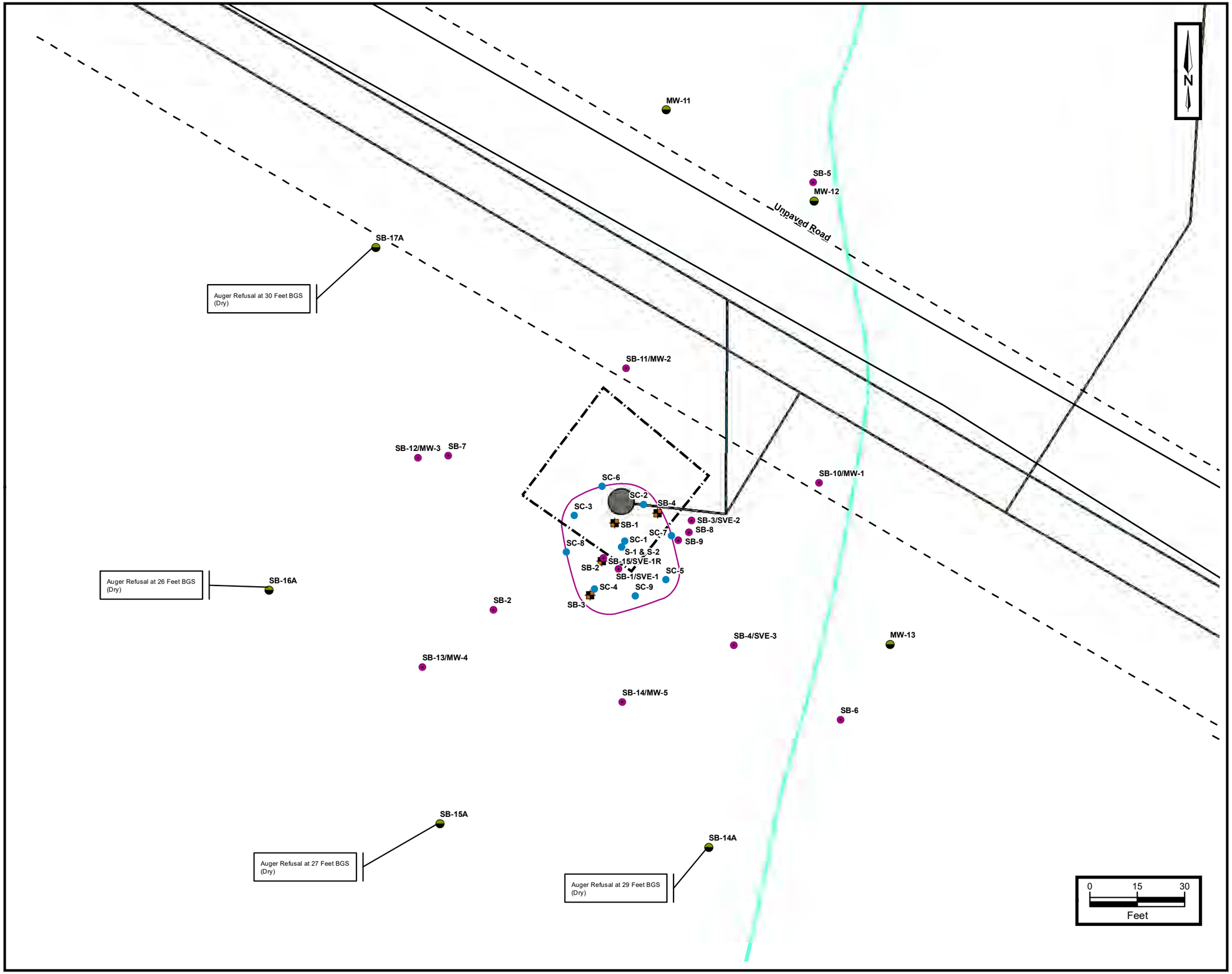
ENSOLUM
Environmental & Hydrogeologic Consultants

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



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

ENSOLUM
Environmental & Hydrogeologic Consultants

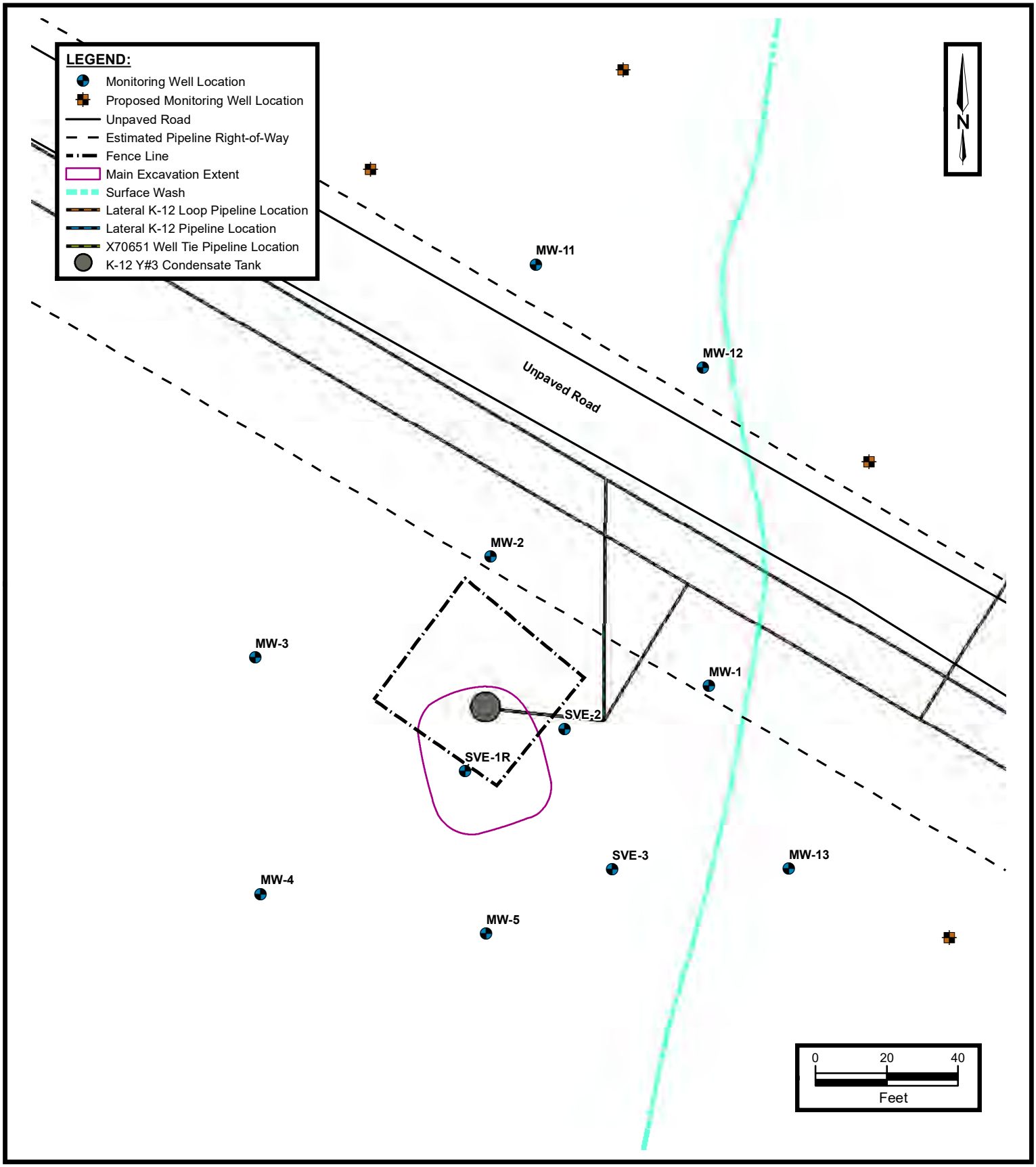
SITE MAP

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



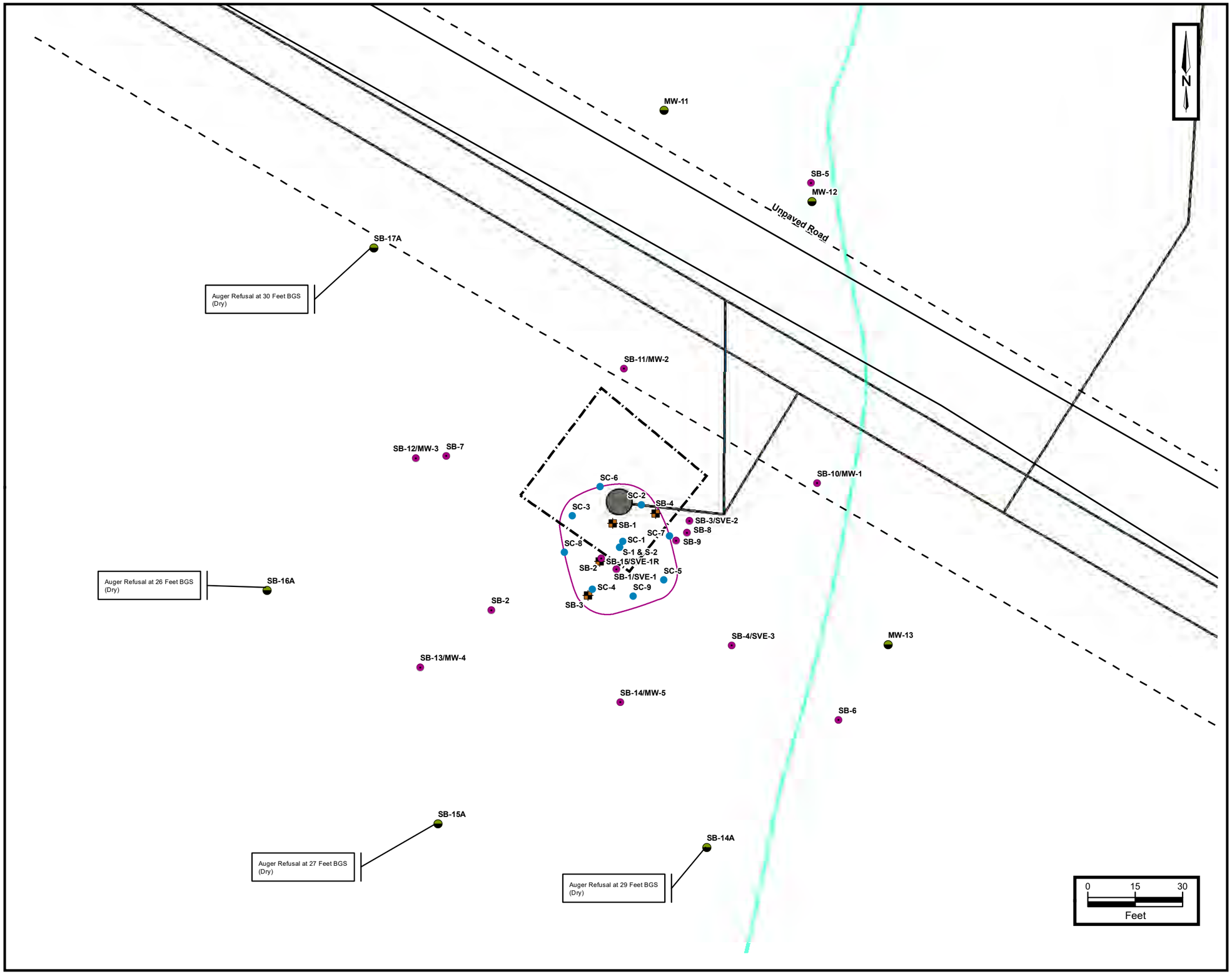
ENSOLUM
Environmental & Hydrogeologic Consultants

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

ENSOLUM
Environmental & Hydrogeologic Consultants

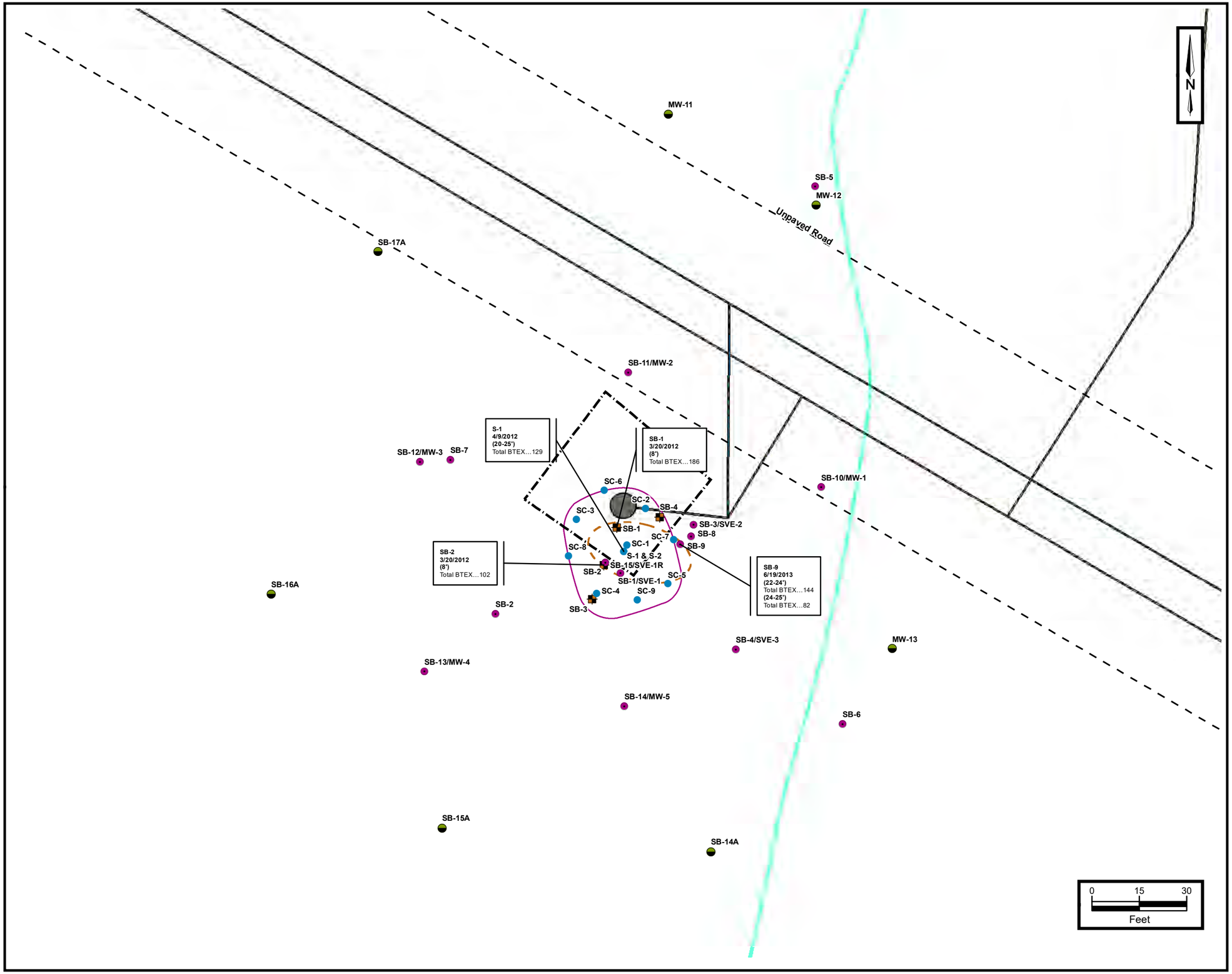
Benzene RAL Exceedance
(0 to 25 Feet BGS)

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 BTEX RAL 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.

ENSOLUM
Environmental & Hydrogeologic Consultants

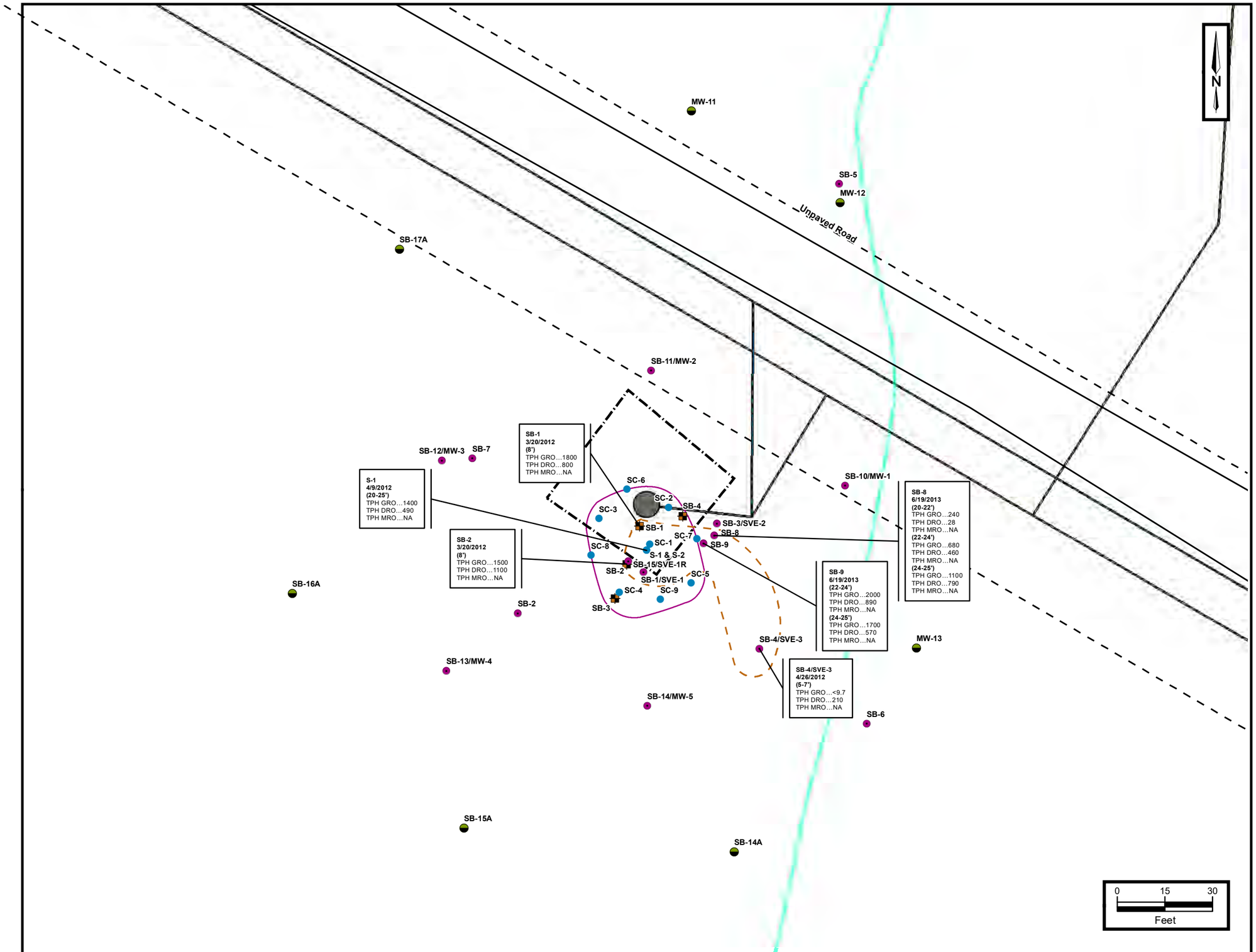
BTEX RAL Exceedance
(0 to 25 Feet BGS)

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
4B

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.

ENSOLUM
Environmental & Hydrogeologic Consultants

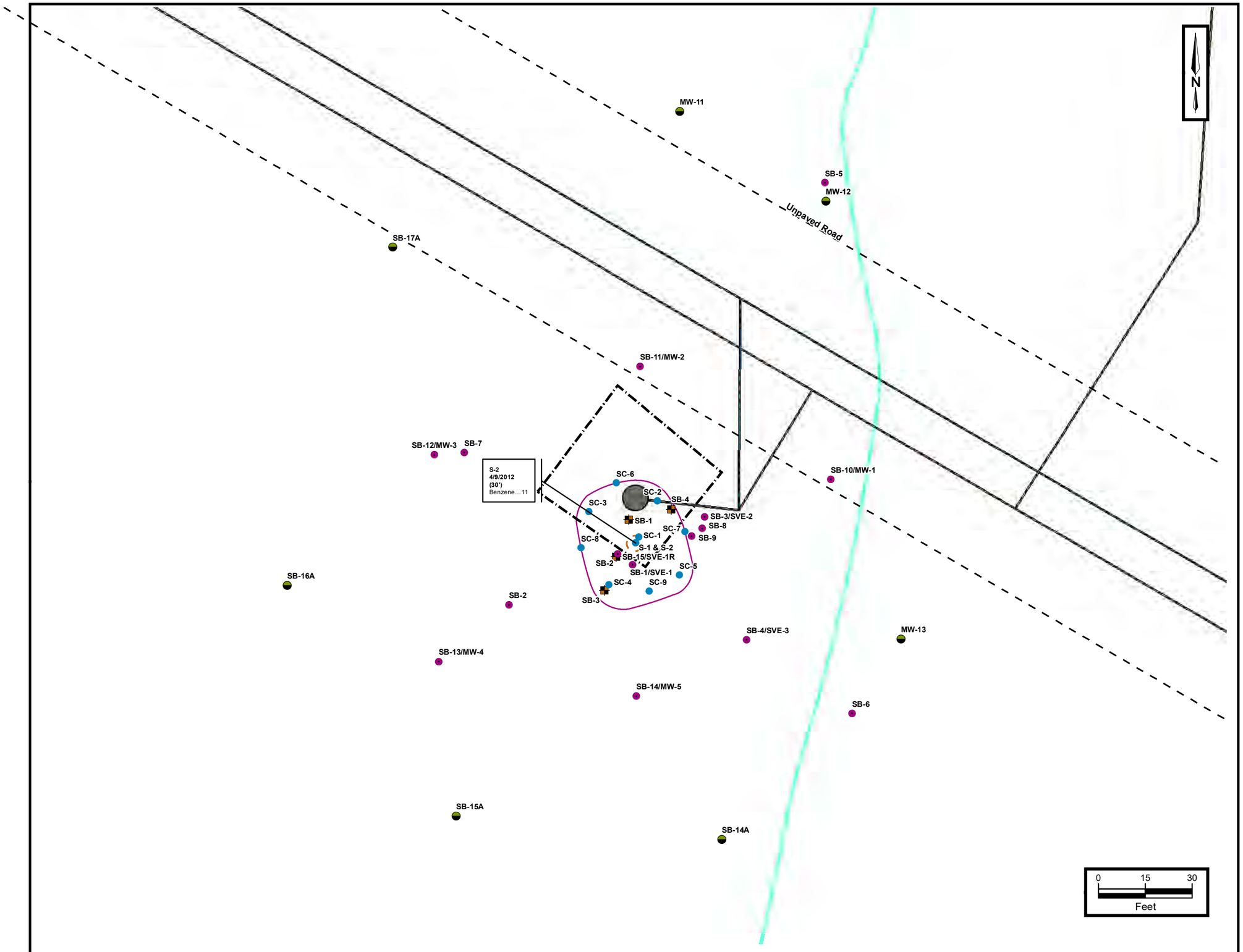
TPH GRO/DRO/MRO RAL Exceedance (0 to 25 Feet BGS)

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.

ENSOLUM
Environmental & Hydrogeologic Consultants

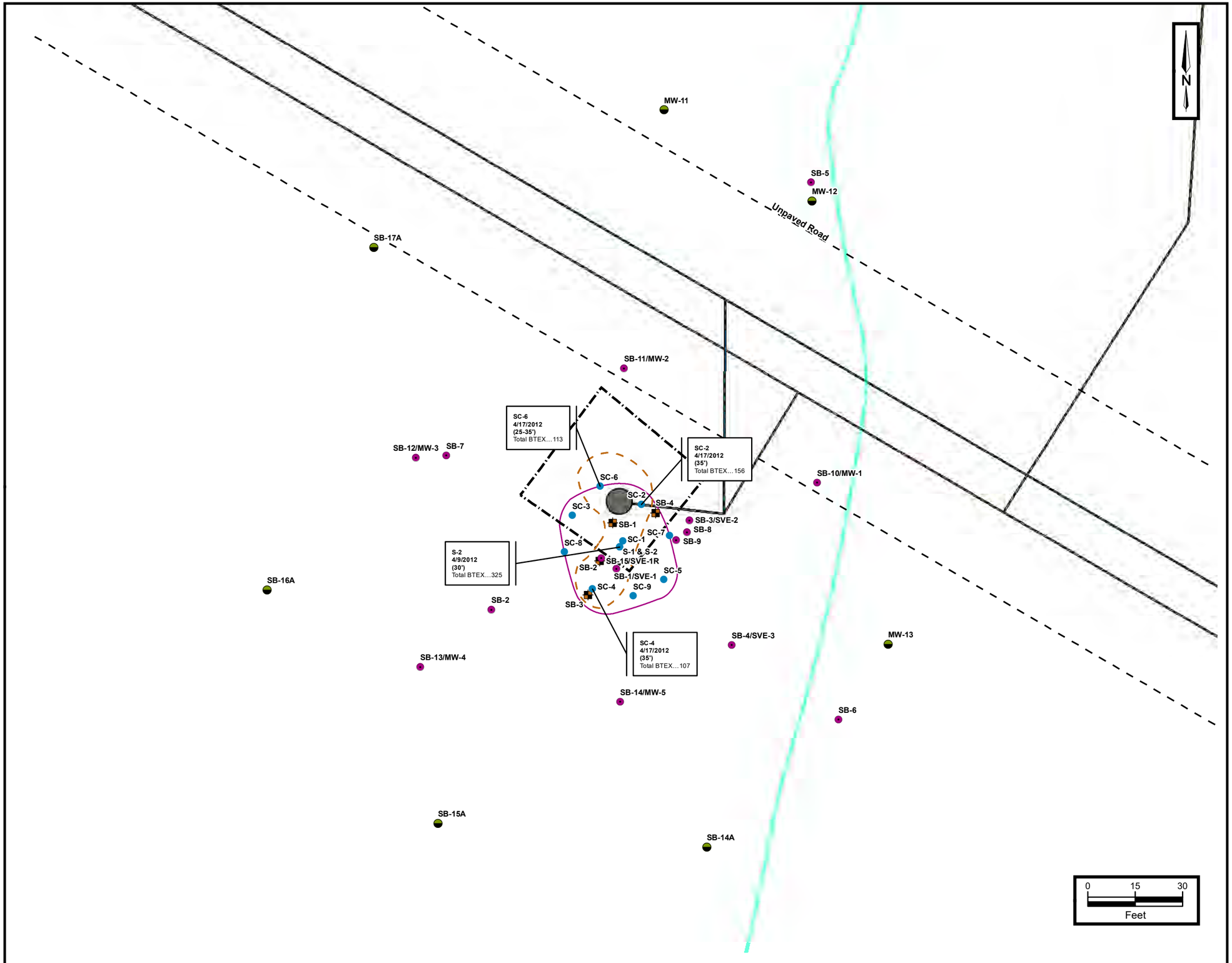
Benzene RAL Exceedance (>25 Feet BGS)

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



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 BTEX 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.

ENSOLUM
Environmental & Hydrogeologic Consultants

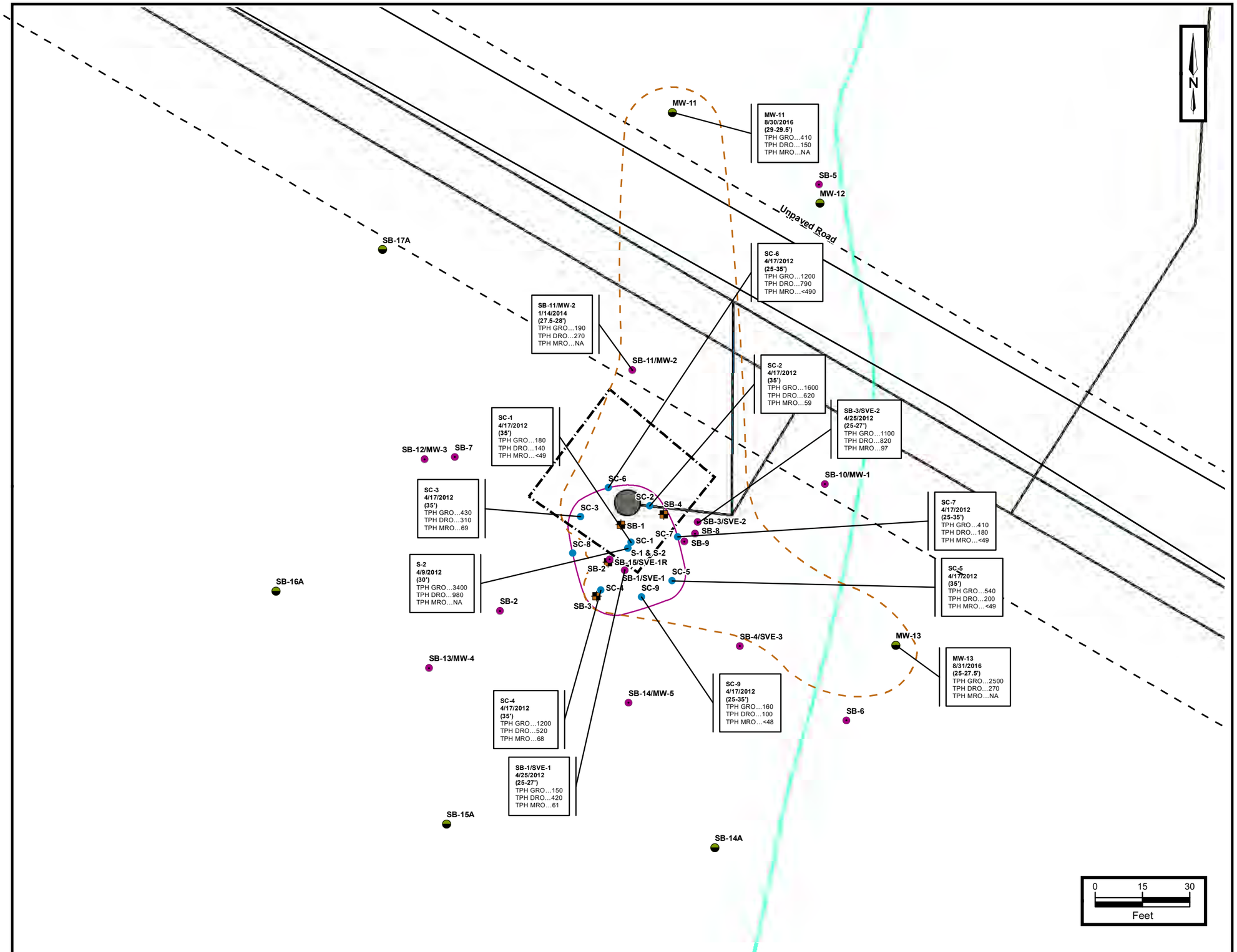
BTEX RAL Exceedance (>25 Feet BGS)

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
4E

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 (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.

ENSOLUM
Environmental & Hydrogeologic Consultants

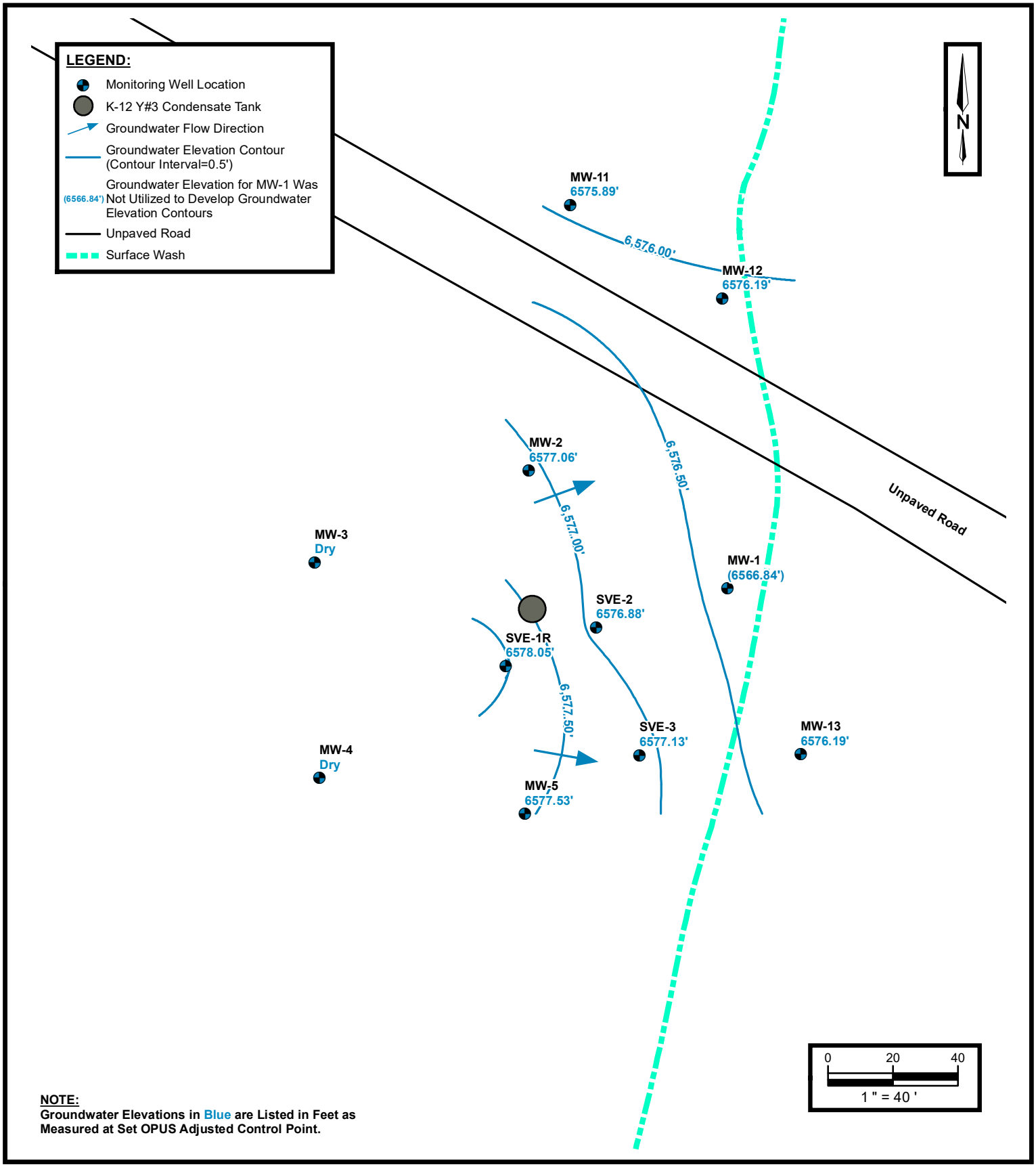
TPH GRO/DRO/MRO RAL Exceedance (>25 Feet BGS)

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



NOTE:
Groundwater Elevations in Blue are Listed in Feet as Measured at Set OPUS Adjusted Control Point.

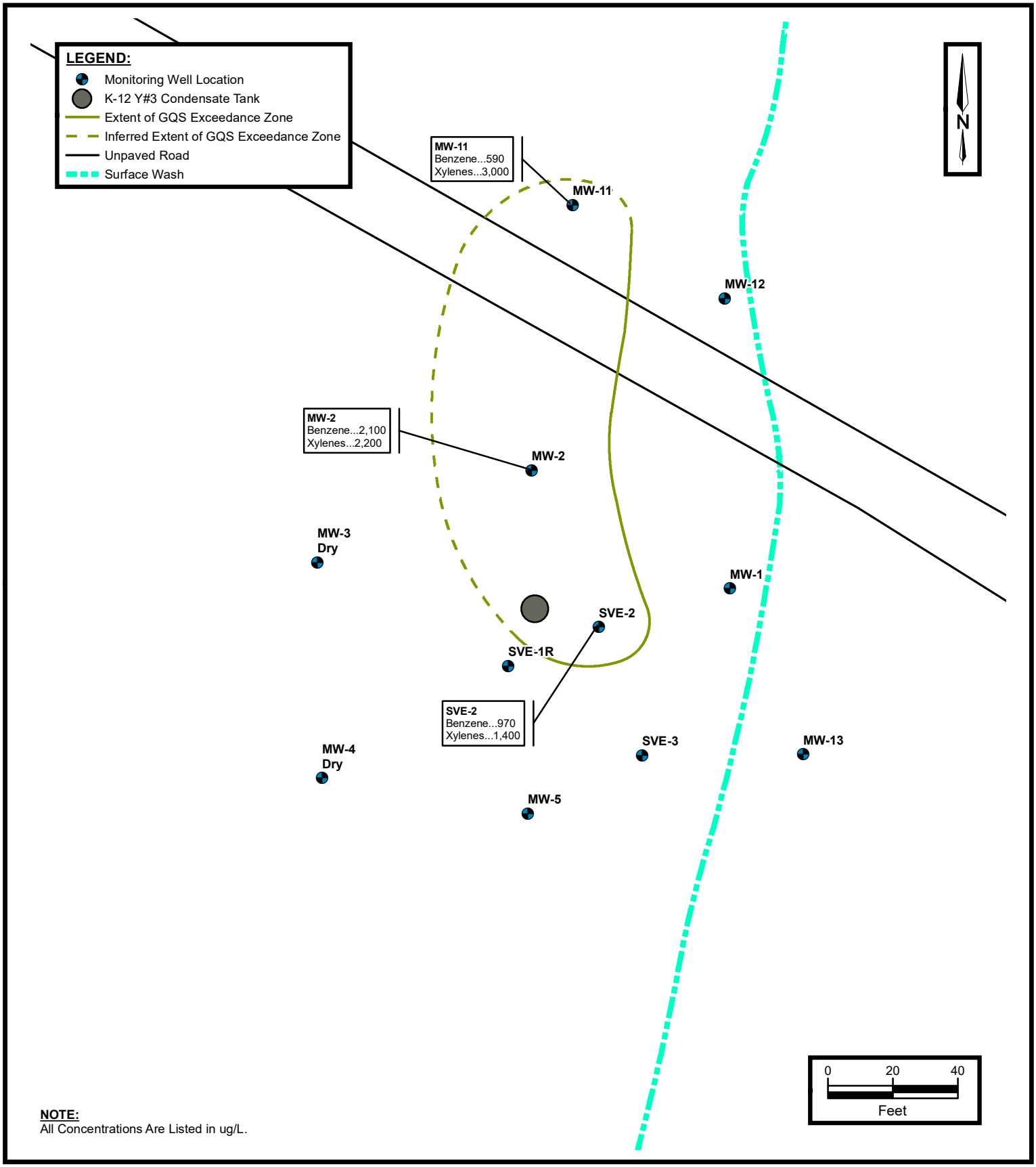
ENSOLUM
Environmental & Hydrogeologic Consultants

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



ENSOLUM
Environmental & Hydrogeologic Consultants

GROUNDWATER QUALITY STANDARD (GQS) EXCEEDANCE ZONE MAP (DECEMBER 2018)

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
5B

ENSOLUM

APPENDIX B

Tables

ENSOLUM

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

ENSOLUM

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

ENSOLUM

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

ENSOLUM

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

ENSOLUM

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*							

ENSOLUM

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

ENSOLUM

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

ENSOLUM

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

ENSOLUM

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

ENSOLUM

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 ENMRD 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

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 75629

CONDITIONS

Operator:	OGRID:
Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	241602
	Action Number: 75629
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	3/10/2022