



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

ENTERPRISE PRODUCTS OPERATING LLC

January 13, 2025

Submitted online via OCD E-Permitting:
<https://wwwapps.emnrd.state.nm.us/OCD/OCDPermitting/default.aspx>

Ms. Shanna Smith
 New Mexico Energy, Minerals and Natural Resources Department
 Oil Conservation Division
 1625 N. French Dr.
 Hobbs, NM 88240

Re: 2025 Groundwater Monitoring Report (Ensolum, 12/19/2025 – revised 1/12/2026)
Chaco Plant Produced Water Spill
Enterprise Field Services, LLC
Chaco Plant, San Juan County, NM
Unit Letter E, Sec 16 T26N R12W
Incident Number: NAPP2202747264

Dear Ms. Smith:

Enterprise Products Operating LLC (Enterprise), on behalf of Enterprise Field Services, LLC, submits herein to the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) an electronic copy of the above referenced report prepared by Ensolum, LLC (Ensolum). The report is associated with the Enterprise Chaco Plant produced water spill that was identified on January 6, 2022 from a frozen valve on a riser connected to the three-phase separator water tanks on the Chaco Plant in San Juan County, New Mexico (hereinafter referred to as “the Site”).

The *Stage 1 Abatement Plan*, dated September 17, 2025, was submitted to the OCD and was administratively approved on December 1, 2025. The following report describes the 2025 groundwater monitoring activities conducted at the Site, the results of these activities, and recommends the following:

- Installation of additional monitoring wells in accordance with the approved *Stage 1 Abatement Plan*.
- Continue semiannual groundwater monitoring activities in accordance with the approved *Stage 1 Abatement Plan*
- Report groundwater monitoring data to the OCD on an annual schedule.

Should you have any questions or need additional information regarding this Site, please contact Joseph Doyle via email at jedoyle@eprod.com or via phone at 713-381-4668.

Sincerely,

Joseph E. Doyle
 Scientist, Environmental

W. Tucker Jacobson
 Senior Manager, Environmental

ec: Ensolum – Mr. Dan Moir <dmoir@ensolum.com>



2025 GROUNDWATER MONITORING REPORT

Property:

Chaco Plant Produced Water Spill
Unit Letter E, Sec 16 T26N R12W
San Juan County, New Mexico

New Mexico Oil Conservation Division (NMOCD) Incident Number NAPP2202747264

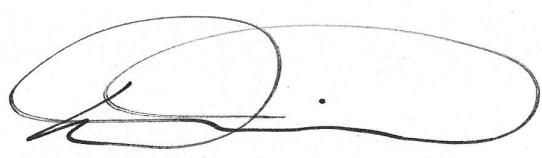
December 19, 2025
Revised: January 12, 2026

Ensolum Project No. 05B1226019

Prepared for:

Enterprise Field Services, LLC
P.O. Box 4324
Houston, Texas 77210-4324

Prepared by:



Daniel R. Moir, PG (licensed in WY & TX)
Senior Managing Geologist

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1.0 INTRODUCTION

This report describes the 2025 groundwater monitoring activities conducted at the Chaco Plant Produced Water Spill, referred to hereinafter as the “Site”.

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC (Enterprise)
Site Name:	Chaco Plant Produced Water Spill (Site)
NM EMNRD OCD Incident ID No.	NAPP2202747264
Location:	36.484021°, -108.117050° Unit Letter E, Section 16, Township 26 North, Range 12 West San Juan County, New Mexico
Property:	Owned by Enterprise Field Services, LLC
Regulatory:	New Mexico Oil Conservation Division (NMOCD)

On January 6, 2022, Enterprise operations identified a produced water release caused by a frozen valve connected to the three-phase separator and produced water tanks. Initial excavation activities at the Site were overseen by Ensolum but were postponed due to the presence of asbestos in buried construction materials. Subsequently, environmental consulting oversight was transferred to Envirotech, Inc. (Envirotech), which collected 16 confirmation soil samples from the excavation. Analytical results indicated benzene, toluene, ethylbenzene, total xylenes (BTEX), and total combined total petroleum hydrocarbon (TPH) concentrations exceeding the NMOCD Closure Criteria for soil. Soil exhibiting constituents of concern (COC) exceedances were identified at the northeast portion of the north sidewall and at the west sidewall. Prior to sample collection, Enterprise received approval from the NMOCD to treat the affected walls with a hydrogen peroxide solution and the excavation was backfilled with imported, clean soil.

Delineation activities were performed in June 2022 to assess potential groundwater impacts related to the January 2022 release. A total of five soil borings (SB-1 through SB-5) were advanced at the Site via hollow stem auger by Envirotech. The soil borings were advanced within the vicinity of the former remediation excavation. Auger refusal was encountered at approximately 40 feet to 42.5 feet below ground surface (bgs) with the exception of SB-4. Soil boring SB-4 was advanced to 54.04 feet bgs. Groundwater was encountered at approximately 47.5 feet bgs within SB-4. Analytical results for the soil samples collected from the soil borings indicated COC concentrations were in compliance with the applicable NMOCD Closure Criteria; although, groundwater analytical results identified benzene, sulfate, and total dissolved solids (TDS) concentrations in the groundwater (soil boring SB-4 was converted to monitoring well MW-4) greater than the respective New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards (GQSs).

Groundwater monitoring events were conducted in July and September 2022. The analytical results for the groundwater samples collected from MW-4 during both events indicated benzene concentrations were greater than the NMWQCC GQS. The analytical results for the groundwater sample collected from MW-4 during the July 2022 monitoring event indicated sulfate and TDS concentrations were greater than the NMWQCC GQSs. During the September 2022 monitoring event, sulfate and TDS were not analyzed.

Groundwater monitoring events were conducted in January, February, and August 2023. The analytical results for the groundwater samples collected from MW-4 during all events indicated benzene concentrations greater than the NMWQCC GQS. The analytical results for the

groundwater samples collected from MW-4 during the February and August events indicated TDS concentrations greater than the NMWQCC GQSs.

Based on remediation activities and groundwater delineation activities completed at the Site, Enterprise submitted a *Produced Water Spill Remediation and Groundwater Investigation Report* to the NMOCD on September 15, 2023. The NMOCD denied the report the same day stating the following deficiencies:

Content is Unsatisfactory 1. A separate groundwater stage 1 and/or stage 2 abatement plan is required to be submitted to NMOCD as per 19.15.30.13 of the NMAC. 2. Soil closure requests are required to be submitted under the original C-141 separately for which it was submitted, and shall not be part of groundwater abatement, nor co-mingled as one report. 3. Re-submit a site characterization report for groundwater and a stage 1 abatement plan as required by 19.15.30 of the NMAC.

In December 2024, one groundwater monitoring event was conducted. The analytical results for the groundwater sample collected from MW-4 indicated a benzene concentration greater than the NMWQCC GQS.

On July 19, 2025, Enterprise submitted a *Closure Report* to the NMOCD, describing remedial actions associated with the excavation and removal of impacted soil and in-situ treatment of residual in-place impacted soil via hydrogen peroxide and requesting no additional soil investigation or correction and proposing groundwater assessment (*Chaco Plant Produced Water Spill Closure Report, Ensolum, June 5, 2025*). Approval of the *Closure Report* by the NMOCD was received on August 13, 2025.

Groundwater monitoring events were conducted in April and October 2025. Analytical results from the April 2025 monitoring event indicated a benzene concentration greater than the NMWQCC GQS. The analytical results from the October 2025 monitoring event indicated a benzene concentration less than the NMWQCC GQS. The analytical results for the groundwater samples collected from MW-4 during both events indicated sulfate and TDS concentrations were greater than the NMWQCC GQSs.

On October 27, 2025, Enterprise submitted a *Stage 1 Abatement Plan* to the NMOCD, proposing to install four groundwater monitoring wells to delineate groundwater impacts at the Site. The NMOCD administratively approved the *Stage 1 Abatement Plan* on December 1, 2025. Enterprise is currently preparing the required public notifications, and groundwater monitoring well installation will commence following completion of the public comment period and receipt of final NMOCD approval.

To address activities related to oil and gas releases, the NMOCD references 19.15.29 New Mexico Administrative Code (NMAC) and 19.15.30 NMAC, which establishes investigation and abatement action requirements for oil and gas release sites subject to reporting and/or corrective action. Additionally, Ensolum utilizes the NMWQCC GQSs (20.6.2 NMAC *Ground and Surface Water Protection*) to evaluate groundwater conditions.

The Site location is depicted on **Figure 1**, 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**, a **Site Map**, which indicates the extent of the former excavation and excavation soil sample locations is provided as **Figure 3**, and a **Site Map with Proposed Soil Boring/Monitoring Well Locations**, which indicates the approximate location of the monitoring well, the extent of the former excavation, and proposed soil boring and/or monitoring well locations, is included as **Figure 4**, respectively.

1.2 Project Objective

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

2.0 GROUNDWATER MONITORING

Groundwater monitoring events were conducted in April and October 2025. The groundwater sampling program consisted of the collection of one groundwater sample from monitoring well MW-4 at the Site. The NMOCD was notified of the sampling events; although, no representative was present during the sampling activities.

The groundwater sampling program consisted of the following:

- Prior to sample collection, Ensolum gauged the depth to fluids in the monitoring well using an interface probe capable of detecting non-aqueous phase liquid (NAPL).
- The monitoring well was sampled utilizing micro-purge low-flow sampling techniques. Following the completion of the micro-purge process, one groundwater sample was collected.
- Low-flow or low-stress sampling refers to sampling methods intended to minimize the stress imparted to the formation pore water in the 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 of 0.1 to 0.5 liters per minute (L/min) are typically maintained during the low-flow/low-stress sampling activities, using dedicated or decontaminated sampling equipment.
- During low-flow sampling, the groundwater sample is collected from the monitoring well once produced groundwater is consistent in color, clarity, pH, temperature, and conductivity. Measurements are typically observed every three to five minutes while purging. Purging is considered complete once key parameters (especially pH and conductivity) have stabilized for at least three consecutive readings.
- Groundwater samples were collected in laboratory-supplied containers (pre-preserved with hydrochloric acid (HCl)), labeled, and sealed using the laboratory supplied labels and custody seals, and stored on ice in a cooler. The groundwater samples were relinquished to the courier for Eurofins Environment Testing South Central LLC (Eurofins) (formerly Hall Environmental Analysis Laboratory) of Albuquerque, New Mexico under proper chain-of-custody procedures.

2.1 Groundwater Laboratory Analytical Methods

The groundwater samples collected from the monitoring well were analyzed for BTEX utilizing United States Environmental Protection Agency (EPA) Method SW-846 8021, volatile organic compounds (VOCs) utilizing EPA Method SW-846 8260; sulfate utilizing EPA Method 300.0; and TDS utilizing SM-2540C MOD.

A summary of the analytes, sample matrix, sample frequency and EPA-approved analytical methods are presented in the following table.

Analyte	Sample Type	No. of Samples	Method
BTEX	Water	1	SW-846 8260

Analyte	Sample Type	No. of Samples	Method
Sulfate	Water	2	EPA 300.0
VOCs (including BTEX)	Water	1	EPA SW-846 8260
TDS	Water	2	SM-2540C MOD

The laboratory analytical results are summarized in **Tables 1 through 3**. The executed chain-of-custody forms and laboratory analytical reports are provided in **Appendix A**.

2.2 Groundwater Flow Direction

Additional delineation and monitoring well installation are anticipated to be completed at the Site in accordance with the *Stage 1 Abatement Plan*, submitted to the NMOCD on October 27, 2025, and administratively approved by the NMOCD on December 1, 2025. Following installation, the monitoring wells will be professionally surveyed to determine the top of casing (TOC) and ground surface elevations. 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 indicate the groundwater flow direction and hydraulic gradient. The relative ground elevations will facilitate the creation of lithologic and/or hydrogeologic cross-sections, if deemed necessary.

The relative groundwater elevation measured in monitoring well MW-4 (based on Google Earth ground elevation data) was 45.13 feet below top of casing (btoc) or 5,993.87 feet in April 2025 and 44.96 feet btoc or 5,994.04 feet in October 2025. The relative groundwater elevations for monitoring well MW-4 for the 2025 sampling events are included in **Figure 5**. **Table 4** summarizes relative groundwater elevations for monitoring well MW-4.

2.3 Groundwater Data Evaluation

Ensolum compared the laboratory analytical results or laboratory practical quantitation limits (PQLs) / reporting limits (RLs) associated with the groundwater samples collected from monitoring well MW-4 during the 2025 sampling events to the NMWQCC GQSs. The results of the analyses are summarized in **Tables 1 through 3**. The Groundwater Quality Exceedance Zone maps are provided as **Figure 6A** and **Figure 6B**.

April 2025

- The analytical results for monitoring well MW-4 indicated a benzene concentration of 5.9 micrograms per liter ($\mu\text{g}/\text{L}$), which was greater than the NMWQCC GQS.
- The analytical results for monitoring well MW-4 indicated a toluene concentration of 2.7 $\mu\text{g}/\text{L}$, which was less than the NMWQCC GQS.
- The analytical results for monitoring well MW-4 indicated ethylbenzene, total xylenes, and all other VOC concentrations were below the PQLs/RLs, which were less than the respective established NMWQCC GQSs.
- The analytical results for monitoring well MW-4 indicated a sulfate concentration of 3,000 milligrams per liter (mg/L), which was greater than the NMWQCC GQS.

- The analytical results for the monitoring well MW-4 indicated a TDS concentration of 4,900 mg/L, which was greater than the NMWQCC GQS.
- No data qualifier flags were associated with the April 2025 analytical results.

October 2025

- The analytical results for monitoring well MW-4 indicated a benzene concentration of 3.8 µg/L, which was less than the NMWQCC GQS.
- The analytical results for monitoring well MW-4 indicated a toluene concentration of 2.7 µg/L, which was less than the NMWQCC GQS.
- The analytical results for monitoring well MW-4 indicated ethylbenzene and total xylenes concentrations were below the PQLs/RLs, which were less than the respective NMWQCC GQSs.
- The analytical results for monitoring well MW-4 indicated a sulfate concentration of 2,800 mg/L, which was greater than the NMWQCC GQS.
- The analytical results for the monitoring well MW-4 indicated a TDS concentration of 4,800 mg/L, which was greater than the NMWQCC GQS.
- No data qualifier flags were associated with the October 2025 analytical results.

3.0 FINDINGS

Based on the evaluation of the analytical results from the groundwater monitoring activities, Ensolum presents the following findings:

- The analytical results for the groundwater sample collected from MW-4 during the April 2025 monitoring event indicated a concentration of benzene greater than the NMWQCC GQS. The analytical results for the groundwater sample collected from MW-4 during the October 2025 monitoring event indicated a benzene concentration less than the NMWQCC GQS.
- The analytical results for the groundwater samples collected from MW-4 during the monitoring events indicate sulfate and TDS concentrations greater than the NMWQCC GQSs.
- Dissolve-phase BTEX concentrations remain generally stable and declining.
- Based upon the existing monitoring well network and analytical results, groundwater delineation is required.

4.0 RECOMMENDATIONS

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

- Install four additional monitoring wells in accordance with the administratively approved *Stage 1 Abatement Plan*.
- Report groundwater monitoring data to the NMOCD on an annual basis.
- The monitoring wells will be analyzed for BTEX following EPA Method SW-846 8260, sulfate following EPA 300.0, TDS following SM-2540C MOD, chloride following Method 300.0, TPH (GRO/DRO/MRO) following SW-846 8015, and pH following EPA 150.1 or 150.3.
- Continue semi-annual groundwater monitoring activities at the Site until the additional aquifer testing activities are evaluated and remedial options are presented to the NMOCD for approval.

5.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

5.1 Standard of Care

Ensolum's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Ensolum makes no warranties, express or implied, as to the services performed hereunder. Additionally, Ensolum does not warrant the work of third parties supplying information used in the report (e.g., laboratories, regulatory agencies, or other third parties).

5.2 Limitations

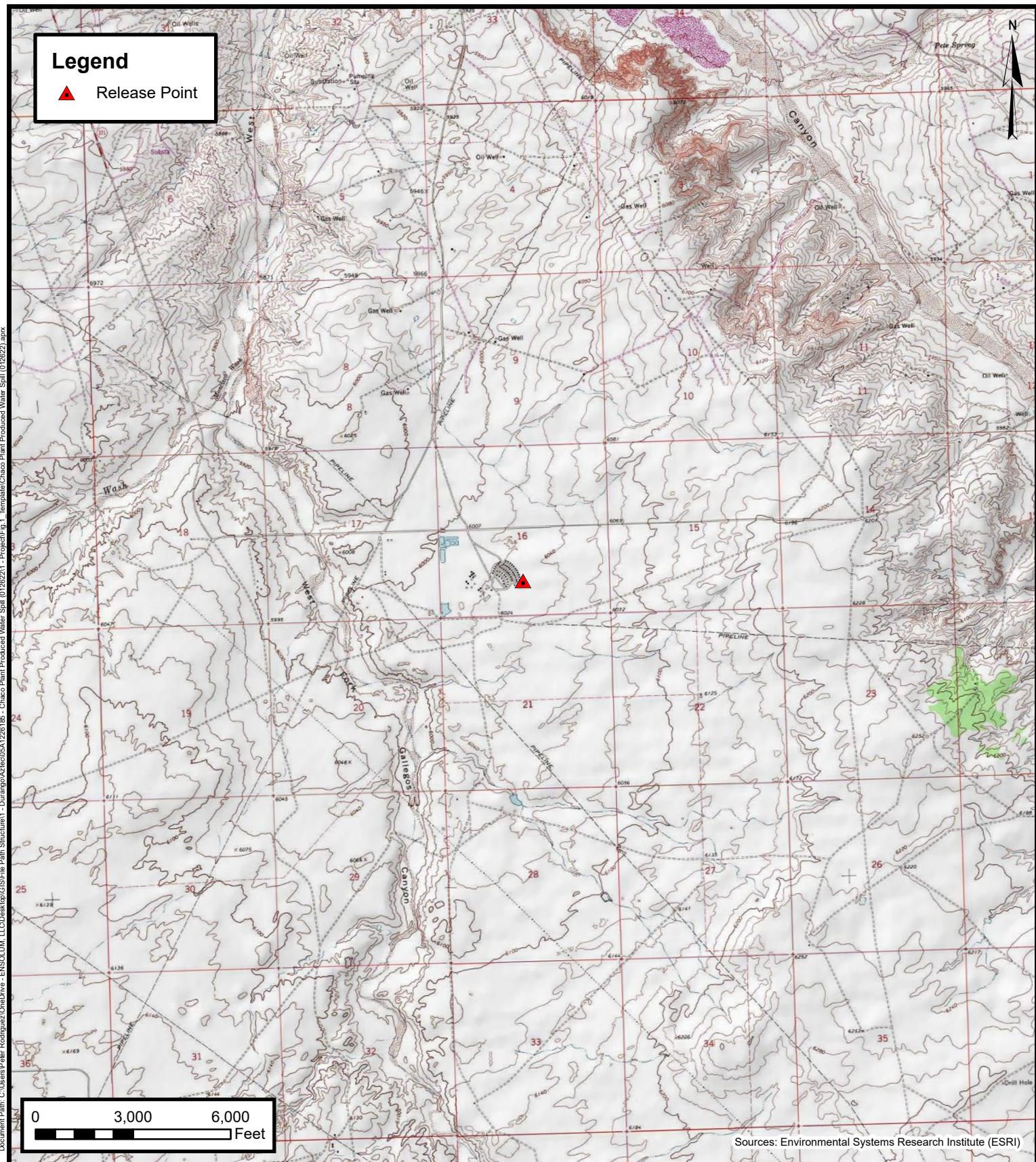
Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work, and it should be noted that this information is subject to change over time. Certain indicators of the presence 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 recommendation 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 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.



Figures



Environmental, Engineering and
Hydrogeologic Consultants

Topographic Map

Enterprise Field Services, LLC
Chaco Plant Produced Water Spill
Project Number: 05B1226019

Unit Letter E, S16 T26N R12W
San Juan County, New Mexico

FIGURE
1



Sources: Environmental Systems Research Institute (ESRI)



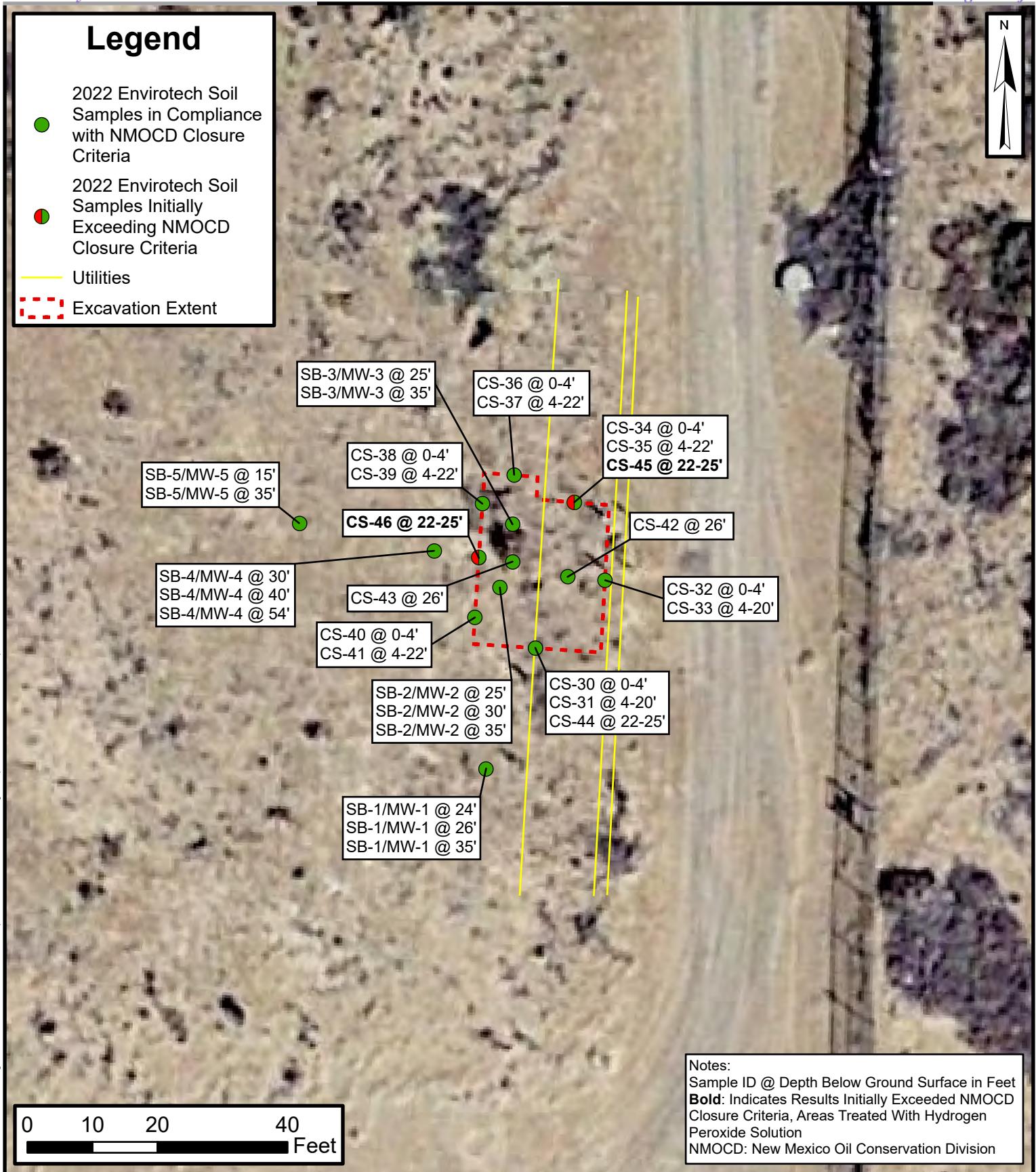
Environmental, Engineering and Hydrogeologic Consultants

Site Vicinity Map

Enterprise Field Services, LLC
Chaco Plant Produced Water Spill
Project Number: 0BA1226019

Unit Letter E, S16 T26N R12W
San Juan County, New Mexico

FIGURE 2



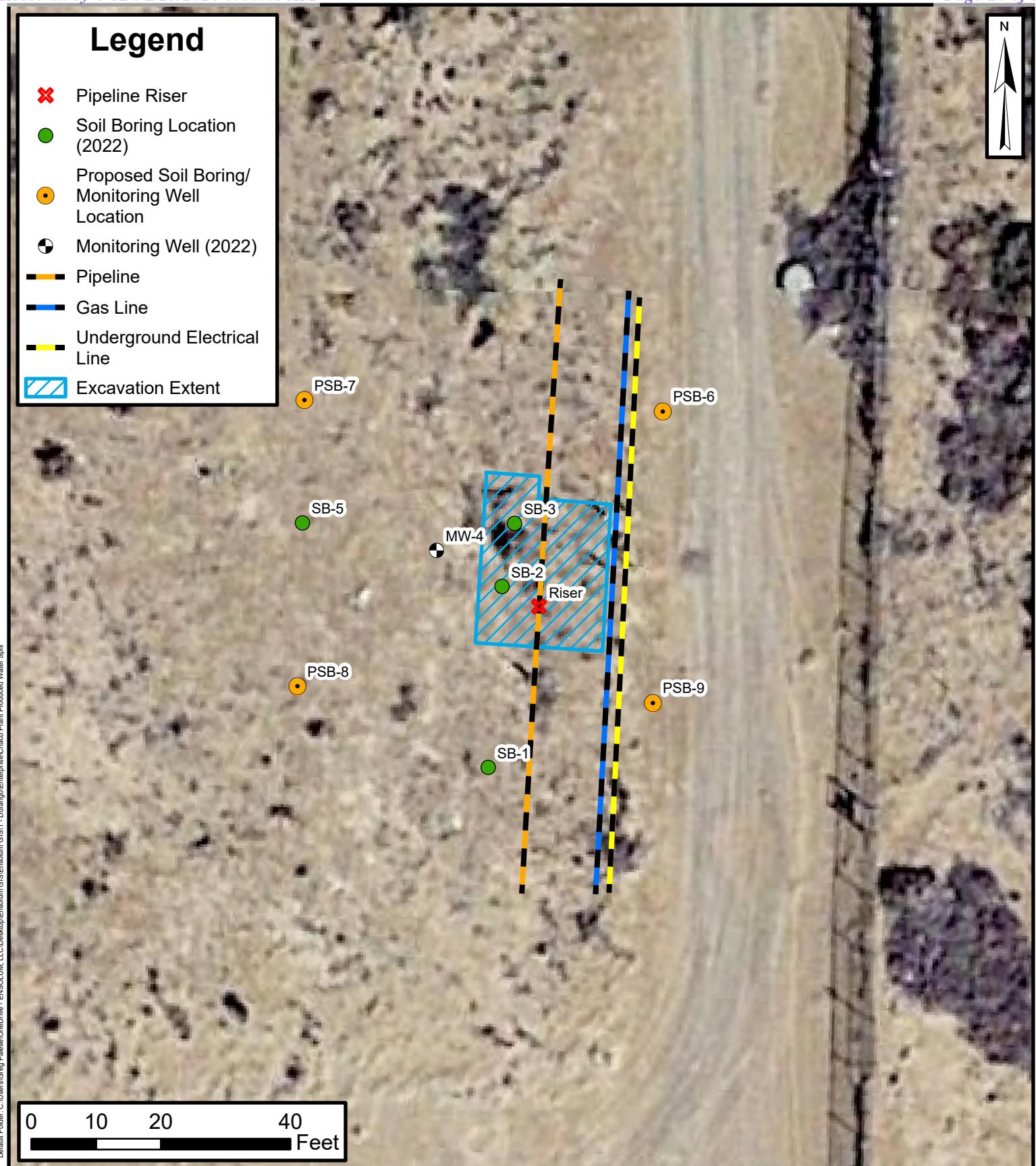
Site Map

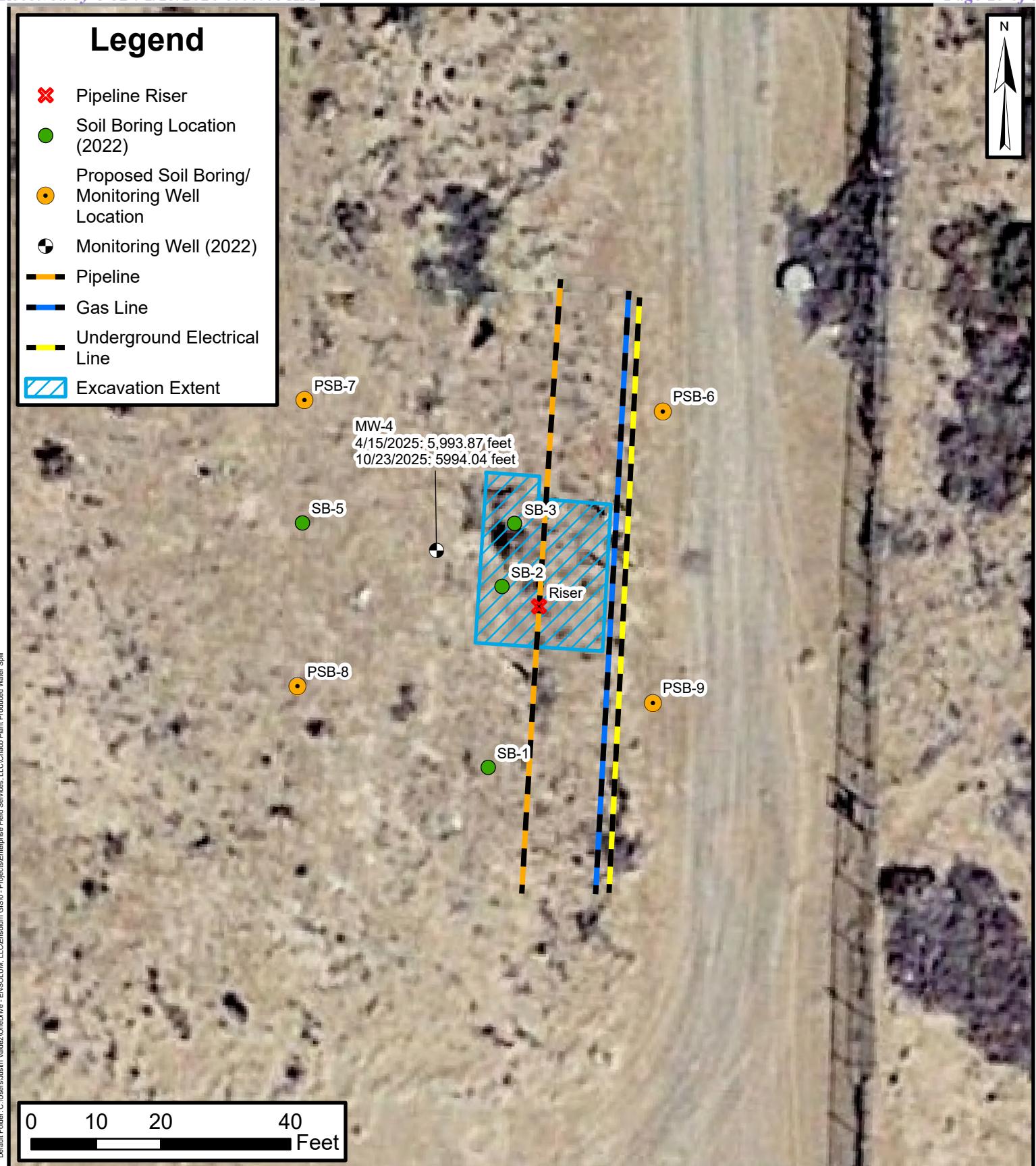
Chaco Plant Produced Water Spill
Enterprise Field Services, LLC

36.484021, -108.11705
San Juan County, New Mexico



FIGURE
3





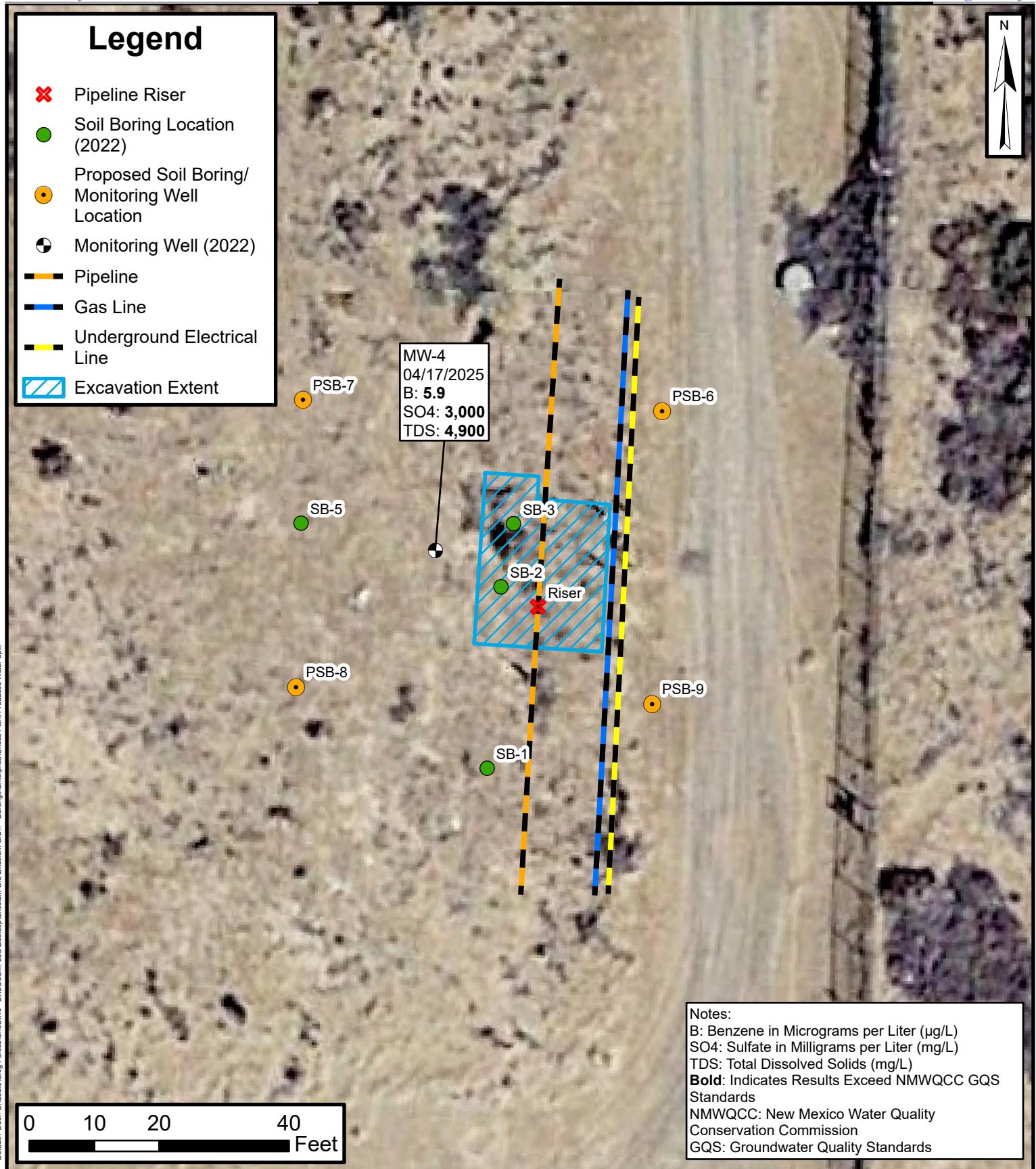
Groundwater Elevation Map

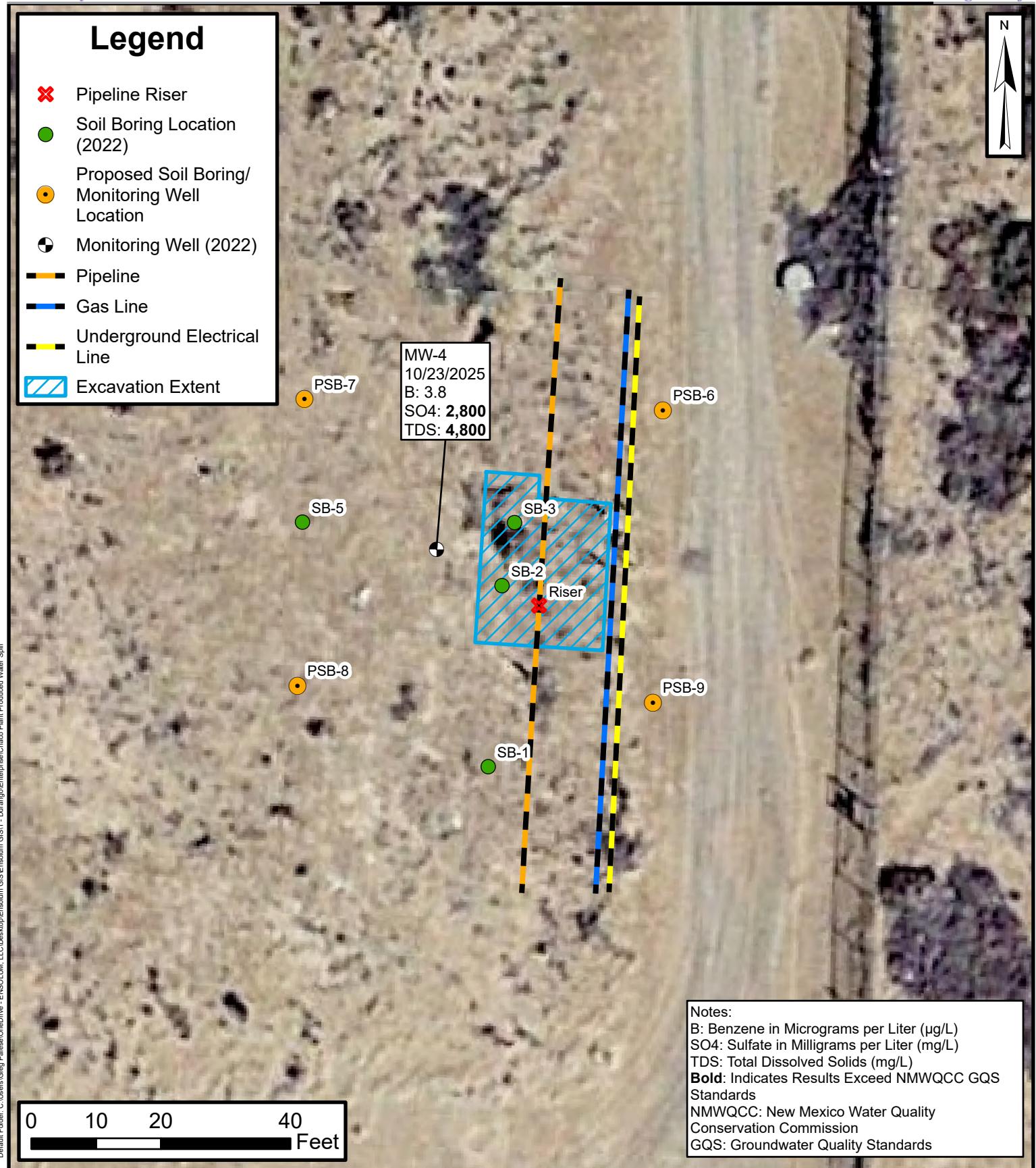
Chaco Plant Produced Water Spill Enterprise
Field Services, LLC
36.484021, -108.11705
San Juan County, New Mexico



Environmental, Engineering and
Hydrogeologic Consultants

FIGURE
5







Tables



TABLE 1
GROUNDWATER ANALYTICAL SUMMARY - DETECTED VOLATILE ORGANIC COMPOUNDS
Chaco Plant Produced Water Spill
Enterprise Field Services LLC
San Juan County, New Mexico

Sample I.D.	Sample Date	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethylbenzene ($\mu\text{g/L}$)	Xylenes ($\mu\text{g/L}$)	1,2,4- Trimethylbenzene ^{1,2} ($\mu\text{g/L}$)	1,3,5- Trimethylbenzene ^{1,2} ($\mu\text{g/L}$)	Acetone ^{1,2} ($\mu\text{g/L}$)	2-Butanone ^{1,2} ($\mu\text{g/L}$)	Isopropylbenzene ^{1,2} ($\mu\text{g/L}$)	n-Propylbenzene ^{1,2} ($\mu\text{g/L}$)
NMWQCC GQS	5	1,000	700	620	NE	NE	NE	NE	NE	NE	NE
Subsurface Water Sample Collected from the Monitoring Well											
MW-4	07/07/2022	216	838	48.4	400	<50.0	<10.0	526	453	<10.0	<10.0
	09/12/2022	300	610	47	390	19	11	38	34	4.8	5.1
	01/19/2023	42	110	4.6	34	<2.0	<2.0	<20	<20	<2.0	<2.0
	02/07/2023	190	190	<2.0	35	<1.0	<1.0	33	28	<2.0	<2.0
	08/23/2023	80	100	<2.0	22	<2.0	<2.0	<20	<20	<2.0	<2.0
	12/30/2024	5.6	2.7	<1.0	<2.0	NA	NA	NA	NA	NA	NA
	04/17/2025	5.9	2.7	<1.0	<1.5	<1.0	<1.0	<1.0	<10	<1.0	<1.0
	10/23/2025	3.8	1.6	<1.0	<1.0	NA	NA	NA	NA	NA	NA

Notes:

Concentrations in **bold** and yellow exceed the applicable NMWQCC GQS

¹ = Constituent is not identified as "toxic pollutant" under 20.6.2 New Mexico Administrative Code (NMAC).

² = Constituent is not identified as a priority pollutant under the Federal Clean Water Act (CWA).

$\mu\text{g/L}$ = microgram per liter

NA = Not Analyzed

NE = Not Established

NMWQCC GQS: New Mexico Water Quality Control Commission Groundwater Quality Standard

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



TABLE 2
GROUNDWATER ANALYTICAL SUMMARY - INORGANICS, PHYSICAL AND CHEMICAL PROPERTIES
Chaco Plant Produced Water Spill
Enterprise Field Services LLC
San Juan County, New Mexico

Sample I.D.	Sample Date	Fluoride (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Phosphorus (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	pH	Total Dissolved Solids (mg/L)	Conductivity (μ S/cm)	Total Alkalinity (mg/L Ca)
NMWQCC GQS		1.6	250	600	10	1	NE	NE	NE	NE	NE	6-9	1,000	NE	NE
Subsurface Water Sample Collected from the Monitoring Well															
MW-4	07/07/2022	<5.00	63.7	3,980	<5.00	<5.00	<5.00	538	80.9	23	1,080	6.83	5,060	5,730	639
	09/12/2022	NA	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/19/2023	NA	23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	02/08/2023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,740	NA	NA
	08/23/2023	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,800	NA	NA
	04/17/2025	NA	NA	3,000	NA	NA	NA	NA	NA	NA	NA	NA	4,900	NA	NA
	10/23/2025	NA	NA	2,800	NA	NA	NA	NA	NA	NA	NA	NA	4,800	NA	NA

Notes:

2

Concentrations in **bold** and yellow exceed the applicable NMWQCC GQS.

mg/L = milligram per liter

 μ S/cm = microsiemens per centimeter

NA = Not Analyzed

NE = Not Established

NMWQCC GQS: New Mexico Water Quality Control Commission Groundwater Quality Standard

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



TABLE 3
GROUNDWATER QUALITY RESULTS
Chaco Plant Produced Water Spill
Enterprise Field Services LLC
San Juan County, New Mexico

Sample Designation	Date	Temperature (°C)	pH (Unitless)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Conductivity (mS/cm)
MW-4	04/17/2025	16.6	6.36	0.45	2.3	4.47
MW-4	10/23/2025	16.6	6.58	0.34	-66.4	4.03

°C - degrees celsius

mg/L - milligrams per liter

mV - millivolts

mS/cm - millisiemens per centimeter

TABLE 4
GROUNDWATER ELEVATION
Chaco Plant Produced Water Spill
Enterprise Field Services LLC
San Juan County, New Mexico

Sample Designation	Date	*Relative Top of Casing Elevation (feet)	Total Well Depth (feet btoc)	Screen Interval (feet btoc)	Depth to Groundwater (feet btoc)	Depth to Product (feet btoc)	*Relative Groundwater Elevation (feet)
MW-4	07/07/2022	6039.00	50.03	35.03-50.03	48.59	No Product	5990.41
	09/12/2022				NM	NM	NM
	01/19/2023				NM	NM	NM
	02/07/2023				NM	NM	NM
	08/23/2023				NM	NM	NM
	12/30/2024				45.50	No Product	5993.50
	04/17/2025				45.13	No Product	5993.87
	10/23/2025				44.96	No Product	5994.04

Notes:

btoc - below top of casing

NM - no measurement data available

*Elevation of top of casing is based on Google Earth elevation data. This is relative and not exact to an elevation in feet above mean sea level



Appendix A

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing

1

2

3

4

5

6

7

8

9

10

11

ANALYTICAL REPORT

PREPARED FOR

Attn: Wes Weichert
Ensolum LLC
776 E 2nd Avenue
Durango, Colorado 81301

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JOB DESCRIPTION

Chaco Plant Produced Water Spill

JOB NUMBER

885-23438-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

Generated
4/25/2025 12:24:10 PM

Client: Ensolum LLC
Project/Site: Chaco Plant Produced Water Spill

Laboratory Job ID: 885-23438-1

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Definitions/Glossary

Client: Ensolum LLC
 Project/Site: Chaco Plant Produced Water Spill

Job ID: 885-23438-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
⊗	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

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Case Narrative

Client: Ensolum LLC
Project: Chaco Plant Produced Water Spill

Job ID: 885-23438-1

Job ID: 885-23438-1**Eurofins Albuquerque****Job Narrative
885-23438-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 4/18/2025 7:45 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.3°C.

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client Sample Results

Client: Ensolum LLC
 Project/Site: Chaco Plant Produced Water Spill

Job ID: 885-23438-1

Client Sample ID: MW-4

Lab Sample ID: 885-23438-1

Date Collected: 04/17/25 14:47

Matrix: Water

Date Received: 04/18/25 07:45

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L		04/24/25 00:18		1
1,1,1-Trichloroethane	ND		1.0	ug/L		04/24/25 00:18		1
1,1,2,2-Tetrachloroethane	ND		2.0	ug/L		04/24/25 00:18		1
1,1,2-Trichloroethane	ND		1.0	ug/L		04/24/25 00:18		1
1,1-Dichloroethane	ND		1.0	ug/L		04/24/25 00:18		1
1,1-Dichloroethene	ND		1.0	ug/L		04/24/25 00:18		1
1,1-Dichloropropene	ND		1.0	ug/L		04/24/25 00:18		1
1,2,3-Trichlorobenzene	ND		1.0	ug/L		04/24/25 00:18		1
1,2,3-Trichloropropane	ND		2.0	ug/L		04/24/25 00:18		1
1,2,4-Trichlorobenzene	ND		1.0	ug/L		04/24/25 00:18		1
1,2,4-Trimethylbenzene	ND		1.0	ug/L		04/24/25 00:18		1
1,2-Dibromo-3-Chloropropane	ND		2.0	ug/L		04/24/25 00:18		1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L		04/24/25 00:18		1
1,2-Dichlorobenzene	ND		1.0	ug/L		04/24/25 00:18		1
1,2-Dichloroethane (EDC)	ND		1.0	ug/L		04/24/25 00:18		1
1,2-Dichloropropene	ND		1.0	ug/L		04/24/25 00:18		1
1,3,5-Trimethylbenzene	ND		1.0	ug/L		04/24/25 00:18		1
1,3-Dichlorobenzene	ND		1.0	ug/L		04/24/25 00:18		1
1,3-Dichloropropane	ND		1.0	ug/L		04/24/25 00:18		1
1,4-Dichlorobenzene	ND		1.0	ug/L		04/24/25 00:18		1
1-Methylnaphthalene	ND		4.0	ug/L		04/24/25 00:18		1
2,2-Dichloropropane	ND		2.0	ug/L		04/24/25 00:18		1
2-Butanone	ND		10	ug/L		04/24/25 00:18		1
2-Chlorotoluene	ND		1.0	ug/L		04/24/25 00:18		1
2-Hexanone	ND		10	ug/L		04/24/25 00:18		1
2-Methylnaphthalene	ND		4.0	ug/L		04/24/25 00:18		1
4-Chlorotoluene	ND		1.0	ug/L		04/24/25 00:18		1
4-Isopropyltoluene	ND		1.0	ug/L		04/24/25 00:18		1
4-Methyl-2-pentanone	ND		10	ug/L		04/24/25 00:18		1
Acetone	ND		10	ug/L		04/24/25 00:18		1
Benzene	5.9		1.0	ug/L		04/24/25 00:18		1
Bromobenzene	ND		1.0	ug/L		04/24/25 00:18		1
Bromodichloromethane	ND		1.0	ug/L		04/24/25 00:18		1
Dibromochloromethane	ND		1.0	ug/L		04/24/25 00:18		1
Bromoform	ND		1.0	ug/L		04/24/25 00:18		1
Bromomethane	ND		3.0	ug/L		04/24/25 00:18		1
Carbon disulfide	ND		10	ug/L		04/24/25 00:18		1
Carbon tetrachloride	ND		1.0	ug/L		04/24/25 00:18		1
Chlorobenzene	ND		1.0	ug/L		04/24/25 00:18		1
Chloroethane	ND		2.0	ug/L		04/24/25 00:18		1
Chloroform	ND		1.0	ug/L		04/24/25 00:18		1
Chloromethane	ND		3.0	ug/L		04/24/25 00:18		1
cis-1,2-Dichloroethene	ND		1.0	ug/L		04/24/25 00:18		1
cis-1,3-Dichloropropene	ND		1.0	ug/L		04/24/25 00:18		1
Dibromomethane	ND		1.0	ug/L		04/24/25 00:18		1
Dichlorodifluoromethane	ND		1.0	ug/L		04/24/25 00:18		1
Ethylbenzene	ND		1.0	ug/L		04/24/25 00:18		1
Hexachlorobutadiene	ND		1.0	ug/L		04/24/25 00:18		1
Isopropylbenzene	ND		1.0	ug/L		04/24/25 00:18		1

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Client Sample Results

Client: Ensolum LLC
 Project/Site: Chaco Plant Produced Water Spill

Job ID: 885-23438-1

Client Sample ID: MW-4

Lab Sample ID: 885-23438-1

Date Collected: 04/17/25 14:47

Matrix: Water

Date Received: 04/18/25 07:45

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl-tert-butyl Ether (MTBE)	ND		1.0	ug/L		04/24/25 00:18		1
Methylene Chloride	ND		2.5	ug/L		04/24/25 00:18		1
n-Butylbenzene	ND		3.0	ug/L		04/24/25 00:18		1
N-Propylbenzene	ND		1.0	ug/L		04/24/25 00:18		1
Naphthalene	ND		2.0	ug/L		04/24/25 00:18		1
sec-Butylbenzene	ND		1.0	ug/L		04/24/25 00:18		1
Styrene	ND		1.0	ug/L		04/24/25 00:18		1
tert-Butylbenzene	ND		1.0	ug/L		04/24/25 00:18		1
Tetrachloroethene (PCE)	ND		1.0	ug/L		04/24/25 00:18		1
Toluene	5.1		1.0	ug/L		04/24/25 00:18		1
trans-1,2-Dichloroethene	ND		1.0	ug/L		04/24/25 00:18		1
trans-1,3-Dichloropropene	ND		1.0	ug/L		04/24/25 00:18		1
Trichloroethene (TCE)	ND		1.0	ug/L		04/24/25 00:18		1
Trichlorofluoromethane	ND		1.0	ug/L		04/24/25 00:18		1
Vinyl chloride	ND		1.0	ug/L		04/24/25 00:18		1
Xylenes, Total	ND		1.5	ug/L		04/24/25 00:18		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surrogate)	93		70 - 130		04/24/25 00:18	1
Toluene-d8 (Surrogate)	94		70 - 130		04/24/25 00:18	1
4-Bromofluorobenzene (Surrogate)	88		70 - 130		04/24/25 00:18	1
Dibromofluoromethane (Surrogate)	98		70 - 130		04/24/25 00:18	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	3000		10	mg/L		04/19/25 16:21		20

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	4900		250	mg/L		04/23/25 09:51		1

Eurofins Albuquerque

QC Sample Results

Client: Ensolum LLC

Job ID: 885-23438-1

Project/Site: Chaco Plant Produced Water Spill

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 885-24857/5

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 24857

Analyte	MB	MB	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier				
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L	04/23/25 22:40	1
1,1,1-Trichloroethane	ND		1.0	ug/L	04/23/25 22:40	1
1,1,2,2-Tetrachloroethane	ND		2.0	ug/L	04/23/25 22:40	1
1,1,2-Trichloroethane	ND		1.0	ug/L	04/23/25 22:40	1
1,1-Dichloroethane	ND		1.0	ug/L	04/23/25 22:40	1
1,1-Dichloroethene	ND		1.0	ug/L	04/23/25 22:40	1
1,1-Dichloropropene	ND		1.0	ug/L	04/23/25 22:40	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L	04/23/25 22:40	1
1,2,3-Trichloropropane	ND		2.0	ug/L	04/23/25 22:40	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L	04/23/25 22:40	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L	04/23/25 22:40	1
1,2-Dibromo-3-Chloropropane	ND		2.0	ug/L	04/23/25 22:40	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L	04/23/25 22:40	1
1,2-Dichlorobenzene	ND		1.0	ug/L	04/23/25 22:40	1
1,2-Dichloroethane (EDC)	ND		1.0	ug/L	04/23/25 22:40	1
1,2-Dichloropropane	ND		1.0	ug/L	04/23/25 22:40	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L	04/23/25 22:40	1
1,3-Dichlorobenzene	ND		1.0	ug/L	04/23/25 22:40	1
1,3-Dichloropropane	ND		1.0	ug/L	04/23/25 22:40	1
1,4-Dichlorobenzene	ND		1.0	ug/L	04/23/25 22:40	1
1-Methylnaphthalene	ND		4.0	ug/L	04/23/25 22:40	1
2,2-Dichloropropane	ND		2.0	ug/L	04/23/25 22:40	1
2-Butanone	ND		10	ug/L	04/23/25 22:40	1
2-Chlorotoluene	ND		1.0	ug/L	04/23/25 22:40	1
2-Hexanone	ND		10	ug/L	04/23/25 22:40	1
2-Methylnaphthalene	ND		4.0	ug/L	04/23/25 22:40	1
4-Chlorotoluene	ND		1.0	ug/L	04/23/25 22:40	1
4-Isopropyltoluene	ND		1.0	ug/L	04/23/25 22:40	1
4-Methyl-2-pentanone	ND		10	ug/L	04/23/25 22:40	1
Acetone	ND		10	ug/L	04/23/25 22:40	1
Benzene	ND		1.0	ug/L	04/23/25 22:40	1
Bromobenzene	ND		1.0	ug/L	04/23/25 22:40	1
Bromodichloromethane	ND		1.0	ug/L	04/23/25 22:40	1
Dibromochloromethane	ND		1.0	ug/L	04/23/25 22:40	1
Bromoform	ND		1.0	ug/L	04/23/25 22:40	1
Bromomethane	ND		3.0	ug/L	04/23/25 22:40	1
Carbon disulfide	ND		10	ug/L	04/23/25 22:40	1
Carbon tetrachloride	ND		1.0	ug/L	04/23/25 22:40	1
Chlorobenzene	ND		1.0	ug/L	04/23/25 22:40	1
Chloroethane	ND		2.0	ug/L	04/23/25 22:40	1
Chloroform	ND		1.0	ug/L	04/23/25 22:40	1
Chloromethane	ND		3.0	ug/L	04/23/25 22:40	1
cis-1,2-Dichloroethene	ND		1.0	ug/L	04/23/25 22:40	1
cis-1,3-Dichloropropene	ND		1.0	ug/L	04/23/25 22:40	1
Dibromomethane	ND		1.0	ug/L	04/23/25 22:40	1
Dichlorodifluoromethane	ND		1.0	ug/L	04/23/25 22:40	1
Ethylbenzene	ND		1.0	ug/L	04/23/25 22:40	1
Hexachlorobutadiene	ND		1.0	ug/L	04/23/25 22:40	1

Eurofins Albuquerque

QC Sample Results

Client: Ensolum LLC
 Project/Site: Chaco Plant Produced Water Spill

Job ID: 885-23438-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 885-24857/5

 Client Sample ID: Method Blank
 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 24857

Analyte	MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Isopropylbenzene	ND		1.0	ug/L		04/23/25 22:40		1
Methyl-tert-butyl Ether (MTBE)	ND		1.0	ug/L		04/23/25 22:40		1
Methylene Chloride	ND		2.5	ug/L		04/23/25 22:40		1
n-Butylbenzene	ND		3.0	ug/L		04/23/25 22:40		1
N-Propylbenzene	ND		1.0	ug/L		04/23/25 22:40		1
Naphthalene	ND		2.0	ug/L		04/23/25 22:40		1
sec-Butylbenzene	ND		1.0	ug/L		04/23/25 22:40		1
Styrene	ND		1.0	ug/L		04/23/25 22:40		1
tert-Butylbenzene	ND		1.0	ug/L		04/23/25 22:40		1
Tetrachloroethene (PCE)	ND		1.0	ug/L		04/23/25 22:40		1
Toluene	ND		1.0	ug/L		04/23/25 22:40		1
trans-1,2-Dichloroethene	ND		1.0	ug/L		04/23/25 22:40		1
trans-1,3-Dichloropropene	ND		1.0	ug/L		04/23/25 22:40		1
Trichloroethene (TCE)	ND		1.0	ug/L		04/23/25 22:40		1
Trichlorofluoromethane	ND		1.0	ug/L		04/23/25 22:40		1
Vinyl chloride	ND		1.0	ug/L		04/23/25 22:40		1
Xylenes, Total	ND		1.5	ug/L		04/23/25 22:40		1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		04/23/25 22:40	1
Toluene-d8 (Surr)	93		70 - 130		04/23/25 22:40	1
4-Bromofluorobenzene (Surr)	81		70 - 130		04/23/25 22:40	1
Dibromofluoromethane (Surr)	111		70 - 130		04/23/25 22:40	1

Lab Sample ID: LCS 885-24857/4

 Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 24857

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
	Added							
1,1-Dichloroethene	20.0		19.6		ug/L		98	70 - 130
Benzene	20.0		20.1		ug/L		101	70 - 130
Chlorobenzene	20.0		20.9		ug/L		105	70 - 130
Toluene	20.0		19.4		ug/L		97	70 - 130
Trichloroethene (TCE)	20.0		18.2		ug/L		91	70 - 130

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
Toluene-d8 (Surr)	93		70 - 130
4-Bromofluorobenzene (Surr)	87		70 - 130
Dibromofluoromethane (Surr)	106		70 - 130

Lab Sample ID: 885-23438-1 MS

 Client Sample ID: MW-4
 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 24857

Analyte	Sample Result	Sample Qualifier	Spike		MS Result	MS Qualifier	Unit	D	%Rec	Limits
			Added							
1,1-Dichloroethene	ND		20.0		20.4		ug/L		102	70 - 130
Benzene	5.9		20.0		28.1		ug/L		111	70 - 130

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QC Sample Results

Client: Ensolum LLC
 Project/Site: Chaco Plant Produced Water Spill

Job ID: 885-23438-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 885-23438-1 MS

Matrix: Water

Analysis Batch: 24857

 Client Sample ID: MW-4
 Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
Chlorobenzene	ND		20.0	23.7		ug/L		119	70 - 130
Toluene	5.1		20.0	28.0		ug/L		115	70 - 130
Trichloroethene (TCE)	ND		20.0	19.4		ug/L		97	70 - 130
Surrogate									
1,2-Dichloroethane-d4 (Surr)	94			70 - 130					
Toluene-d8 (Surr)	95			70 - 130					
4-Bromofluorobenzene (Surr)	90			70 - 130					
Dibromofluoromethane (Surr)	100			70 - 130					

Lab Sample ID: 885-23438-1 MSD

Matrix: Water

Analysis Batch: 24857

 Client Sample ID: MW-4
 Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				
1,1-Dichloroethene	ND		20.0	19.0		ug/L		95	70 - 130
Benzene	5.9		20.0	26.9		ug/L		105	70 - 130
Chlorobenzene	ND		20.0	22.5		ug/L		113	70 - 130
Toluene	5.1		20.0	26.4		ug/L		106	70 - 130
Trichloroethene (TCE)	ND		20.0	18.4		ug/L		92	70 - 130
Surrogate									
1,2-Dichloroethane-d4 (Surr)	95			70 - 130					
Toluene-d8 (Surr)	92			70 - 130					
4-Bromofluorobenzene (Surr)	87			70 - 130					
Dibromofluoromethane (Surr)	100			70 - 130					

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-24605/4

 Client Sample ID: Method Blank
 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 24605

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Sulfate	ND		0.50	mg/L			04/19/25 10:24	1

Lab Sample ID: LCS 885-24605/5

 Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 24605

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				
Sulfate	10.0	10.5		mg/L		105	90 - 110

Lab Sample ID: MRL 885-24605/3

 Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 24605

Analyte	Spike	MRL	MRL	Unit	D	%Rec	%Rec
	Added	Result	Qualifier				
Sulfate	0.500	0.518		mg/L		104	50 - 150

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QC Sample Results

Client: Ensolum LLC

Job ID: 885-23438-1

Project/Site: Chaco Plant Produced Water Spill

Method: 2540C - Solids, Total Dissolved (TDS)**Lab Sample ID: MB 885-24795/1****Matrix: Water****Analysis Batch: 24795****Client Sample ID: Method Blank****Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		50	mg/L			04/23/25 09:51	1

Lab Sample ID: LCS 885-24795/2**Matrix: Water****Analysis Batch: 24795****Client Sample ID: Lab Control Sample****Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	1000	1030		mg/L		103	80 - 120

QC Association Summary

Client: Ensolum LLC
 Project/Site: Chaco Plant Produced Water Spill

Job ID: 885-23438-1

GC/MS VOA**Analysis Batch: 24857**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23438-1	MW-4	Total/NA	Water	8260B	
MB 885-24857/5	Method Blank	Total/NA	Water	8260B	
LCS 885-24857/4	Lab Control Sample	Total/NA	Water	8260B	
885-23438-1 MS	MW-4	Total/NA	Water	8260B	
885-23438-1 MSD	MW-4	Total/NA	Water	8260B	

HPLC/IC**Analysis Batch: 24605**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23438-1	MW-4	Total/NA	Water	300.0	
MB 885-24605/4	Method Blank	Total/NA	Water	300.0	
LCS 885-24605/5	Lab Control Sample	Total/NA	Water	300.0	
MRL 885-24605/3	Lab Control Sample	Total/NA	Water	300.0	

General Chemistry**Analysis Batch: 24795**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-23438-1	MW-4	Total/NA	Water	2540C	
MB 885-24795/1	Method Blank	Total/NA	Water	2540C	
LCS 885-24795/2	Lab Control Sample	Total/NA	Water	2540C	

Eurofins Albuquerque

Lab Chronicle

Client: Ensolum LLC
 Project/Site: Chaco Plant Produced Water Spill

Job ID: 885-23438-1

Client Sample ID: MW-4

Date Collected: 04/17/25 14:47

Lab Sample ID: 885-23438-1

Matrix: Water

Date Received: 04/18/25 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	24857	CM	EET ALB	04/24/25 00:18
Total/NA	Analysis	300.0		20	24605	ES	EET ALB	04/19/25 16:21
Total/NA	Analysis	2540C		1	24795	HR	EET ALB	04/23/25 09:51

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

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Eurofins Albuquerque

Accreditation/Certification Summary

Client: Ensolum LLC

Job ID: 885-23438-1

Project/Site: Chaco Plant Produced Water Spill

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NEILAP	NM100001	02-26-26

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Eurofins Albuquerque

Login Sample Receipt Checklist

Client: Ensolum LLC

Job Number: 885-23438-1

Login Number: 23438**List Source: Eurofins Albuquerque****List Number: 1****Creator: Casarrubias, Tracy**

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	True		1
Sample custody seals, if present, are intact.	True		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		
Sample containers have legible labels.	True		
Containers are not broken or leaking.	True		
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	True		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True		



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green
Ensolum LLC
848 E 2nd Avenue
Durango, Colorado 81301

Generated 11/7/2025 11:38:59 AM

JOB DESCRIPTION

Chaco Produced Water Spill

JOB NUMBER

885-36183-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Released to Imaging: 1/13/2026 1:49:52 PM

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



Authorized for release by
John Caldwell, Project Manager
john.caldwell@et.eurofinsus.com
(505)345-3975

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Definitions/Glossary

Client: Ensolum LLC
 Project/Site: Chaco Produced Water Spill

Job ID: 885-36183-1

Qualifiers**General Chemistry**

Qualifier	Qualifier Description
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
⊕	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Eurofins Albuquerque

Case Narrative

Client: Ensolum LLC
Project: Chaco Produced Water Spill

Job ID: 885-36183-1

Job ID: 885-36183-1**Eurofins Albuquerque****Job Narrative
885-36183-1**

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The sample was received on 10/24/2025 7:30 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C.

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

Method 2540C_SingleDry: The analysis volume selected for the following samples produced a base result greater than 200mg before calculation of the final result: MW-4 (885-36183-1), (885-36161-H-6) and (885-36161-H-6 DU). Reanalysis could not be performed due to holding time exceedance. Visual inspection by analyst shows no signs of trapped moisture, report as is. The reference method specifies that no more than 200mg of weight be recovered for a chosen sample analysis volume in order to produce the best data precision. As such, these data have been qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Eurofins Albuquerque

Client Sample Results

Client: Ensolum LLC

Job ID: 885-36183-1

Project/Site: Chaco Produced Water Spill

Client Sample ID: MW-4**Lab Sample ID: 885-36183-1**

Date Collected: 10/23/25 12:01

Matrix: Water

Date Received: 10/24/25 07:30

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3.8		1.0	ug/L			10/31/25 14:00	1
Ethylbenzene	ND		1.0	ug/L			10/31/25 14:00	1
Toluene	1.6		1.0	ug/L			10/31/25 14:00	1
Xylenes, Total	ND		1.5	ug/L			10/31/25 14:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		10/31/25 14:00	1
Toluene-d8 (Surr)	96		70 - 130		10/31/25 14:00	1
4-Bromofluorobenzene (Surr)	96		70 - 130		10/31/25 14:00	1
Dibromofluoromethane (Surr)	100		70 - 130		10/31/25 14:00	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2800		50	mg/L			10/29/25 11:08	100

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	4800	E	50	mg/L			10/30/25 19:10	1

QC Sample Results

Client: Ensolum LLC

Job ID: 885-36183-1

Project/Site: Chaco Produced Water Spill

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 885-37599/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 37599

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Benzene	ND				1.0	ug/L			10/31/25 03:18	1
Ethylbenzene	ND				1.0	ug/L			10/31/25 03:18	1
Toluene	ND				1.0	ug/L			10/31/25 03:18	1
Xylenes, Total	ND				1.5	ug/L			10/31/25 03:18	1
Surrogate	MB	MB	%Recovery	Qualifier	Limits		D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
1,2-Dichloroethane-d4 (Surr)	99		70 - 130						10/31/25 03:18	1
Toluene-d8 (Surr)	95		70 - 130						10/31/25 03:18	1
4-Bromofluorobenzene (Surr)	95		70 - 130						10/31/25 03:18	1
Dibromofluoromethane (Surr)	100		70 - 130						10/31/25 03:18	1

Lab Sample ID: LCS 885-37599/3

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 37599

Analyte	MB	MB	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	
	Result	Qualifier								
Benzene			20.0	21.2		ug/L		106	70 - 130	
Toluene			20.0	20.9		ug/L		105	70 - 130	
Surrogate	MB	MB	%Recovery	Qualifier	Limits		D	%Rec	Limits	
	Result	Qualifier								
1,2-Dichloroethane-d4 (Surr)	100		70 - 130							
Toluene-d8 (Surr)	97		70 - 130							
4-Bromofluorobenzene (Surr)	96		70 - 130							
Dibromofluoromethane (Surr)	99		70 - 130							

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-37335/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 37335

Analyte	MB	MB	Result	Qualifier	Unit	D	%Rec	Limits	
	Result	Qualifier							
Sulfate	ND		0.50		mg/L			10/28/25 11:28	1

Lab Sample ID: LCS 885-37335/5

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 37335

Analyte	MB	MB	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	
	Result	Qualifier								
Sulfate			10.0	9.56		mg/L		96	90 - 110	

Lab Sample ID: MRL 885-37335/3

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 37335

Analyte	MB	MB	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	Limits	
	Result	Qualifier								
Sulfate			0.500	0.515		mg/L		103	50 - 150	

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QC Sample Results

Client: Ensolum LLC

Job ID: 885-36183-1

Project/Site: Chaco Produced Water Spill

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 885-37442/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 37442

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Sulfate	ND		0.50	mg/L			10/29/25 10:25	1

Lab Sample ID: LCS 885-37442/5

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 37442

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Sulfate	10.0	10.1		mg/L	101	90 - 110	

Lab Sample ID: MRL 885-37442/3

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 37442

Analyte	Spike	MRL	MRL	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Sulfate	0.500	0.523		mg/L	105	50 - 150	

Method: 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 885-37603/1

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 37603

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Total Dissolved Solids	ND		50	mg/L			10/30/25 19:10	1

Lab Sample ID: LCS 885-37603/2

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 37603

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Total Dissolved Solids	1000	1010		mg/L	101	80 - 120	

Eurofins Albuquerque

QC Association Summary

Client: Ensolum LLC
 Project/Site: Chaco Produced Water Spill

Job ID: 885-36183-1

GC/MS VOA**Analysis Batch: 37599**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-36183-1	MW-4	Total/NA	Water	8260B	
MB 885-37599/4	Method Blank	Total/NA	Water	8260B	
LCS 885-37599/3	Lab Control Sample	Total/NA	Water	8260B	

HPLC/IC**Analysis Batch: 37335**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-37335/4	Method Blank	Total/NA	Water	300.0	
LCS 885-37335/5	Lab Control Sample	Total/NA	Water	300.0	
MRL 885-37335/3	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 37442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-36183-1	MW-4	Total/NA	Water	300.0	
MB 885-37442/4	Method Blank	Total/NA	Water	300.0	
LCS 885-37442/5	Lab Control Sample	Total/NA	Water	300.0	
MRL 885-37442/3	Lab Control Sample	Total/NA	Water	300.0	

General Chemistry**Analysis Batch: 37603**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-36183-1	MW-4	Total/NA	Water	2540C	
MB 885-37603/1	Method Blank	Total/NA	Water	2540C	
LCS 885-37603/2	Lab Control Sample	Total/NA	Water	2540C	

Lab Chronicle

Client: Ensolum LLC

Job ID: 885-36183-1

Project/Site: Chaco Produced Water Spill

Client Sample ID: MW-4**Lab Sample ID: 885-36183-1**

Date Collected: 10/23/25 12:01

Matrix: Water

Date Received: 10/24/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	37599	CM	EET ALB	10/31/25 14:00
Total/NA	Analysis	300.0		100	37442	MA	EET ALB	10/29/25 11:08
Total/NA	Analysis	2540C		1	37603	KS	EET ALB	10/30/25 19:10

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

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Eurofins Albuquerque

Accreditation/Certification Summary

Client: Ensolum LLC

Job ID: 885-36183-1

Project/Site: Chaco Produced Water Spill

Laboratory: Eurofins Albuquerque

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NEILAP	NM100001	02-26-26

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Eurofins Albuquerque

Login Sample Receipt Checklist

Client: Ensolum LLC

Job Number: 885-36183-1

SDG Number:

Login Number: 36183**List Source: Eurofins Albuquerque****List Number: 1****Creator: Casarrubias, Tracy**

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	True		1
Sample custody seals, if present, are intact.	True		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		
Sample containers have legible labels.	True		
Containers are not broken or leaking.	True		
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	N/A		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True		

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 542484

CONDITIONS

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 542484
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
shanna.smith	Transition from submitting semi-annual monitoring and sampling reports to submitting quarterly monitoring and sampling reports. Operators may request to reduce sampling events based upon future results.	1/13/2026
shanna.smith	Continue to monitor and sample monitor well/s per 2025 AGWMR. Re-evaluate after Stage 1 activities are completed and data is submitted as a report to OCD permitting.	1/13/2026
shanna.smith	Submit 1st quarter groundwater monitoring and sampling report by April 30, 2026.	1/13/2026