2024

Site Monitoring Report

North Indian Bend Wash Superfund Site

Prepared for:

U.S. Environmental Protection Agency

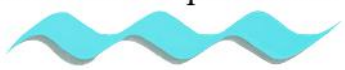
Region IX

Prepared by:

NIBW Participating Companies

Issued February 28, 2025

North Indian Bend Wash Superfund Site



SITE MONITORING REPORT

January - December 2024

North Indian Bend Wash Superfund Site

Scottsdale, Arizona

Issued February 28, 2025

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North Indian Bend Wash Superfund Site

2024 Site Monitoring Report

February 28, 2025

CERTIFICATION

All geological information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by Registered Geologists.



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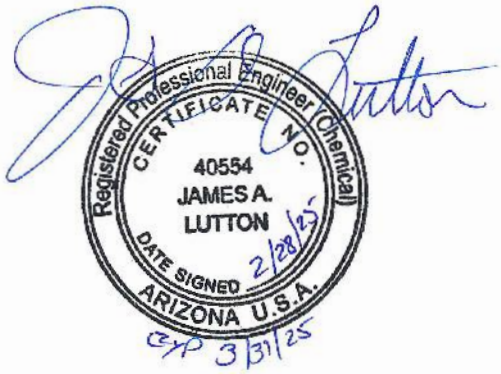
North Indian Bend Wash Superfund Site

2024 Site Monitoring Report

February 28, 2025

CERTIFICATION

All engineering information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by a Registered Professional Engineer.



James A. Lutton, P.E.
Registered Professional Engineer (40554)

1 EXECUTIVE SUMMARY

The North Indian Bend Wash (NIBW) Superfund Site (Site) was listed on the U.S. Environmental Protection Agency (EPA) National Priorities List in September 1983 as a result of detection of volatile organic compounds (VOCs) in drinking water wells in south Scottsdale, Arizona. VOCs, primarily trichloroethene (TCE), entered the vadose zone and groundwater system from historical manufacturing and other industrial operations. Groundwater containment, treatment, and monitoring are conducted at the NIBW Site to restore groundwater for public water supply and protect unimpacted existing public supply wells (peripheral production wells), all within the context of effectively managing groundwater resources in Arizona.

The 2024 Site Monitoring Report (SMR) summarizes remedial activities and data collected by the NIBW Participating Companies (PCs) pursuant to compliance requirements described in the Amended Consent Decree (Amended CD, 2003). The performance evaluation is conducted pursuant to the Amended CD Statement of Work (SOW) Performance Standards and metrics outlined in the Site Groundwater Monitoring and Evaluation Plan (GM&EP), (NIBW PCs, 2002). Composed of NIBW Technical Committee members, a technical Working Group has been established to review the GM&EP and develop updates as appropriate to monitoring requirements and performance metrics. This group convenes on a regular basis in order to present recommendations and produce a GM&EP Update by the end of 2025.

The Site remedy was designed and is being implemented based on an understanding of the geologic framework and the groundwater flow system (also referred to as the Conceptual Site Model, or CSM). The updated CSM Report (NIBW PCs, 2023) focused on data collected over the 20-year period after the Feasibility Study Addendum was released (NIBW PCs, 2000). In preparation for the 2026 Five-Year Review, the CSM Report will be further updated with 5 additional years of data in 2025. The Site remedy is driven by pumping and recharge to capture groundwater with VOCs above applicable standards at a series of extraction wells tied into treatment at five facilities: the Central Groundwater Treatment Facility (CGTF), the NIBW Granular Activated Carbon (GAC) Treatment Facility (NGTF), the Miller Road Treatment Facility (MRTF), the Area 7 Groundwater Extraction and Treatment System (Area 7 GWETS), and the Area 12 Groundwater Extraction and Treatment System (Area 12 GWETS).

The three principal alluvial aquifer units at the Site include the Upper Alluvial Unit (UAU), the Middle Alluvial Unit (MAU), and the Lower Alluvial Unit (LAU). Monitoring wells in these units are used to track and evaluate groundwater levels and concentrations of VOCs of concern at the Site, principally TCE, both spatially and temporally. Remediation of the three aquifer units is being conducted under two operable units (OUs), which require specific actions. The MAU and LAU comprise OU 1; the UAU comprises OU 2.

Most groundwater pumping within and in the vicinity of the Site occurs in the LAU, with a substantial contribution of groundwater pumping also occurring from wells screened in the MAU. Soil vapor extraction (SVE) at multiple historical source areas and UAU groundwater extraction and treatment at Area 7 were conducted during the early phases of remediation at the Site. When modeling and monitoring data indicated that the threat to groundwater at source areas where SVE was conducted was below the Cleanup Standards, EPA approved closure of SVE operations as well as Area 7 UAU groundwater extraction. The UAU was initially the unit at the site with the highest VOC concentrations, exceeding those currently observed in the MAU or LAU in the 1980s. Since 2022, TCE concentrations have remained below the Cleanup Standard in all UAU monitoring wells and UAU groundwater is approaching restoration. The highest TCE concentrations at the Site are observed in the upper portion of the MAU. The MAU and LAU plume areas continue to be reduced over time and reductions in the higher TCE concentration areas of the plume are most dramatic. For the SMR, the NIBW PCs voluntarily analyze TCE concentration changes over time using a Mann-Kendall statistical approach to determine whether TCE concentrations in monitoring wells show statistically significant trends over the most recent 5- and 10-year periods.

Groundwater extraction and treatment in the Upper MAU is focused on containment of areas with relatively higher TCE concentrations. Currently, the highest TCE concentrations at the Site are located near Area 7 and at the Area 12 Granite Reef extraction well (Area 5B). Capture of the Area 7 MAU source includes Source Control pumping at Area 7 extraction wells, which pump from the Upper MAU, and pumping at CGTF extraction wells, which capture portions of the Upper MAU, Lower MAU, and LAU. The Area 12 extraction wells capture portions of both the Upper MAU and Lower MAU. Upper MAU containment is demonstrated using water level data.

Remaining mass in the UAU and in the MAU outside of Source Control and CGTF well capture migrates into the LAU, mainly along the Western Margin, and is captured by downgradient LAU extraction wells. Capture by LAU extraction wells is demonstrated using water level data and simulated particle tracks generated using the NIBW groundwater flow model. The model underwent a comprehensive update by the NIBW PCs through a collaborative process with the NIBW Technical Committee in 2021. Another comprehensive model update will be conducted in 2025 in advance of the 2026 Five-Year Review. For this SMR, model pumping data within and immediately surrounding the Site was updated through 2024 for interpretation of capture in the LAU.

Results of the annual remedy performance evaluation for 2024 relative to metrics outlined in the GM&EP for the UAU, MAU/LAU, Northern LAU, and Area 7/Area 12 Source Control Programs are summarized below:

- UAU Program: Based on the 2024 5-year running average, UAU VOC mass is decreasing with time compared to the 2023 5-year running average. For the third year in a row, TCE concentrations at all UAU monitoring wells were below the clean-up level of 5 micrograms per liter (µg/L).
- MAU/LAU Program: The direction of groundwater movement along the periphery of the MAU/LAU plume is toward either extraction wells or the Western Margin based on contoured October 2024 water level data. The lateral extent of the 5 µg/L TCE concentration contour in the MAU or LAU has not shifted more than 1,000 feet relative to the October 2001 baseline plumes, with the exception of the anticipated migration of the LAU plume north for capture at PV-15. TCE concentrations in all assigned MAU/LAU indicator wells were less than their associated achievement measures. Mann-Kendall trend analyses show declining, stable, or no trends over both the long-term (10 years) and in the more recent data set (5 years) for most MAU and LAU monitoring wells.
- Northern LAU Program: The direction of groundwater movement along the Northern LAU plume periphery was toward extraction wells based on October and April 2024 water level contours and the model-projected outermost extent of capture at the LAU extraction wells using annual pumping for 2024. Additionally, TCE concentrations in indicator monitoring wells PG-42LA, PG-43LA, and PV-14 were all below 2 µg/L during 2024 monitoring rounds.
- Source Control Program: The combined 5-year running average TCE concentration metric was achieved for Area 7, but since average concentrations were identical for 2023 and 2024 this metric was not strictly achieved for Area 12 indicator wells for 2024. Short-term TCE concentration increases due to downtime for Area 12 extraction wells caused by either routine annual or unanticipated maintenance needs within the last 5 years are interpreted to be responsible for the lack of compliance with this metric. Capture to the vicinity of PA-12MA was not demonstrated at Area 7; however, capture to the vicinity of Hayden Road was achieved at Area 12.

Progress is being made toward achievement of the Remedial Action Objectives (RAOs) outlined in the Amended Record of Decision (Amended ROD) for the Site. Treated water was put to beneficial use for municipal supply by the City of Scottsdale, EPCOR Water USA (EPCOR), and Salt River Project (SRP) at three of the treatment facilities (CGTF, MRTF, and NGTF). Treated water from the Area 7 GWETS was re-injected into the UAU and treated water from the Area 12 GWETS was delivered to SRP for municipal and irrigation use. Groundwater treatment Performance Standards were achieved at the five treatment facilities in 2024. Completion of the City of Scottsdale's Thomas Groundwater Treatment Facility (TGTF) in 2023—originally designed to treat inorganic constituents in groundwater using reverse osmosis (RO)—is a critical

element of the plan to bring COS-71A back online at a higher pumping priority. Well COS-71A, which was modified to pump only from the MAU to enhance capture in the MAU downgradient from Area 7, and planned conversion of monitoring well PG-41MA/LA into an extraction well for tie-in to the NGTF, will become critical components of the remedy and of the City of Scottsdale's water supply when they are implemented. Another important aspect of the TGTF has been highlighted by the recently issued (April 2024) per-and polyfluoroalkyl substances (PFAS) drinking water standards. RO is a Best Available Demonstrated Control Technology for PFAS; therefore, the need for the TGTF has broadened. Operation of the TGTF allows the City of Scottsdale (COS) to better balance the needs of the NIBW remedy with the need to serve water that complies with drinking water standards for inorganics and PFAS.

2 DOCUMENT CONTENT & PURPOSE

The 2024 Site Monitoring Report (SMR) summarizes remedial activities performed and data collected by the North Indian Bend Wash (NIBW) Participating Companies (PCs) (which include Motorola Solutions, Inc., Siemens, and GlaxoSmithKline) pursuant to the Amended Consent Decree (Amended CD), CV-91-1835-PHX-FJM, entered by the U.S. District Court for the District of Arizona on June 5, 2003. A detailed summary of the components and work requirements of the remedial action program can be found in the Record of Decision Amendment – Final Operable Unit (OU), Indian Bend Wash Area (Amended ROD), dated September 27, 2001, and Statement of Work (SOW), Appendix A to the Amended CD. An organizational chart identifying the key parties involved at the NIBW Superfund Site (the Site) is provided in **Appendix K**, along with contact information for current NIBW team members. Additional information describing remedial activities conducted at the NIBW Site in 2024 was provided in quarterly reports submitted to the U.S. Environmental Protection Agency (EPA) and Arizona Department of Environmental Quality (ADEQ), dated May 30, August 28, and November 26, 2024. Consistent with requirements defined in the Amended CD and SOW (2003), operational summaries and updates for fourth quarter 2024 were submitted under a separate cover. Documents and data submitted to EPA during 2024 are listed in **Appendix H**.

This SMR presents a summary and overview of compliance monitoring data collected and acquired to demonstrate performance of the remedial action program. In conjunction with development of the 2024 SMR, the NIBW PCs compiled compliance monitoring data, laboratory analytical reports, quality assurance reports, and other monitoring data required by the Amended CD, SOW, governing work plans, and agency requests, which are included in supplemental data submittals issued as electronic files under separate cover. Information covered in the SMR or included in supplemental data submittals includes the following:

- An overview of the Site background including regulatory history, a description of the remedy and treatment facilities, an overview of the conceptual site model (CSM), and applicable standards and metrics used for performance evaluation.
- Presentation of annual data and analyses including groundwater pumping data, water level elevations, water quality sample results collected and analyzed for specific volatile organic compounds (VOCs) of concern, and annual operation of treatment facilities.
- An evaluation of remedy performance with respect to applicable Performance Standards and metrics.

- A summary of supplemental activities, including additional data collection and evaluation conducted in 2024.
- Results of NIBW PCs' annual audit at Pace Analytical National Center for Testing & Innovation (PACE) (Arizona Department of Health Services [ADHS] license number AZ0612) in Mt. Juliet, Tennessee, the primary NIBW analytical laboratory contractor.
- Level 2 and Level 4 data analytical reports and a quality assurance (QA) report issued by PACE for analyses conducted for the NIBW groundwater monitoring program during 2024.
- Level 2 and Level 4 data analytical reports and a QA report issued by PACE for analysis of compliance process water samples obtained at NIBW groundwater treatment systems during 2024.
- Level 2 analytical reports issued by Eurofins Environment Testing Southwest (Eurofins) (ADHS license number AZ0728), the backup NIBW analytical laboratory contractor, for various split sampling conducted in 2024.
- 2024 air sampling summary and Eurofins Air Toxics laboratory reports for the Area 7 Groundwater Extraction and Treatment System (GWETS) and Area 12 GWETS.
- 2024 supplemental sample data not required for compliance but used for evaluation purposes at the Site.

3 SITE BACKGROUND

3.1 Regulatory History and Major Events

The Site was listed on the EPA National Priorities List in September 1983 when VOCs were detected in drinking water wells in south Scottsdale, Arizona. VOCs entered the subsurface from historical manufacturing and other industrial operations. The following constituents of concern (COCs) were identified at the Site: trichloroethene (TCE), tetrachloroethene (PCE), 1,1-dichloroethene (1,1- DCE), 1,1,1-trichloroethane (1,1,1-TCA), and chloroform (TCM). The primary COC at the Site is TCE, since the magnitude and extent of TCE has consistently exceeded that of other VOCs during the monitoring history at the Site. **Table 1** provides a timeline that summarizes historical documents and major events for the Site.

Table 1. Timeline of Historical Documents and Major Events

Timeframe	Historical Document and/or Major Event
1981	Volatile organic compounds first detected in groundwater
1983	NIBW Site placed on National Priorities list
1984-1991	Initial Remedial Investigation and Report
1988-1992	Operable Unit I - Middle and Lower Alluvial Unit groundwater ○ Feasibility Study ○ Record of Decision ○ Consent Decree
1991-1993	Operable Unit II - Upper Alluvial Unit groundwater and vadose zone ○ Record of Decision ○ Consent Decree
1994 - 1999	Central Groundwater Treatment Facility online to treat volatile organic compounds (1994) Area 7 and Area 12 Soil Vapor Extraction (SVE) Systems (1994) Voluntary actions ○ Area 7 UAU groundwater extraction and treatment system (1994) ○ Northern LAU extraction to provide protection of Paradise Valley Water Company wells (Miller Road Treatment Facility) (1997) ○ Groundwater extraction and treatment at Area 7 and Area 12 historical source areas in Middle Alluvial Unit (1999)
1999	Feasibility Study Addendum ○ Voluntary actions evaluated
2001	Amended Record of Decision ○ Remedy selected ○ Voluntary actions incorporated into selected remedy
2002	Groundwater Monitoring and Evaluation Plan ○ Prepared prior to signing of Amended Consent Decree ○ Documents agreed-upon activities and metrics
2003	Amended Consent Decree ○ Documents agreed upon compliance obligations, including Performance Standards (Appendix A of Statement of Work) ○ References Groundwater Monitoring and Evaluation Plan metrics for remedy performance and clarifies agreed upon additional work ○ Performance Standards and Groundwater Monitoring and Evaluation Plan metrics evaluated annually in Site Monitoring Report (see **Section 5** and evaluation in **Section 9**)
2006	Remedy construction complete

Timeframe	Historical Document and/or Major Event
2011	First Five-Year Review ○ Remedy deemed protective of human health and environment ○ Groundwater plume containment demonstrated
2012	Explanation of Significant Differences for treating PCX-1 at NIBW Granular Activated Carbon Treatment Facility
2013	NIBW Granular Activated Carbon Treatment Facility start-up
2015	EPA approved close out and decommissioning of final soil vapor extraction system (Area 7) to address threat to groundwater
2016	Second Five-Year Review ○ Remedy protectiveness determination deferred to evaluate potential exposure related to treatment facility emissions and soil vapor intrusion at historical sources ○ Groundwater plume containment demonstrated
2016-2020	Post Second Five-Year Review evaluations ○ Developed air dispersion model and conducted confirmatory sampling to demonstrate concentrations in vicinity of treatment systems are below applicable risk levels ○ Conducted vapor intrusion investigations at multiple historical source areas and indoor air investigations and mitigation at Area 7 where concentrations exceeded screening levels
2021-2022	Third Five-Year Review ○ EPA concluded that the NIBW remedy is currently protective of human health and the environment ○ NIBW PCs submitted comments on the EPA 2021 Five-Year Review and a request for revision in November 2021 Draft Conceptual Site Model Update ○ NIBW PCs submitted draft report in January 2021 ○ EPA provided comments on the draft in December 2021 ○ NIBW PCs submitted responses to comments in April 2022
2023	Extraction Well Changes ○ Modification of Well COS-71A to pump only from the MAU in April 2023 ○ Abandonment of Area 7 extraction well 7EX-4MA in December 2023 Final Conceptual Site Model Update Report (July 2023) Draft NIBW Groundwater Flow and Particle Tracking Model Update Report (August 2023) ○ EPA provided comments in October 2023 ○ NIBW PCs indicated EPA comments will be addressed as appropriate in 2025 model update and associated report

Timeframe	Historical Document and/or Major Event
2024	Groundwater Sampling for PFAS ○ NIBW PCs conducted voluntary sampling for PFAS in April (extraction wells) and October (monitoring wells) in response to EPA request (January 2024) EPA Final Optimization Review Memorandum (November 2024) Draft Area 7 Vapor Intrusion Remedial Investigation/Feasibility Study (RI/FS) Work Plan ○ NIBW PCs submitted draft Work Plan to EPA in December 2024

3.2 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Site are listed as follows (EPA, 2001).

A. *Restore the Upper, Middle, and Lower Aquifers to drinking water quality by decreasing the concentrations of the contaminants of concern to below the Cleanup Standards.*
B. *Protect human health and the environment by eliminating exposure to contaminated groundwater.*
C. *Provide the City of Scottsdale with a water source that meets Maximum Contaminant Levels (MCLs) for NIBW contaminants of concern.*
D. *Achieve containment of the groundwater contamination plume by preventing any further lateral migration of contaminants in groundwater.*
E. *Reuse of the water treated at the Site to the extent possible in accordance with Arizona's Groundwater Management Act.*
F. *Mitigate any soil contamination that continues to impact groundwater.*
G. *Provide long-term management of contaminated groundwater to improve the regional aquifer's suitability for potable use.*

3.3 Constituents of Concern and Applicable Standards

Standards for treated groundwater include the NIBW Cleanup Standards for potable end use, the Arizona Pollutant Discharge Elimination System (AZPDES) requirements for discharge of treated groundwater to surface water, and the Arizona Aquifer Protection Permit (APP) and Federal Underground Injection Control (UIC) substantive requirements for injection back into the aquifer. The NIBW Cleanup Standards are based on EPA drinking water MCLs except for TCM and 1,1-DCE; the MCL for 1,1-DCE is 7 micrograms per liter (µg/L). At the time of the Amended ROD, the MCL for TCM was 100 µg/L (EPA, 2001). Cleanup Standards for the NIBW COCs are shown in **Table 2**.

Table 2. NIBW COCs and Cleanup Standards

NIBW Cleanup Standards In Micrograms per Liter (µg/L)				
TCE	PCE	1,1-DCE	TCM	1,1,1-TCA
5	5	6	6	200

3.4 Historical Sources and Vadose Zone Clean Ups

Historical COC sources at the NIBW Site were primarily from industrial activities during the 1950s through the 1970s. VOCs disposed of at or near land surface during this period percolated down through the vadose zone to the groundwater. Production wells completed across multiple hydrogeologic units may have also acted as conduits for VOC migration in response to downward hydraulic gradients. Potential conduits were evaluated comprehensively in 1998 as part of the final remedy selection process (NIBW PCs, 1998). The report concluded that mass flux via conduits was not an ongoing issue of significance at the Site.

Fourteen historical source areas were originally identified across the Site, as shown on **Figure 1**. Four historical source areas (Areas 1, 2, 4, and 10) required no further action while the other 10 required additional soil gas sampling (SGS). To address the threat to groundwater, SVE was conducted at four historical source areas, including Area 6, 7, 8, and 12. SVE conducted at Area 6 was voluntary. All vadose zone SVE systems were approved for decommissioning with regard to threat to groundwater in early 2015, with the Area 7 SVE system being the final treatment system decommissioned in January 2016.

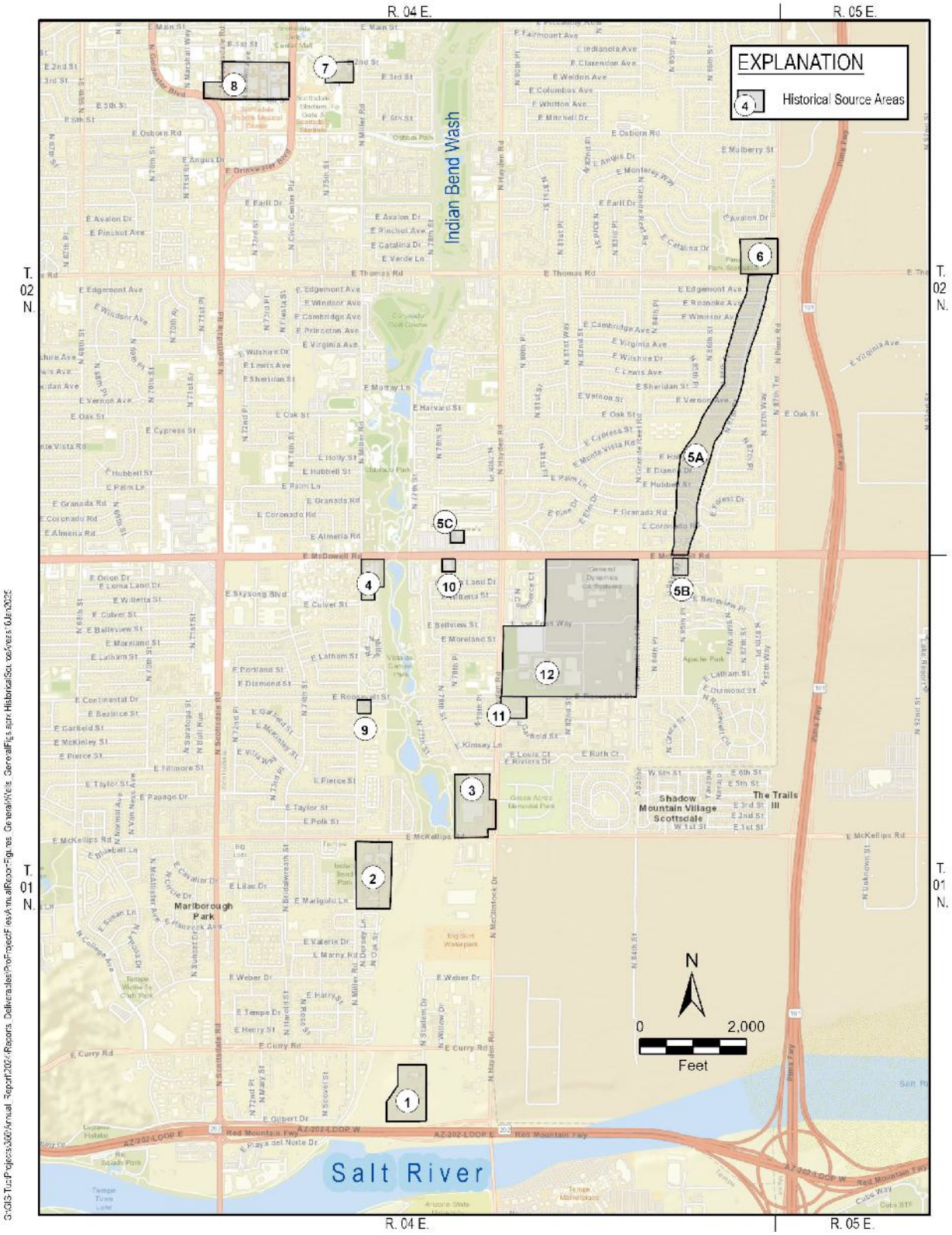


Figure 1. Location of Historical Source Areas at the NIBW Superfund Site

3.5 Groundwater Remedy Description

With the consideration of effectively managing groundwater resources in the state of Arizona, groundwater containment, treatment, and monitoring are conducted at the NIBW Site to restore groundwater for use as public water supply and to protect unimpacted existing public supply wells. The Site remedy has been designed and implemented based on an understanding of the geologic framework and the groundwater flow system to capture groundwater with VOCs above applicable standards at a series of extraction wells tied into treatment at five facilities: the Central Groundwater Treatment Facility (CGTF), the NIBW Granular Activated Carbon (GAC) Treatment Facility (NGTF), the Miller Road Treatment Facility (MRTF), the Area 7 GWETS, and the Area 12 GWETS. The three principal aquifer units at the Site are the Upper Alluvial Unit (UAU), Middle Alluvial Unit (MAU), and Lower Alluvial Unit (LAU). UAU groundwater extraction and treatment was voluntarily conducted during the early phases of the remediation at Area 7.

After the NIBW PCs' vadose zone modeling and monitoring data demonstrated that the threat to groundwater was below Cleanup Standards, EPA approved closure of SVE and UAU groundwater extraction at Area 7. Groundwater extraction and treatment in the Upper MAU is focused on containment of areas with relatively higher TCE concentrations; currently, the highest TCE concentrations at the Site are located near Area 7 and at the Granite Reef extraction well (Area 5B), part of the Area 12 GWETS. Capture of the Area 7 MAU source includes Source Control pumping at Area 7 extraction wells which pump from the Upper MAU and CGTF extraction wells which capture portions of the Upper MAU, Lower MAU, and LAU. The Area 12 extraction wells capture portions of both the Upper MAU and Lower MAU. Upper MAU containment is demonstrated using water level data. Remaining mass in the UAU and MAU outside of the Source Control and CGTF well capture migrates into the LAU, principally along the Western Margin, and is captured by downgradient LAU extraction wells. Capture by MAU and LAU extraction wells is demonstrated using water level data (both units) and simulated particle tracks generated using the NIBW groundwater flow model (LAU). The NIBW groundwater flow model underwent a comprehensive update by the NIBW PCs through a collaborative process with the NIBW Technical Committee in 2021. Capture interpretations were updated most recently in 2022 for inclusion in the *Draft NIBW Groundwater Flow and Particle Tracking Model Update Report*, submitted to EPA in August 2023. Comments on the draft Model Update Report were provided by EPA in October 2023. The NIBW PCs submitted comment responses in July 2024, indicating that EPA comments would be addressed as appropriate in the next comprehensive model update, which is planned for 2025 in advance of the 2026 Five-Year Review.

3.5.1 Groundwater Extraction & Treatment Systems

The locations of treatment facilities, pipelines, and extraction wells tied into treatment at the Site are shown on **Figure 2**. The location is also shown for well PG-41MA/LA, which is being permitted for use as an extraction well with treatment at the MRTF. Detailed descriptions of the treatment systems and extraction wells associated with those treatment systems are provided in the individual Operations & Maintenance (O&M) Plans and summarized in the Inspection Report in **Appendix I**.

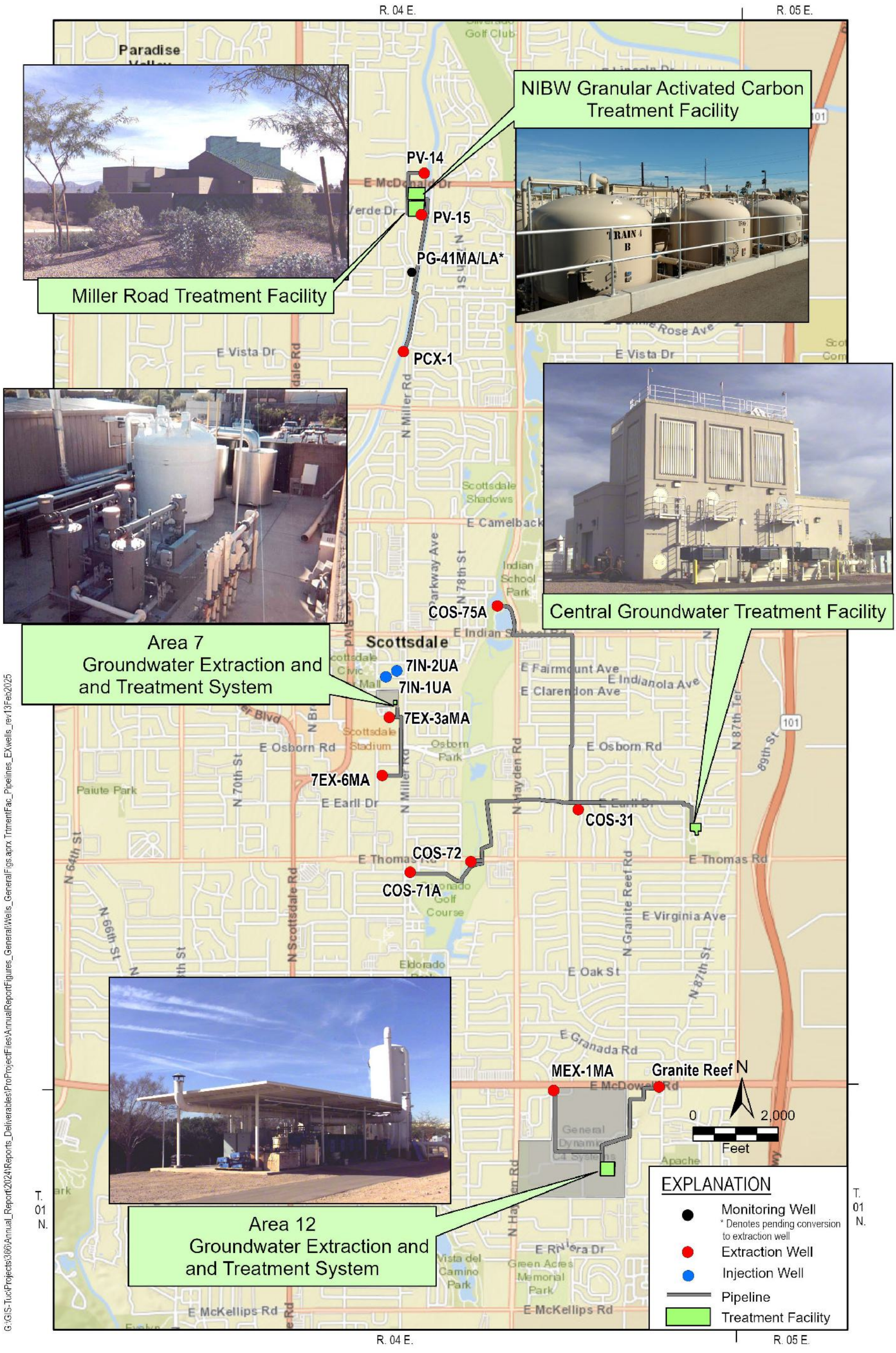


Figure 2. Location of Extraction Wells, Pipelines, and Treatment Facilities at the NIBW Superfund Site

An overview of treatment facility information, including the primary operators, the year of VOC treatment system start-up, the principal remedy function, names of associated extraction wells, facility treatment technologies and standards, and specified beneficial end uses, are summarized in **Table 3**. Treatment technologies, standards, and groundwater end uses for each of the treatment facilities comply with the Amended CD SOW Performance Standards for groundwater treatment.

Table 3. Overview of NIBW Treatment Facilities

Treatment Facility	CGTF	MRTF	NGTF	Area 7 GWETS	Area 12 GWETS
Treatment System Owner	City of Scottsdale	EPCOR	NIBW PCs	NIBW PCs	NIBW PCs
Primary Operator	City of Scottsdale	EPCOR	City of Scottsdale	NIBW PCs	NIBW PCs
Start of Operation to Treat VOCs	1994	1997	2013	1999	1999
Principal Remedy Function	MAU/LAU capture and treatment	Northern LAU capture and treatment	Northern LAU capture and treatment	MAU Source Control capture and treatment	MAU Source Control capture and treatment
Extraction Wells tied to Treatment and (Aquifer Unit)	COS-75A (LAU) COS-71A (MAU) COS-72 (MAU/LAU)* COS-31 (MAU/LAU)	PV-14 (LAU)** PV-15 (LAU)**	PCX-1 (LAU)**	7EX-3aMA (MAU) 7EX-6MA (MAU)	MEX-1MA (MAU) Granite Reef (MAU)
Treatment Technologies	Air stripping	Air stripping	Granular Activated Carbon	Ultraviolet oxidation and air stripping	Air stripping
Treatment Standards ***	NIBW Cleanup Standards	NIBW Cleanup Standards	NIBW Cleanup Standards & AZPDES Permit	NIBW Cleanup Standards and substantive requirements of APP and UIC	NIBW Cleanup Standards & AZPDES Permit
Treated Groundwater End Use	Municipal supply for the City of Scottsdale or discharged to the SRP water supply system via the Grand Canal	Delivered to EPCOR for municipal use	Municipal supply for the City of Scottsdale or delivered to the SRP water system via the Arizona Canal	Injection to UAU using wells 7IN-1UA and 7IN-2UA	Discharged to the SRP water supply system via McKellips Lake

EXPLANATION:

EPCOR = EPCOR Water USA

* The pump motor at COS-72 failed in January 2024 and its status is currently inactive, pending results of further evaluation.

** Extraction wells are also used as influent samples for treatment facilities.

*** See **Table 2** for NIBW Cleanup Standards; AZPDES compliance monitoring is submitted under separate cover in monthly Discharge Monitoring Reports (DMRs).

3.5.2 CGTF

The CGTF was the first treatment system constructed at the NIBW Site and began operations in 1994. The CGTF, owned and operated by the City of Scottsdale, is located at 8650 East Thomas Road in Scottsdale (**Figure 2**). It was constructed and modified to restore a potable water supply to the City of Scottsdale and to support capture of NIBW COCs in groundwater.

Groundwater extraction is performed at up to two supply wells owned by the City of Scottsdale or contracted for their use and designated as COS-31 and COS-75A. The pump motor failed at well COS-72 in early 2024. If results of pending evaluations of the well condition show that COS-72 is no longer serviceable, COS indicated in a Technical Committee meeting (NIBW PCs, 2024f) that it will not replace this extraction well, which has limited value to COS or the NIBW remedy. Treated groundwater from the CGTF has consistently met NIBW Cleanup Standards.

Since well COS-71A is a critical extraction well for the NIBW MAU remedy, it was rehabilitated and modified in 2023 with the objective of extracting a lower volume of water from the MAU. The lower pumping rate will allow groundwater from COS-71A to be more readily integrated into the City of Scottsdale's water supply.

The City of Scottsdale's Thomas Groundwater Treatment Facility (TGTF) is a critical element of the plan to bring COS-71A back into service. Since coming online, the importance of the TGTF has also been highlighted in relation to the new EPA per-and polyfluoroalkyl substances (PFAS) drinking water standards. Reverse osmosis (RO) is a Best Available Demonstrated Control Technology for PFAS compounds.

3.5.3 MRTF

Owned and operated by EPCOR Water USA (EPCOR), the MRTF began operation in 1997 and is located at 5975 North Miller Road in Scottsdale (**Figure 2**). It was constructed to capture and treat groundwater containing NIBW COCs in the Northern LAU to provide beneficial use of groundwater pumped from remedy extraction wells and prevent migration of the LAU plume to peripheral production wells. The NIBW PCs and EPCOR plan to implement a rehabilitation of the MRTF in 2025 and 2026, including an overhaul of the air stripper and associated systems; removal of the GAC air treatment systems, upgrades to certain mechanical, electrical, and control systems; improvements and repair to the MRTF building; and other improvements, maintenance, and site work. The work will be performed in phases so the MRTF can remain operational during the rehabilitation. Treated groundwater from the MRTF has consistently met NIBW Cleanup Standards.

3.5.4 NGTF

The NGTF began operations in 2013; the NIBW PCs own and are responsible for NGTF operations, maintenance, and performance. The City of Scottsdale operates the treatment facility under contract to the NIBW PCs because the treated water may be used in the City of Scottsdale's municipal system. The NGTF is located at 5985 Cattletrack Road, at the southeast corner of the intersection of Cattletrack Road and McDonald Drive in Scottsdale (**Figure 2**). It was constructed by the NIBW PCs to treat groundwater extracted from well PCX-1 to provide hydraulic capture of the Northern LAU plume and limit migration of the plume toward the EPCOR wellfield.

During 2023, the NIBW PCs continued working with the City of Scottsdale and SRP to permit and equip an existing monitoring well (PG-41MA/LA) for extraction and treatment at the NGTF to enhance capture of the LAU between PCX-1 and the MRTF extraction wells. Extraction at PG-41MA/LA will also provide extra protection in the event of any unanticipated down time at PCX-1. A well site development design for extraction of approximately 750 gallons per minute (gpm) is in progress. Property access and permitting activities continued through 2024. Treated groundwater from the NGTF has consistently met NIBW Cleanup Standards and AZPDES permit requirements.

3.5.5 Area 7 GWETS

The Area 7 GWETS began operation in 1999. The NIBW PCs own and are responsible for operation of the Area 7 GWETS. Area 7 is located at the southeast corner of North 75th Street and East 2nd Street in Scottsdale (**Figure 2**). The Area 7 GWETS was constructed to enhance the NIBW groundwater remedy by extracting and treating MAU groundwater containing relatively higher COC concentrations associated with the source area, thereby reducing COC mass migrating to other extraction wells for removal and treatment.

Groundwater extraction and treatment is currently performed at two wells, designated as 7EX-3aMA and 7EX-6MA. Well 7EX-5MA became inoperable in 2012 and was abandoned in 2015 (See **Figure 5** for location). Well 7EX-6MA was constructed and added to the system in 2015. Well 7EX-4MA was removed from service in October 2016 due to poor performance and decommissioned in December 2023 with EPA approval (See **Figure 5** for location). Treated groundwater from Area 7 has consistently met NIBW Cleanup Standards and substantive requirements of the UIC and APP programs.

3.5.6 Area 12 GWETS

The Area 12 GWETS began operations in 1999. The NIBW PCs own and are responsible for operation of the Area 12 GWETS, located at the former Motorola facility at 8201 East

McDowell Road in Scottsdale (**Figure 2**). It was installed to enhance the NIBW groundwater remedy by extracting and treating MAU groundwater containing relatively higher COC concentrations at the Area 5B and Area 12 source areas, reducing COC mass allowed to migrate to the Western Margin for removal and treatment at LAU extraction wells.

Groundwater extraction is performed using two MAU extraction wells designated as MEX-1MA and SRP well 23.6E,6.0N, also known as the Granite Reef well, located in source Area 5B. The impacts of pumping the City of Tempe (COT) well COT-6 on water levels and NIBW COC concentration trends at MAU monitoring wells in the southern part of the Site continued to be evaluated in 2024. Treated groundwater from the Area 12 GWETS has consistently met NIBW Cleanup Standards and AZPDES permit requirements.

4 CONCEPTUAL SITE MODEL

The NIBW CSM was initially developed by EPA in the late 1980s and documented in the Remedial Investigation / Feasibility Study (CH2M HILL, 1991); the CSM was further refined in the 2000 Feasibility Study Addendum (FSA). In 2021, the CSM was updated to incorporate information and understanding developed since the 2000 FSA. A draft was submitted to the agencies in January 2021 and EPA provided comments on the draft in December 2021. After submitting responses to comments in April 2022, the NIBW PCs submitted a final CSM in July 2023 (NIBW PCs, 2023). In advance of the 2026 Five-Year Review, a new update of the CSM is planned for 2025. While information provided in this section is largely from the 2023 CSM update, which includes data through 2019, the 2025 SMR will reference information from the 2025 CSM update, which will include data through 2024.

Hydrogeologic features and groundwater flow regimes have generally been consistent throughout the history of the Site. The remedy that was built around the CSM continues to be relevant. Over time, the understanding of the CSM has been clarified and refined with additional data collection, specifically regarding the understanding of aquifer responses to changes in local and regional system stresses (pumping and recharge). An overview of the current CSM is provided in the following section. Consistency of the CSM with data collected in 2024 is discussed in **Section 9.10**.

4.1 Setting and Key Features

The NIBW Site—located in the southern portion of the City of Scottsdale—is in the southwestern part of the Paradise Valley Basin in the eastern Salt River Basin. The Paradise Valley Basin is bounded to the east by the McDowell Mountains and to the west and southwest by Camelback Mountain, Mummy Mountain, and the Papago Buttes. The actual Site boundaries are defined by the extent of COCs in groundwater above Cleanup Standards, as established in the Amended ROD. Since TCE is the COC with the largest extent and highest concentrations, the TCE plume defines the boundaries of the Site. The plume is generally within the area bounded by McDonald Road to the north, Pima Road to the east, the Salt River to the south, and 68th Street to the west, as shown on **Figure** 3 and referred to in the SMR as the Site Boundary. East of the Site, occupying most of the land between the NIBW Site and the McDowell Mountains, are the Salt River Pima-Maricopa Indian Community (SRPMIC) lands, which are primarily used for agriculture or are undeveloped.

Land surface in the region generally slopes gently south toward the Salt River floodplain. Principal surface-water features in the vicinity of the Site include the Indian Bend Wash, the Salt River, the Salt River Project (SRP) canal system, Tempe Town Lake, McKellips Lake, and several artificial recharge projects. Groundwater recharge within and surrounding the Site,

principally from Salt River flows, infiltration of irrigation water on SRPMIC lands, and artificial recharge facilities, primarily the Granite Reef Underground Storage Project (GRUSP), significantly affects the groundwater flow system. **Figure 3** shows the location of the NIBW Site, nearby land use, and surrounding cities and mountains.

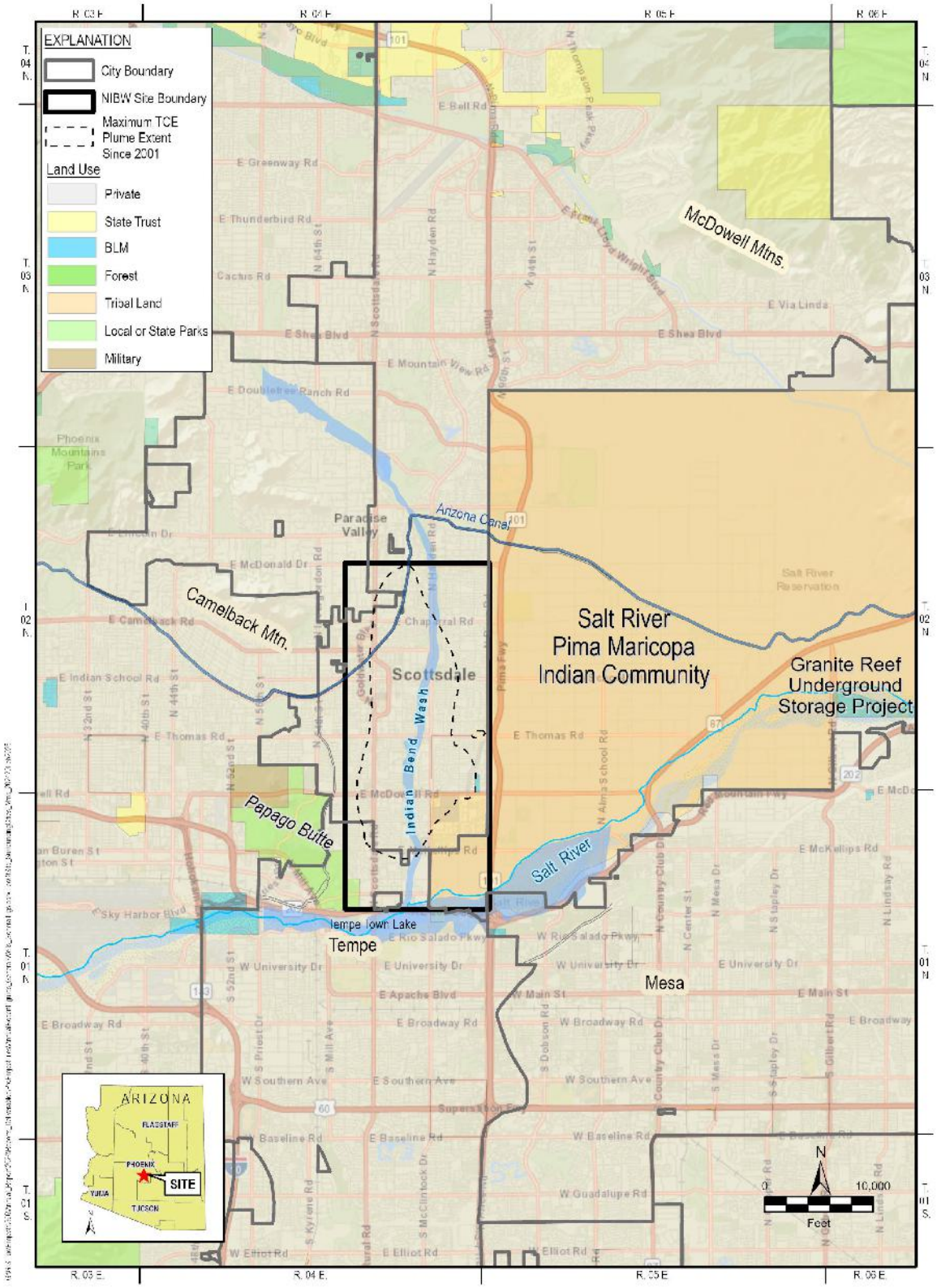


Figure 3. Location of the NIBW Superfund Site and Surrounding Land Area

4.2 Hydrogeologic Framework

The NIBW Site is situated in the Basin and Range geologic province, with the groundwater basin consisting primarily of Quaternary and late Tertiary age sedimentary deposits derived from erosion and uplift of the surrounding mountain blocks. Below the alluvial sedimentary deposits is the bedrock complex consisting of a Tertiary age strongly lithified sandstone/conglomerate known as the Red Unit, Precambrian age crystalline rocks, and some Tertiary age volcanics. Principal geologic characteristics of the sedimentary alluvial deposits in the vicinity of the NIBW Site are described in the following sections.

While hydraulic properties and patterns of groundwater movement are unique in each of the aquifers, patterns of water level decline and recovery over time are similar in the UAU, MAU, and LAU. Overall, the three units have experienced significant recovery since the early RI/FS investigations due to reduced pumping, increased recharge, and use of imported water sources.

4.2.1 Upper Alluvial Unit

UAU sediments were deposited as channel, floodplain, terrace, and alluvial fan deposits in an open basin with a through-flowing stream system. This unit consists of unconsolidated silt, sand, gravel, cobbles, and boulders, with occasional interbeds of finer-grained materials. Caliche is also present in some areas. Thickness of the UAU is relatively uniform across the Site, averaging approximately 150 feet. Consisting of generally coarse-grained material, the hydraulic conductivity in this unit is high relative to underlying sediments. The UAU is a water table aquifer and has the shallowest water levels of the three alluvial units at the Site. Saturated thickness of the UAU reaches a maximum of approximately 100 feet south of Indian School Road. Groundwater recharge occurs in the UAU from Salt River flows, infiltration of irrigation water on SRPMIC lands, infiltration of water from the Indian Bend Wash, and artificial recharge facilities, mainly GRUSP. Most recharge occurs east of the Site resulting in an east to west general groundwater flow direction in the UAU.

4.2.2 Middle Alluvial Unit

MAU sediments are generally much finer grained and more heterogeneous than either the UAU or the LAU. Deposition of MAU sediments was from low-energy playa lake and/or alluvial fan environments in an essentially closed basin. This unit consists of unconsolidated to weakly cemented clay and silt strata interbedded with fine- to coarse-grained sands. Overall, the fraction of silt and clay in the MAU in the Site vicinity is large, resulting in relatively low hydraulic conductivities. The variation in properties between fine-grained zones and coarse-grained interbeds, however, is significant. The uppermost part of the MAU is generally more fine-grained with some sandy interbeds. The aquifer zone that underlies the uppermost portion of the

MAU is referred to as the Upper MAU and corresponds to the primary monitored interval in the MAU at the Site. The Upper MAU is generally less fine-grained and contains thicker and more continuous coarse-grained interbeds than the portions of the MAU stratigraphically above or below it. The Lower MAU near Area 7 is more fine-grained than other parts of the MAU at the Site. Thickness of the MAU varies across the Site from 0 to approximately 600 feet, averaging approximately 460 feet. Thickness generally increases eastward toward the center of the basin. To the west/southwest of the Site, MAU sediments are observed to thin and ultimately "pinch out" near the Western Margin, as described in **Section 4.2.4**. The MAU is fully saturated across the NIBW Site. The MAU is under confined to semi-confined conditions, depending on saturation of the overlying UAU in the area. Water levels in the MAU are generally intermediary between the UAU and LAU. Groundwater flow in the MAU is principally driven by groundwater pumping in both the MAU and underlying LAU, recharge from the overlying UAU, and recharge directly into the MAU along the basin margins. Outside of MAU extraction well capture, the groundwater flow direction is generally northeast to southwest in the northern portion of the Site and east-southeast to west-northwest in the southern portion of the Site.

4.2.3 Lower Alluvial Unit

The LAU is a coarse-grained, heterogeneous unit composed of materials ranging from boulders to clay. The unit was deposited in a closed, subsiding basin environment that was generally coincident with normal faulting associated with Basin and Range tectonic activity. Sediments were believed to have been derived locally from the uplifting mountain blocks and to have been deposited in playa lake, alluvial fan, and fluvial environments. Sediments in the LAU consist of primarily weakly to strongly lithified gravels and sands interbedded with silty and clayey strata. Percent silt and clay is variable and generally ranges from approximately 5% to 30%. The LAU is generally the thickest of the three alluvial units at the Site, with thickness up to 700 feet in certain areas. Similar to the MAU, the LAU thickens to the east toward the center of the basin and thins toward the exposed bedrock mountains to the west. The LAU constitutes the principal alluvial aquifer in the region and is fully saturated and under confined conditions across the NIBW Site. Water levels in the LAU are generally lower than in the two overlying units. Most pumping in the Site vicinity is in the LAU, which drives groundwater flow from overlaying units into the LAU, in addition to lateral flow from south of the Site. Groundwater flows principally from the south/southwest to the north where there is a regional cone of depression caused by pumping from LAU extraction and production wells.

4.2.4 Western Margin

To the west and southwest of the Site approaching the basin margin, MAU and LAU sediments thin, the units become less lithologically distinct, and shallow bedrock is encountered. In this region, water level elevations in the three alluvial units approach the same values, suggesting

increased hydraulic communication and vertical connectivity between the units. This region is referred to as the Western Margin and its generalized extent is shown on **Figure 4**. The Western Margin is recognized as a region of enhanced vertical movement of groundwater from the UAU and MAU into the LAU. Its generalized extent is defined based on MAU thickness and vertical hydraulic gradient data. Specifically, the Western Margin is defined to extend across an area where both MAU thickness and vertical gradients from the UAU and MAU to underlying units decrease significantly. The MAU, which otherwise serves as an impediment to vertical flow, is generally 150 feet thick or less in this area and vertical gradients are small. An understanding of the Western Margin hydrogeology, flow regimes, and importance to the Site remedy has been part of the CSM since the original 1991 RI/FS, and data collected in the decades that followed have continued to support this conceptualization. Water level contours indicate movement of UAU groundwater into the LAU generally occurs in the southern part of the margin region and movement of MAU groundwater into the LAU is focused in the central and northern part of the margin region. Downgradient from Area 7, water level data and modeling indicate that vertical movement occurs from the Upper MAU into the Lower MAU in response to pumping from CGTF extraction wells screened across the Lower MAU and LAU. This is due to coarsening and thinning of MAU sediments approaching the Western Margin.

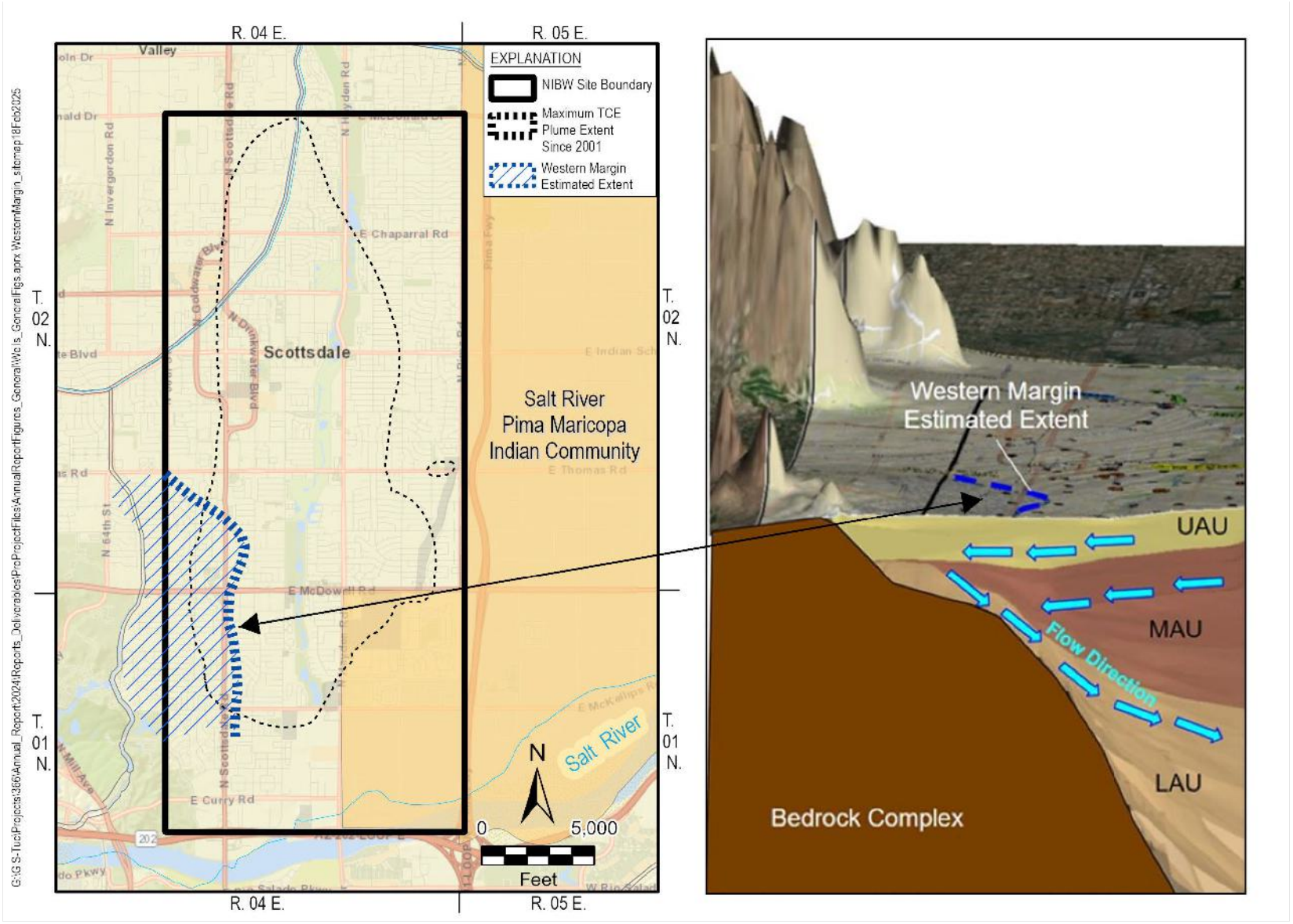


Figure 4. Western Margin Estimated Extent and Conceptual Diagram

4.3 Nature and Extent of COCs

The SMR focuses on the timeframe since 2001, when annual reporting began for the Site pursuant to the Amended CD and the Site Groundwater Monitoring and Evaluation Plan (GM&EP; NIBW PCs, 2002). Additional background is provided in this section where appropriate to aid in the conceptual understanding of overall plume reduction and migration between the first discovery of COCs in groundwater in the early 1980s and the present time. Conduit wells were evaluated comprehensively in 1998 during the final remedy selection process to determine if they were an important mechanism for vertical movement of mass between units (NIBW PCs, 1998). Although concentrations were higher and the plume footprint was larger in all units at the time, the report concluded that mass flux via conduits was not a significant issue. Since that time, conduits have not been a focus for the CSM.

The primary COC at the Site is TCE, since the magnitude and extent of TCE are consistently larger than that of other COCs over the monitoring history at the Site. The maximum extent of the TCE plume since 2001 is shown on **Figure 3**. The TCE plume extent is delineated by the estimated extent of groundwater with TCE concentrations above 5 µg/L (the Cleanup Standard). The overall extent of the plume has decreased since 2001 and TCE concentrations within the plume have generally reduced.

4.3.1 Upper Alluvial Unit

The UAU had the highest COC concentrations in groundwater at the Site in the 1980s and early 1990s, but by 2001, COC concentrations had reduced significantly and now the UAU is nearly restored. With completion of vadose zone remediation programs at Areas 6, 7, 8, and 12 that successfully addressed the threat to UAU groundwater, the vadose zone is no longer contributing significant mass of COCs to the groundwater system at the NIBW Site. This is evidenced by the low and decreasing concentrations of TCE in the UAU. Early TCE concentrations (1993) in the UAU at Area 7 were more than 10,000 µg/L, an order of magnitude higher than TCE concentrations 10 years earlier at Area 12. UAU groundwater extraction at Area 7, vadose zone remediation at the various source areas, and movement of the UAU plume to lower aquifers via the Western Margin have worked together to bring the UAU close to restoration. Since October 2022, TCE concentrations have been consistently below Cleanup Standards in all UAU monitoring wells.

4.3.2 Middle Alluvial Unit

Like the UAU, TCE concentrations in the MAU have also decreased substantially over time. Due to the hydrogeologic properties of the MAU, including greater thickness and a predominance of fine-grained sediments, the timeframe for remediation of COCs in the MAU is anticipated to be substantially longer than the UAU or LAU.

The highest TCE concentrations at the Site are currently observed in the Upper MAU, specifically near historical source Area 7 and in the immediate vicinity of one of the Area 12 GWETS extraction wells (Granite Reef well, Area 5B). The UAU was largely unsaturated in the northern half of the Site when historical Area 7 industrial facilities were in operation. Any release of COCs during that time would have occurred directly to the MAU, which was the uppermost aquifer in the Area 7 region. As such, COC concentrations in the MAU are relatively higher and more persistent at Area 7 compared with Area 12. Due to the generally fine-grained and heterogeneous nature of the MAU, diffusion-limited processes play a role in the rate of clean up, especially near Area 7. COC mass in fine-grained sediments slowly diffuses into adjacent coarser-grained layers where transport toward extraction wells occurs, impacting both the magnitude and changes over time in TCE concentrations in the Upper MAU. The highest TCE concentrations in the Upper MAU near Area 12 have consistently occurred at the Granite Reef well, located at historical source Area 5B, and monitoring wells directly downgradient from the Granite Reef well along McDowell Road show impacts from this source. MAU Source Control actions at the Area 7 and Area 12 extraction wells began voluntarily in 1999 and were officially incorporated into the selected remedy in the 2001 Amended ROD. The Area 7 extraction wells are screened only in the Upper MAU, whereas the Area 12 extraction wells are also screened in the Lower MAU. TCE concentrations in the Upper MAU near Area 7 have reduced by half in many wells and up to an order of magnitude in others since the 1990s. The only area of the MAU near Area 12 with persistent higher TCE concentrations is the Granite Reef well at source Area 5B. TCE concentrations at the Granite Reef well have reduced by an order of magnitude since the 1980s.

The Lower MAU has consistently had substantially lower TCE concentrations than the Upper MAU. Near Area 7, the highest measured TCE concentration in the Lower MAU was approximately 30 µg/L in 2001. Since 2015, laboratory results of samples collected from Lower MAU monitoring wells near Area 7 have consistently shown TCE concentrations close to or below the Cleanup Standard of 5 µg/L. Near Area 12, the highest TCE concentrations observed in the Lower MAU are downgradient from the Granite Reef well. TCE concentrations in one well completed in the shallower portion of the Lower MAU near Area 12 have decreased by an order of magnitude since the late 1990s and early 2000s, when concentrations exceeded 100 µg/L. The other well completed in the shallower portion of the Lower MAU has consistently had TCE concentrations below 50 µg/L. Groundwater samples collected from monitoring wells screened within the lowest portion of the Lower MAU near Area 12 have TCE concentrations that are consistently below 5 µg/L and generally below the detection limit (<0.50 µg/L). The occurrence of lower to non-detect concentrations of TCE in the Lower MAU below both Area 7 and Area 12 is consistent with site lithologic and hydrologic conditions. While a downward vertical gradient generally exists across the MAU and from the MAU to the LAU at the Site, vertical migration is impeded due to the highly interbedded and overall fine-grained nature of the MAU. In fact, the driving force for vertical migration has decreased significantly over time as

regional water level recovery observed across the basin has preferentially occurred in the LAU over the MAU in the Site vicinity. These factors combine to create a strong preference for lateral movement of Upper MAU groundwater and mass toward extraction wells or toward the Western Margin.

4.3.3 Lower Alluvial Unit

The TCE plume in the LAU grew as it advanced to the north toward extraction wells in the 1990s, and it has had the largest footprint of the three units at the Site since 2001. Prior to voluntary implementation of Source Control containment in the MAU in 1999, the entire UAU plume and the portion of the MAU plume not contained by extraction at the CGTF wells moved into the LAU via the Western Margin. In fact, most of the LAU plume is the result of movement of TCE prior to 2001. In the 1990s and early 2000s, the highest TCE concentrations in the LAU were in the 300 µg/L range and occurred in the southern part of the Site. Maximum concentrations in the LAU have reduced by two thirds, with almost all LAU monitoring wells showing non-increasing concentration trends. The highest concentrations in the LAU now occur in the north, near extraction well PCX-1, and the southern part of the LAU TCE plume shows consistent reductions in magnitude and extent from year to year.

4.3.4 Alternate Sources

Although PCE is a COC at the NIBW Site, NIBW-sourced PCE concentrations have always been relatively low. PCE concentrations are currently between about one and two orders of magnitude below TCE concentrations at Site monitoring wells (**Appendix C, Table C-1**). This is not the case at wells such as S-1LA that are impacted by known PCE sources unrelated to the NIBW Site. These alternate sources of PCE, which occur on the western flank of the NIBW Site, have been noted in various Site documents over time, including the FSA, RI/FS, and Third Five-Year Review. The two primary alternate source areas for PCE include the former Prestige Cleaners near the Arcadia Water Company (AWC) irrigation wells (AWC wellfield), and the former Mastel Cleaners near PG-4UA in the southern part of the Western Margin region. Elevated concentrations of PCE have been observed in the MAU and LAU to the west of the NIBW TCE plume. Specifically, PCE concentrations have been increasing significantly in monitoring well S-1LA, located in the LAU downgradient (north) of monitoring well PG-4UA and the former Mastel Cleaners location. The former Prestige Cleaners was also located in the area north of the Arizona Canal near the AWC wellfield. During the former Prestige Cleaners Phase II Investigation conducted in 1994, PCE was reported to be present in subsurface soil gas/soils and in groundwater at nearby production well AWC-9A. PCE concentrations in irrigation supply well AWC-9A exceeded the MCL.

5 PERFORMANCE STANDARDS AND METRICS

Evaluation of the NIBW remedy is based on Performance Standards set forth in the Amended CD SOW and metrics described in the GM&EP. Performance Standards for groundwater containment and GM&EP metrics are outlined below in **Sections 5.1** and **5.2** and evaluated relative to 2024 data and analyses in **Section 9**.

5.1 Amended CD SOW Performance Standards for Groundwater Containment

The specific requirements for groundwater containment identified in the Amended CD SOW Performance Standards are summarized as follows:

5.1.1 MAU/LAU

1. Provide sufficient hydraulic control to prevent groundwater in the MAU/LAU with NIBW COC concentrations above the Cleanup Standards from migrating toward and ultimately impacting production wells that did not contain NIBW COCs exceeding MCLs prior to the Effective Date of the Amended CD, and which are not currently connected to a treatment facility.
2. Demonstrate that NIBW COC concentrations in the MAU outside the source areas (Area 7 and Area 12) are being reduced.

5.1.2 Area 7 and Area 12

1. Reduce the mass of NIBW COCs in groundwater at Area 7 and Area 12 sources.
2. Achieve overall concentration reductions for NIBW COCs.
3. Provide sufficient hydraulic control to prevent MAU groundwater in the vicinity of Area 7 and Area 12 with NIBW COC concentrations higher relative to the surrounding vicinity from migrating away from the source areas.
4. Minimize the total amount of NIBW COCs that are allowed to migrate toward the Western Margin.

5.2 GM&EP Metrics

Performance of the NIBW remedy is evaluated based on a rigorous approach established in the GM&EP. In the GM&EP, monitoring program objectives are matched with specific performance criteria, a methodology for measuring achievement of performance criteria, a definition of when

contingency evaluations or actions would be initiated, and a menu of alternative contingency response actions that may be taken.

The NIBW Technical Committee is currently engaged in a process of reviewing the GM&EP performance metrics. As part of this process, a Working Group composed of selected Technical Committee members is evaluating performance metrics with the goal of recommending targeted updates to the GM&EP to better reflect current conditions and issues of importance at the Site, and to align the performance metrics more directly to the Site RAOs and Performance Standards. The objectives of the GM&EP Working Group are to evaluate and update the GM&EP metrics based on new data and using new tools, including the groundwater flow model and three-dimensional (3D) visualization model. Until updated metrics are in place, the NIBW PCs will continue to use the structure outlined in the 2002 GM&EP to evaluate progress and performance of the various remedy components.

The five remedy components identified for evaluation in the GM&EP are: 1) UAU mass flux and restoration; 2) MAU/LAU containment and restoration; 3) Northern LAU hydraulic capture; 4) Area 7 MAU Source Control; and 5) Area 12 MAU Source Control. Performance criteria and contingency actions associated with each component are summarized in **Table 4**.

Table 4. GM&EP Performance Criteria and Contingency Initiation Criteria by Program

Program	Performance Criteria	Contingency Initiation Criteria	GM&EP Section
UAU	A. Reduction in total VOC mass in UAU attributable to NIBW sources	A. UAU VOC mass increasing with time, based on 5-year running average	9.1
MAU/LAU	A. Hydraulic gradients and TCE plume consistent with overall capture of MAU/LAU plume by CGTF, MRTF, [and NGTF beginning in 2013] extraction wells B. VOC concentrations below Cleanup Standards in peripheral production wells	A. Direction of groundwater movement along periphery of MAU/LAU plume is not toward either extraction wells or Western Margin for two consecutive monitoring rounds (1 year) B. Shift of ≥1,000 feet in 5 µg/L TCE concentration contour in MAU or LAU relative to October 2001 (other than from movement toward extraction wells tied into treatment) C. Water quality data indicating TCE equal to or greater than achievement measure concentrations	9.2
Northern LAU	A. Consistent presence of cone of depression in vicinity of Northern LAU extraction wells B. Capture of Northern LAU plume C. VOC concentrations below Cleanup Standards in peripheral production wells	A. Direction of groundwater movement along Northern LAU plume periphery is not toward Northern LAU extraction wells for 1 year B. TCE concentrations in PG-42LA, PG-43LA, or PV-14 greater than 2 µg/L	9.3
Area 7 MAU Source Control	A. Generally declining TCE concentrations within capture zone associated with the Area 7 extraction wells B. Hydraulic capture zone extending south to vicinity of PA-12MA	A. Increasing 5-year running average TCE concentration for the following group of wells: D-2MA (replaced with D-4MA), E-10MA, PA-10MA, PA-12MA, W-1MA, and W-2MA B. Capture to vicinity of PA-12MA not demonstrated	9.4
Area 12 MAU Source Control	A. Generally declining TCE concentrations within capture zone associated with the Area 12 extraction wells B. Hydraulic capture zone extending west to vicinity of Hayden Road	A. Increasing 5-year running average TCE concentration for the following group of wells: E-1MA, M-4MA, M-5MA, M-6MA, M-7MA, M-9MA, M-15MA, and PA-21MA B. Capture to vicinity of Hayden Road not demonstrated	4.4

6 GROUNDWATER MONITORING PROGRAM

In addition to performance criteria and contingency response actions, groundwater monitoring requirements for the NIBW Site are also specified in the GM&EP. The GM&EP defines: 1) the scope and frequency of monitoring activities, 2) requirements for data reporting and preparation of interpretive work products, and 3) the approach to conducting groundwater flow model updates. Changes to the UAU monitoring program are documented in the EPA-approved Work Plan for Updated Long-term Groundwater Monitoring Program, UAU Groundwater, dated December 13, 2012 (NIBW PCs, 2012). Other monitoring program changes reviewed and approved by EPA have occurred over time, including abandonment of a total of 43 UAU monitoring wells in 2006, 2007, 2010, 2013, 2014, and 2018 (see appropriate annual SMRs for details).

The purpose of the Groundwater Monitoring Program includes the following:

5. Identify the zone of groundwater contamination in the MAU and LAU requiring remediation.
6. Identify the zone of hydraulic capture resulting from operation of extraction wells.
7. Evaluate the rate of VOC mass reduction in the UAU due to migration out of the unit.
8. Identify areas within the UAU, MAU, and LAU to which VOC mass is moving.
9. Provide long-term monitoring to verify the ongoing effectiveness of remedial actions.
10. Demonstrate capture and containment of the zone of contamination, such that concentrations of VOCs in excess of Cleanup Standards do not impact peripheral production wells.
11. Verify containment has effectively prevented VOC concentrations in excess of the Cleanup Standards from impacting peripheral production wells.
12. Document changes in VOC concentrations to evaluate long-term restoration of the aquifer to drinking water end use.

The GM&EP documents the groundwater monitoring and reporting requirements at the Site. The Phase I Sampling and Analysis Plan (SAP), which includes a field sampling plan and a quality assurance project plan (QAPP), was developed to cover sampling activities presented in the GM&EP. A draft Addendum to the Phase I SAP, dated October 28, 2015, was prepared by the NIBW PCs and submitted to EPA to document protocols for sampling at selected monitoring wells using the HydraSleeve™ technology method (HydraSleeve). HydraSleeve sampling was pilot tested on eight monitoring wells during the October 2015 monitoring round and results compared favorably with anticipated ranges. Comments received from EPA on the draft

document on November 17, 2015, were incorporated into the final Phase I SAP Addendum, dated March 7, 2016 (NIBW PCs, 2016).

Groundwater monitoring at the NIBW Superfund Site includes collection, analysis, and reporting of extensive water level, water quality, and pumping data from a network of groundwater monitoring, extraction, peripheral production, irrigation, and other water wells completed in the UAU, MAU, and LAU. Locations of extraction wells (active, inactive, and abandoned), peripheral production wells, irrigation or other pumping wells (active and inactive), and monitoring wells (active and recently abandoned or retired) in the vicinity of the NIBW Site are shown on **Figure 5**. Sampling details are summarized in **Appendix A**, **Table A-1**, including well type, aquifer unit, and frequency of water level and water quality monitoring. Well construction information is summarized in **Appendix A**, **Table A-2**.

Peripheral production (or "production" wells) are wells other than remedial extraction wells that are permitted and used for potable supply and that were not impacted by COCs above Cleanup Standards prior to the Amended CD. Irrigation or other non-potable supply wells are permitted for specific uses and are not presently used for drinking water. Other wells also include pumping wells which are used for potable supply but were impacted prior to the Amended CD. While peripheral production wells are not defined with respect to their end use in the Amended CD, Amended ROD, or the GM&EP, the remedy was designed to restore the aquifer as a resource for drinking water end use and to protect unimpacted water supply wells. Irrigation water quality standards are generally orders of magnitude higher than drinking water standards for the Site COCs. Distinguishing between municipal wells where drinking water standards apply and other water supply wells designated for current and future irrigation or other non-potable uses is consistent with the intent of the remedy obligations agreed upon in the Amended CD.

6.1 Groundwater Level Monitoring Program

Groundwater level monitoring is conducted semi-annually using a network of 76 monitoring wells in April and 104 monitoring wells in October. A summary of the water level monitoring frequency is included in **Appendix A**, **Table A-1**. In addition to periodic water level monitoring conducted at unit-specific monitoring wells, high-frequency or "continuous" water level monitoring is conducted at a group of wells as part of the enhanced Northern LAU monitoring program described in the GM&EP. These wells are identified as continuous in **Appendix A**, **Table A-1** and are summarized in **Appendix A**, **Table A-3**. The continuously monitored Northern LAU locations include six LAU monitoring wells and four EPCOR production wells. Since the GM&EP was prepared, modifications to the continuously monitored well locations have been necessary to collect data useful for evaluating capture and control in the Northern LAU plume. Modifications and rationale for changes to the continuous monitoring program are noted in **Appendix A**, **Table A-3**. The NIBW PCs also voluntarily obtain continuous water level data at other selected MAU and LAU monitoring wells to evaluate trends and pumping

responses. One-time water level measurements are also occasionally obtained at other wells that are not part of the compliance monitoring program.

6.2 Groundwater Quality Monitoring Program

Groundwater quality monitoring of the NIBW COCs is conducted in accordance with the requirements of the GM&EP. Water quality monitoring includes the following components:

- Monthly sampling at the three active CGTF extraction wells, two MRTF extraction wells, and one NGTF extraction well (when operating).
- Quarterly sampling at the two Area 7 and two Area 12 extraction wells (when operating), and at a network of 24 selected MAU and LAU monitoring wells.
- Semi-annual sampling at one LAU monitoring well and annual sampling at an additional 59 UAU, MAU, and LAU wells.

Monthly and quarterly groundwater quality monitoring generally begins the first week of the month. Quarterly sampling is conducted in January, April, July, and October. The annual groundwater quality monitoring program occurs in October.

In general, monitoring is conducted in accordance with the Phase I SAP for the NIBW Site, developed by SRP and approved by EPA in 2003. The Sitewide SAP consists of the Phase I and Phase II SAPs. The Phase I SAP covers all groundwater sampling activities as identified in the GM&EP and includes the Field Sampling and QAPPs.

Consistent with the original Phase I SAP for the NIBW Site, groundwater samples are obtained from many of the monitoring wells using dedicated pumps. A standard volume-based purge method is used that requires stabilization of water quality field parameters before sampling. The Phase I SAP also requires treatment of purge water prior to discharge for wells where recent sample results show NIBW COC concentrations that are near and/or exceed associated regulatory limits. In October 2015, the NIBW PCs submitted to EPA a draft addendum to the Phase I SAP to describe standard operating procedures for collection of groundwater samples at monitoring wells using the HydraSleeve sampling method. Comments received from EPA were incorporated into the final Phase I SAP Addendum dated March 7, 2016 (NIBW PCs, 2016). The HydraSleeve sampling approach provides the opportunity to use a passive sampling method at the Site for monitoring wells where dedicated pumps either failed or their use was deemed impractical. In practice, when dedicated pumps have failed, HydraSleeve sampling is used on a case-by-case basis, considering both logistical and technical advantages and disadvantages. HydraSleeve samples have generally been consistent with historical results from traditional purge samples. At wells where inconsistent results are apparent and inconsistencies cannot be explained based on known conditions or trends, dedicated pumps are re-installed. An update to

the Phase I SAP is currently underway and is anticipated to be completed in 2025; it will incorporate information on HydraSleeve sampling from the 2016 SAP Addendum.

The EPA-approved 2006 Sitewide O&M Plan (with updates from the NIBW PCs in 2014, 2016, 2020, and 2021; see **Section 7.7**) presents methods and procedures for O&M associated with the groundwater monitoring and extraction wells and the treatment facilities, which are further discussed in **Section 6.4**. The NIBW PCs plan to submit a revised Sitewide O&M Plan for approval by EPA in 2025.

In the past and through the first quarter of 2024, water quality samples were submitted to Eurofins. Upon EPA approval, water quality samples were submitted to PACE beginning in April 2024 (NIBW PCs, 2024c).

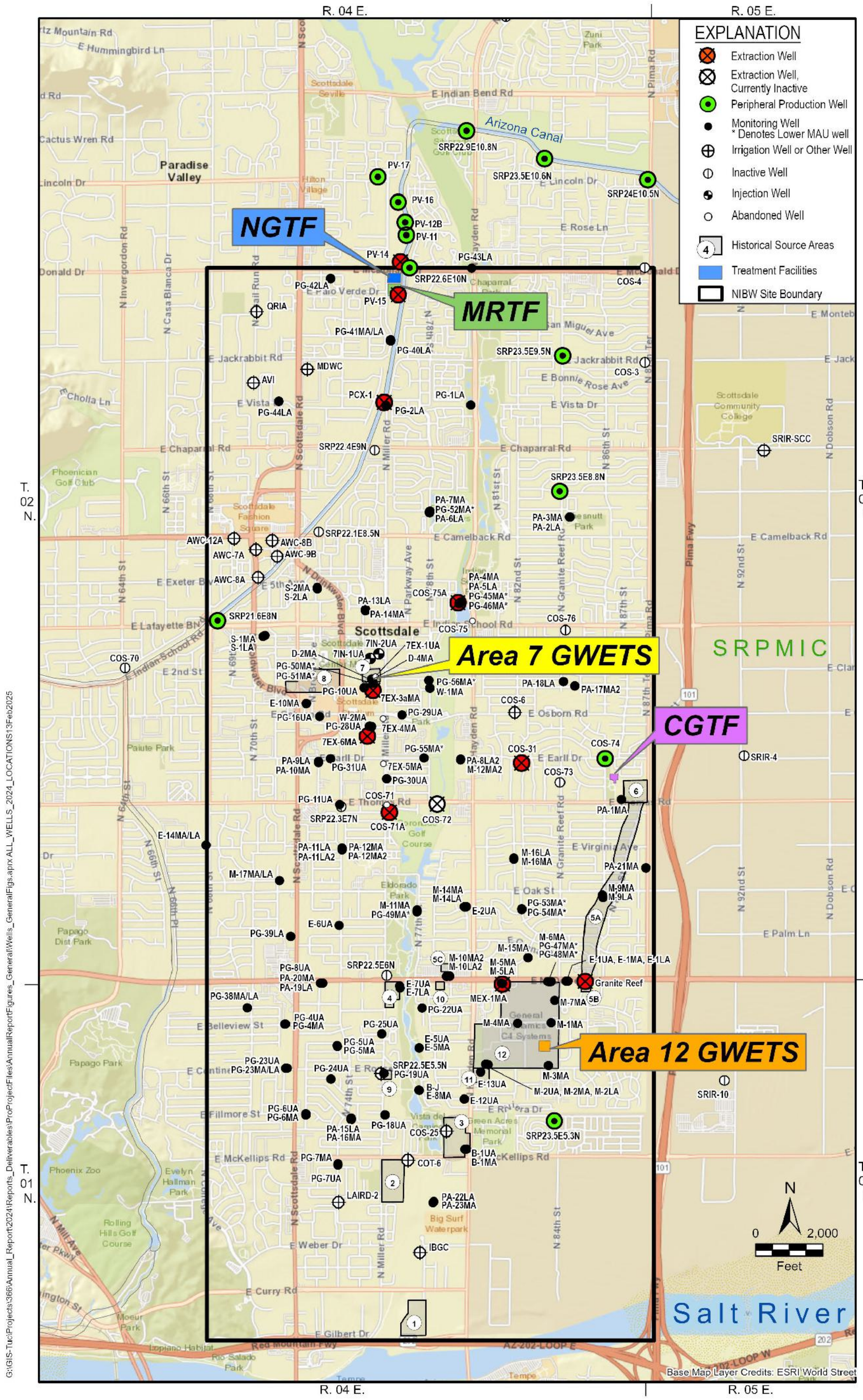


Figure 5. Well Locations and Identifiers in the NIBW Superfund Site Vicinity

6.3 Groundwater Pumping Reporting Program

Monthly data for total groundwater pumped are compiled in accordance with the GM&EP for wells that pump at rates greater than 35 gpm and are reported to the NIBW PCs annually from municipalities, private water providers, and SRP (see **Section 8.1** for further details). In addition, the NIBW PCs obtain groundwater pumping data that encompasses a larger area surrounding the Site from the Arizona Department of Water Resources (ADWR) in conjunction with periodic comprehensive groundwater model updates.

6.4 Treatment System Monitoring Program

Groundwater discharged from the NIBW treatment facilities is required to meet treatment standards described in **Table 3**. Sampling at the treatment systems is conducted in accordance with requirements of the Phase II SAP and treatment facility O&M Plans. Treatment system sampling locations and frequency are summarized in **Table 5**.

Table 5. Summary of Treatment System COC Monitoring Program

Treatment Facility	CGTF*	MRTF	NGTF	Area 7	Area 12
Sample Points	Raw (inf) CD (eff)	PV-14 (inf) PV-15 (inf) Tower 1 (Air Stripper eff) Tower 2 (Air Stripper eff) Tower 3 (Air Stripper eff)	PCX-1 (inf) NGTF-CP or AZCO (eff)	SP-102 (inf) SP-103 (UV/Ox eff) SP-105 (Air Stripper eff)	WSP-1 (inf) WSP-2 (Air Stripper eff)
Sample Frequency	Weekly	Monthly	Monthly - inf Weekly - eff	Monthly	Monthly

EXPLANATION:
inf = influent
eff = effluent
NGTF-CP = NGTF Effluent Chaparral Compliance Point Sample Identifier
AZCO = SRP Arizona Canal Outfall Location
*CGTF is reported by the City of Scottsdale in its Compliance Monitoring Reports

6.4.1 COC Water Quality Monitoring at Treatment Facilities

All treatment system samples are submitted to PACE for analysis of NIBW COCs.

Process and treated groundwater samples for the CGTF are collected by the City of Scottsdale and analytical results are reported directly to EPA and ADEQ by the City of Scottsdale on a quarterly basis.

Analytical results for influent, process, and treated water samples from the MRTF, NGTF, Area 7 GWETS, and Area 12 GWETS are summarized in **Appendix C, Table C-3**. Management of Untreated Groundwater is detailed in **Appendix G**. Influent, process, and treated water samples for the MRTF, Area 7 GWETS, and Area 12 GWETS are collected by EnSolutions. Process and treated water samples for the NGTF are collected by the City of Scottsdale; influent samples for the NGTF are collected by EnSolutions. Process and treated water sampling results for these four treatment systems are reported quarterly by the NIBW PCs.

- CGTF - Treatment system influent samples labeled "Raw" and an effluent sample labeled "CD" are collected each week (when the treatment system is operational). The CD sample is analyzed for NIBW COCs; the "Raw" sample is analyzed only for TCE.
- MRTF - Samples are collected during the first week of the month at extraction wells PV-14 and PV-15 (when operational). The MRTF extraction well samples are considered air stripper influent samples, since water from those wells are treated separately at the MRTF. Analytical results for extraction well samples are summarized in **Appendix C, Table C-2**. Treatment system effluent samples from air stripping treatment trains are collected during the first week of each month (when the treatment system is operational).

  In addition to the routine monitoring of MRTF extraction wells pursuant to the GM&EP, the NIBW PCs conduct supplemental monthly sampling at wells PV-11 and PV-12B (when operational). These two water supply wells are located immediately downgradient from extraction well PV-14.
- NGTF - Treatment system influent is sampled during the first week of the month at extraction well PCX-1 (when operational). The extraction well sample is considered the treatment system influent sample. Analytical results for extraction well samples are summarized in **Appendix C, Table C-2**. Treatment system effluent samples are collected each week (when the treatment system is operational) from either the City of Scottsdale's Chaparral Water Treatment Plant (CWTP) (labeled "NGTF-CP") or the SRP Arizona Canal (labeled "AZCO").
- Area 7 GWETS - Treatment system influent from sample port SP-102 (combined influent from Area 7 extraction wells 7EX-3aMA and 7EX-6MA), UV/Ox reactor effluent from sample port SP-103, and air stripper effluent from sample port SP-105 are sampled during the first week of each month (when the treatment system is operational).
- Area 12 GWETS - Treatment system influent from sample port WSP-1 (combined influent from Area 12 extraction wells MEX-1MA and Granite Reef well), and air stripper effluent from sample port WSP-2 are sampled during the first week of each month (when the treatment system is operational).

6.5 Data Management & Quality Assurance / Quality Control

The following ongoing measures are taken to ensure collection, analysis, storage, and reporting of quality data:

- Water level and water quality data are collected in accordance with the Phase I SAP (including the 2016 Addendum). Treatment system performance data are collected in accordance with the Phase II SAP.
- Primary and backup laboratories are designated and certified by ADHS for EPA method 524.2 for Site COCs.
- The appropriate number of trip blanks, field blanks, and field duplicates are obtained during each sampling round.
- Water level data are reviewed in relation to trends before being integrated into the data repository, and water levels are re-measured if data are deemed potentially unreliable and warrant confirmation.
- Laboratory results are reviewed in relation to each laboratory's published performance criteria and historical data trends; re-analysis and re-sampling may occur if results are deemed potentially unreliable and warrant confirmation.
- Treatment system effluent samples are given careful and timely scrutiny and re-sampling is conducted immediately if results are out of anticipated ranges.
- All compliance data are digitally stored in a secure manner and are associated with specific wells and/or sampling locations using unique and consistent station identifiers (IDs).
- Water quality samples are given unique sample IDs and are linked to supporting laboratory reports and field information for future reference.
- Annual laboratory audits are conducted and any issues that are identified during the year are reviewed and addressed.
- Periodic blind Performance Evaluation (PE) samples of known concentrations are sent to the primary laboratory and split samples are sent to the backup laboratory.
- All compliance reporting is based on direct output from the secure digital Site database that is maintained by the NIBW PCs.

7 ANNUAL OPERATION OF GROUNDWATER EXTRACTION AND TREATMENT FACILITIES

A monthly and 2024 annual summary of groundwater pumping and estimated TCE mass removed from each NIBW extraction well is presented in **Table 6**. Concentrations for NIBW COCs in samples obtained at NIBW extraction wells in 2024 are summarized in **Appendix C, Table C-2** and treatment system sample results are shown in **Appendix C, Table C-3**. The 2024 Site Inspection Report is provided in **Appendix I**.

Mass removal estimates for individual extraction wells are computed using a single (or an average if there is more than one sample) TCE concentration value for each month in which a given well operated and the total reported pumping from that well during the month. **Table 6** also provides computed monthly and annual percent operation time for each of the extraction wells tied into treatment. Percent operation time for extraction wells is computed using higher frequency daily or hourly pumping data sets provided by well operators. To the extent possible, the treatment systems and associated wells are operated year-round, except during annual and periodically required maintenance. Discussion of unplanned downtime of the treatment systems and associated extraction wells is provided in the following sections. Results of samples obtained by the NIBW PCs are used where available for mass removal estimates; however, samples obtained by other parties such as the City of Scottsdale are used when data collected by NIBW PCs are not available. The NIBW PCs do not have sample results when extraction wells are not operating during their monthly monitoring event. If TCE concentrations are not available for a well during a given month, average values from previous or subsequent months are used in mass removal estimates as appropriate based on review of the operational status of the well during the interim period.

Table 6. Groundwater Extraction and Estimated TCE Mass Removed During 2024 at the NIBW Superfund Site

			UNITS	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	TOTALS	ANNUAL PUMPAGE (in acre-feet)	ANNUAL PUMPAGE (in gpm) *
CGTF	COS-31	Pumpage	x 1,000 gal	106,244	98,519	49,973	26,912	21,509	84	35,743	-	31,370	30,292	36,410	113,396	550,452	1,689	1,047
		Operating time	%	94.6	92.7	44.0	25.0	19.1	0.1	32.0	-	29.0	27.2	32.9	100.0	41		
		[TCE conc.]	µg/L	4.0	10	11	4.24	8.2	*6.6*	5.0	-	*5.64*	6.28	*8.44*	10.6	8		
		Est. TCE mass	pounds	3.5	8.2	4.6	1.0	1.5	0.0	1.5	-	1.5	1.6	2.6	10.0	36		
	COS-71A	Pumpage	x 1,000 gal	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Operating time	%	-	-	-	-	-	-	-	-	-	-	-	-	-		
		[TCE conc.]	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Est. TCE mass	pounds	-	-	-	-	-	-	-	-	-	-	-	-	-		
	COS-72	Pumpage	x 1,000 gal	38,253	-	-	-	-	-	-	-	-	-	-	-	38,253	117	73
		Operating time	%	57.7	-	-	-	-	-	-	-	-	-	-	-	5		
		[TCE conc.]	µg/L	8.8	-	-	-	-	-	-	-	-	-	-	-	9		
		Est. TCE mass	pounds	2.8	-	-	-	-	-	-	-	-	-	-	-	3		
	COS-75A	Pumpage	x 1,000 gal	-	5,261	51,365	86,754	72,091	85,788	87,563	87,385	78,994	35,753	13,533	87,294	691,782	2,123	1,316
		Operating time	%	-	6.2	56.6	100.0	80.5	100.0	100.0	100.0	94.0	41.1	15.7	99.3	66		
		[TCE conc.]	µg/L	-	*24.9*	24.9	31.2	31.9	32.3	32.6	30.7	33.1	34.8	*32.0*	29.2	31		
		Est. TCE mass	pounds	-	1.1	10.7	22.6	19.2	23.1	23.8	22.4	21.8	10.4	3.6	21.3	180		
	TOTAL	Pumpage	x 1,000 gal	144,497	103,780	101,338	113,666	93,599	85,872	123,306	87,385	110,363	66,045	49,943	200,690	**1,280,487**	**3,930**	**2,436**
		Est. TCE mass	pounds	6.4	9.3	15.3	23.5	20.7	23.1	25.3	22.4	23.3	12.0	6.2	31.3	**219**		
MRTF	PV-14	Pumpage	x 1,000 gal	86,020	67,887	93,682	86,734	92,860	89,054	91,542	92,889	90,566	94,577	90,005	93,072	1,068,888	3,280	2,034
		Operating time	%	100.0	89.7	100.0	96.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99		
		[TCE conc.]	µg/L	<0.50	<0.50	<0.50	*<0.500*	<0.500	<0.500	<0.500	<0.500	0.580	0.516	<0.500	<0.500	1		
		Est. TCE mass	pounds	0.36	0.28	0.39	0.36	0.39	0.37	0.38	0.39	0.44	0.41	0.38	0.39	5		
	PV-15	Pumpage	x 1,000 gal	96,327	90,953	97,773	86,695	1,146	93,063	94,758	92,882	93,623	98,924	94,701	96,942	1,037,787	3,185	1,974
		Operating time	%	100.0	100.0	100.0	93.3	<0.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	91		
		[TCE conc.]	µg/L	4.4	4.0	3.7	4.56	*4.91*	5.26	5.55	5.60	6.03	6.19	5.09	4.87	5		
		Est. TCE mass	pounds	3.5	3.0	3.0	3.3	0.0	4.1	4.4	4.3	4.7	5.1	4.0	3.9	44		
	TOTAL	Pumpage	x 1,000 gal	182,347	158,840	191,455	173,429	94,006	182,117	186,300	185,771	184,189	193,501	184,706	190,014	**2,106,675**	**6,465**	**4,008**
		Est. TCE mass	pounds	3.9	3.3	3.4	3.7	0.4	4.5	4.8	4.7	5.1	5.5	4.4	4.3	**48**		
NGTF	PCX-1	Pumpage	x 1,000 gal	95,003	90,218	87,861	92,001	92,154	90,230	62,706	91,842	88,120	90,445	87,514	91,305	**1,059,399**	**3,251**	**2,016**
		Operating time	%	100.0	100.0	89.9	98.9	98.4	99.9	67.9	99.5	100.0	100.0	100.0	99.6	96		
		$Discharge_{Canal}$	x 1,000 gal	199	154	30,172	393	1,051	297	624	119	140	243	5,150	48,280	86,823	266	165
		$Discharge_{CWTP}$	x 1,000 gal	93,733	89,023	56,984	90,458	90,094	89,001	61,523	90,850	87,545	89,587	81,791	42,441	963,030	2,955	1,832
		[TCE conc.]	µg/L	43	38	40	43.0	51.0	46.3	49.0	45.9	47.6	50.2	40.9	44.0	45		
		Est. TCE mass	pounds	34.1	28.6	29.3	33.0	39.2	34.9	25.6	35.2	35.0	37.9	29.9	33.5	396		
AREA 7 GWETS	7EX-3aMA	Pumpage	x 1,000 gal	5,533	6,023	6,538	6,708	5,965	7,492	5,847	7,522	6,862	5,973	6,153	6,731	77,347	237	147
		Operating time	%	80.9	90.1	88.1	88.8	75.6	99.1	74.8	96.3	90.8	76.3	81.4	86.2	86		
		[TCE conc.]	µg/L	460	*460*	*460*	513	*513*	*513*	590	*590*	*590*	566	*566*	*566*	534		
		Est. TCE mass	pounds	21.2	23.1	25.1	28.7	25.5	32.1	28.8	37.0	33.8	28.2	29.1	31.8	344		
	7EX-6MA	Pumpage	x 1,000 gal	5,077	8,107	8,258	6,471	6,171	7,868	5,522	8,808	8,144	7,122	7,620	8,028	87,197	268	166
		Operating time	%	53.8	90.1	87.1	70.5	65.9	86.7	59.0	93.8	89.4	75.8	84.0	85.2	78		
		[TCE conc.]	µg/L	400	*400*	*400*	316	*316*	*316*	428	*428*	*428*	441	*441*	*441*	399		
		Est. TCE mass	pounds	16.9	27.1	27.6	17.1	16.3	20.7	19.7	31.5	29.1	26.2	28.0	29.5	290		
	TOTAL	Pumpage	x 1,000 gal	10,610	14,130	14,796	13,179	12,136	15,360	11,369	16,330	15,006	13,096	13,773	14,759	**164,545**	**505**	**313**
		Est. TCE mass	Pounds	38.2	50.2	52.7	45.8	41.8	52.8	48.5	68.5	62.9	54.4	57.1	61.3	**634**		

			UNITS	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	TOTALS	ANNUAL PUMPAGE (in acre-feet)	ANNUAL PUMPAGE (in gpm)
AREA 12 GWETS	MEX-1MA (SRP 23.1E6N)	Pumpage	x 1,000 gal	-	-	-	18,387	40,741	36,117	40,417	39,255	36,576	37,511	36,642	36,366	322,011	988	613
		Operating time	%	-	-	-	46.0	98.2	89.8	99.8	100.0	100.0	100.0	100.0	100.0	70		
		[TCE conc.]	µg/L	-	-	-	62.5	55.1	59.1	59.4	58.3	66.1	65.8	54.3	61.3	60		
		Est. TCE mass	pounds	-	-	-	9.6	18.7	17.8	20.0	19.1	20.2	20.6	16.6	18.6	161		
	Granite Reef (SRP 23.6E6N)	Pumpage	x 1,000 gal	-	23,458	34,791	17,415	759	-	30,912	34,175	32,878	33,717	32,354	31,309	271,767	834	517
		Operating time	%	-	70.5	98.9	50.8	2.2	-	89.3	100.0	100.0	100.0	100.0	100.0	68		
		[TCE conc.]	µg/L	-	89	94	105	105	-	103	91.8	121	132	111	102	106		
		Est. TCE mass	pounds	-	17.4	27.3	15.3	0.7	-	26.6	26.2	33.2	37.1	30.0	26.6	240		
	TOTAL	Pumpage	x 1,000 gal	-	23,458	34,791	35,801	41,500	36,117	71,329	73,430	69,453	71,228	68,996	67,675	**593,778**	**1,822**	**1,130**
		Est. TCE mass	pounds	-	17.4	27.3	24.8	19.4	17.8	46.6	45.3	53.4	57.7	46.6	45.3	**402**		

Total Pumping (in million gallons):	**5,205**	--	--
TCE Mass Removal (in pounds):	**1,699**	--	--
Total Pumping (in gpm):	--	--	**9,903**

EXPLANATION:

% = percent
Est. TCE mass = Estimated TCE mass, reported in pounds
[TCE conc.] = Concentration of trichloroethene, in µg/L

* = Gallons per minute represent an average over 12 months, and not an instantaneous flowrate

NOTES:

1) Most TCE results listed are as reported from Eurofins; where NIBW PCs samples(s) are not available, the City of Scottsdale (COS) sample results may be used. Where multiple samples were collected during the same month, the value shown is the average of those results. Where samples could not be collected (e.g., extraction well was offline during scheduled sampling date), but a well operated during the month, TCE value used comprises the results (or average results) of samples obtained during previous or subsequent months.
2) Pumpage totals reported are in thousands of gallons (x1000).
3) The TCE concentration totals are an estimated concentration in µg/L of the total pumped gallons based on the total TCE mass removed
4) Area 12 was not operating in January due to the annual SRP canal dry-up.
5) Italicized values are approximate based on former, subsequent, or averaged values, where appropriate, when an extraction well is not sampled within the month of operation.
6) The discrepancy between PCX-1 Influent total and the combined discharge to CWTP and the Arizona Canal is within the range of instrumentation error of the individual flowmeters.

7.1 CGTF

The City of Scottsdale reported that approximately 3,930 acre-feet (AF) (or 1,280 million gallons [MG]) of groundwater were pumped and treated at the CGTF in 2024. Of the total, 692 MG were extracted from well COS-75A, 550 MG from well COS-31, and 38 MG from well COS-72 (**Table 6**). CGTF extraction well COS-71A has not been operated since 2016 due to elevated concentrations of inorganic constituents (**Table 6**). In 2023, this well was rehabilitated and modified to pump only from the MAU to help balance objectives of the NIBW remedy with the City of Scottsdale's concerns about inorganic constituents. The City has agreed to begin using COS-71A again once PG-41MA/LA is substantially complete and permitting is in place to allow for water to be conveyed through the SRP PCX-1 pipeline to the NGTF. The NIBW PCs are hopeful that both COS-71A and PG-41MA/LA will be online by the end of 2025.

In January, the raw water pipeline port installation work prevented the use of COS-75A and the well was returned to operation in February 2024 after SCADA communications issues were resolved. COS-75A shut down again in mid-May and was operational within the same week following repairs. It remained in operation until October, when it was shut down for annual routine CGTF column cleaning. During periods when COS-75A was offline but the CGTF was operating, COS-31 and COS-72 (January 2024 only) supplied the water demand at CGTF. Production at COS-72 decreased in 2023 for unknown reasons; the well was shut off in October 2023 for assessment. The well resumed operation in December 2023 and continued into January 2024 when the pump stopped and was pulled to conduct an evaluation of the well functionality. COS-72 was inactive for the remainder of 2024 and the City of Scottsdale has not determined if the well will be re-equipped and put back into service. Based on extraction well data presented in **Table 6**, an estimated 219 pounds of TCE were removed from groundwater and treated by the CGTF during 2024.

The CGTF operated consistently during 2024 except for maintenance and assessment periods. Downtime was primarily attributed to column cleaning, routine maintenance, and maintenance specific to the CGTF pipeline assessment. The treatment system and associated wells were offline for 4 weeks in 2024—from October 21 to November 25, 2024—for annual column cleaning.

In 2024, the minimum air-to-water ratio (A/W) was reduced from 29:1 to 24:1. The A/W reduction program was implemented since the TCE concentration in the CGTF wells has decreased considerably since the system was designed.

The City of Scottsdale reports results of laboratory testing and plant operations directly to EPA and ADEQ. A detailed report of the 2024 operational status, laboratory data, and system performance was provided by the City of Scottsdale in CGTF Compliance Monitoring Reports (CMRs) submitted on May 30, August 30, and November 27, 2024, and February 27, 2025.

As demonstrated in operations reports and CMRs provided by the City of Scottsdale, NIBW COCs were not detected in groundwater treated at CGTF during 2024.

7.2 MRTF

Approximately 6,465 AF (or 2,106 MG) of groundwater were pumped and treated at the MRTF in 2024. Of the total, 1,069 MG were extracted from well PV-14 and 1,038 MG from well PV-15 (**Table 6**). Well PV-15 is the highest priority EPCOR well for the MRTF and was operated 91% of the time in 2024. PV-15 was shut down from April 27 through the end of May due to a pump replacement. Well PV-14 is the second highest priority well for the MRTF and was available for use throughout 2024. Extraction well PV-14 operated 99% of 2024, with a reduction in pumping hours in February due to lower seasonal demand. During low demand periods (generally December through March), well PV-14 is used on demand and cycles off when water is not needed by EPCOR. Based on extraction well data presented in **Table 6**, an estimated 48 pounds of TCE were removed from groundwater treated by the MRTF during 2024.

Discharges from the MRTF to the SRP Arizona Canal are regulated by an AZPDES permit. EPCOR is responsible for monitoring and reporting associated with the AZPDES permit for the MRTF. No treated water from the MRTF was delivered to the SRP Arizona Canal in 2024.

7.3 NGTF

Approximately 3,251 AF (or 1,059 MG) of groundwater were pumped from PCX-1 and treated at the NGTF during 2024, with approximately 87 MG (8%) of the total volume discharged to the Arizona Canal and 963 MG (91%) to the CWTP (**Table 6**). PCX-1 was available for use and operational 96% of the time in 2024. PCX-1 was offline for approximately 2 weeks in July 2024 for carbon service at NGTF. Based on extraction well data presented in **Table 6**, an estimated 396 pounds of TCE were removed from groundwater treated by the NGTF in 2024. Treated water from the NGTF that was not discharged to the CWTP was discharged to the SRP Arizona Canal under the NGTF AZPDES permit. Treated water discharged to the Arizona Canal is monitored as required by the AZPDES permit. The results of AZPDES sample analyses were summarized in monthly Discharge Monitoring Reports (DMRs) and submitted to ADEQ under separate cover.

7.4 Area 7 GWETS

Approximately 505 AF (or 165 MG) of groundwater were pumped and treated at the Area 7 GWETS in 2024. Of the total, approximately 87 MG were extracted from well 7EX-6MA and 77 MG were from well 7EX-3aMA. Extraction well 7EX-4MA was abandoned on December 14, 2023, after attempts to line the well were not effective, as detailed in the 2023 SMR (NIBW PCs, 2024b).

To increase the security and reliability of the operation of the remote well 7EX-6MA a new digital cellular communication system protocol was installed between the well and the main control system during the spring and summer of 2024. Implementation of the new digital cellular communication system significantly improved the uptime of well 7EX-6MA in the latter half of 2024.

Throughout 2024, the wells were offline periodically while maintenance on the system pumps, chemical tank, fire suppression system testing, air blower system inspections, UV lamp replacement, GAC service, and inspections and cleaning of the air stripper internals was performed. Further details regarding 2024 maintenance at the Area 7 GWETS are provided in **Appendix I**.

Treatment system performance data are provided by the Area 7 operator on a monthly basis. Mass removal estimates derived from quarterly monitoring of extraction wells and high-frequency pumping data indicate an estimated 634 pounds of TCE were removed from groundwater treated by the Area 7 GWETS in 2024 (**Table 6**).

As part of Site QA procedures, PE samples (designated with sample ID SP-104) were submitted to Eurofins during January and July 2024, and process water split samples were submitted to PACE. A summary of the PE sample results and laboratory reports are included with other GWETS data and quality control reporting in the supplemental data submittal (issued under separate cover concurrently with this SMR).

7.5 Area 12 GWETS

Approximately 1,822 AF (or 594 MG) of groundwater were pumped and treated at the Area 12 GWETS in 2024. Of the total, 322 MG were extracted from well MEX-1MA and 272 MG from the Granite Reef well (**Table 6**). The Area 12 system was shut down for the annual SRP dry-up on December 31, 2023. SRP dry-up ended in early February and when the system was restarted on February 10, one of the blowers failed. To ensure proper treatment at the lower air flow rate, MEX-1MA was offline until repairs were completed on April 9. Area 12 GWETS and the extraction wells were shut down periodically due to maintenance in 2024, which included: 1) the system was temporarily shut down for approximately 2 weeks in April 2024 while SRP performed maintenance work on the treatment system treated water discharge pipeline; and 2) the Granite Reef well was kept offline between May 2 and July 1 while a new magnetic flow meter at the treatment system was installed. Treatment system performance data provided by the Area 12 GWETS operator based on monthly sampling of extraction wells (when operating) and high-frequency pumping data indicates an estimated 402 pounds of TCE were removed from groundwater treated by the Area 12 GWETS in 2024 (**Table 6**).

Treated water discharged to McKellips Lake is monitored as required by an AZPDES permit. The results of AZPDES sample analyses were summarized in monthly DMRs and submitted to ADEQ under separate cover.

7.6 Laboratory Audit and Treatment Facility Inspections

To assure data quality and consistency associated with collection of compliance monitoring data at the treatment facilities, the NIBW PCs and the City of Scottsdale submitted samples in 2024 to PACE (designated as the primary analytical laboratory), located in Mt. Juliet, Tennessee, and Eurofins (designated as the back-up analytical laboratory), located in Phoenix, Arizona. Eurofins and PACE are licensed by ADHS under analytical laboratory license numbers AZ0728 and AZ0612, respectively.

The City of Scottsdale and NIBW PCs conducted the annual audit of PACE on December 17, 2024, the objective of which is to ensure laboratory performance and data quality and resolve any issues that arose during the year. Results of the laboratory audit are provided under separate cover as a supplemental data submittal (issued concurrently with this SMR).

The NIBW PCs coordinated the annual inspections for the NIBW treatment systems in accordance with Section VI.B.4.d of the Amended CD SOW. The field inspections for the MRTF, Area 7 GWETS, and Area 12 GWETS were conducted on December 10, 2024. The field inspections for NGTF and CGTF were conducted on December 11, 2024. In accordance with the SOW, the schedule of site inspections was coordinated a minimum of 2 weeks in advance with EPA and ADEQ to provide an opportunity for regulatory agency participation. HydroGeoLogic, Inc. (HGL), EPA's contractor, and EPA participated in the field inspections. Other participants included the respective treatment system operators, managers, and NIBW PCs.

The groundwater treatment and extraction systems were inspected for malfunctions, deterioration, issues with operator practices, or errors that could result in a release of untreated groundwater. At each facility, the major system components were identified and examined for operability, condition of operating equipment, and management of untreated groundwater and residual materials. Additionally, data related to routine operation, system startup and shutdown, routine and non-routine maintenance, and sampling were made available for review during the inspections. Based on the 2024 inspection and a review of operating and monitoring data, the CGTF, MRTF, NGTF, Area 7 GWETS, and Area 12 GWETS have all consistently met performance criteria set forth in the Amended CD. No treatment performance problems, hazards, significant deterioration, or equipment malfunctions were apparent in 2024. Additional details for the NIBW Site inspections are provided in **Appendix I**.

7.7 Status of Site Plans

The Sitewide O&M Plan consists of the individual treatment system O&M Plans as well as the O&M Plans for the groundwater monitoring wells and the groundwater extraction wells. Other plans critical to each of the treatment systems include Contingency and Emergency Response Plans (CERPs). **Table 7** summarizes the history of O&M Plan and CERP submittals, reviews, and approvals. As noted, the last Sitewide O&M Plan officially approved by EPA was in 2006, and the most recent submittal of revised plans was in 2020 and 2021. The NIBW PCs responded to EPA comments and submitted revised documents, which are being used to guide activities at the Site pending EPA approval.

Table 7. Summary of Site Plan Submittals and Approvals

Date	Description of Site Plan Submittals & Approvals
2006	Sitewide O&M Plan, consisting of individual treatment system O&M Plans and O&M Plans for groundwater monitoring and extraction wells, last officially approved by EPA
January 2007	City of Scottsdale submitted CERP for CGTF
2013	NIBW PCs submitted O&M Plan and CERP for newly constructed NGTF; upon approval by EPA, NGTF O&M Plan became part of Sitewide O&M Plan
2014	NIBW PCs submitted updated O&M Plans and CERPs for Area 7 GWETS, Area 12 GWETS, and MRTF
2016	NIBW PCs submitted updated NGTF O&M Plan for operation of three treatment trains
February 28, 2020	NIBW PCs updated and submitted treatment system O&M Plans for Area 7 GWETS, Area 12 GWETS, MRTF, and NGTF
April 30, 2020	EPA provided comments on NIBW PCs' treatment system O&M Plans and City of Scottsdale's 2018 CGTF O&M Plan
June 19, 2020	NIBW PCs and City of Scottsdale revised and resubmitted treatment system O&M Plans
August 28, 2020	NIBW Groundwater Extraction Well O&M Plan submitted to EPA
August 31, 2020	NIBW PCs updated and submitted treatment system CERPs for Area 7 GWETS, Area 12 GWETS, MRTF, and NGTF
September 3, 2020	City of Scottsdale submitted updated CGTF CERP
October 5, 2020	EPA provided comments on treatment system CERPs
October 28, 2020	EPA provided Final Agency Comments to the NIBW PCs Response to Comments, dated September 30, 2020
November 2020	Gilbane (EPA oversight contractor) indicated that they had no further comments on revised treatment system O&M Plans
December 31, 2020	CERPs for Area 7 GWETS, Area 12 GWETS, MRTF, and NGTF revised by NIBW PCs and resubmitted to EPA
January 26, 2021	EPA provided additional comments on Area 7 O&M Plan and CERP
February 2, 2021	Revisions made to NIBW Groundwater Extraction Well O&M Plan based on EPA's comments and document resubmitted to EPA
February 9, 2021	EPA provided additional comments on Area 12 O&M Plan and CERP
March 11, 2021	NIBW Groundwater Monitoring Well O&M Plan submitted to EPA

The NIBW PCs aim to finalize the treatment system O&M Plans in 2025 and submit documents to EPA for final approval later in the year to ensure they are available for use both at the Site and for review by the 2026 Five-Year Review team.

8 DATA PRESENTATION AND ANALYSES

8.1 Groundwater Pumping

Groundwater pumping trends in the vicinity of the NIBW Site are summarized in **Table 8**. Monthly groundwater pumping data for 2024 are summarized in **Table 9**. Annual groundwater pumping data for 2015 through 2024 are summarized in **Table 10**. Historic annual groundwater pumping data for 1991 through 2014 are summarized in **Appendix F, Table F-1**. Groundwater pumping data for 2024 are shown graphically on **Figure 6**, with circle size increasing with pumping volume. The estimated 2024 annual pumping distribution between the MAU and LAU for pumping wells in the vicinity of the Site is identified by color on **Figure 6** (in percentages) and summarized in **Table 9** (in AF). **Appendix F** shows groundwater extraction graphed over the last 10-year period along with extraction well TCE concentrations.

Review of monthly groundwater pumping data (**Table 9**) indicates seasonal trends in pumping in response to fluctuations in demand for groundwater. In general, maximum groundwater pumping for municipal demand corresponds to the summer months while minimum groundwater pumping for municipal demand corresponds to the winter months. In 2024, combined monthly pumping for all wells tracked at the NIBW Site ranged from an annual minimum of approximately 1,318 AF (429 MG) in February 2024, to an annual maximum of approximately 2,359 AF (769 MG) in June 2024 (**Table 9**).

Review of the spatial distribution of groundwater pumping for 2024 (**Figure 6**) indicates the presence of several pumping centers. The predominant pumping center is associated with the EPCOR wellfield, located along the Arizona Canal in the vicinity of McDonald Road and to the north. Total groundwater pumping for 2024 at the six EPCOR wells was 10,628 AF (3,463 MG). This pumping is principally from the LAU. NGTF extraction well SRP22.5E9.3N (also known as PCX-1) pumped a total of 3,251 AF (1,059 MG) from the LAU in 2024 (**Table 9**). Combined pumping at EPCOR wells and PCX-1 in the Northern LAU causes a regional cone of depression that controls groundwater movement in the LAU across the NIBW Site and the region.

Outside of the Northern LAU pumping center, groundwater extraction at the CGTF extraction wells, principally COS-75A and COS-31 in 2024, is the most significant pumping that occurs within the boundaries of the NIBW Site. Well COS-75A pumps exclusively from the LAU, while COS-31 pumps from both the MAU and LAU. CGTF extraction well COS-72 is completed across the MAU and LAU but has been designated as inactive since the pump motor failed in early 2024. CGTF extraction well COS-71A, which was modified in 2023 to pump only from the MAU, has not pumped routinely since 2016 due to elevated levels of inorganic constituents at this well. Increasing levels of inorganics have resulted in a reduction in overall pumping at CGTF extraction wells, establishing a new baseline based on the inorganic loading

the City of Scottsdale can feasibly accept into the TGTF and ultimately into its municipal supply system. Total groundwater pumping for 2024 at the CGTF extraction wells was 3,930 AF (1,280 MG). Well COS-75A is the preferred well to extract groundwater from for the remedy; however, it was down for pipeline inspection and SCADA communication issues for the first few months of 2024 which resulted in pumping at COS-31 instead. Due to an extended period of downtime at well COS-75A, CGTF pumping in 2024 was divided between three extraction wells (**Table 9**). Well COS-75A accounted for approximately 54% of CGTF extraction, with approximately 692 MG of the 1,280 MG pumped. Well COS-31 accounted for approximately 43% of CGTF extraction, with approximately 550 MG of the 1,280 MG pumped. Well COS-72 accounted for approximately 3% of CGTF extraction, with approximately 38 MG of the 1,280 MG pumped.

Pumping associated with the Area 7 GWETS and Area 12 GWETS is also substantial, totaling 505 AF (165 MG) and 1,822 AF (594 MG) for 2024, respectively. Groundwater extraction for the Area 7 and Area 12 Source Control Programs is exclusively from the MAU.

The Arcadia Water Company (AWC) wellfield comprises another pumping center in the vicinity of the NIBW Site. Total groundwater pumping during 2024 at the five AWC wells, which pump from the MAU and LAU, was 1,854 AF (604 MG). When operating, well COT-6 comprises another significant pumping center to the south. Well COT-6 pumps from both the MAU and LAU. However, no pumping was reported by the City of Tempe for well COT-6 in 2024.

Overall trends in pumping from 1991 through present are summarized in **Table 8**. Annual groundwater pumping in the vicinity of the NIBW Site for 2024 totaled 22,513 AF (7,336 MG) which is consistent with the average since 2017.

Table 8. Annual Groundwater Pumping Trends in the NIBW Superfund Site Vicinity

Timeframe	Annual Groundwater Pumped
1991 through 1995	Remedy build-out in progress - pumping ranged from 18,887 AF (6,154 MG) to 31,824 AF (10,370 MG)
1996 through 2004	Initial remedy operation - pumping increased to average of 40,165 AF (13,088 MG)
2005 through 2016	Increase in surface water supply to the City of Scottsdale and SRP - pumping decreased to average of 29,324 AF (9,555 MG)
2017 through 2024	The City of Scottsdale balancing inorganics not related to Site - pumping decreased to an average of approximately 23,157 AF (7,546 MG)

Table 9. 2024 Monthly Groundwater Pumping in the NIBW Superfund Site Vicinity

Well ID	Estimated Pumping Distribution Percentage			Gallons (x1000)												Total In Acre-Feet	Calculated Pumping Distribution (Acre-Feet)		
	UAU	MAU	LAU	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total		UAU	MAU	LAU
7EX-3aMA	0	100	0	5,533	6,023	6,538	6,708	5,965	7,492	5,847	7,522	6,862	5,973	6,153	6,731	77,347	237.4	0.0	237.4	0.0
7EX-6MA [a]	0	100	0	5,077	8,107	8,258	6,471	6,171	7,868	5,522	8,808	8,144	7,122	7,620	8,028	87,197	267.6	0.0	267.6	0.0
PV-11	0	3	97	5,487	1,749	12,297	45,991	107,425	99,293	102,327	98,142	96,870	103,435	79,931	52,329	805,276	2,471.3	0.0	74.1	2,397.2
PV-12B [b]	0	3	97	396	330	1,775	6,449	86,170	56,010	89,587	85,365	71,256	78,889	14,858	1,499	492,584	1,511.7	0.0	45.4	1,466.3
PV-14	0	0	100	86,020	67,887	93,682	86,734	92,860	89,054	91,542	92,889	90,566	94,577	90,005	93,072	1,068,888	3,280.3	0.0	0.0	3,280.3
PV-15	0	6	94	96,327	90,953	97,773	86,695	1,146	93,063	94,758	92,882	93,623	98,924	94,701	96,942	1,037,787	3,184.8	0.0	191.1	2,993.8
PV-16	0	0	100	73	0	197	160	81	69	0	2,722	438	84	353	122	4,299	13.2	0.0	0.0	13.2
PV-17	0	0	100	138	162	214	178	6,989	4,554	14,627	20,838	4,777	1,617	354	0	54,448	167.1	0.0	0.0	167.1
AVI **	0	100	0	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	21,417	65.7	0.0	65.7	0.0
AWC-7A **	0	14	86	7,872	7,879	7,228	13,115	10,470	13,856	14,602	13,363	11,115	8,765	8,213	4,907	121,385	372.5	0.0	52.2	320.4
AWC-8B [c] **	0	4	96	9,417	10,589	11,443	16,551	16,772	18,902	19,054	20,454	17,396	14,432	12,117	7,903	175,029	537.1	0.0	21.5	515.7
AWC-8A **	0	18	82	5,395	5,870	4,776	6,886	5,055	18,499	9,951	9,620	8,481	5,414	4,474	2,654	87,074	267.2	0.0	48.1	219.1
AWC-9A/9B **	0	16	84	5,878	4,310	4,318	6,991	0	15,764	8,391	9,973	10,638	10,972	7,206	7,825	92,266	283.2	0.0	45.3	237.8
AWC-12A **	0	11	89	8,538	6,262	9,632	14,443	18,028	11,827	17,750	17,411	12,810	4,776	6,858	0	128,334	393.8	0.0	43.3	350.5
COS-3	0	15	85	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COS-4	0	9	91	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COS-14	0	14	86	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COS-25 *	0	20	80	0	0	0	0	0	0	0	0	0	285	95	261	640	2.0	0.0	0.4	1.6
COS-70	0	21	79	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COS-71A [d]	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
COS-72	0	48	52	38,253	0	0	0	0	0	0	0	0	0	0	0	38,253	117.4	0.0	56.3	61.0
COS-73	0	20	80	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COS-74	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
COS-75A	0	0	100	0	5,261	51,365	86,754	72,091	85,788	87,563	87,385	78,994	35,753	13,533	87,294	691,782	2,123.0	0.0	0.0	2,123.0
COS-76	0	69	31	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COT-6	0	85	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.00	0.00	0.00
IBGC	0	60	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CECIL SHAMLEY (formerly known as LAIRD 2)	0	59	41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MDWC	0	12	88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MEX-1MA	0	100	0	0	0	0	18,387	40,741	36,117	40,417	39,255	36,576	37,511	36,642	36,366	322,011	988.2	0.0	988.2	0.0
QRIA	0	12	88	0	0	0	1,445	1,958	1,742	1,526	1,661	1,755	1,148	0	0	11,232	34.5	0.0	4.1	30.3
SRIR-SCC [e]	0	100	0	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
SRP21.6E8N [f]	0	29	71	0	0	0	0	0	1,063	0	233	88	0	106	1,428	2,918	9.0	0.0	2.6	6.4
SRP22.1E8.5N	0	100	0	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.

Well ID	Estimated Pumping Distribution Percentage			Gallons (x1000)												Total In Acre-Feet	Calculated Pumping Distribution (Acre-Feet)		
	UAU	MAU	LAU	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total		UAU	MAU	LAU
SRP22.3E7N	0	100	0	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
SRP22.4E9N	0	40	60	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
SRP22.5E5.5N	0	52	48	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
SRP22.5E6N	0	100	0	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
PCX-1 (SRP22.5E9.3N)	0	0	100	95,003	90,218	87,861	92,001	92,154	90,230	62,706	91,842	88,120	90,445	87,514	91,305	1,059,399	3,251.2	0.0	0.0	3,251.2
SRP22.6E10N	0	5	95	0	0	0	0	0	2,112	0	551	0	0	211	0	2,874	8.8	0.0	0.4	8.4
SRP22.9E10.8N [g]	0	8	92	0	0	0	0	0	861	0	308	0	0	126	0	1,295	4.0	0.0	0.3	3.7
COS-31 (SRP23.3E7.3N)	0	30	70	106,244	98,519	49,973	26,912	21,509	84	35,743	0	31,370	30,292	36,410	113,396	550,452	1,689.3	0.0	506.8	1,182.5
COS 6 (SRP23.3E7.5N)	0	51	49	0	0	0	0	1,968	3,328	0	0	0	0	0	0	5,296	16.3	0.0	8.3	8.0
SRP23.5E5.3N	0	23	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.00	0.00
SRP23.5E8.8N	0	35	65	0	0	0	0	0	0	0	0	5	0	0	0	5	0.0	0.0	0.01	0.01
SRP23.5E9.5N	0	0	100	0	84	0	389	160	104,273	0	0	0	4,086	4	0	108,996	334.5	0.0	0.0	334.5
SRP23.5E10.6N [h]	0	9	91	0	0	0	0	1,363	1,635	0	209	0	0	174	1,415	4,796	14.7	0.0	1.3	13.4
Granite Reef (SRP23.6E6N)	0	100	0	0	23,458	34,791	17,415	759	0	30,912	34,175	32,878	33,717	32,354	31,309	271,767	834.0	0.0	834.0	0.0
SRP24E10.5N	0	18	82	0	0	0	0	1,977	3,474	10	431	0	2,334	348	2,350	10,925	33.5	0.0	6.0	27.5
Total Monthly Discharge (Gallons x 1,000)				**477,437**	**429,447**	**483,906**	**542,457**	**593,595**	**768,742**	**734,620**	**737,823**	**704,545**	**672,336**	**542,145**	**648,920**	**7,335,973**				
Total Monthly Discharge (Acre-Feet)				**1,465**	**1,318**	**1,485**	**1,665**	**1,822**	**2,359**	**2,254**	**2,264**	**2,162**	**2,063**	**1,664**	**1,991**	**22,513**	**22,513**	**0**	**3,501**	**19,013**

EXPLANATION:

7EX = Area 7 Extraction Wells
AB = Well Abandoned
AVI = Arcadia Vista Improvement
AWC = Arcadia Water Company
CECIL = Tempe School District well SHAMLEY
COS = City of Scottsdale
COT = City of Tempe
IBGC = Indian Bend (Rio Salado) Golf Course
MDWC = McDowell Water Company
MEX = Motorola Extraction Well
NA = Not Available
N.I.S. = Not in Service
QRIA = Quail Run Irrigation Association
SRIR = Salt River Indian Reservation
SCC = Scottsdale Community College

NOTES:

* All water from Well COS-25 goes directly to McKellips Park irrigation and does not go to the City of Scottsdale's water delivery system.
** Monthly values are based on an average of the annual total.

[a] Replacement well for 7EX-4MA and 7EX-5MA
[b] Replacement well for PV-12
[c] Replacement well for AWC-8
[d] Replacement well for COS-71
[e] Scottsdale Community College is connected to the SRPMIC community water system; well SRIR-SCC is no longer in use.
[f] Replacement well for SRP 21.5E,8N
[g] Replacement well for SRP 23E,10.8N
[h] Replacement well for SRP 23.4E,10.6N

Table 10. Annual Groundwater Pumping in the NIBW Superfund Site Vicinity from 2015 through 2024

Well ID	Gallons (x1000)									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
7EX-1UA (1)	0	AB	AB	AB	AB	AB	AB	AB	AB	AB
7EX-3aMA (2)	75,046	50,426	55,354	54,202	52,783	73,716	31,126	33,592	67,204	77,347
7EX-4MA (2)	28,280	16,720	0	0	0	0	0	0	AB	AB
7EX-5MA (3)	0	0	AB	AB	AB	AB	AB	AB	AB	AB
7EX-6MA (4)a	25,524	76,991	107,116	105,021	89,539	108,698	43,552	27,457	89,939	87,197
PV-11	587,317	667,557	673,419	574,889	433,655	623,004	596,102	242,710	801,956	805,276
PV-12Bb	422,165	809,273	558,911	452,431	835,263	741,792	833,931	762,807	331,582	492,584
PV-14	1,097,813	1,067,856	1,024,432	1,110,912	1,061,608	983,648	551,970	1,052,381	921,399	1,068,888
PV-15	1,006,058	620,398	1,089,449	1,066,873	851,657	1,033,416	1,116,868	1,144,955	1,112,712	1,037,787
PV-16	84,721	125,342	156,143	74,120	5,198	25,923	11,738	1,484	4,041	4,299
PV-17	12,304	31,554	10,217	173,515	156,611	122,929	180,423	108,994	36,395	54,448
AVI	44,140	43,214	40,492	37,393	32,484	34,637	30,255	22,821	25,093	21,417
AWC-7A	299,937	221,472	236,670	246,750	220,338	159,909	121,876	107,184	129,776	121,385
AWC-8/8B (5)	138,410	83,095	130,116	241,356	159,780	186,375	152,142	205,982	156,386	175,029
AWC-8A	67,315	106,568	99,776	101,678	71,389	64,861	110,329	73,257	100,834	87,074
AWC-9A	229,236	233,041	196,193	135,204	227,470	148,082	61,501	130,529	127,442	92,266
AWC-12A	274,882	297,279	231,665	191,707	135,610	174,663	208,879	140,398	74,220	128,334
COS-3	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COS-4	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COS-14	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COS-25	11,903	11,450	13,771	12,834	9,678	12,555	9,851	11,087	7,869	640
COS-70	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COS-71Ac	505,229	559,816	4,064	7,011	0	6,075	0	527	0	0
COS-72	285,438	380,588	13,068	151,031	263,425	407,248	313,782	347,992	366,962	38,253
COS-73	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COS-74	65	0	0	0	0	0	0	0	903	0

Well ID	Gallons (x1000)									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
COS-75A	777,406	933,858	977,609	1,062,801	1,012,888	715,078	1,002,880	976,529	273,882	691,782
COS-76	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COT-6	385,707	417,507	536,592	33,524	24,030	258,834	8,200	148,223	303,503	0
IBGC	0	0	0	0	0	0	NA	NA	NA	NA
CECIL SHAMLEY (formerly known as LAIRD 2)	119	0	104	207	65	0	105	105	104	NA
MDWC	39,853	54,486	51,438	39,710	36,020	30,139	28,962	29,073	28,579	NA
MEX-1MA [6]	200,600	283,710	164,430	240,280	393,191	423,872	423,468	396,889	386,243	322,011
QRIA	10,921	9,382	9,234	7,450	8,370	10,044	8,357	7,169	7,479	11,232
SRIR-SCC[d]	60,768	56,972	61,068	60,161	45,217	33,014	NA	NA	NA	NA
SRIR-4	N.I.S.	N.I.S.	N.I.S.	N.I.S.	AB	AB	AB	AB	AB	AB
SRIR-10	N.I.S.	N.I.S.	N.I.S.	N.I.S.	AB	AB	AB	AB	AB	AB
SRP21.5E8N	73,131	18,104	AB	AB	AB	AB	AB	AB	AB	AB
SRP21.6E8N[e]	---	---	---	---	---	---	11,392	55,841	2,157	2,918
SRP22.1E8.5N	0	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
SRP22.3E7N	0	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
SRP22.4E9N	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
SRP22.5E5.5N	88	212	0	101	7	0	0	N.I.S.	N.I.S.	N.I.S.
SRP22.5E6N	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
PCX-1[7] (SRP22.5E9.3N)	1,076,158	1,194,001	1,293,066	1,248,095	718,730	910,084	952,336	1,069,121	960,525	1,059,399
SRP22.6E10N	63,629	6,207	81	21,288	0	8,840	14,126	139,269	2,975	2,874
SRP22.9E10.8N[f]	183,239	29,066	91	16,957	2,222	150	2,483	13,816	1,730	1,295
COS-31 (SRP23.3E7.3N)	208,113	372,149	143,659	189,906	312,312	74,153	142,009	2,953	294,400	550,452
COS-6 (SRP23.3E7.5N)	7,723	4,054	0	1,082	4,920	1,457	681	0	0	5,296
SRP23.5E5.3N	6,194	1,776	0	0	518	13	0	0	0	0
SRP23.5E8.8N	101	935	0	0	0	528	10,404	0	0	5

Well ID	Gallons (x1000)									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
SRP23.5E9.5N	0	352	0	0	0	65	27,577	0	0	108,996
SRP23.5E10.6N[g]	115,912	20,369	0	33,374	251	78	854	38,125	1,646	4,796
Granite Reef (SRP23.6E6N)	305,880	348,810	184,350	304,370	150,273	140,744	369,948	344,732	324,834	271,767
SRP24E10.5N	138,399	34,931	173	79,524	2,014	1,261	25,064	76,930	62	10,925
Total Discharge (Gallons x1000)	8,849,725	9,189,521	8,062,751	8,075,756	7,317,515	7,515,884	7,403,170	7,712,827	6,942,728	7,335,973
Total Discharge (Acre-Feet)	27,159	28,202	24,744	24,784	22,457	23,065	22,719	23,670	21,306	22,513

ABBREVIATIONS:

7EX = Area 7 Extraction Wells
AB = Well Abandoned
AVI = Arcadia Vista Improvement
AWC = Arcadia Water Company
CECIL = Tempe School District well SHAMLEY
COS = City of Scottsdale
COT = City of Tempe
IBGC = Indian Bend (Rio Salado) Golf Course
MDWC = McDowell Water Company
MEX = Motorola Extraction Well
NA = Not available
N.I.S. = Not in Service
QRIA = Quail Run Irrigation Association
SRIR = Salt River Indian Reservation
--- = No Data

NOTES:

(1) Extraction well 7EX-1UA went into service in 2008.
(2) Extraction wells 7EX-3aMA and 7EX-4MA went into service in September 1999.
(3) Extraction well 7EX-4MA was inactive in 2023 and was abandoned December 14, 2023.
(4) Extraction well 7EX-5MA went into service in February 2002.
(5) Extraction well 7EX-6MA went into service on October 13, 2015.
(6) Well MEX-1MA went into service in October 1999.
(7) Well SRP22.5E9.3N (PCX-1) went into service in April 1997.

[a] Replacement well for 7EX-4MA and 7EX-5MA
[b] Replacement well for PV-12
[c] Replacement well for COS-71
[d] Scottsdale Community College is connected to the SRPMIC community water system; well SRIR-SCC is no longer in use.
[e] Replacement well for SRP21.5E8N
[f] Replacement well for SRP23E10.8N
[g] Replacement well for SRP23.4E10.6N

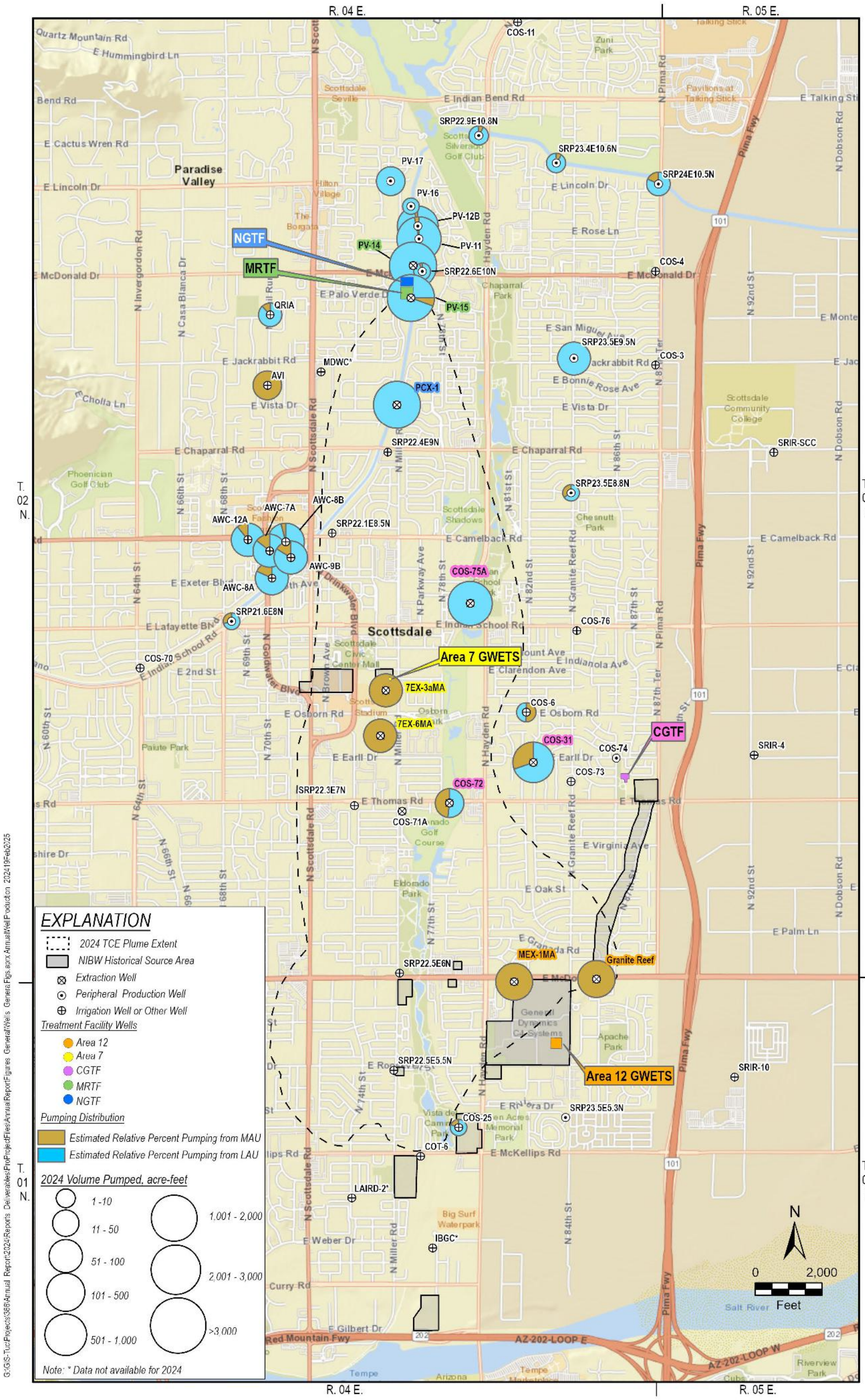


Figure 6. Annual Groundwater Pumping in the NIBW Superfund Site Vicinity

8.2 Groundwater Levels

Water level measurements were obtained by Montgomery & Associates (M&A) in April and October 2024 and are summarized in **Appendix B**, **Table B-1 and Table B-2**, respectively. MAU and LAU water level monitoring is conducted bi-annually (April and October) and UAU monitoring is conducted annually (October), as reflected in referenced tables. April 2024 water level contour maps for the MAU and LAU are shown on **Figure 7**. October 2024 water level contour maps for the UAU, MAU, and LAU are shown on **Figure 8**.

Hydrographs showing continuous water level data for wells in the Northern LAU monitoring program are provided in **Appendix B**. The NIBW PCs also collect supplemental continuous water level data (not required per the GM&EP) at additional MAU and LAU monitoring wells. While not included in this SMR, these supplemental high-frequency data help interpret water level trends, vertical gradients, and pumping responses (See **Section 10.1.2**).

Pumping primarily occurs in the MAU and LAU and influences groundwater movement in the three alluvial unit aquifers. The principal pumping centers are discussed in **Section 8.1** and monthly pumping rates for 2024 are summarized in **Table 9**. **Figure 6** shows annual pumping for wells in the vicinity of the NIBW Site. As in previous years, at the request of the NIBW PCs, the water providers worked within operational and demand constraints to maintain pumping at key extraction wells during the 2024 April and October compliance water level monitoring events. Where appropriate, the pumping status of wells within or close to the Site during the April and/or October 2024 water level events is detailed in the following sections in relation to patterns of groundwater movement in each of the alluvial units.

8.2.1 2024 Groundwater Elevations

Based on the October 2024 water level contour map (**Figure 8**), direction of groundwater movement in the UAU is from east to west in the area south of McDowell Road and from northeast to southwest in the area north of McDowell Road. No known pumping occurs directly from the UAU within or in the immediate vicinity of the Site (**Figure 6**). UAU groundwater migrates from recharge areas to the east toward the Western Margin, where it moves vertically into the LAU, either directly or through the MAU. In general, horizontal hydraulic gradients in the UAU increase from northeast to southwest toward the Western Margin. As discussed in the CSM (**Section 4.3.2**), vertical migration from the Upper MAU to underlying units also occurs along the Western Margin where the MAU thins and coarsens. Other than localized exceptions near pumping centers, downward vertical hydraulic gradients exist across the Site and the CSM acknowledges vertical migration of groundwater from the UAU and the MAU to the LAU in response to these gradients.

Vertical gradients have decreased over time at the Site due to increased groundwater level recovery in the LAU compared to the UAU and MAU. Recent monitoring in the lowermost interval of the MAU shows upward gradients from either the LAU to the Lower MAU or the Lower MAU to the Upper MAU in localized areas of the Site, depending on the pumping status of nearby wells. To facilitate evaluation of vertical gradients, the NIBW PCs have supplemented compliance Lower MAU monitoring with water level data collection from additional Lower MAU wells since 2022, as further discussed.

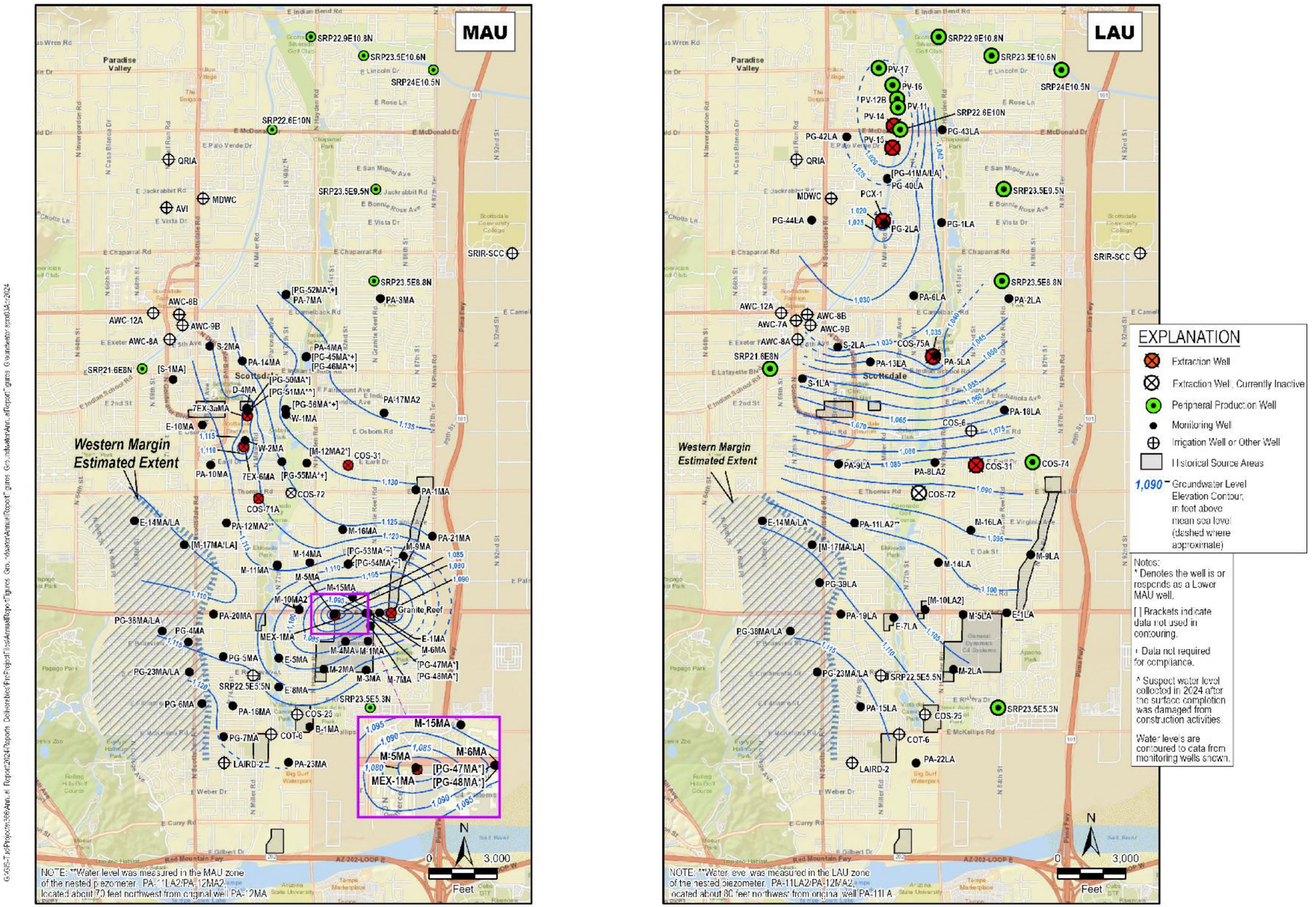


Figure 7. Groundwater Level Contours for the MAU and LAU from April 2024

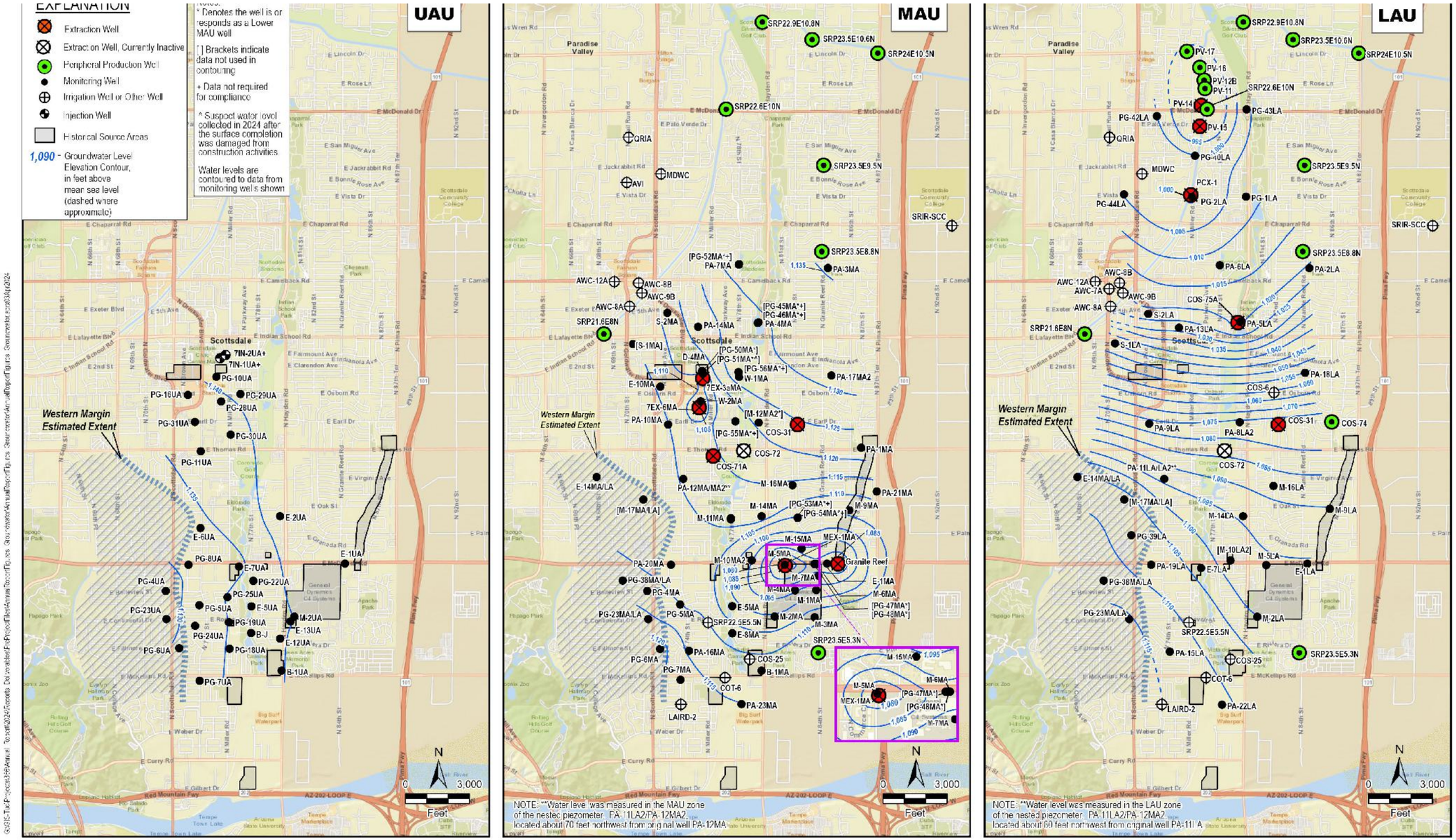


Figure 8. Groundwater Level Contours for the UAU, MAU, and LAU from October 2024

The complex pattern of groundwater movement observed in the MAU is a result of competing influences between the various pumping centers and the Western Margin, where vertical movement of groundwater into the LAU occurs. During the October 2024 water level monitoring event, pumping was occurring at the following wells located within or adjacent to the Site that extract part or all of their water from the MAU: 1) Area 12 GWETS wells, the Granite Reef well and MEX-1MA; and 2) Area 7 GWETS wells, 7EX-3aMA and 7EX-6MA. Based on October 2024 conditions (**Figure 8**), cones of depression are apparent in the MAU in the vicinity of both the Area 7 and Area 12 extraction wells. Water level data from certain wells were excluded from MAU contouring and bracketed on **Figure 7** and **Figure 8** in 2024 for the reasons given below. Where data are not representative due to suspected well damage, the potential for use of alternative wells or well replacement will be evaluated as part of a comprehensive review of the monitoring network that is planned for the GM&EP Update process.

- Lower MAU wells PG-47MA, PG-48MA, PG-50MA and PG-51MA – Water levels for the Lower MAU are inconsistent with the Upper MAU data and are therefore not used for contouring. Historically, Lower MAU water level elevations have been lower than the Upper MAU. This remains the case throughout most of the Site. However, in recent years, regional pumping reductions in the LAU have resulted in disproportionate recovery in the Lower MAU and LAU compared to the Upper MAU, which has caused localized gradient reversals. Localized reversals are more commonly observed near extraction wells pumping from the MAU, where pumping influences on the Upper MAU water levels are more significant than in the Lower MAU. Changes in vertical gradients are further evaluated using supplemental water level data collected at the following Lower MAU wells in April and October 2024: PG-45MA, PG-46MA, PG-52MA, PG-53MA, PG-54MA, PG-55MA, and PG-56MA. Although these supplemental Lower MAU data are also not contoured with the Upper MAU data set, they are provided for reference in **Appendix B, Table B-2**.
- PG-51MA – Construction activities in 2024 related to vegetation removal in the vicinity of PG-51MA resulted in damage to the well vault and restriction of access to the well casing. The NIBW PCs hired a contractor to move the vault back in place to allow access to the well. The October 2024 water level was 33.12 feet higher than the October 2023 water level collected at this well, indicating damage was incurred to the casing (**Appendix B, Table B-3**). The water level elevation at PG-51MA is more closely tracking that of the UAU since October 2024 and is no longer representative of the Lower MAU.
- M-12MA2 – The NIBW PCs discontinued use of water level data from M-12MA2 for contouring in the Upper MAU in 2015, after concluding that data were inconsistent with surrounding wells. Review of high-frequency data that was previously obtained from the well suggested that M-12MA2 responded more readily to pumping stresses in the Lower

MAU and LAU than the Upper MAU, and as such was not representative of Upper MAU hydraulic conditions. The NIBW PCs re-installed high-frequency water level monitoring equipment in M-12MA2 in 2022 and evaluation of water level responses to pumping continues to support the conclusion that M-12MA2 does not represent hydraulic conditions in the Upper MAU.

- M-17MA/LA – Water level data at M-17MA/LA has been inconsistent with the trends observed in other MAU and LAU wells along the Western Margin since the pump was pulled in 2016. Trend anomalies became more apparent in 2018 when water levels increased significantly. The NIBW PCs have continued to monitor this well; however, water levels are no longer considered representative for either the MAU or the LAU and therefore are not contoured.
- S-1MA – Continued evaluation of high-frequency water level data collected in the well pairs S-1MA/LA and S-2MA/LA in 2024 supports previous conclusions that S-1MA water level data are incongruent with the Upper MAU. The pumping signature from Area 7 is apparent at S-2MA, whereas responses to local and regional MAU pumping stresses at S-1MA are significantly muted. The supplemental high-frequency data continues to support use of water level measurements from S-2MA over those from S-1MA (**Appendix B**). Both S-1MA and S-2MA are cross-gradient of Area 7 extraction wells and TCE concentrations continued to be below the laboratory detection limit in 2024.

In both April and October, horizontal hydraulic gradients in the MAU increased in all directions toward the Area 7 GWETS and Area 12 GWETS pumping centers (**Figure 7** and **Figure 8**). Horizontal hydraulic gradients decrease significantly in the area outside of these pumping centers.

Water level data from one well was excluded from LAU contouring and bracketed on **Figure 7** and **Figure 8** in 2024 for the reason given:

- M-10LA2 – Beginning in early 2023, water level data at M-10LA2 has been inconsistent with the trends observed in other nearby LAU monitoring wells in all directions. The NIBW PCs continued to monitor and evaluate data from this well through 2024. M-10LA2 is not responding to fluctuations observed in the water level elevation in surrounding wells, indicating the integrity of the well and/or screen may have been comprised.

Groundwater movement in the LAU is generally from recharge areas in the south and southwest parts of the Site to points of discharge at extraction and production wells to the north, as shown for April and October 2024 on **Figure 7** and **Figure 8**, respectively. CGTF extraction well

COS-75A, an important LAU extraction well in the central part of the Site, was operating for both the April and October 2024 water level monitoring events, as was key LAU extraction well PCX-1. Northern LAU extraction wells PV-14 and PV-15 were both pumping continuously during the October water level event but only well PV-15 was pumping during the April water level event. Other wells pumping from the LAU during the two monitoring events include selected AWC wells and EPCOR wells PV-11 and PV-12B. Minor sporadic pumping also occurred at EPCOR wells PV-16 and PV-17.

As shown on **Figure 7** and **Figure 8**, pumping at MRTF extraction wells PV-14 and PV-15 and NGTF extraction well PCX-1, combined with pumping at nearby SRP and EPCOR production wells, results in a regional sink for LAU groundwater to the north. Based on both April and October 2024 water level data (**Figure 7** and **Figure 8)**, horizontal hydraulic gradients in the LAU increase from south to north toward extraction well COS-75A, and then decrease sharply in the area downgradient from COS-75A toward PCX-1. Gradients again increase from PCX-1 north to the EPCOR wellfield. Localized gradient changes are apparent in the LAU near the AWC wellfield in April and October, as water levels were collected at peak pumping periods during both monitoring events.

Demonstration of performance criteria and consistency of hydraulic gradients with the overall capture of the VOC plumes in the MAU and LAU are discussed in **Section 9.3**.

8.2.2 Annual Changes in Groundwater Elevation

Groundwater level trends over time are evaluated by comparing short-term and long-term changes in water levels at UAU, MAU, and LAU monitoring wells. Short-term changes are evaluated by comparing water level data from 2 consecutive years. **Appendix B**, **Table B-3** summarizes the difference in water level between October 2023 and October 2024 for all monitoring wells included in the water level monitoring programs for both years. Water level change is shown on maps and illustrated on associated inset bar graphs on **Figure 9**, **Figure 10**, and **Figure 11** for the UAU, MAU, and LAU, respectively. Wells are generally arranged based on location (north to south) on the inset bar graphs. Water level differences computed at individual wells using October 2023 and October 2024 data may not be reflective of long-term trends. In addition, water level changes of approximately 10 feet or more observed in monitoring wells adjacent to extraction wells are usually attributed to cycling of pumping rather than to regional water level conditions in the aquifer. Longer-term water level data trends are evaluated using water level data obtained over a longer period. Hydrographs showing the last 20 years of water level data for wells included in the monitoring program are provided in **Appendix D**. Hydrographs for specific wells show water level and/or TCE data in accordance with the GM&EP monitoring schedule.

Water levels rose in most UAU monitoring wells between October 2023 and October 2024, and the observed rise was less than 2.79 feet in all cases. The exceptions were three UAU monitoring wells, which declined by a maximum of 0.76 feet (**Figure 9**). Rise in UAU water levels during this period is primarily interpreted to be due to regional rise in the UAU. The magnitude of rise in the UAU to the north was generally larger than to the south, ranging from 1.70 to 2.79 feet north of Thomas Road whereas water level differences ranges from – 0.76 to 2.65 feet south of Thomas Road (**Figure 9)**. The largest magnitude of rise of 2.79 feet was observed near Area 7 well PG-16UA.

Water levels rose in most MAU monitoring wells (including MAU/LAU wells) between October 2023 and October 2024. The exceptions were water level declines that were observed in six MAU monitoring wells (**Figure 10**). The magnitude of water level change in the MAU is fairly uniform throughout the Site, with change in Upper MAU water levels ranging from a decline of 1.50 feet at PA-1MA near the middle of the Site to a rise of 4.57 feet at E-14MA/LA near the Western Margin. Lower MAU water levels declined by a maximum of 3.33 feet at PG-47MA (**Figure 10**). The significant rise reported at PG-51MA, a Lower MAU well, is suspected not to be representative, as there was potential damage to the well casing during construction as described in **Section 8.2.1**. Although slight, the general rise in water levels during this period is primarily interpreted to be regional rise in the MAU due to decreases in pumping and use of imported surface water supplies.

Water level change in LAU monitoring wells between October 2023 and October 2024 was bi-modal (**Figure 11**). Water levels generally declined north of Indian School Road and rose to the south of Indian School Road. (**Figure 11**). The largest magnitude of rise in wells that are representative of the LAU was 3.21 feet observed near the Western Margin at well PG-39LA, while the largest magnitude of decline of 5.44 feet was observed in the Northern LAU at PG-43LA. Water levels in MAU/LAU-screened wells near the Western Margin exhibit a water level rise of greater magnitude than the majority of LAU-screened wells. Similar to the MAU, the overall rise in water levels in the LAU to the south, away from the principal pumping center, is primarily interpreted to be regional rise in the LAU due to decreases in pumping and use of imported surface water supplies.

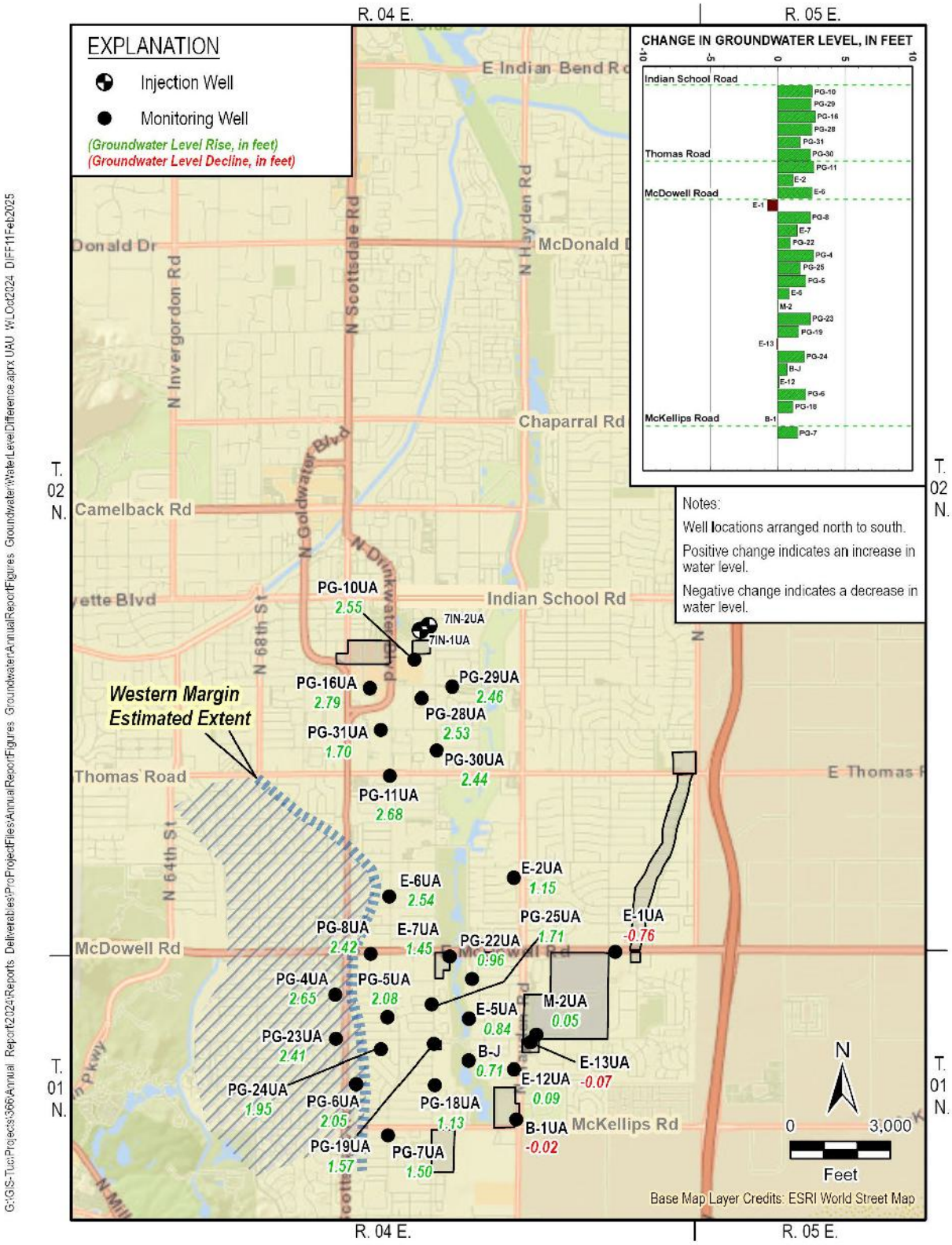


Figure 9. Change in UAU Groundwater Level from October 2023 to October 2024

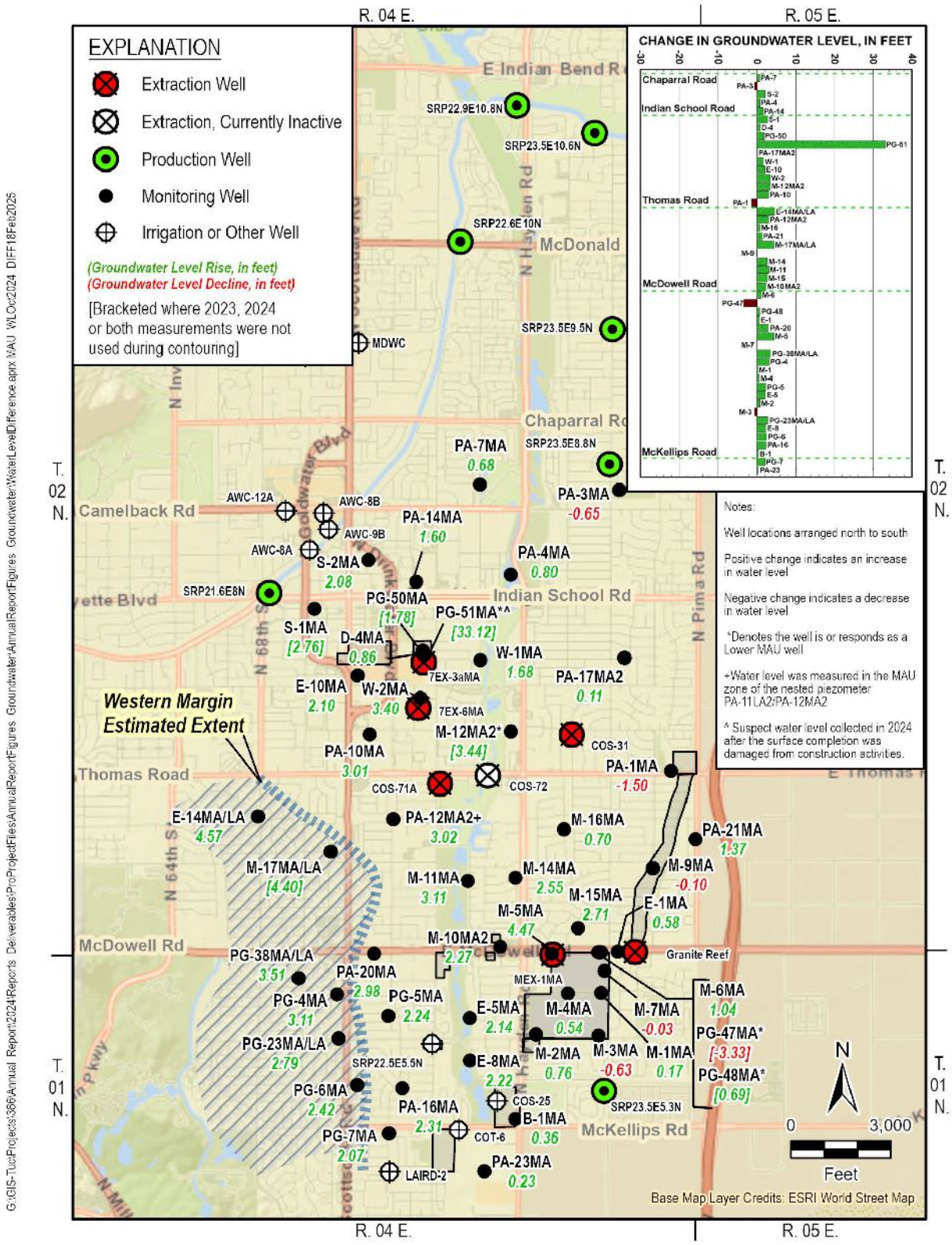


Figure 10. Change in MAU Groundwater Level from October 2023 to October 2024

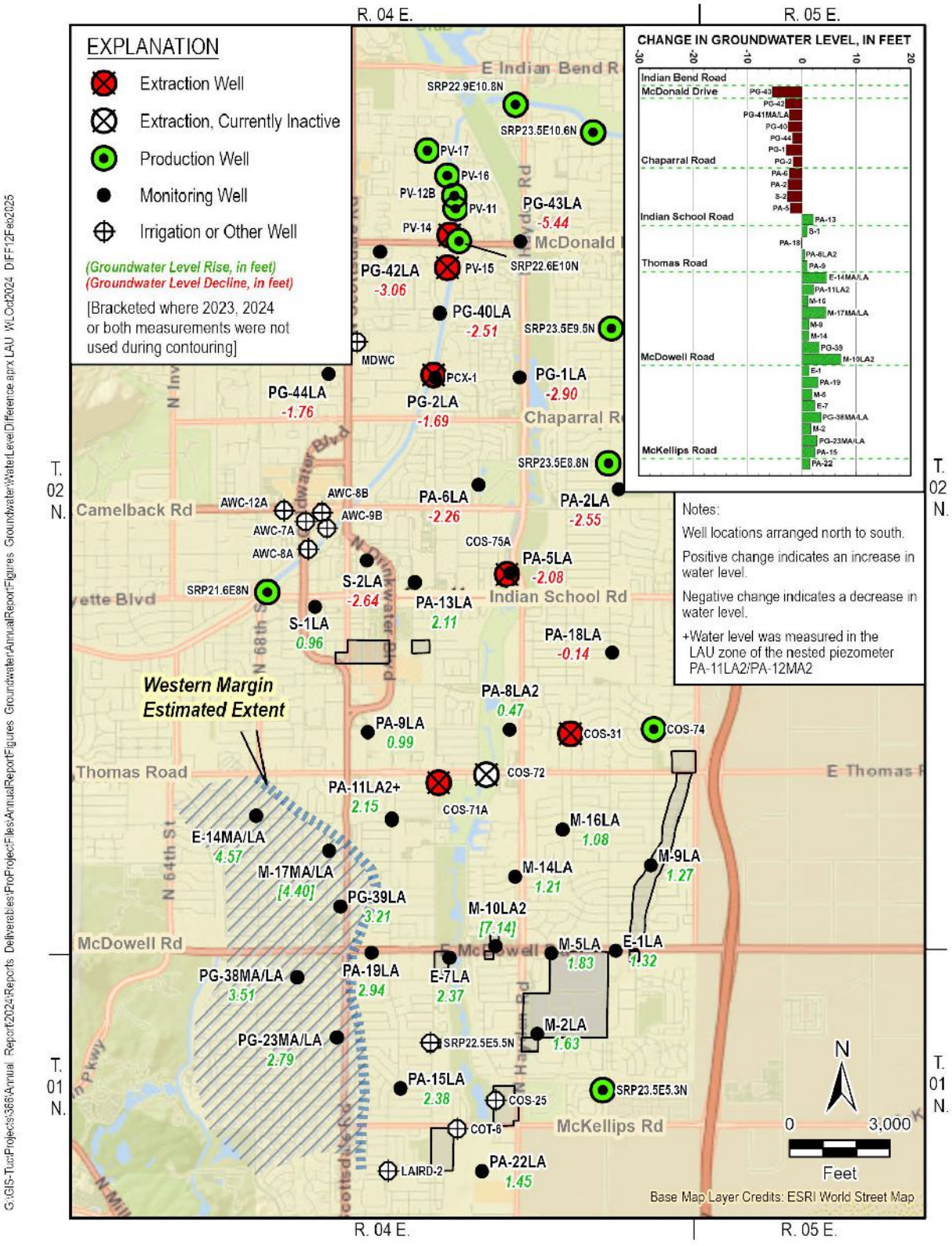


Figure 11. Change in LAU Groundwater Level from October 2023 to October 2024

8.3 Water Quality

During 2024, Montgomery & Associates coordinated activities with the analytical laboratories, PACE Analytical and Eurofins, Inc., and the principal groundwater sampling contractor, Confluence Environmental. HydraSleeve samples are collected by Montgomery & Associates. EnSolutions collects samples from NIBW extraction wells and treatment systems. Sampling data sheets from samples collected during 2024 are included in **Appendix E**.

8.3.1 2024 COC Concentrations

A summary of COC laboratory results for NIBW monitoring wells for 2024 is provided in **Appendix C, Table C-1**. Extraction well COC results for 2024 are summarized in **Appendix C, Table C-2**. TCE is the principal COC at the Site and is therefore depicted in plume maps and timeseries graphs. To analyze change in TCE concentrations, the 2024 plume contours are compared to those from 2001, and a statistical trend analysis is conducted for individual wells for the most recent 10- and 5-year periods. The statistical trend analysis is not included in remedy performance evaluations but is voluntarily conducted by the NIBW PCs to provide additional quantitative information on TCE concentration changes over time.

8.3.1.1 2024 TCE Magnitude & Extent

TCE concentration contours for October 2024 for the UAU, MAU, and LAU are shown on **Figure 12**. Hydrographs showing TCE concentrations and water levels for the period from 2002 through 2024 are provided for all monitoring wells included in the monitoring program in **Appendix D**.

Results from the October 2024 monitoring event show that all UAU monitoring wells have TCE concentrations below the Cleanup Standard of 5 µg/L. The maximum TCE concentration detected was 4.75 µg/L at monitoring well E-5UA, located downgradient of Area 12 in October 2024. Well PG-31UA, located downgradient from Area 7, had a TCE concentration of 4.52 µg/L.

TCE concentrations in MAU groundwater are generally higher than in the other two units, with the following three distinct areas:

- Area 7 Vicinity: In 2024, the maximum concentration of TCE detected at the Site was 1,060 µg/L in July 2024 at monitoring well W-2MA, located downgradient from Area 7 (**Appendix C, Table C-1**). TCE detected at monitoring well W-2MA declined to 947 µg/L in October 2024. W-1MA to the west had a maximum TCE concentration of

468 µg/L in July 2024 and the maximum TCE detected in 2024 at downgradient well PA-12MA was 364 µg/L in October.

- Area 12 Vicinity: The maximum concentration of TCE detected in a monitoring well in the vicinity of Area 12 was 97.1 µg/L at M-10MA2, located downgradient from Area 12, in April 2024. However, TCE concentrations through the remainder of 2024 at M-10MA2 ranged between 43.7 and 45 µg/L. In recent years, the highest TCE concentrations in monitoring wells in the southern part of the MAU have been detected at E-5MA, located downgradient from Area 12. E-5MA had a maximum TCE concentration of 39.0 µg/L in October 2024. In 2024 a notable increase in TCE concentration was observed downgradient to the southwest of Area 12 in monitoring well E-8MA. TCE was detected at 44.6 µg/L in October 2024, which was higher than reported concentrations during the latter half of 2023 through early 2024 (ranging from 17 to 27 µg/L). Historically, higher TCE concentrations have been observed at this well after prolonged COT-6 pumping. However, no pumping has been reported at COT-6 since mid-2023. The influence of pumping at COT-6 on the southern NIBW MAU TCE plume and MAU water levels was reported in the 2023 indicator well M-2MA evaluation (Appendix K; NIBW PCs, 2024b). TCE concentration trends in monitoring wells downgradient from Area 12 are discussed in **Section 8.3.2**. The maximum TCE concentration in the southern part of the MAU for some period of time has been associated with the Area 12 Granite Reef extraction well, located at historical source Area 5B. In 2024, the Granite Reef well had a maximum TCE concentration of 132 µg/L in October 2024 (**Appendix C, Table C-2**).
- Alternate Source to Southwest: The third area of elevated TCE concentrations in MAU groundwater coincides with a localized region associated with monitoring well PG-6MA in the southern portion of the Western Margin. The persistence of elevated PCE and TCE concentrations at this well is attributed to an alternate VOC source unrelated to the NIBW Site. The agencies have concurred with this interpretation and since 2018 the NIBW PCs have modified MAU plume maps to distinguish a separate plume in the vicinity of PG-6MA that is attributed to an alternate source (**Figure 12**). TCE concentration at PG-6MA was 109 µg/L in October 2024.

TCE concentrations in LAU groundwater are generally intermediate between the UAU and the MAU, with a maximum concentration of 80.5 µg/L detected in October 2024 at monitoring well PG-2LA (**Appendix C, Table C-1**), located near extraction well PCX-1. The highest concentrations of TCE in LAU groundwater occur in the north-central part of the Site, as shown on **Figure 12**. Historically, concentrations of TCE have been the highest in the LAU at monitoring well PA-6LA. However, concentrations have been steadily declining in this well since 2020 as the higher concentration center of the LAU plume has moved north for capture at PCX-1 (**Appendix D, Figure D-61**).

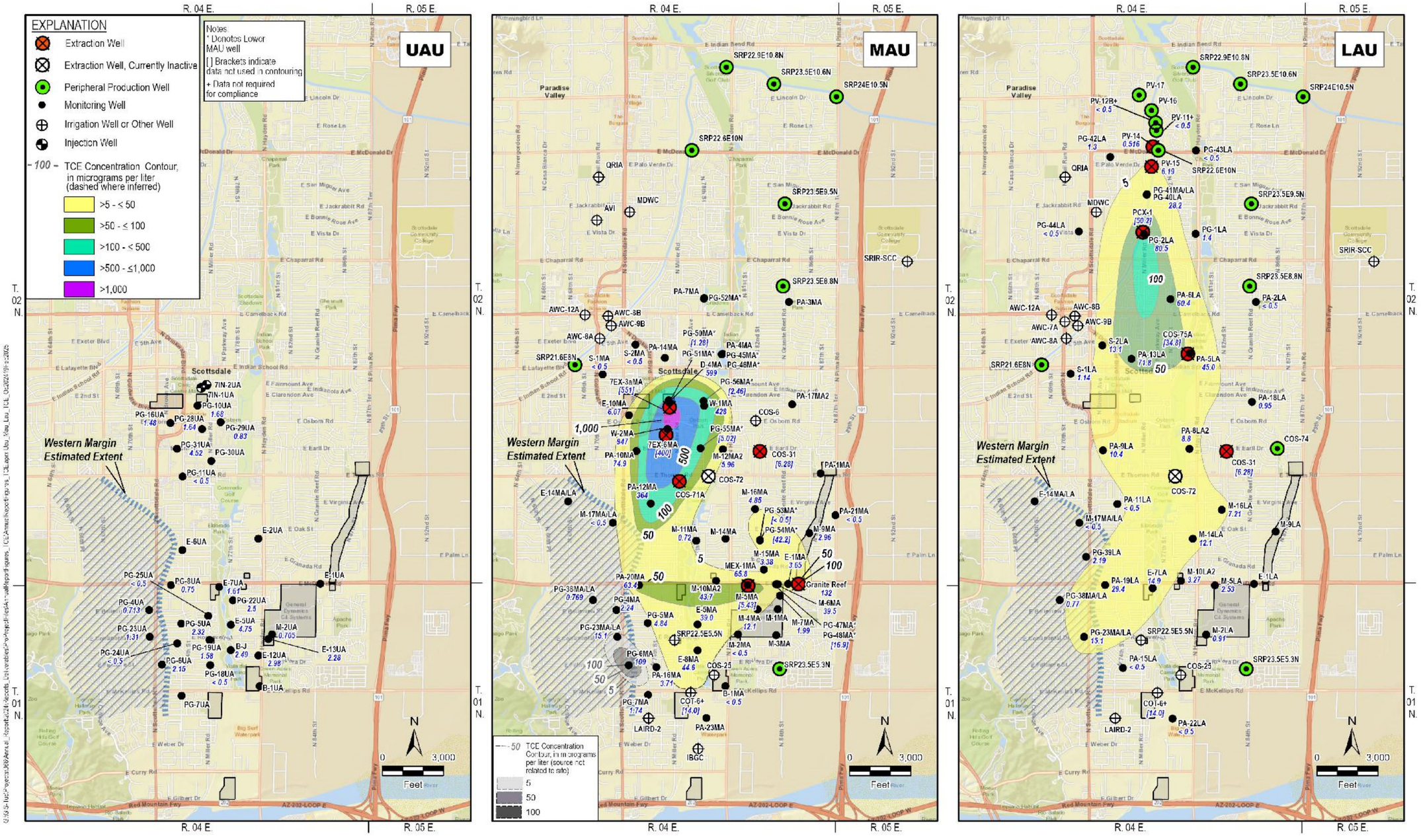


Figure 12. Concentrations of TCE in the UAU, MAU, and LAU from October 2024

8.3.1.2 TCE Concentration Change

For the UAU, MAU, and LAU, **Figure 13** shows changes in the magnitude and extent of TCE concentrations between the baseline data set from October 2001—which coincides with the release of the Amended ROD—and the current monitoring period of October 2024. The extent of the west flank of the MAU and LAU plumes is more accurately represented in maps generated after the October 2001 baseline period following installation of M-17MA/LA.

The extent of the UAU plume has decreased significantly over time, as depicted on **Figure 13**. In fact, because TCE concentrations in all UAU monitoring wells have been below 5 µg/L since 2022, no TCE plumes (defined by the 5 µg/L contour) are shown in the UAU for 2024. However, as indicated by the VOC mass flux analysis in **Section 9.2**, there is still measurable TCE mass in the UAU moving toward the Western Margin and into underlying units. For the MAU and LAU, a significant overall reduction in the 5 µg/L extent is not anticipated at this stage in the remedy and was not observed in MAU and LAU TCE plumes between October 2001 and October 2024 (**Figure 13**). However, the metric serves to ensure that no unanticipated migration of the plume occurs toward peripheral production wells. The only anticipated area of plume expansion is in relation to the predictable migration of the LAU plume to the north in response to regional hydraulic gradients (**Figure 8**) and LAU remedial extraction at CGTF, NGTF, and MRTF wells. Changes in the extent of the northern portion of the LAU TCE plume between October 2001 and October 2024 are generally small (**Figure 13**). However, review of inner MAU and LAU plume contours demonstrates that the magnitude and extent of higher TCE concentration areas have been reduced significantly over time through groundwater extraction and treatment.

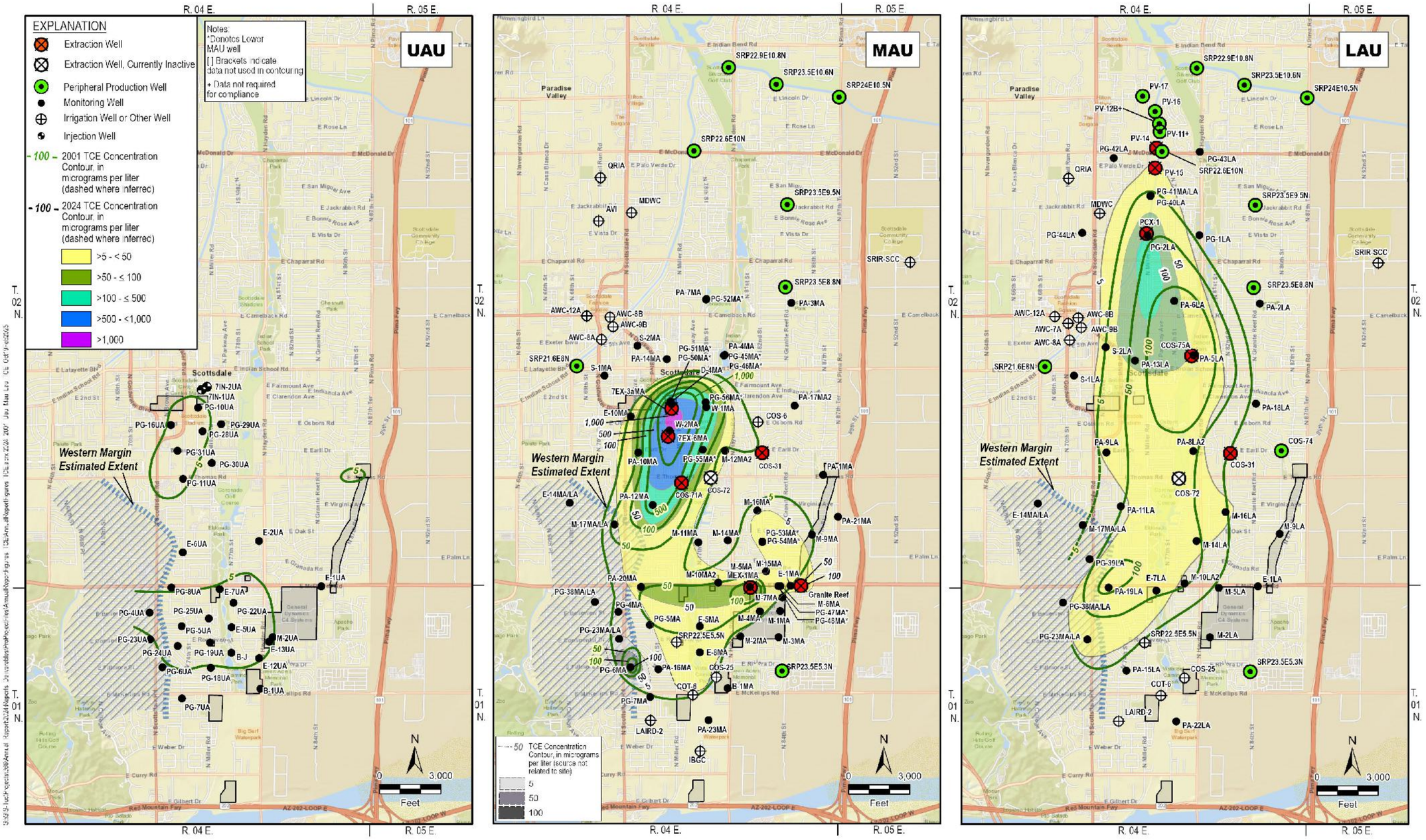


Figure 13. Concentrations of TCE in the UAU, MAU, and LAU for October 2001 and October 2024

8.3.2 Mann-Kendall TCE Concentration Trends

To support interpretation of changes in TCE concentrations over time, the NIBW PCs voluntarily conduct a trend analysis for monitoring wells in the UAU, MAU, and LAU as part of the SMR. The Mann-Kendall trend test is performed using EPA's ProUCL software to determine if a statistically significant trend in TCE concentrations is present. This method is being considered for potential use in evaluating performance of certain components of the remedy in the GM&EP update. Hydrographs that include TCE concentrations for NIBW monitoring wells included in the Site sampling program can be found in **Appendix D**.

Mann-Kendall is a non-parametric trend test that relies on computing an "S" statistic, which is calculated by scoring consecutive pairs of data points. If the earlier concentration in a pair is lower than the later concentration, the pair is assigned a value of +1. Conversely, if the earlier concentration is higher than the later concentration, the pair is assigned a value of -1. If the two concentrations are equal, the pair is assigned a value of zero. The S statistic is computed by summing the values for each pair in the series. Assessing the S statistic, along with the number of statistically independent samples indicates whether an increasing or decreasing trend is apparent. A confidence level of 95% is used in the SMR to determine if a statistically significant trend exists. Because non-detect values are assumed to always be less than the lowest detected value, the reporting limit is used. The Mann-Kendall test is not recommended if the dataset has greater than 50% non-detect values (EPA, 2022).

The term "trend" as used in this section and in general in the SMR refers to statistically significant trends identified using the Mann-Kendall test method described herein. Wells that do not have a statistically significant trend are categorized as either "stable" or "no trend." Stable indicates that the data set for a well has both a negative S statistic and a coefficient of variation that is less than one or has been consistently non-detect. Otherwise, the well is categorized as no trend. Trend criteria used in the 2024 SMR are consistent with the methodology used in EPA's 2021 Five-Year Review.

TCE data from 2020 through 2024 (5 years) were used for analyzing trends for recent time. TCE data from 2015 through 2024 (10 years) were used to analyze longer-term trends. Field duplicate results were omitted from the data set and only original sample results were used to ensure statistically independent values. Mann-Kendall trend results are shown spatially for the most recent 10-year and 5-year periods on **Figure 14** and **Figure 15**, respectively; trend results are also tabulated in **Table 11**. Wells with "Insufficient Data" represent wells without TCE concentration results spanning the entire evaluation period (most recent 5- or 10-year periods) and/or wells with fewer than five samples collected during the evaluation period, unless otherwise noted (**Table 11**). Data input and statistical results from the Mann-Kendall trend analysis are provided in the supplemental data submittal.

8.3.2.1 Monitoring Well TCE Concentration Trends

TCE concentrations in UAU monitoring wells are low and mostly show decreasing or stable trends. Increasing TCE concentration trends are observed in three UAU monitoring wells, PG-5UA, PG-10UA, and PG-16UA, over the 10-year period (**Figure 14**). TCE concentrations in all three of these monitoring wells have consistently been well below the 5 µg/L MCL over the 10-year period (**Table 11**). TCE concentrations at PG-5UA, PG-10UA, and PG-16-UA in 2024 were 2.32, 1.68, and 1.48 µg/L respectively (**Appendix C, Table C-1**). Two UAU wells, B-J and E-7UA, have increasing trends over the 5-year period (**Figure 15**). However, both B-J and E-7UA also consistently show low TCE concentrations, with concentrations of 2.49 and 1.61 µg/L in 2024, respectively. Minor increasing concentrations in the UAU are consistent with the migration of any remaining UAU mass toward the Western Margin in accordance with the OU-2 remedy. TCE concentrations in UAU groundwater have reduced significantly with time, as shown on concentration plots included in **Appendix D**.

TCE concentrations in MAU monitoring wells are mostly decreasing, stable, or have no statistically significant trends. Increasing TCE concentration trends are observed at six MAU monitoring wells over the 10-year period and four over the 5-year period. The increasing trend over the 10-year period at E-10MA is attributed to the 2017 concurrent failure of extraction well 7EX-4MA (abandoned in 2023) and significant reductions in pumping at COS-71A—both located farther to the east—and increased pumping at 7EX-6MA, located farther to the west. Downtime at Area 7 in 2021 and 2022 likely contributed to the 10-year increasing trend at E-10MA (**Table 10** and **Figure 14**). The TCE concentration at E-10MA was 6.07 µg/L in October 2024. The 10-year period increasing concentration trend at M-6MA is attributed to downtimes that occurred at the Granite Reef well, located immediately upgradient from M-6MA in 2017, 2019, 2020, and 2024. The Granite Reef well is located at historical source Area 5B and has consistently had the highest TCE concentrations in the southern part of the MAU. The TCE concentration at M-6MA was 39.5 µg/L in October 2024. Monitoring wells M-10MA2, E-10MA, and PA-12MA have increasing trends over a 5-year period (**Figure 15**). Trends at M-10MA2 are primarily attributed to downtime at the Granite Reef extraction well in 2019 and 2020 and the entire Area 12 GWETS in 2024. Downtime at the Area 7 GWETS in 2021 and 2022 is the suspected cause for increasing 5-year trends at PA-12MA and E-10MA (**Table 10**). TCE concentrations in the Lower MAU are mostly decreasing or stable with the exception of PG-54MA, as shown in **Table 11**, and on **Figure 14** and **Figure 15**. The increasing trend for the 10-year period at PG-54MA may be attributable to downtime at the Granite Reef well in 2017, 2019, 2020, and 2024. PG-54MA had a TCE concentration of 42.2 µg/L in October 2024. An insufficient data designation is assigned to monitoring wells PG-53MA and D-4MA because they do not have TCE concentration data spanning the last 10-year reporting period. The 5-year trend analysis results for PG-53MA (stable) and D-4MA (decreasing) cover a 4-year reporting period

from 2021-2024 due to limitations in the number of years with TCE concentration data, which is denoted in **Table 11** with an asterisk.

TCE concentrations in the LAU are mostly decreasing or stable. Increasing TCE concentration trends are observed at three LAU monitoring wells for the 10-year period and four LAU monitoring wells for the 5-year period. Monitoring wells PG-2LA, M-5LA, and PG-1LA show increasing trends over the 10-year period, with PG-1LA and M-5LA also exhibiting increasing trends over the most recent 5-year period. Concentrations at both PG-1LA and M-5LA were both below the 5 µg/L NIBW Cleanup Standard for TCE in 2024. Monitoring wells PA-8LA2 and PG-40LA also have increasing trends over the most recent 5-year period. Increasing TCE concentration trends in the Northern LAU at wells such as PG-40LA are anticipated, as LAU mass migrates toward PCX-1 and the MRTF extraction wells. Trends continue to level off and eventually decrease as the plume is captured, as evidenced by decreasing 10- and 5-year trends observed across much of the northern half of the LAU plume (PA-6LA, PA-5LA, PG-42LA, S-2LA, and PA-13LA). Declining, stable, or no trend at wells in the southern half of the LAU are attributed to a decrease in mass entering the LAU from overlying units at the Western Margin over time, signaling success of the MAU Source Control programs (**Table 11**).

8.3.2.2 Extraction Well TCE Concentration Trends

TCE concentration trends for CGTF extraction wells are decreasing, stable, or show no statistically significant trend. TCE concentrations at COS-75A show a decreasing trend over both the 5- and 10-year periods. Well COS-31 TCE concentrations show no statistically significant trend over the last 5 years but exhibit a decreasing trend over the 10-year period. Well COS-72 TCE concentrations show a stable trend over the last 5 years and no statistically significant trend over the last 10 years. Well COS-71A was removed from the remedial pumping priority list in 2016 due to inorganic water quality, and insufficient data exist to evaluate recent trends.

TCE concentration trends for MRTF extraction wells are either decreasing or stable. TCE concentrations at well PV-14 show decreasing trends over both the 5- and 10-year periods. TCE concentrations at well PV-15 are stable over the last 5-year period and show a decreasing trend over the 10-year period (**Table 11**).

TCE concentration trends for NGTF extraction well PCX-1 are decreasing over both the 5-year and 10-year periods (**Table 11**).

TCE concentration trends for Area 7 extraction well 7EX-3aMA show no statistically significant trend over the last 5-year period and show an increasing trend for the last 10-year period. TCE concentrations for Area 7 extraction well 7EX-6MA show a decreasing trend over both the 5- and 10-year period (**Table 11**).

TCE concentration trends for Area 12 Granite Reef and MEX-1MA extraction wells have no statistically significant trend over the last 5 years. While the Granite Reef extraction well has a decreasing trend observed over the 10-year period, MEX-1MA exhibits an increasing trend over the same period, likely due to downtime at the upgradient Granite Reef well, where TCE concentrations are often double those observed at MEX-1MA (**Table 11)**.

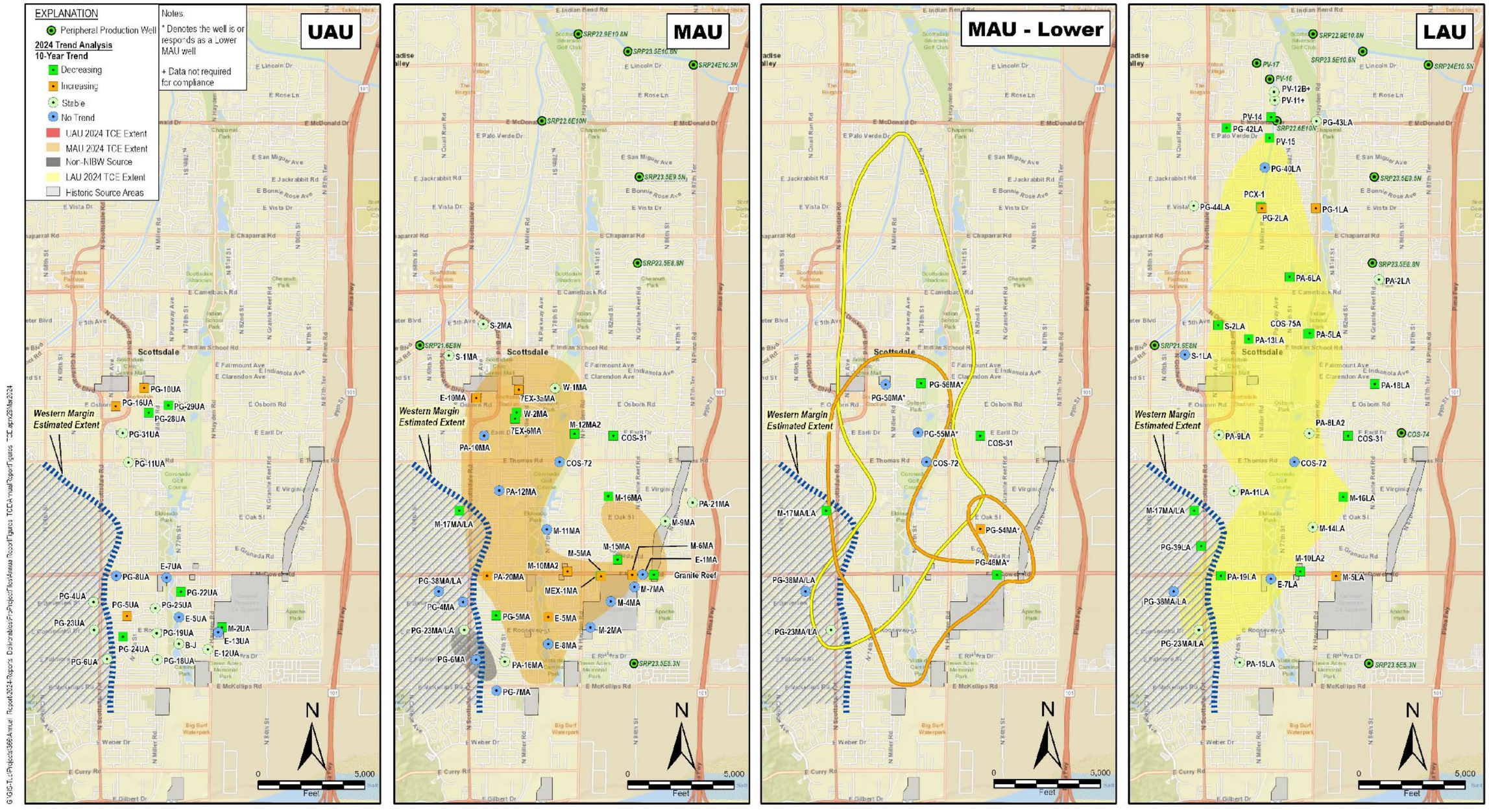


Figure 14. 10-Year Mann-Kendall TCE Trend or Stability Results for the UAU, MAU, MAU-Lower, and LAU

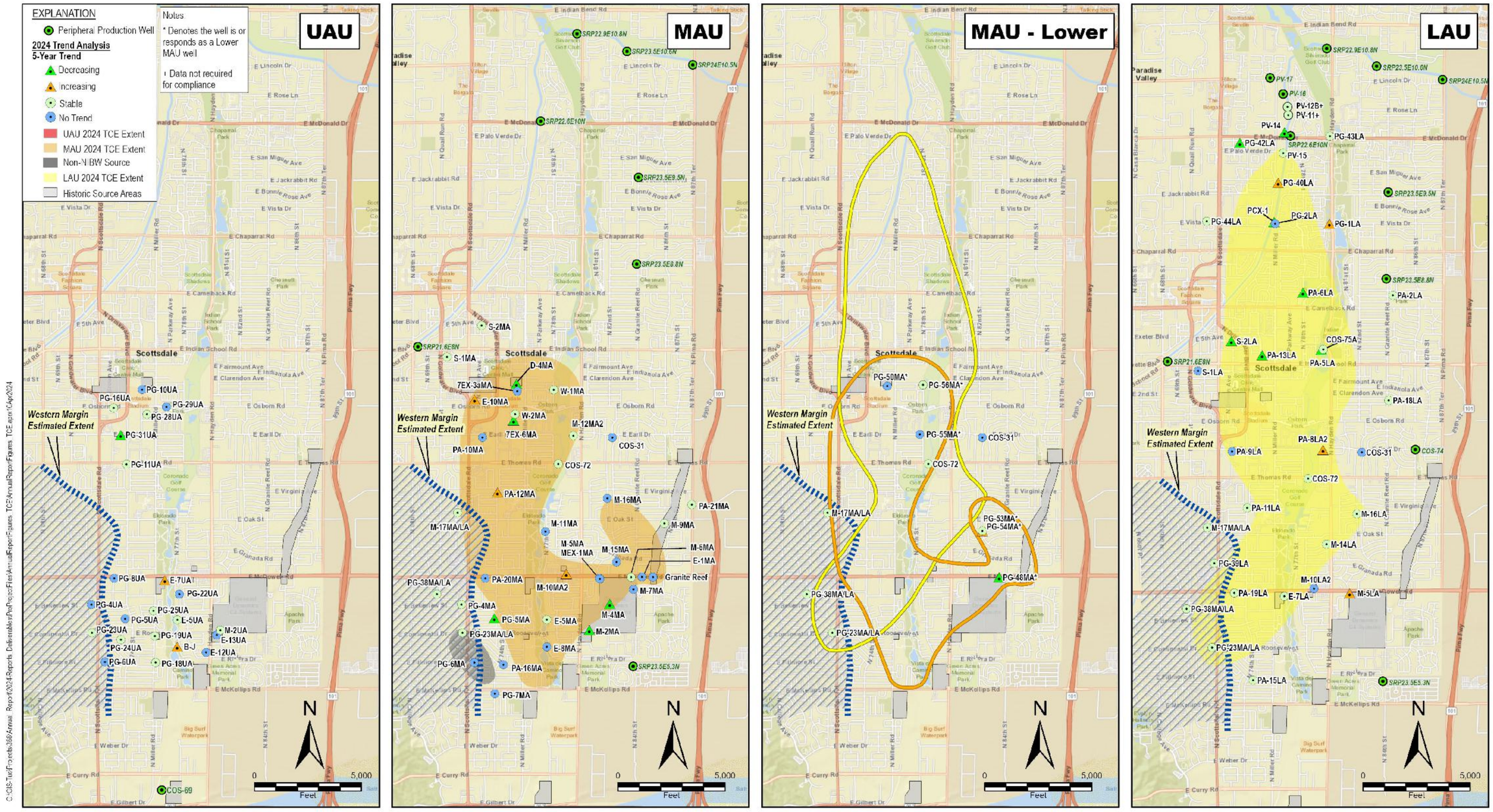


Figure 15. 5-Year Mann-Kendall TCE Trend or Stability Results for the UAU, MAU, MAU-Lower, and LAU

Table 11. Mann-Kendall Trend or Stability Results for TCE Concentrations in NIBW Superfund Site Monitoring and Extraction Wells

Well Identifier	Alluvial Unit	Well Type	10-Year Trend	5-Year Trend	TCE (µg/L)	
					10-Year Minimum Concentration	10-Year Maximum Concentration
7EX-3aMA	MAU	Extraction	Increasing	No Trend	260	670
7EX-6MA	MAU	Extraction	Decreasing	Decreasing	290	700
COS-31	MAU/LAU	Extraction	Decreasing	No Trend	3.4	15
**COS-71A	MAU	Extraction	Insufficient Data	Insufficient Data	17	72
COS-72	MAU/LAU	Extraction	No Trend	Stable	5.8	12
COS-75A	LAU	Extraction	Decreasing	Decreasing	27	69
Granite Reef	MAU	Extraction	Decreasing	No Trend	34	150
MEX-1MA	MAU	Extraction	Increasing	No Trend	32	77
PCX-1	LAU	Extraction	Decreasing	Decreasing	36	75
PV-14	LAU	Extraction	Decreasing	Decreasing	<0.50	2.0
PV-15	LAU	Extraction	Decreasing	Stable	1.9	8.3
[a]PV-11	LAU	Production	Stable	Stable	<0.50	<0.50
[a]PV-12B	LAU	Production	Stable	Stable	<0.50	<0.50
B-J	UAU	Monitoring	Stable	Increasing	0.66	2.7
D-4MA	MAU	Monitoring	Insufficient Data	Decreasing*	470	1000
E-1MA	MAU	Monitoring	No Trend	No Trend	<0.50	110
E-5MA	MAU	Monitoring	Increasing	Stable	1.8	76
E-5UA	UAU	Monitoring	No Trend	Stable	3.0	5.8
E-7LA	LAU	Monitoring	No Trend	Stable	8.0	21
E-7UA	UAU	Monitoring	No Trend	Increasing	<0.50	2.4
E-8MA	MAU	Monitoring	No Trend	No Trend	17	47
E-10MA	MAU	Monitoring	Increasing	Increasing	2.8	8.0
E-12UA	UAU	Monitoring	Stable	No Trend	1.5	5.2
E-13UA	UAU	Monitoring	No Trend	No Trend	0.93	3.0
M-2MA	MAU	Monitoring	No Trend	Decreasing	<0.50	30
M-2UA	UAU	Monitoring	Decreasing	Stable	0.58	1.8
M-4MA	MAU	Monitoring	No Trend	Decreasing	3.3	46
M-5LA	LAU	Monitoring	Increasing	Increasing	1.1	2.5
M-5MA	MAU	Monitoring	Decreasing	No Trend	3.1	44
M-6MA	MAU	Monitoring	Increasing	Stable	4.6	65
M-7MA	MAU	Monitoring	No Trend	No Trend	<0.50	2.0
M-9MA	MAU	Monitoring	Stable	Stable	2.4	5.8
M-10LA2	LAU	Monitoring	Decreasing	No Trend	2.4	10
M-10MA2	MAU	Monitoring	Increasing	Increasing	15	97
M-11MA	MAU	Monitoring	No Trend	No Trend	<0.50	0.72
M-12MA2	MAU	Monitoring	Decreasing	Stable	5.0	17
M-14LA	LAU	Monitoring	Stable	Stable	5.3	22
M-15MA	MAU	Monitoring	Decreasing	No Trend	2.4	6.6
M-16LA	LAU	Monitoring	Decreasing	Stable	7.21	26
M-16MA	MAU	Monitoring	Decreasing	No Trend	3.7	11
M-17MA/LA	MAU/LAU	Monitoring	Decreasing	Stable	<0.50	8.4
PA-2LA	LAU	Monitoring	Stable	Stable	<0.50	<0.50
PA-5LA	LAU	Monitoring	Decreasing	Stable	33	110
PA-6LA	LAU	Monitoring	Decreasing	Decreasing	20	200
PA-8LA2	LAU	Monitoring	Stable	Increasing	3.8	16
PA-9LA	LAU	Monitoring	Stable	No Trend	<0.50	21
PA-10MA	MAU	Monitoring	No Trend	No Trend	9.3	87
PA-11LA	LAU	Monitoring	Stable	Stable	<0.50	0.5
PA-12MA	MAU	Monitoring	No Trend	Increasing	190	364
PA-13LA	LAU	Monitoring	Decreasing	Decreasing	17	160
PA-15LA	LAU	Monitoring	Stable	Stable	<0.50	<0.50
PA-16MA	MAU	Monitoring	Stable	No Trend	0.61	8.3
PA-18LA	LAU	Monitoring	Decreasing	Stable	<0.50	1.1
PA-19LA	LAU	Monitoring	Decreasing	Stable	24	85
PA-20MA	MAU	Monitoring	Increasing	No Trend	35	71
PA-21MA	MAU	Monitoring	Stable	Stable	<0.50	<0.50
PG-1LA	LAU	Monitoring	Increasing	Increasing	<0.50	1.35
PG-2LA	LAU	Monitoring	Increasing	No Trend	41	100
PG-4MA	MAU	Monitoring	No Trend	Stable	1.5	2.6
PG-4UA	UAU	Monitoring	Stable	No Trend	<0.50	0.95
PG-5MA	MAU	Monitoring	Decreasing	Decreasing	4.84	26
PG-5UA	UAU	Monitoring	Increasing	No Trend	1.6	2.6
PG-6MA	MAU	Monitoring	No Trend	No Trend	82	110
PG-6UA	UAU	Monitoring	Stable	No Trend	<0.50	2.3
PG-7MA	MAU	Monitoring	No Trend	No Trend	<0.50	5.5
PG-8UA	UAU	Monitoring	No Trend	No Trend	<0.50	0.75
PG-10UA	UAU	Monitoring	Increasing	No Trend	0.69	1.68
PG-11UA	UAU	Monitoring	Stable	Stable	<0.50	<0.50
PG-16UA	UAU	Monitoring	Increasing	Stable	<0.50	1.7
PG-18UA	UAU	Monitoring	Stable	Stable	<0.50	2.5
PG-19UA	UAU	Monitoring	Stable	Stable	1.58	3.7
PG-22UA	UAU	Monitoring	Decreasing	No Trend	2.4	6.2
PG-23MA/LA	MAU/LAU	Monitoring	Stable	Stable	10	15.1
PG-23UA	UAU	Monitoring	Stable	Stable	<0.50	2.2
PG-24UA	UAU	Monitoring	Decreasing	Stable	<0.50	5.4
PG-25UA	UAU	Monitoring	Stable	Stable	<0.50	2.8
PG-28UA	UAU	Monitoring	Decreasing	Stable	0.73	5.1
PG-29UA	UAU	Monitoring	Decreasing	No Trend	<0.50	2.3
PG-31UA	UAU	Monitoring	Stable	Decreasing	3.0	36
PG-38MA/LA	MAU/LAU	Monitoring	No Trend	Stable	<0.50	1.1
PG-39LA	LAU	Monitoring	Decreasing	Stable	2.19	5.3
PG-40LA	LAU	Monitoring	No Trend	Increasing	4.37	28.2
PG-42LA	LAU	Monitoring	Decreasing	Decreasing	<0.50	3.7
PG-43LA	LAU	Monitoring	Stable	Stable	<0.50	<0.50
PG-44LA	LAU	Monitoring	Stable	Stable	<0.50	0.79
PG-48MA	MAU - Lower	Monitoring	Decreasing	Decreasing	9.3	70
PG-50MA	MAU - Lower	Monitoring	No Trend	No Trend	<0.50	12
PG-53MA	MAU - Lower	Monitoring	Insufficient Data	Stable*	<0.50	<0.50
PG-54MA	MAU - Lower	Monitoring	Increasing	Increasing	2.5	42.2
PG-55MA	MAU - Lower	Monitoring	No Trend	No Trend	0.78	6.2
PG-56MA	MAU - Lower	Monitoring	Decreasing	Stable	2.2	3.3
S-1LA	LAU	Monitoring	No Trend	No Trend	<0.50	1.14
S-1MA	MAU	Monitoring	Stable	Stable	<0.50	<0.50
S-2LA	LAU	Monitoring	Decreasing	Decreasing	2.3	41
S-2MA	MAU	Monitoring	Stable	Stable	<0.50	<0.50
W-1MA	MAU	Monitoring	Stable	Stable	290	550
W-2MA	MAU	Monitoring	Decreasing	Stable	630	3800

EXPLANATION:

<0.50 = Concentration below laboratory reporting limit of 0.50 µg/L

[a]= Sampling point not required for compliance

* = Trend analysis completed using 4 years of data (2021 - 2024)

** = Well not sampled in 2024

9 REMEDY PERFORMANCE EVALUATION

Remedy performance is evaluated relative to the Amended CD SOW Performance Standards and the GM&EP performance criteria and contingency initiation criteria. The Amended CD SOW Performance Standards for containment of COCs in the MAU/LAU and capture of relatively higher concentrations in the MAU (Area 7 and Area 12) are described in **Section 5.1**. GM&EP performance criteria and contingency initiation criteria for the UAU, MAU/LAU, Northern LAU, and Source Control Programs are summarized in Table 4 in **Section 5.2**. As described in **Section 10.4**, a Working Group that comprises representatives from the Technical Committee has been formed and is meeting approximately once a month to develop recommendations for updates to GM&EP performance metrics as appropriate. Evaluation of remedy performance for 2024 is discussed as follows.

9.1 Evaluation of Groundwater Treatment Performance Standard

Performance of the NIBW groundwater treatment systems is evaluated based on criteria established in the Amended CD SOW and compliance with groundwater Cleanup Standards specified in the Amended ROD (**Table 2**). The following sections summarize monitoring data from treatment system effluent samples obtained during 2024. A summary of all treatment facility sample points and frequency is provided in **Table 5**. Laboratory results for COCs in treatment system samples for the MRTF, NGTF, Area 7 GWETS, and Area 12 GWETS are included in **Appendix C, Table C-3**. Quarterly results for treatment system performance sampling conducted by the City of Scottsdale at the CGTF are reported to EPA and ADEQ under separate cover.

9.1.1 CGTF Evaluation

Throughout 2024, samples of treated groundwater were collected by the City of Scottsdale from the common sump at the CGTF and analyzed weekly for the NIBW COCs when the treatment facility was in operation. The NIBW COC concentrations in all treated water samples from the common sump were below the Method Reporting Limit (MRL) of 0.50 µg/L in 2024. Although the City of Scottsdale submits results under separate cover, Level 2 and select Level 4 analytical reports are included as part of the supplemental data submittals with the SMR.

9.1.2 MRTF Evaluation

Throughout 2024, samples of treated groundwater were collected from the MRTF treatment trains (Tower 1 Effluent, Tower 2 Effluent, Tower 3 Effluent) and analyzed monthly for the NIBW COCs when the treatment facility was in operation. The results of sampling and analysis

are included in **Appendix C, Table C-3**. As evidenced from the data, the NIBW COC concentrations in all treated water samples from the MRTF were below the MRL of 0.50 µg/L in 2024. Sample results summarized in **Appendix C, Table C-3** demonstrate that the MRTF consistently achieved the Cleanup Standards for treated groundwater in 2024.

9.1.3 NGTF Evaluation

Throughout 2024, samples of treated groundwater were collected by the City of Scottsdale from the treatment plant discharges to both the CWTP (labeled NGTF-CP) and to the SRP Arizona Canal (labeled AZCO) and analyzed weekly for the NIBW COCs when the treatment facility was in operation. The results of sampling and analysis are included in **Appendix C, Table C-3**. As evidenced from the data, the NIBW COC concentrations in all treated water samples from the treatment plant discharges (labeled Effluent) except chloroform were below the MRL of 0.50 µg/L in 2024. Sample results summarized in **Appendix C, Table C-3** demonstrate that the NGTF consistently achieved the Cleanup Standards for treated groundwater in 2024. Additionally, discharges from the NGTF to the SRP Arizona Canal met the requirements of the AZPDES permit. Laboratory analytical data for water quality parameters required by the AZPDES permit are reported in monthly DMRs submitted to ADEQ under separate cover.

9.1.4 Area 7 GWETS Evaluation

Throughout 2024, samples of treated groundwater were collected from air stripper effluent (SP-105) at the Area 7 GWETS and analyzed monthly for the NIBW COCs when the treatment facility was in operation. The results of sampling and analysis are included in **Appendix C, Table C-3**. As evidenced from the data, the NIBW COC concentrations in some treated water samples from the Area 7 GWETS (SP-105) were slightly above the MRL of 0.5 µg/L but all were well below the MCL of 5.0 µg/L in 2024. Sample results summarized in **Appendix C, Table C-3** demonstrate that the Area 7 GWETS consistently achieved the Cleanup Standards for treated groundwater in 2024.

9.1.5 Area 12 GWETS Evaluation

Throughout 2024, samples of treated groundwater were collected from air stripper effluent (WSP-2) at the Area 12 GWETS and analyzed monthly for NIBW COCs when the treatment system was in operation. The results of sampling and analysis are included in **Appendix C, Table C-3**. As evidenced from the data, the NIBW COC concentrations in all treated water samples from the Area 12 GWETS (WSP-2) were below the MRL of 0.50 µg/L in 2024. Sample results summarized in **Appendix C, Table C-3** demonstrate that the Area 12 GWETS consistently achieved the Cleanup Standards for treated groundwater in 2024. Additionally, discharges from the Area 12 GWETS to McKellips Lake met the requirements of the AZPDES

permit. Laboratory analytical data for water quality parameters required by the AZPDES permit are reported in monthly DMRs submitted to ADEQ under separate cover.

9.2 Evaluation of UAU Program

The assessment of remedy performance for the UAU plume involves monitoring both VOC mass reduction over time and progress toward aquifer restoration. The approach for computing VOC mass and mass flux in response to the OU 2 CD Performance Standards for the UAU was outlined in the FSA (NIBW PCs, 2000). Based on that approach, the GM&EP refers to the calculation of average change in mass over time in the UAU as the "mass flux" analysis. The mass calculation is for dissolved VOC mass only and does not account for any sorbed phase mass that may be present. For the 2024 VOC mass flux analysis, total mass of VOCs present in UAU groundwater was computed using data for saturated thickness from the October 2024 water level monitoring event and VOC concentration data from the October 2024 water quality monitoring event. VOC mass is computed annually both with and without PCE mass in the vicinity of PG-4UA, which has historically shown elevated PCE concentrations from a source EPA and ADEQ acknowledge is unrelated to the Site. **Figure 16** illustrates the decline in total VOC mass in UAU groundwater over time. Estimated total mass of VOCs present in the saturated portion of the UAU has decreased substantially over the past 30 years, declining from a high of over 11,000 pounds in 1993 to the 2024 estimate of 130 pounds. In recent years, the VOC mass reduction with time has become asymptotic. In fact, the estimated total VOC mass for 2023 and 2024 remained unchanged.

The inset table on **Figure 16** summarizes the calculated 5-year running average of VOC mass in UAU groundwater since annual mass estimates were initiated in 1996. Including PCE from PG-4UA, the most recent VOC mass 5-year running average of 133 pounds represents a decrease relative to the previous 5-year average of 159 pounds, indicating the performance measure for UAU mass reduction has been achieved for 2024.

Table 12 summarizes VOC mass estimates for UAU groundwater for 2024. Based on 2024 data, a total of approximately 11 gallons, or 130 pounds, of VOCs are estimated to remain in the saturated portion of the UAU (**Table 12**).

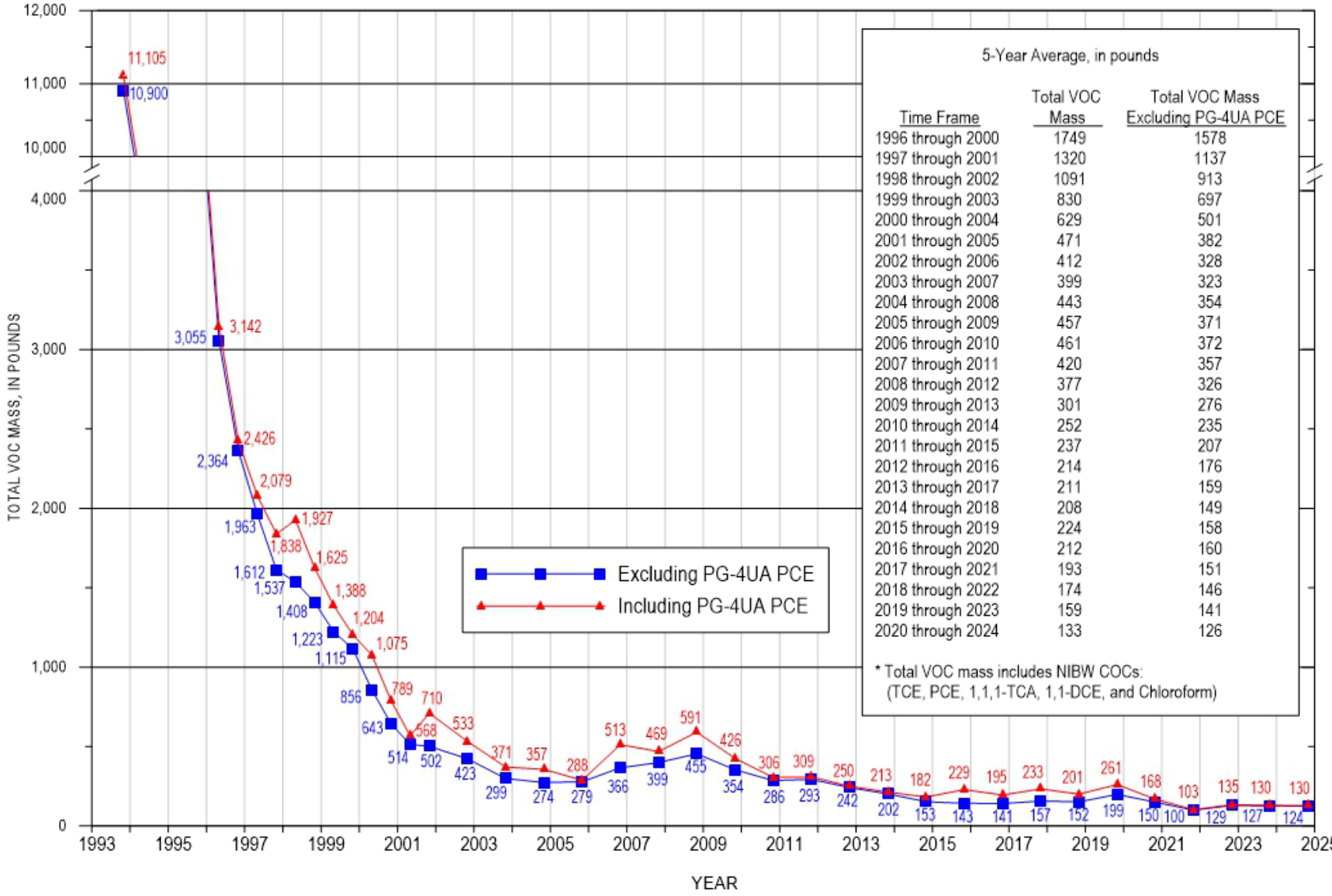


Figure 16. Total Mass of VOCs in Saturated Portion of UAU

Table 12. Summary of VOC Mass Estimates in UAU

POLYGON (WELL NAME)	TOTAL VOCs (µg/L)[a]	ELEVATION BASE OF UAU (feet, amsl)	ELEVATION UAU WATER TABLE (feet, amsl)	SATURATED THICKNESS (feet)	POLYGON AREA (square feet)	SATURATED POLYGON VOLUME (cubic feet)	SATURATED PORE VOLUME (liters)[b]	TOTAL VOC VOLUME (gallons)	TOTAL VOC MASS (pounds)[c]
B-J	3.9	1,065	1,137.27	72.27	1,312,017	94,819,469	805,557,759	0.58	6.93
E-5UA	5.3	1,067	1,137.22	70.22	1,563,483	109,787,776	932,724,011	0.91	10.89
E-7UA	2.1	1,079	1,133.61	54.61	2,135,156	116,600,869	990,606,004	0.39	4.69
E-12UA	3.8	1,075	1,139.73	64.73	1,868,432	120,943,603	1,027,500,571	0.71	8.56
E-13UA	3.1	1,080	1,139.94	59.94	851,113	51,015,713	433,414,195	0.25	2.94
M-2UA	2.1	1,081	1,140.32	59.32	1,081,841	64,174,808	545,209,917	0.21	2.48
PG-4UA	3.4	1,055	1,129.02	74.02	2,867,709	212,267,820	1,803,363,720	1.13	13.53
PG-5UA	3.1	1,036	1,132.35	96.35	1,729,659	166,652,645	1,415,830,873	0.80	9.64
PG-6UA	2.2	1,043	1,130.98	87.98	2,363,199	207,914,248	1,766,377,077	0.73	8.73
PG-8UA	1.5	1,060	1,130.77	70.77	1,631,115	115,434,009	980,692,706	0.28	3.32
PG-10UA	1.7	1,089	1,140.73	51.73	693,947	35,897,878	304,977,605	0.09	1.13
PG-11UA	1.0	1,076	1,136.80	60.80	2,167,731	131,798,045	1,119,716,649	0.21	2.47
PG-16UA	2.1	1,079	1,138.41	59.41	1,327,719	78,879,786	670,138,996	0.26	3.15
PG-18UA	0	1,045	1,135.39	90.39	1,953,438	176,571,261	1,500,096,461	0	0
PG-19UA	1.6	1,049	1,135.08	86.08	1,407,810	121,184,285	1,029,545,328	0.30	3.59
PG-22UA	3.1	1,067	1,137.81	70.81	1,764,305	124,930,437	1,061,371,514	0.60	7.19
PG-23UA	2.0	1,055	1,129.24	74.24	1,753,035	130,145,318	1,105,675,582	0.40	4.82
PG-24UA	0	1,054	1,132.04	78.04	1,535,896	119,861,324	1,018,305,849	0	0
PG-25UA	0.6	1,056	1,135.26	79.26	1,538,241	121,920,982	1,035,804,084	0.11	1.35
PG-28UA	3.9	1,061	1,139.58	78.58	1,669,714	131,206,126	1,114,687,886	0.81	9.68
PG-29UA	1.6	1,080	1,140.36	60.36	1,345,997	81,244,379	690,227,870	0.20	2.37
PG-31UA	7.8	1,081	1,136.78	55.78	2,706,853	150,988,260	1,282,750,963	1.84	22.06
TOTALS							**22,634,575,620**	**11**	**130**

EXPLANATION:
feet, amsl = feet, above mean sea level

NOTES:
[a] Includes total concentration of TCE, PCE, 1,1,1-TCA, DCE, and Chloroform from October 2024 water quality data set. "0" indicates either that concentrations of all VOCs were below the detection limit or the well was dry.
[b] Porosity value of 0.30 assumed for pore volume calculation.
[c] Formula for calculation of Total VOC mass in pounds: Total VOCs [µg/L] * Saturated Pore Volume [liters] * 0.000000002205 [conversion from micrograms to pounds]

9.3 Evaluation of MAU/LAU Program

Overall, Amended CD SOW Performance Standards for MAU/LAU containment are being met at the Site. MAU/LAU extraction provides sufficient hydraulic control to prevent groundwater in the MAU/LAU with VOC contamination above the Cleanup Standards from migrating toward and ultimately impacting peripheral production wells that have not contained NIBW COCs exceeding MCLs prior to the Effective Date of the Amended CD and which are not currently connected to a treatment facility. In addition, while none of the metrics are directly tied to the Performance Standard of TCE mass reduction in the MAU outside the source areas (Area 7 and Area 12), trends in monitoring wells located outside of source control capture are being assessed. Remedy performance metrics for the MAU/LAU Program, as outlined in the GM&EP, are summarized in **Table 4**. Compliance with all MAU/LAU Program GM&EP achievement measures was attained in 2024, as discussed in this section.

The primary objective of containment of the MAU and LAU plumes is to ensure protection of unimpacted potable supply wells. These wells are shown on figures and referred to as peripheral production wells. One measure of capture specified in the GM&EP is to demonstrate that the direction of groundwater movement along the periphery of the plumes is toward extraction wells tied into treatment or the Western Margin. Water level and TCE concentration data for October 2024, with arrows indicating direction of groundwater movement, are shown for the MAU and LAU on **Figure 17**. Where arrows are not present, the direction of groundwater movement is inferred as perpendicular to water level contours. Based on water level patterns shown on **Figure 17** the inferred direction of groundwater movement along the periphery of the MAU and LAU plumes is generally toward extraction wells (MAU and LAU) or the Western Margin (MAU outside of Source Control capture). Hydraulic capture for the MAU and LAU is further evaluated using estimated hydraulic capture zones, as shown on **Figure 17**. Water level data for October 2024 were used to estimate the extent of hydraulic capture for the MAU Area 7 and Area 12 Source Control Programs. The extent of hydraulic capture associated with LAU extraction wells was projected using the NIBW groundwater flow model. Hydraulic capture for the Area 7 and Area 12 Source Control Programs is further discussed in **Section 9.5**.

For the MAU, October 2024 data demonstrate that direction of groundwater movement within and along the periphery of the plume is toward the remedial pumping centers associated with Area 7 and Area 12, or toward the Western Margin (**Figure 17**). The portion of the MAU TCE plume outside of Source Control capture zones is migrating toward the Western Margin, consistent with Amended CD containment Performance Standards. TCE mass at the Western Margin moves vertically into the Lower MAU and LAU where it is directed toward and captured at CGTF, NGTF, and MRTF extraction wells. While COT-6 was not pumped in 2024 (**Table 10**), movement of the MAU TCE plume to the south occurs toward well COT-6 during

prolonged pumping. The influence of COT-6 pumping was most recently evaluated and reported on in the 2023 SMR (Appendix K, NIBW PCs, 2024b). This well was impacted with TCE prior to the Amended CD and it is not a peripheral production well. Water quality at COT-6 is monitored and blended by the City of Tempe prior to use in its municipal supply.

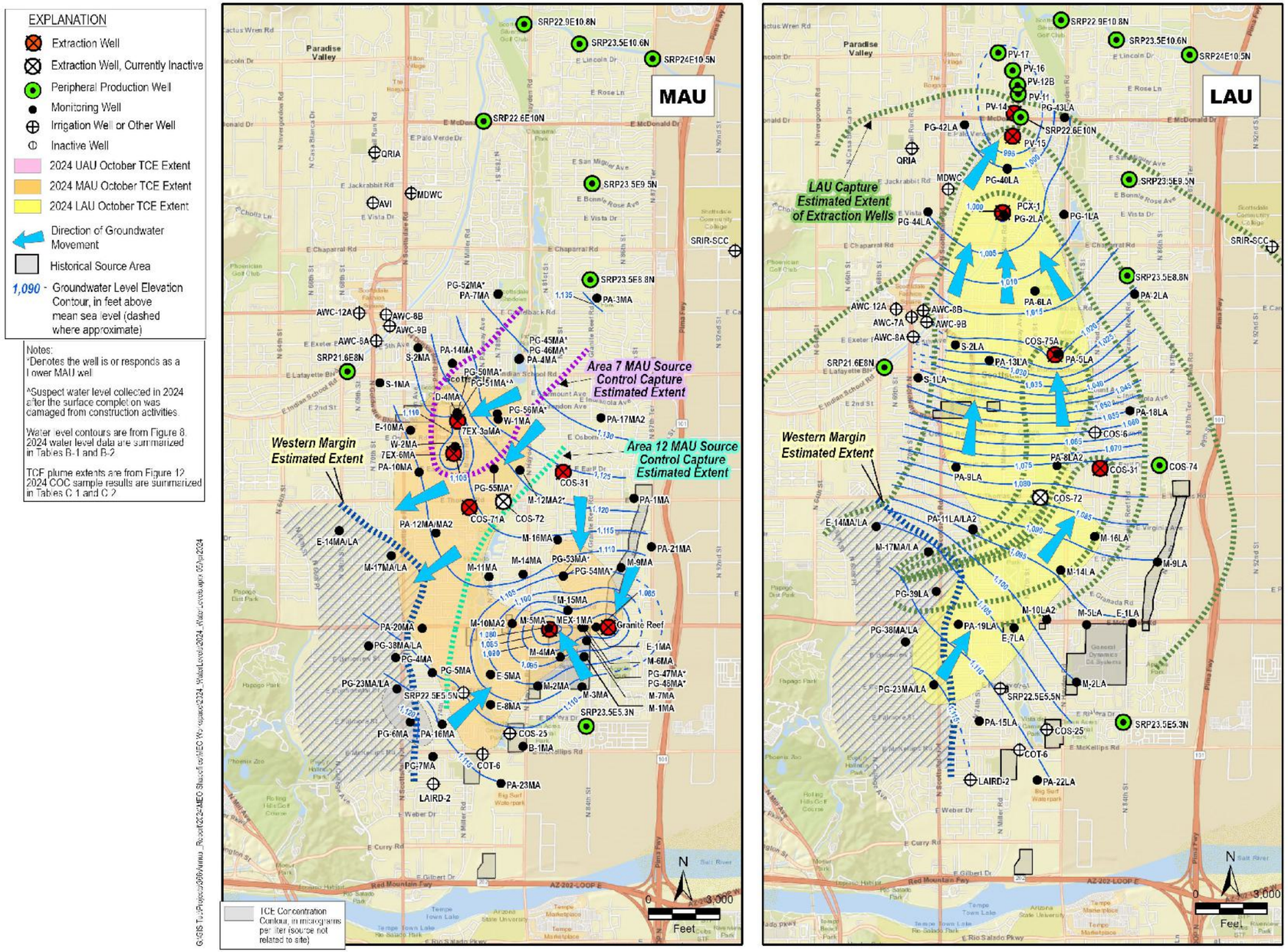


Figure 17. Estimated Hydraulic Capture of TCE Plume by MAU Source Control and Northernmost LAU Extraction Wells for October 2024

For the LAU, flow patterns interpreted from October 2024 water level data (**Figure 17**) show that direction of groundwater movement within and along the periphery of the plume is toward LAU extraction wells associated with the NIBW remedy, principally COS-75A, PCX-1, and PV-15. Extraction well PV-14 captures groundwater from outside of the LAU TCE plume both to the east and west. While the AWC irrigation wells are located in relatively close proximity to the western edge of the LAU plume, TCE has not been detected above the Cleanup Standard at these wells and LAU monitoring wells along the western edge of the plume are all showing stable or decreasing 5- and 10-year trends (**Table 11, Figure 14** and **Figure 15**). The AWC wells are designated for irrigation end use and have been impacted by PCE from an alternate source since the time of the original RI/FS. Wells impacted prior to the Amended CD and wells designated for irrigation end use are not considered NIBW peripheral production wells. Overall, pumping of remedial extraction wells in 2024 resulted in groundwater flow patterns across the MAU and LAU plumes that meet GM&EP performance criteria.

With respect to the performance measure regarding comparison of the plume extent in 2024 relative to baseline (2001) conditions, no outward shifts in the location of the 5 µg/L TCE contour in either the MAU or LAU exceeding the 1,000-foot performance measure are apparent. The anticipated exception is the LAU plume migration to the north toward extraction well PV-15 (**Figure 13**). Over the last 5 years, TCE concentrations in wells in the northern part of the LAU show encouraging trends. TCE concentration trends are either decreasing (S-2LA, PA-6LA, PA-13LA, PG-42LA, COS-75A, PCX-1, and PV-14) or are stable (PA-5LA, PG-43LA, PG-44LA and PV-15). No trend at PG-2LA, co-located with PCX-1, and an increasing trend at PG-40LA, north of PCX-1, show the impacts of the higher-concentration zone of the LAU plume located in this area. TCE has not been detected for more than 10 years at wells PG-43LA, PV-11, and PV-12B (**Table 11**). PV-14 has been below 1 µg/L and mostly below the detection limit of 0.50 µg/L for TCE since 2018 (**Appendix D, Figure D-012**). These trends demonstrate that coordinated pumping of LAU extraction wells is reducing concentrations in the LAU plume to the north and protecting peripheral production wells serving drinking water end uses.

TCE concentration metrics specified in the GM&EP for selected MAU/LAU peripheral monitoring wells, along with concentrations reported for the October 2024 sampling event are summarized in **Table 13**. In all cases, TCE concentrations are less than or equal to specified achievement measures.

Table 13. GM&EP Achievement Measures and Observed TCE Concentrations in Selected MAU/LAU Monitoring Wells

Well Name	TCE Concentration (in µg/L)				
	Achievement Measure	2024 Sampling Event Results			
		First Quarter	Second Quarter	Third Quarter	Fourth Quarter
MAU Monitoring Wells					
M-2MA	10	0.88*	NS	NS	<0.500 / <0.500**
M-7MA	10	NS	NS	NS	1.99
S-1MA	2	NS	NS	NS	<0.500
S-2MA	3	NS	NS	NS	<0.500
LAU Monitoring Wells					
M-5LA	10	NS	NS	NS	2.53
PA-2LA	3	NS	NS	NS	<0.500 / <0.500**
PA-15LA	10	NS	NS	NS	<0.500
PA-18LA	10	NS	NS	NS	0.947
PG-1LA	15	1.1	0.854	1.17	1.35 / 1.23*
PG-44LA	5	<0.50	<0.500	<0.500	<0.500
S-1LA	3	NS	NS	NS	1.1 / 1.2*
S-2LA	15	14/14**	14/13**	13/13**	13

EXPLANATION:
<0.50 = Concentration less than laboratory reporting limit
NS = Not Sampled; monitoring well not scheduled for sampling during indicated sample event
* Non-compliance sample obtained in January; reported in Supplemental Data
** Indicates duplicate sample value

9.4 Evaluation of Northern LAU Program

Remedy performance metrics for the Northern LAU Program, as outlined in the GM&EP, are summarized in **Table 4**. As discussed in this section, compliance with all achievement measures was attained for 2024.

Based on interpretation of flow directions using October 2024 water level data, the direction of groundwater movement along the Northern LAU plume is toward northern LAU extraction wells, consistent with the GM&EP metric. The October 2024 extent of the LAU TCE plume and LAU water level contours are shown on **Figure 17**. Arrows are used to infer direction of groundwater movement along the periphery of and within the plume. Water level contours

indicate that flow from the Western Margin to the north is controlled by regional pumping, with the northernmost extent of the LAU plume being captured by the broad cone of depression that results from focused LAU pumping at NGTF extraction well PCX-1 and MRTF extraction well PV-15. Extraction well PV-14 is tied into treatment at the MRTF but captures LAU groundwater from areas northeast and northwest of the LAU plume (**Figure 17**). Additional capture is also provided by LAU pumping at CGTF extraction wells, particularly COS-75A. As mentioned previously, water level data indicate that the AWC irrigation wellfield also has a localized impact on LAU flow patterns, particularly when fully operational during the spring and summer months.

The extent of capture for the LAU extraction wells, simulated for 2024 pumping rates using the NIBW groundwater flow model, is shown with the entire LAU plume on **Figure 17** and for the Northern LAU on **Figure 18**. The model projects broad capture by the LAU extraction well network that extends far beyond the LAU plume footprint for sustained operation at the 2024 annual pumping rates. TCE concentration achievement measures specified in the GM&EP are compared to 2024 values for specified Northern LAU monitoring wells in **Table 14**.

Table 14. GM&EP Achievement Measures and Observed TCE Concentrations in Selected Northern LAU Program Wells

Well Name	TCE Concentration (in µg/L)				
	Achievement Measure	2024 Sampling Event Results			
		First Quarter Jan / Feb / Mar	Second Quarter Apr / May / Jun	Third Quarter Jul / Aug / Sep	Fourth Quarter Oct / Nov / Dec
Northern LAU Program Wells					
PG-42LA	2	1.1 / NS / NS	1.4 / NS / NS	1.1 / NS / NS	1.3 / NS / NS
PG-43LA	2	<0.50 / NS / NS	<0.50 / NS / NS	<0.50 / NS / NS	<0.50 / NS / NS
PV-14	2	<0.50 / <0.50 / <0.50	<0.50 / <0.50 / <0.50	<0.50 / <0.50 / 0.58	0.52 / <0.50 / <0.50

EXPLANATION:
<0.50 = Concentration below laboratory reporting limit of 0.50 µg/L
NS = Not sampled; monitoring well not scheduled for sampling during indicated sample event

As indicated in **Table 14** and in **Appendix D**, TCE concentrations in 2024 were not reported above the 2 µg/L performance metric at any of the Northern LAU indicator wells. In addition, TCE concentration trends in other Northern LAU wells are encouraging and indicate that extraction and treatment are effectively reducing TCE concentrations over time at well PV-14. Monthly samples while this extraction well is in operation have had TCE concentrations less than the 0.50 µg/L detection limit in 2023 and only slightly exceeded the detection limit during 2 months in 2024 (**Appendix C, Table C-2**). TCE concentrations at PV-14 display statistically

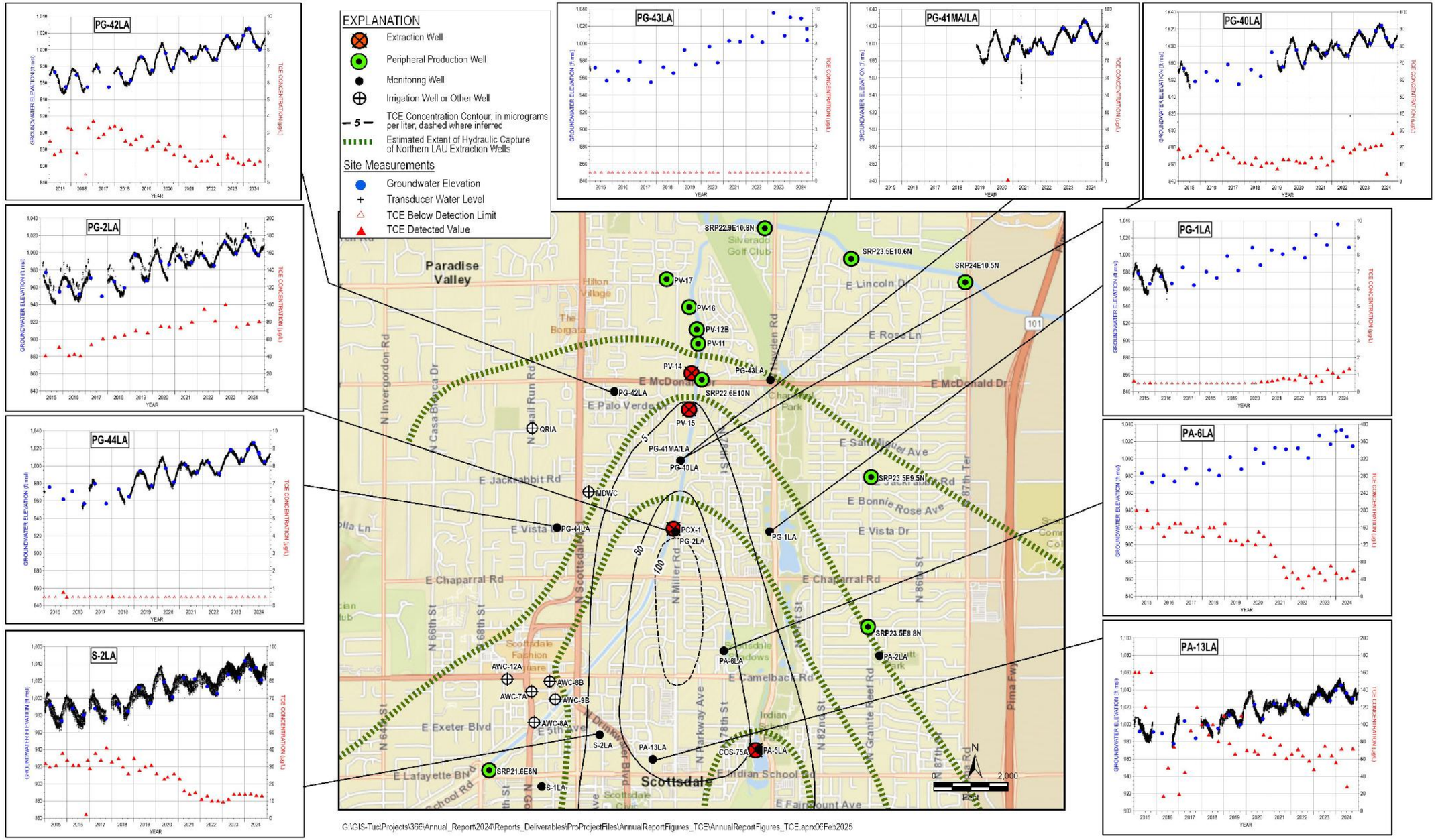
significant decreasing 5- and 10-year trends (**Figure 14**). TCE concentrations at well PV-15 have generally ranged from 3 µg/L to 6 µg/L since 2019 (**Appendix F, Figure F-2**), and show a stable trend over the last 5-year period and a declining trend over the last 10-year period (**Figure 15** and **Figure 14**, respectively). These positive responses are attributable to operation of MRTF extraction wells and other EPCOR production wells consistent with the recommended south to north pumping strategy, along with consistent pumping of NGTF extraction well PCX-1.

Figure 19 is a stacked bar chart showing total annual pumping volume for Northern LAU wells for 1997 through 2024. Wells are stacked in order of their position from south to north in the wellfield, such that annual pumping for well PCX-1, the southernmost well in the Northern LAU, is on the bottom and annual pumping for well PV-17, the northernmost well, is near the top of each bar. Pumping from SRP well 22.6E,10.0N, which is located southeast from well PV-14, was added at the very top of each bar to visually display the occasional pumping that occurs from this northern peripheral production well. Although this well is completed across both the MAU and LAU, it contributes to LAU pumping in this region when operated by SRP. Pumping volumes for well PCX-1 and the MRTF extraction wells are shown in shades of red. Pumping volumes for wells without treatment are shown in shades of blue, green, and yellow. A dashed line is provided to group the three southern wells that are tied into treatment (PCX-1, PV-15, and PV-14). SRP well 22.6E,10.0N is shown in pink.

Data displayed on **Figure 19** show that focused pumping of extraction wells PCX-1, PV-15, and PV-14 that began in 1998 continued over the next 10 years. Beginning in 2007, however, a decrease in the amount of pumping by MRTF extraction wells occurred, which resulted in the first instance where TCE concentrations exceeded performance metrics at Northern LAU indicator monitoring well PG-42LA and then later at extraction well PV-14. Focused pumping of MRTF extraction wells was restored midway through 2010 and since that time EPCOR has, to the extent practicable, maintained a south to north pumping strategy. This pumping approach, which has been shown through model projections to optimize plume containment, was successfully followed in 2024.

Comparison of TCE mass removed at MRTF extraction wells PV-14 and PV-15 and NGTF extraction well PCX-1 shows that well PCX-1 has been responsible for the overwhelming majority of TCE mass captured in the Northern LAU over time, preventing much of the LAU plume from reaching the EPCOR wellfield. In 2024, extraction from well PCX-1 pumped 96% of the time in 2024 and was responsible for more mass removal than any of the other individual extraction wells (**Table 6**).

Data trends and modeling support the conclusion that the Northern LAU remedy is operating effectively. Implementation of a consistent and coordinated extraction and treatment strategy continues to achieve the Amended CD Performance Standard of protecting peripheral production wells for drinking water end use.



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Figure 18. Water Levels, TCE Concentrations, and Estimated Hydraulic Capture for the Northernmost LAU Extraction Wells - Northern LAU

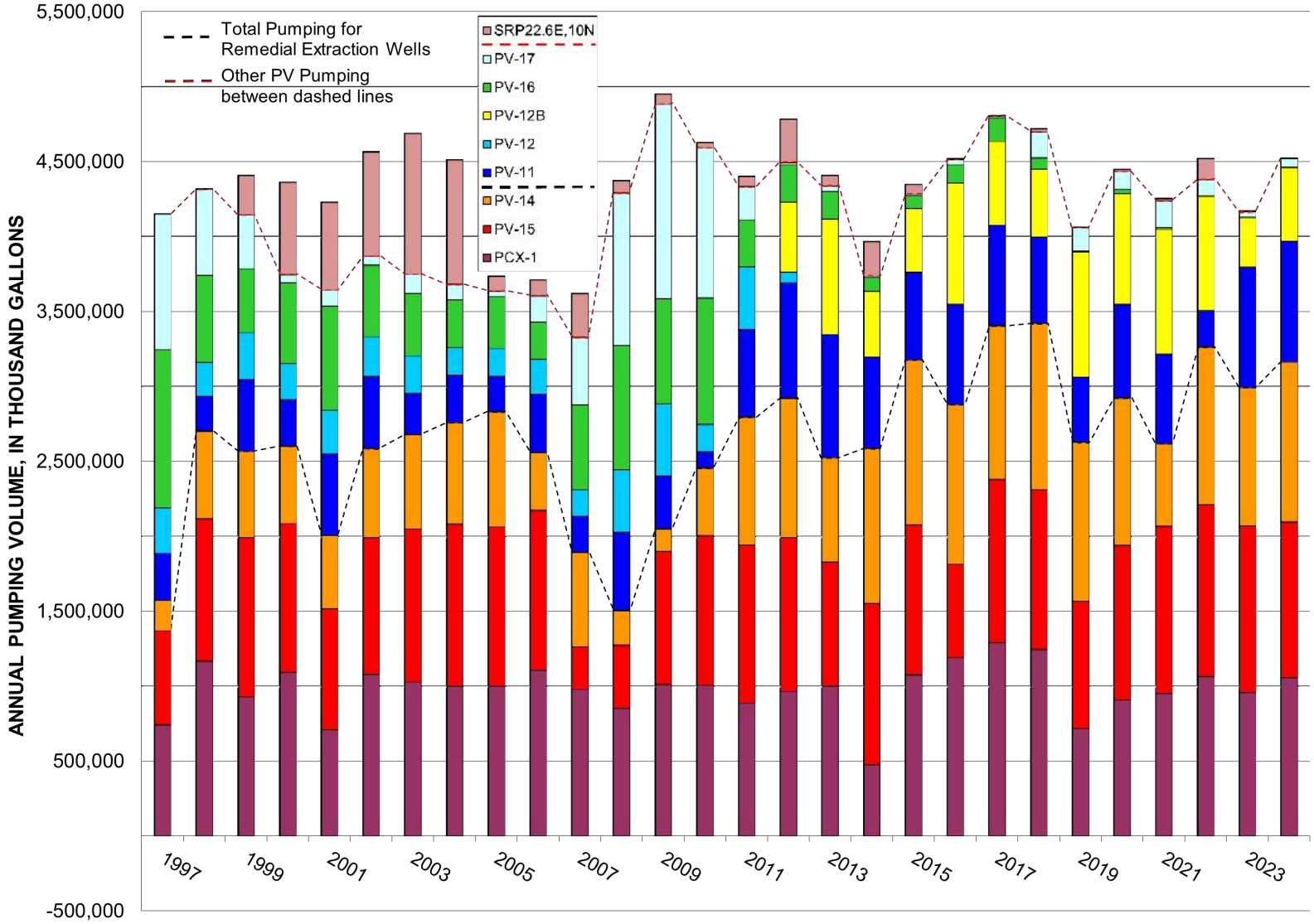


Figure 19. Distribution of Pumping in Northern LAU

9.5 Evaluation of MAU Source Control Programs

The remedy meets the overall Area 7 and Area 12 Source Control Program Amended CD containment Performance Standards. The two systems are reducing the mass of COCs in groundwater. In addition, they are providing sufficient hydraulic control to prevent MAU groundwater in the vicinity of Area 7 and Area 12 with TCE concentrations that are higher relative to the surrounding vicinity from migrating away from the source areas. Hydraulic control in these areas is minimizing the total mass of NIBW COCs that migrate toward the Western Margin. As described in the following section, extraction at wells tied into the Area 7 GWETS did not meet the GM&EP metric of extent of capture to the vicinity of PA-12MA in 2024. The NIBW PCs have discussed this situation with EPA and ADEQ and continue to conclude that the Area 7 remedy is consistent with the Amended CD Performance Standard of localized containment of higher concentration groundwater. In discussions with EPA and ADEQ, the NIBW PCs have noted that GM&EP performance criteria related to the Source Control Programs are not responsive to the Amended CD Performance Standards and do not leverage 3D plume visualization and capture tools. As described in **Section 10.4**, a Working Group comprising representatives from the Technical Committee has been formed and is meeting approximately once a month to develop recommendations for updates to GM&EP performance metrics as appropriate.

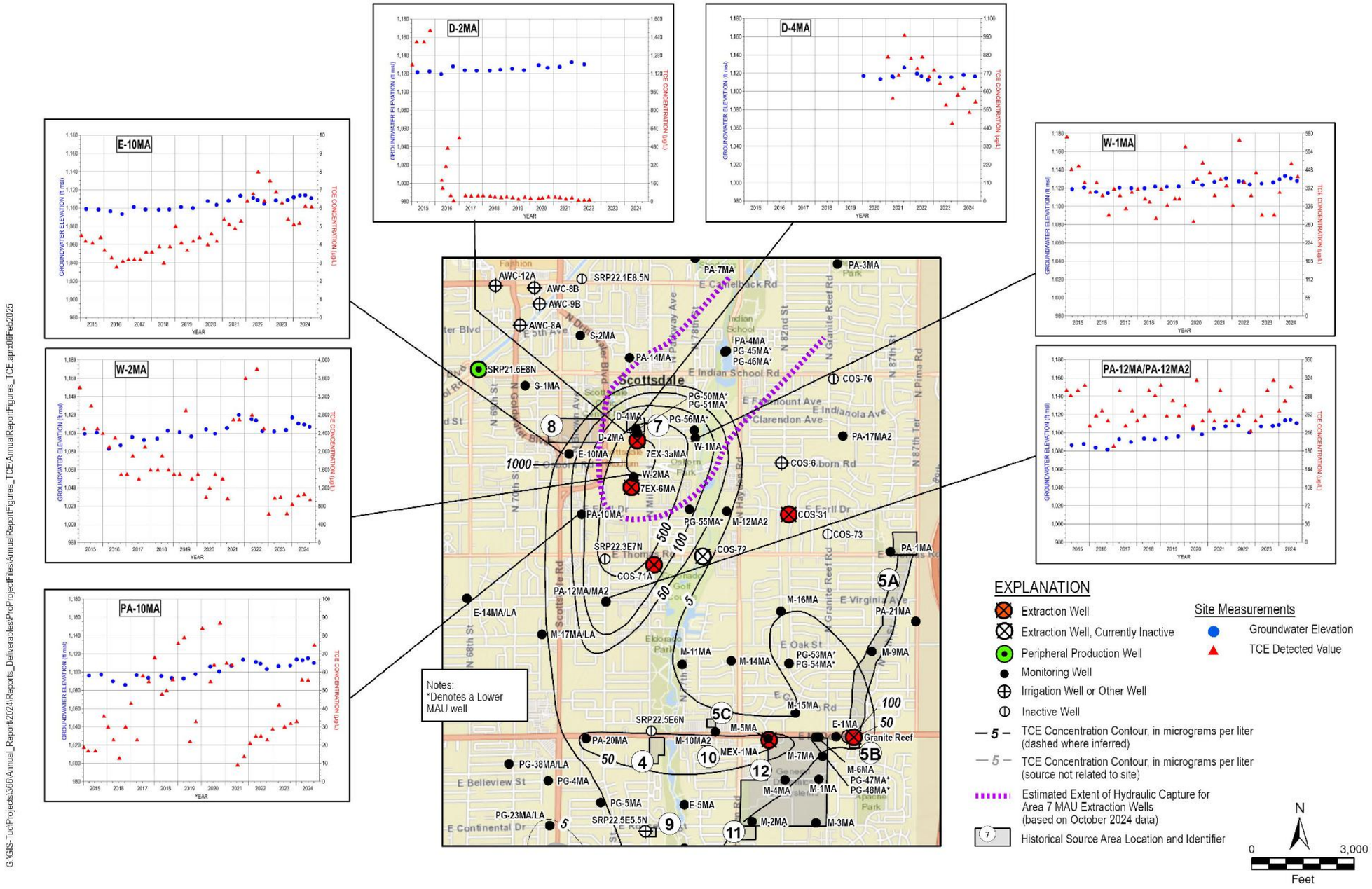
9.5.1 Area 7 Source Control

Remedy performance metrics for the Area 7 Source Control Program, as outlined in the GM&EP, are summarized in **Table 4**. For 2024, compliance with one of the two achievement measures was attained, as discussed in this section.

Figure 20 includes graphs of water level and TCE concentration data for indicator wells in the vicinity of Area 7. Data from these indicator wells are used to evaluate long-term trends and overall effectiveness of Area 7 Source Control. Water levels in the vicinity of Area 7 display some seasonal patterns in response to pumping but are otherwise fairly consistent with regional trends, showing increasing trends over the last 10 years which have stabilized in recent years. TCE concentration trends in the MAU indicator wells in the vicinity of Area 7 are encouraging and demonstrate that Source Control operations are controlling and reducing mass in the vicinity of Area 7. Four of the six Area 7 indicator wells show decreasing, stable, or no trend for the most recent 5- and 10-year periods. One well (PA-12MA) shows an increasing 5-year trend and a second (E-10MA) shows an increasing trend for both the most recent 5- and 10-year periods (**Figure 15** and **Table 11**). TCE concentrations at E-10MA are relatively low and increasing trends, which are partly attributed to shifts in pumping from 7EX-4MA and COS-71A to 7EX-6MA, are not a concern in relation to performance of the Area 7 remedy. While TCE

concentrations have declined significantly since the high of 900 µg/L in 2000, Area 7 indicator well PA-12MA shows a stable trend over the most recent 10-year period and an increasing 5-year concentration trend (**Figure 14**). The cause of this recent increasing trend is likely due to Area 7 extraction well downtime that occurred in 2021 and 2022 (**Table 10**). Variable TCE concentrations at W-2MA in response to pumping changes at nearby extraction well 7EX-6MA have stabilized and W-2MA now shows a declining 10-year trend (**Figure 14**).

Figure 20 also shows the estimated extent of hydraulic capture associated with MAU extraction in the vicinity of Area 7 for October 2024. MAU water level contours are shown with the interpretation of MAU hydraulic capture for the Area 7 GWETS for October 2024 on **Figure 17**. Review of the interpreted hydraulic capture zone for the Area 7 MAU GWETS indicates that the program performs in a manner consistent with the Amended CD SOW Performance Standard of preventing migration away from the source area of MAU groundwater with COC concentrations that are higher relative to the surrounding vicinity. The Area 7 GWETS is also performing in a manner consistent with the EPA-approved design, which was projected to capture groundwater with TCE concentrations greater than 1,000 µg/L in the Upper MAU near the Area 7 source. Based on October 2024 data, hydraulic capture for the Area 7 GWETS encompasses more than half of the MAU plume area in excess of 500 µg/L and all of the area in that exceeds 1,000 µg/L, as shown on **Figure 20**. The GM&EP achievement measure specifies that hydraulic capture from Area 7 pumping extend south to the vicinity of well PA-12MA. This achievement measure was not met in 2024 or for many years prior. In fact, this metric may not be achievable using available MAU extraction wells tied into treatment at the Area 7 GWETS and the CGTF. See **Section 9.6** for further discussion.



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Figure 20. Water Levels, TCE Concentrations, and Estimated Hydraulic Capture from Area 7 MAU Extraction Wells

The second evaluation metric for the Area 7 MAU Source Control Program is demonstration of a decline in the 5-year running average of TCE concentrations for the designated indicator wells (D-2MA/D-4MA, E-10MA, PA-10MA, PA-12MA, W-1MA, and W-2MA) for the period following full implementation of the Area 7 groundwater remedy. **Table 15** summarizes annual average TCE concentrations for the period 1995 through 2024 at the six Area 7 MAU indicator monitoring wells. Responsive to the GM&EP performance criteria to demonstrate an overall reduction in concentrations at the Area 7 source area, this compliance metric is computed as a combined average of the 5-year running averages for the designated wells. With approval from EPA in 2022, the NIBW PCs replaced D-2MA, which had anomalously low TCE concentrations, with D-4MA and have been using this well in remedy effectiveness evaluations since 2021. Annual average TCE concentrations at each of the specified Area 7 MAU indicator wells are computed for each year during the period 1995 through 2024. A total combined annual TCE average for all indicator wells is then determined for each year. As shown in **Table 15**, the overall 2024 average TCE concentration for the six Area 7 indicator wells of 395 µg/L is slightly higher than the annual average of 353 µg/L for 2023. The 5-year average TCE concentration that was calculated for the period 2020 through 2024 of 536 µg/L was lower than the average for the previous 5-year period of 587 µg/L. Accordingly, compliance with the mass reduction component of the Area 7 remedy performance was achieved in 2024.

Figure 21 depicts the computed 5-year running average TCE concentration for Area 7 indicator wells. These data indicate that except for the 5-year periods ending in 2011, 2012, and 2022, a declining trend has been observed since this performance measure went into effect in 2004. Increases in the 5-year running averages for the three periods mentioned are directly correlated to variations in TCE concentrations reported at monitoring well W-2MA. Since TCE concentrations at well W-2MA are significantly higher than at other Area 7 indicator wells, slight variations in TCE concentrations at this well in response to pumping changes at 7EX-6MA can have a substantial effect on combined annual averages. However, data show a declining long-term (10-year) trend at W-2MA in response to more consistent pumping at 7EX-6MA (**Figure 14**).

In conclusion, the performance measure involving a decline in 5-year running average TCE concentrations was achieved at Area 7 in 2024. However, as with previous years, demonstration of hydraulic capture such that the direction of groundwater movement from the vicinity of PA-12MA is toward the cone of depression associated with Area 7 pumping was not achieved in 2024. See **Section 9.6** for further discussion.

Table 15. Average TCE Concentrations for MAU Monitoring Wells - Vicinity of Area 7

YEAR	AVERAGE TCE CONCENTRATIONS (µg/L)							
	D-2MA	D-4MA	E-10MA	PA-10MA	PA-12MA	W-1MA	W-2MA	ANNUAL AVERAGE
1995	---	---	6	12	190	2,800	3,000	**1,202**
1996	5,600	---	6	15	135	1,045	1,950	**1,458**
1997	4,650	---	6	26	175	560	2,050	**1,245**
1998	3,500	---	11	68	360	200	1,950	**1,015**
1999	2,200	---	15	96	760	497	2,900	**1,078**
2000	2,369	---	15	68	608	1,432	3,844	**1,390**
2001	2,533	---	15	39	586	707	3,875	**1,292**
2002	2,180	---	14	39	581	389	4,490	**1,282**
2003	2,200	---	10	46	580	495	4,875	**1,368**
2004	1,650	---	8	39	483	270	4,725	**1,196**
2005	1,650	---	7	41	483	335	5,275	**1,298**
2006	1,145	---	6	36	400	151	4,325	**1,010**
2007	828	---	5	35	407	129	4,225	**938**
2008	1,015	---	6	41	360	95	4,900	**1,069**
2009	1,550	---	5	34	400	88	4,325	**1,067**
2010	1,675	---	5	31	370	44	4,100	**1,038**
2011	1,825	---	6	36	343	70	3,925	**1,034**
2012	1,725	---	5	24	348	195	4,450	**1,124**
2013	1,650	---	5	22	303	387	3,575	**990**
2014	1,303	---	6	21	355	575	3,700	**993**
2015	1,375	---	4	22	300	468	2,850	**837**
2016	1,375	---	3	24	245	368	2,075	**682**
2017	1,375	---	3	45	245	368	1,725	**627**
2018	1,375	---	4	56	270	350	1,675	**622**
2019	1,375	---	4	53	273	363	1,825	**649**
2020	1,375	---	4	73	265	425	1,300	**574**
2021	---	813	5	38	260	408	1,943	**578**
2022	---	820	7	24	243	415	3,175	**780**
2023	---	638	7	33	278	353	813	**353**
2024	---	614	6	55	303	425	969	**395**

EXPLANATION:

1) Duplicates were not used in the calculation of 5-Year Average TCE Concentrations.
2) 2015 average TCE concentration was used for D-2MA because 2016-2020 data were not representative of historical trends.
3) On May 19, 2022, the NIBW PCs formally requested the replacement of monitoring well D-2MA per the GM&EP schedule with monitoring well D-4MA. This request was approved by EPA on July 12, 2022 and D-2MA monitoring was discontinued in October 2022.

5-Year Average TCE Concentrations (µg/L)

1995-1999	1,199	Start-Up of 7EX-3aMA and 7EX-4MA Extraction Wells
1996-2000	1,237	
1997-2001	1,204	
1998-2002	1,211	Start-Up of 7EX-5MA Extraction Well
1999-2003	1,282	Area 7 GWETS Fully Operational
2000-2004	1,305	Performance Measure Became Effective
2001-2005	1,287	
2002-2006	1,231	
2003-2007	1,162	
2004-2008	1,102	
2005-2009	1,077	
2006-2010	1,024	
2007-2011	1,029	
2008-2012	1,066	Beginning in 2012 7EX-5MA Extraction Well Not in Service
2009-2013	1,051	
2010-2014	1,036	
2011-2015	996	Start-Up of 7EX-6MA Extraction Well
2012-2016	925	
2013-2017	826	Beginning in 2017 7EX-4MA Extraction Well Not in Service
2014-2018	752	
2015-2019	683	
2016-2020	630	
2017-2021	610	Data from well D-4MA replaced D-2MA for Use in Average TCE Calculation
2018-2022	640	Treatment System Down for Communication Upgrades
2019-2023	587	December 2023 7EX-4MA Extraction Well Abandoned
2020-2024	536	

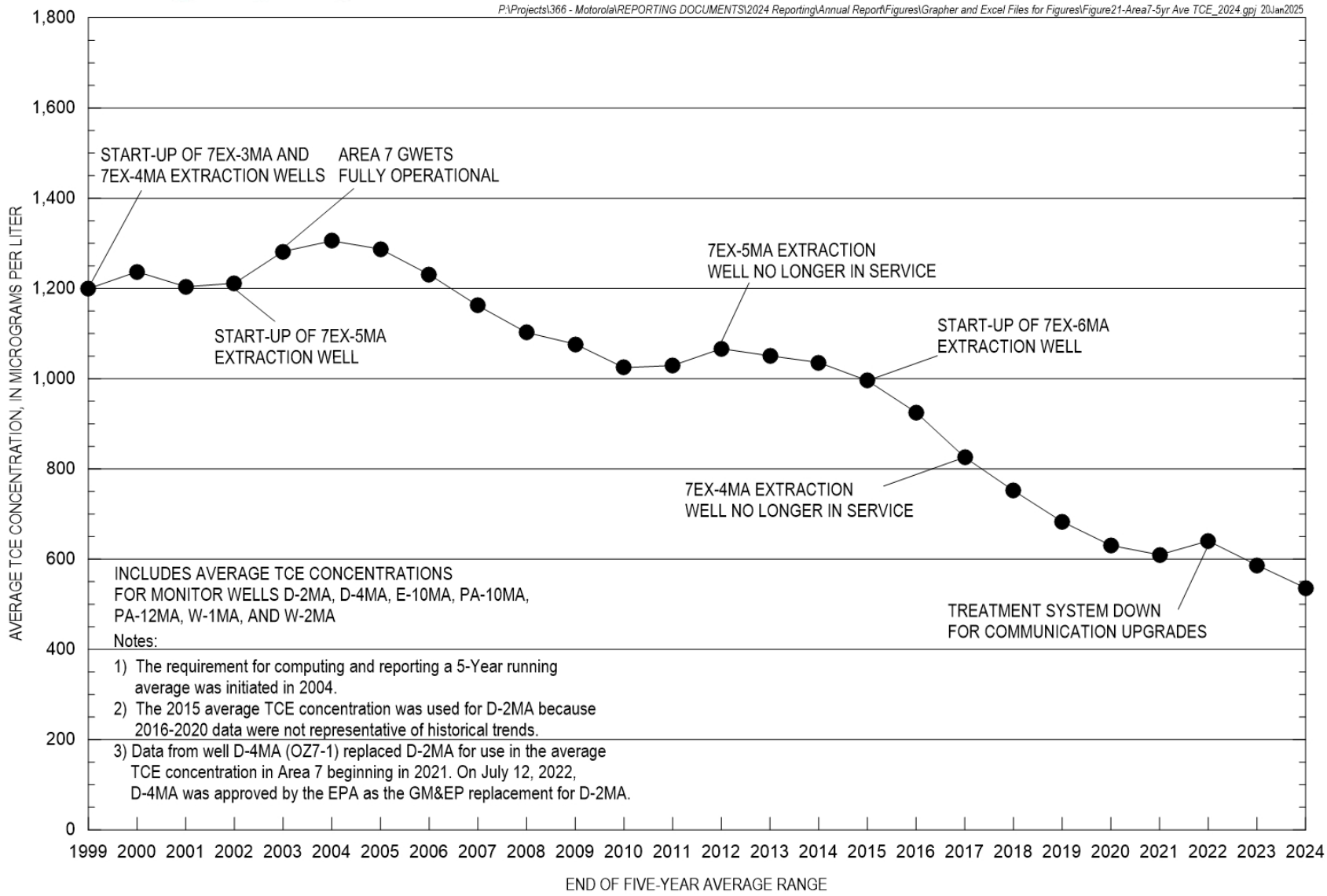


Figure 21. 5-Year Running Average of TCE Concentrations in the MAU - Vicinity of Area 7

9.5.2 Area 12 Source Control

Remedy performance metrics for the Area 12 Source Control Program, as outlined in the GM&EP, are summarized in **Table 4**. For 2024, compliance with one of the two achievement measures was attained, as discussed in this section.

Figure 22 includes graphs showing 10 years of water level and TCE concentration data for indicator wells in the vicinity of Area 12. Data from these indicator wells help to evaluate long-term trends and confirm overall effectiveness of the Area 12 GWETS. Water levels in the vicinity of Area 12 display seasonal patterns in response to pumping but are generally stable over the last 10 years, as shown on **Figure 22**. With the exception of one well (M-10MA2) that shows an increasing short term trend, 5-year TCE concentration trends at all Area 12 MAU indicator wells are stable, no trend, or declining **(Table 11**). Over the long term (10-years), three of the eight Area 12 indicator wells show increasing trends, including M-6MA, M-10MA2, and E-5MA. The increasing 10-year trends are principally linked to mass migration during annual downtime at the Area 12 GWETS. The system is typically down between late December and early February to accommodate system maintenance and dry up of the SRP canal, which receives treated water from the Area 12 GWETS (**Table 10**).

Figure 22 also shows MAU TCE concentration contours for October 2024 and the estimated extent of hydraulic capture associated with Area 12 MAU extraction. MAU water level contours are shown with the interpretation of MAU hydraulic capture for the Area 12 GWETS for October 2024 on **Figure 17**. Review of patterns of groundwater movement and the extent of hydraulic capture indicates that a large cone of depression occurs as a result of MAU pumping at Area 12 extraction wells. Consistent with the achievement measure, direction of groundwater movement from the general vicinity of Hayden Road is to the east toward this cone of depression. Accordingly, compliance with the hydraulic capture component of the Area 12 remedy performance was achieved in 2024.

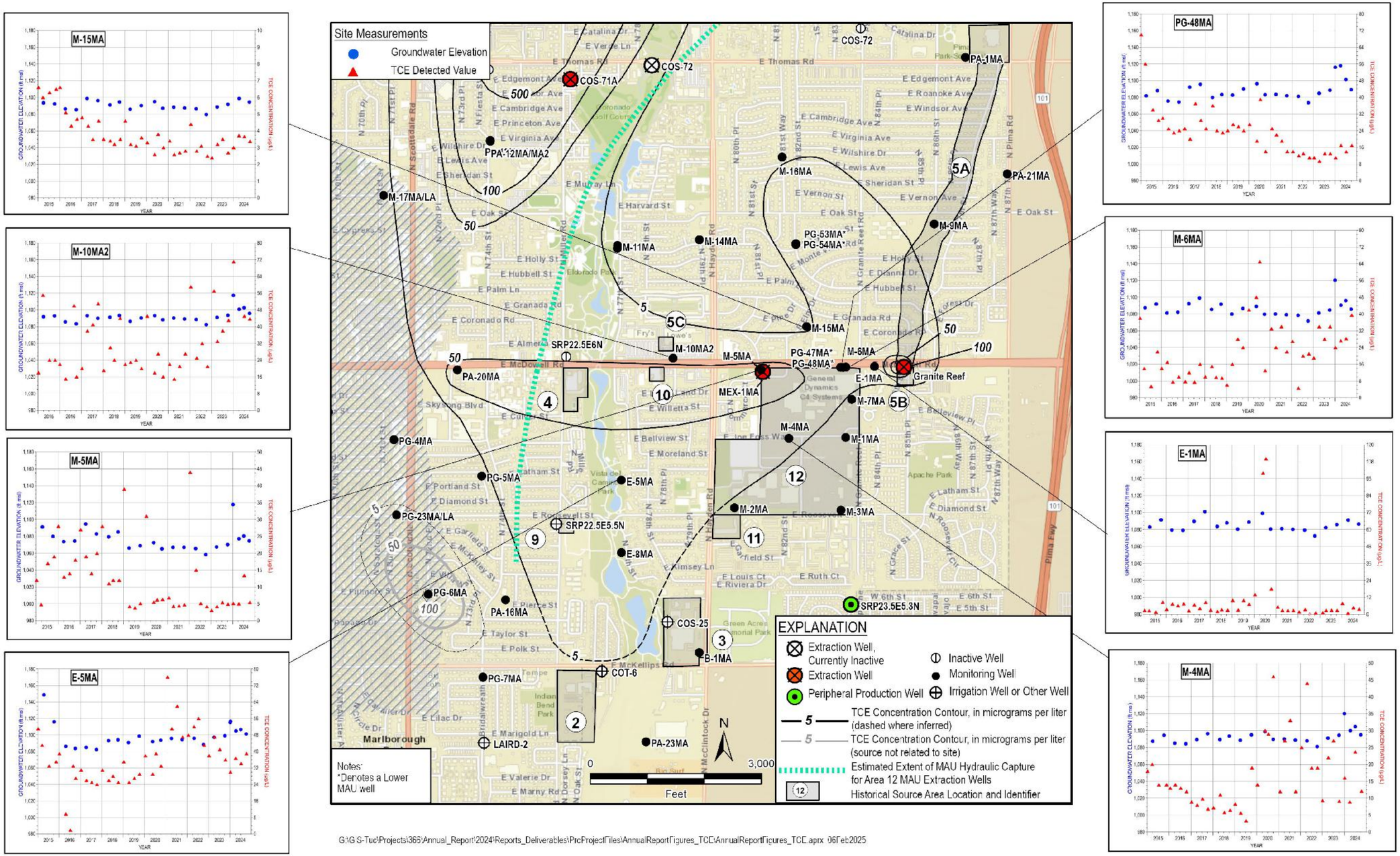


Figure 22. Water Levels, TCE Concentrations, and Estimated Hydraulic Capture from Area 12 MAU Extraction Wells

The second evaluation metric for the Area 12 MAU Source Control Program is demonstration of a decline in the 5-year running average of TCE concentrations for the designated indicator wells (E-1MA, M-4MA, M-5MA, M-6MA, M-7MA, M-9MA, M-15MA, and PA-21MA) for the period following full implementation of the Area 12 groundwater remedy. **Table 16** summarizes annual average TCE concentrations for 1994 through 2024 for the eight Area 12 MAU indicator monitoring wells. Responsive to the GM&EP performance measure to demonstrate an overall reduction in TCE concentrations at the Area 12 source area, this compliance metric is computed as a combined average of the 5-year running averages for the designated wells. Annual average TCE concentrations at each of the specified Area 12 MAU indicator wells were computed for each year. The individual monitoring well annual average TCE concentrations were then averaged to arrive at a combined Area 12 average for each year. The combined average TCE concentration for the Area 12 MAU indicator wells for 2024 was 8 µg/L, which is higher than the annual average of 7 µg/L for 2023. Using the 2024 combined annual average TCE value, a 5-year average of 10 µg/L was computed for the period 2020 through 2024 (**Table 16**). This value is identical to the average computed for the previous two 5-year periods. As such, compliance with the mass reduction component of the Area 12 remedy performance, which specifies a decreasing 5-year average, was not strictly achieved in 2024. Contingency responses are discussed in **Section 9.6**.

Figure 23 depicts the computed 5-year running average TCE concentrations for Area 12 indicator wells. These data indicate that, except for the 5-year periods ending in 2008, 2020, and 2022, a stable or declining trend in the running average TCE concentrations at Area 12 has been observed since this performance measure came into effect in 2004. The increases in the 5-year running average for the three periods mentioned were all small and appear to be attributable to a sequence of years with lower pumping at the Granite Reef well and potentially higher pumping at well COT-6 (**Table 10**). The stable rather than declining concentration average for the two most recent 5-year periods is likely attributable to increasing concentration trends at some of the indicator monitoring wells (M-6MA, M-10MA2, and E-5MA) located downgradient from Area 12 extraction wells. As mentioned above, these increasing trends are interpreted to be principally caused by annual treatment system downtime in response to required maintenance and dry up of the SRP canal system, along with other unscheduled extraction well downtimes.

In conclusion, demonstration of hydraulic capture, such that the direction of groundwater movement from the vicinity of Hayden Road is toward the cone of depression associated with Area 12 pumping was achieved in 2024. However, the 5-year running average TCE concentration for indicator wells has remained constant for the last 3 years. Therefore, the performance measure requiring a decline in 5-year running average TCE concentrations was not strictly achieved at Area 12 in 2024. See **Section 9.6** for further discussion.

Table 16. Average TCE Concentrations for MAU Monitoring Wells - Vicinity of Area 12

YEAR	AVERAGE TCE CONCENTRATIONS (µg/L)								
	E-1MA	M-4MA	M-5MA	M-6MA	M-7MA	M-9MA	M-15MA	PA-21MA	ANNUAL AVERAGE
1994	367	29	377	333	11	150	105	44	**177**
1995	440	20	365	315	7	113	14	14	**161**
1996	490	32	295	180	6	72	115	8	**150**
1997	370	31	120	113	8	52	83	7	**98**
1998	350	32	43	120	9	24	40	3	**78**
1999	370	28	65	125	3	15	75	2	**85**
2000	18	27	79	22	0	10	40	2	**24**
2001	3	20	115	7	1	8	25	1	**22**
2002	130	24	105	55	2	5	19	0	**42**
2003	3	21	45	2	1	6	14	0	**12**
2004	56	25	53	40	1	7	13	0	**24**
2005	73	26	54	69	1	7	11	1	**30**
2006	42	20	68	43	1	4	12	0	**24**
2007	27	21	65	49	1	4	12	0	**22**
2008	63	20	50	68	1	5	12	0	**27**
2009	21	19	65	38	1	5	12	0	**20**
2010	34	20	58	63	1	4	11	0	**24**
2011	37	23	48	52	1	4	10	0	**22**
2012	27	23	33	60	1	5	10	0	**20**
2013	55	23	34	77	0	5	9	0	**25**
2014	37	20	19	48	0	4	8	0	**17**
2015	4	17	13	20	0	3	6	0	**8**
2016	6	13	18	12	0	3	5	0	**7**
2017	5	8	20	11	0	4	4	0	**7**
2018	3	8	16	11	0	2	3	0	**5**
2019	8	9	13	19	0	4	4	0	**7**
2020	61	30	12	42	0	6	3	0	**19**
2021	3	21	5	28	0	2	3	0	**8**
2022	2	27	17	18	0	3	3	0	**9**
2023	2	17	4	29	0	3	3	0	**7**
2024	4	15	7	30	2	3	3	0	**8**

EXPLANATION:
Duplicates were not used in the calculation of 5-Year Average TCE Concentrations.

5-Year Average TCE Concentrations (µg/L)

1994-1998	133	
1995-1999	114	Start-Up of MEX-1 and SRP Granite Reef Extraction
1996-2000	87	Area 12 GWETS Fully Operational
1997-2001	62	
1998-2002	50	
1999-2003	37	
2000-2004	25	Performance Measure Became Effective
2001-2005	26	
2002-2006	26	
2003-2007	22	
2004-2008	26	
2005-2009	25	
2006-2010	23	
2007-2011	23	
2008-2012	23	
2009-2013	22	
2010-2014	22	
2011-2015	18	
2012-2016	15	
2013-2017	13	
2014-2018	9	
2015-2019	7	
2016-2020	9	Granite Reef Well Operating Intermittently Due to Maintenance and Testing
2017-2021	9	
2018-2022	10	
2019-2023	10	
2020-2024	10	

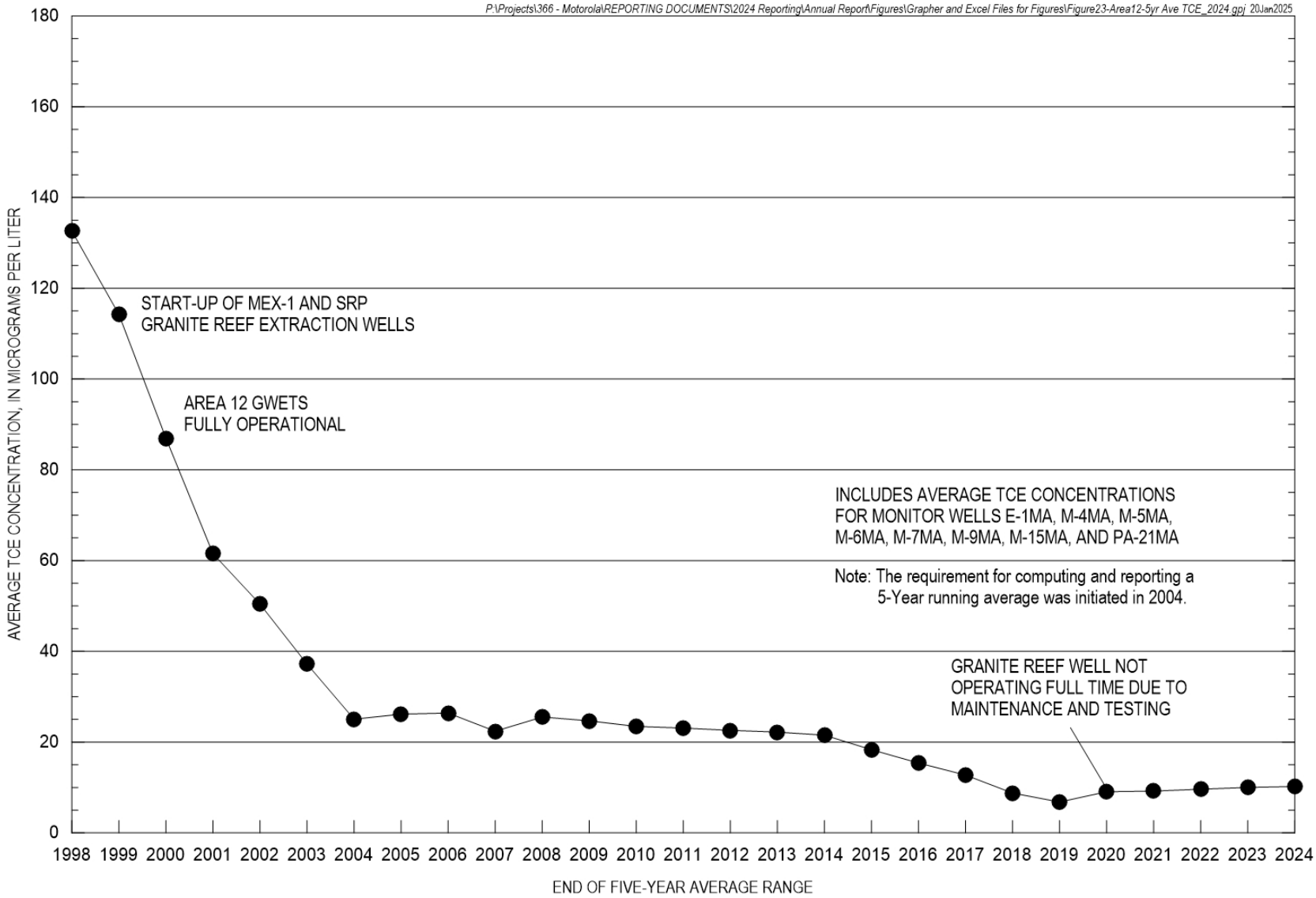


Figure 23. 5-Year Running Average of TCE Concentrations in the MAU - Vicinity of Area 12

9.6 GM&EP Contingency Responses

9.6.1 Area 7 Capture to PA-12MA

Capture zones interpreted from water level data show that the current pumping configuration provides sufficient capture to prevent migration of relatively higher COC concentrations associated with Area 7 from migrating to the Western Margin and into the LAU. Therefore, the status of Area 7 Source Control is consistent with the Amended CD SOW Performance Standard. The GM&EP Area 7 achievement measure specifying hydraulic capture extending south to the vicinity of well PA-12MA, however, was not met in 2024. In fact, as discussed with the Technical Committee, this metric has not been achieved for many years and is not likely to be achievable using currently available MAU extraction wells tied into treatment at the Area 7 GWETS and the CGTF.

Hydraulic capture of MAU mass associated with the Area 7 source has always been evaluated in conjunction with overall MAU pumping at the Site. The City of Scottsdale has been unable to prioritize use of well COS-71A for extraction and treatment at the CGTF since 2016 due to inorganic water quality issues unrelated to the Site. In 2023, the NIBW PCs in coordination with the City of Scottsdale, modified well COS-71A to an MAU-only extraction well. This work was undertaken to focus pumping at COS-71A on the portion of the aquifer most critical to the remedy (the MAU) at a rate that will allow the City of Scottsdale to prioritize pumping at COS-71A and COS-75A. The City of Scottsdale is prepared to begin pumping COS-71A once arrangements are in place to provide for another critical component of their water supply through tie-in of PG-41MA/LA for treatment at the MRTF. Modeling analyses show that adding MAU extraction at COS-71A will enhance the efficiency of the remedy by increasing local capture of mass in the Upper MAU that would otherwise take a longer flow path toward the Western Margin for capture in the Lower MAU and LAU. Both COS-71A and PG-41MA/LA are anticipated to come online in 2025.

9.6.2 Area 12 Five-Year Running Average

In 2024, Area 12 did not meet the GM&EP metric of a decline in the 5-year running average of annual average TCE concentrations for the group of eight Area 12 indicator wells. The 5-year running average TCE concentration calculated for the period 2020 through 2024 is identical to the 10 µg/L average for the previous two 5-year periods (**Table 16**). The recent stability in running average TCE concentrations near Area 12 is likely linked to the fact that over the long term (10 years), three of the eight Area 12 indicator wells show increasing trends, including M-6MA, M-10MA2, and E-5MA. The increasing 10-year trends are principally linked to mass migration during annual downtime at the Area 12 GWETS. The system is typically down between late December and early February to accommodate system maintenance and dry up of

the SRP canal, which receives treated water from the Area 12 GWETS. Mass migration also occurs periodically when there are issues that curtail pumping at one or both of the extraction wells.

Overall, the Area 12 GWETS is effective at containing and treating locally elevated TCE concentrations in the MAU and reducing mass migration to the Western Margin. Except for M-10MA2, short-term (5-year) TCE concentration trends at all Area 12 MAU indicator wells show stable, no trend, or declining trends. However, TCE concentrations were in the 90 to 130 µg/L range in 2024 at the Granite Reef well, located at historical source Area 5B, which is roughly two times the TCE concentrations observed at downgradient extraction well MEX-1MA. The NIBW PCs will endeavor to maintain consistent pumping, particularly at the Granite Reef well, within the discharge constraints of the SRP canal and requirements for annual and periodic well and treatment system maintenance.

9.7 Progress Toward Achievement of Remedial Action Objectives

EPA established seven RAOs for the NIBW Site (A through G) in the September 2001 Amended ROD (**Section 3.2**). The following is a general discussion of the progress achieved in satisfying RAOs, based on review of data through 2024. Details regarding data that support the assessment for specific aspects of the remedy are provided in earlier sections of the SMR.

Remedial Action Objective A – Aquifer Restoration:

Significant progress has been made toward the removal and restoration of groundwater to drinking water quality with respect to the Site COCs. In 2024, the NIBW remedial actions resulted in the extraction and treatment of approximately 5.2 billion gallons of groundwater and removal of approximately 1,700 pounds of TCE, as shown in **Table 6**. From the inception of the NIBW groundwater remedy in 1994, approximately 155 billion gallons of groundwater have been extracted to remove an estimated 102,475 pounds of TCE. Soil remedial actions (as discussed in RAO F) have eliminated the threat to groundwater from historical sources of TCE at EPA-identified source areas. Consequently, TCE concentrations have dramatically decreased in the UAU and significantly decreased across large portions of the MAU and LAU.

The most significant declines observed in TCE concentrations are in UAU groundwater. According to UAU mass flux calculations, the estimated VOC mass in the UAU has declined from approximately 11,100 pounds in 1993 to approximately 130 pounds in 2024, representing a decrease of 99% in the past 30 years (**Figure 16**). For 3 years in a row, data from the annual monitoring event in October show that the Cleanup Standard for TCE was not exceeded at any of the UAU monitoring wells (**Figure 13)**. Consistent with the significant and widespread observed reductions across the UAU, EPA has approved and the NIBW PCs have conducted formal

abandonment of a total of 43 UAU monitoring wells to date and the UAU is approaching restoration.

Evidence of progress toward restoration in the MAU and LAU is significant and can be demonstrated by widespread decreasing and stable longer-term and shorter-term TCE concentration trends, as shown on **Figure 14**, **Figure 15,** and in **Appendix D**. Based on the last 5 years of TCE concentration data, no trends, stable trends, or decreasing trends are observed in all but three MAU monitoring wells (**Table 11**). Longer-term (10-year) increasing trends are observed in only six MAU monitoring wells. These data indicate the impact of significant mass removal that has occurred since initiation of the MAU Source Control Programs. In the LAU, only four monitoring wells show increasing 5-year trends and only two of these (PA-8LA2 and PG-40LA) are within the TCE plume area. Only one LAU monitoring well within the plume area shows an increasing trend over the most recent 10 years (PG-2LA). This well is located in the northern LAU adjacent to extraction well PCX-1, where mass is being captured and treated. These data demonstrate that coordinated and consistent operation of key LAU extraction wells—particularly PCX-1—is effectively reducing mass in the LAU. These data also demonstrate that MAU Source Control Programs are significantly reducing the amount of new TCE mass entering the LAU via the Western Margin.

Restoration of the aquifer for drinking water end use is the overriding goal of the NIBW remediation program. Restoration of UAU groundwater has progressed significantly and near-term closeout of the UAU groundwater remedy is anticipated. Progress in the MAU and LAU, which are less permeable, thicker, and more aerially extensive than the UAU, will take significantly longer. As demonstrated herein, extensive progress in restoration of the MAU and LAU has been made.

Remedial Action Objective B - Eliminate Exposure to Impacted Groundwater:

As presented in **Section 9.1**, groundwater extracted as part of the NIBW Site remedy in 2024 was treated to meet the groundwater Cleanup Standards specified in the Amended ROD, thereby eliminating exposure and protecting human health and the environment.

Remedial Action Objective C - Provide the City of Scottsdale with Potable Water Source:

The CGTF was constructed to provide treatment of TCE-impacted groundwater for the City of Scottsdale's beneficial use. Since the CGTF began operation in 1994, it has treated approximately 71 billion gallons of groundwater to levels safely below the respective NIBW Cleanup Standards. The treated groundwater is blended with other potable sources and used in the City of Scottsdale municipal water system. Most of the treated water from the NGTF, generally close to 1 billion gallons per year, is also used as potable water supply for the City of Scottsdale, blended with water from their CWTP.

Increasing concentrations of inorganic constituents not associated with the NIBW Site have impacted the City of Scottsdale's ability to pump, treat, and serve water from certain key remedial extraction wells through its municipal system in recent years. Since 2017, the NIBW PCs have collaborated with the City of Scottsdale to develop solutions that support extraction and treatment for TCE plume containment while allowing the City of Scottsdale to manage its inorganic water quality challenges. By prioritizing pumping at extraction well COS-75A, and using other CGTF wells only as needed, the City of Scottsdale has been able to maintain a balance between the NIBW remedy and inorganic COCs in its system. Completion of the City of Scottsdale's TGTF in 2023, which was originally designed to treat inorganic constituents in groundwater, is a critical element of the plan to bring COS-71A back online at a higher pumping priority. The NIBW PCs modification of well COS-71A to pump only from the MAU will increase local capture of MAU mass from Area 7 and improve the overall efficiency of the remedy. Since coming online, the importance of the TGTF has been further highlighted in relation to the EPA PFAS drinking water standards. RO is a Best Available Demonstrated Control Technology for PFAS. Because CGTF extraction wells COS-71A and COS-75A have concentrations of PFAS above the recently established MCLs, the need for the TGTF has broadened.

On a parallel path, the NIBW PCs are working with both SRP and the City of Scottsdale to complete permitting of monitoring well PG-41MA/LA for extraction and treatment at the NGTF (**Section 10.2**). This enhancement will provide additional assurances that peripheral production wells north of the LAU plume would be protected should any of the northern extraction wells unexpectedly go offline. The NIBW PCs will continue to work with the City of Scottsdale and other stakeholders in 2025 to implement these high-value enhancements in a manner that supports municipal supply needs.

Remedial Action Objective D - Plume Containment:

Water level data continue to support the interpretation that direction of groundwater movement across the MAU/LAU plume is generally toward NIBW extraction wells or the Western Margin. Most monitoring wells located near the edge or along the periphery of the MAU/LAU plume show TCE concentrations with declining, stable, or no trends over both the shorter (5-year) and longer term (10 years). In addition, in 2024, no GM&EP metric exceedances occurred in any of the MAU/LAU or Northern LAU indicator wells, demonstrating that containment is effectively protecting peripheral production wells for drinking water end use. The NIBW PCs will continue to evaluate and report trends to the Technical Committee to ensure that the overall objectives of the MAU/LAU plume containment are maintained.

Remedial Action Objective E - Consistency with Arizona's Groundwater Management Act:

Treated water produced from all five NIBW groundwater treatment facilities is beneficially used. The CGTF and the NGTF provide treated groundwater to the City of Scottsdale for use in its potable water system or alternately to SRP for its beneficial use. The MRTF treats groundwater for municipal use by EPCOR. At Area 7 treated groundwater is delivered to shallow injection wells that recharge the UAU aquifer. Treated water from the Area 7 system has elevated concentrations of inorganic constituents not suitable for direct potable use. At Area 12, treated groundwater is provided to SRP for use in its municipal and irrigation supply system. All NIBW end uses are consistent with beneficial use designations of ADWR and in accordance with the Groundwater Management Act. Furthermore, the NIBW remedy has incorporated the City of Scottsdale, SRP, and EPCOR as end users of treated groundwater in lieu of other groundwater pumping they have historically conducted and would have otherwise relied upon within and near the Site. Reliance by water providers on groundwater supplies is anticipated to increase as drought impacts surface water deliveries.

Remedial Action Objective F - Mitigate Soil Impacts to Groundwater:

As described in **Section 3.4**, the NIBW PCs have conducted soil remediation at four EPA-identified source areas: Areas 6, 7, 8, and 12. The collective soil remediation has resulted in the removal of over 10,000 pounds of TCE from the unsaturated zone and eliminated these sources as an ongoing threat for groundwater impacts. All vadose zone remedies at the Site have been closed out since 2015 with EPA approval.

Remedial Action Objective G - Improve Aquifer Suitability for Potable Use:

The NIBW PCs closely coordinate the planning and implementation of NIBW remedial actions with the key water providers, including the City of Scottsdale, SRP, and EPCOR. These efforts focus on defining mutually beneficial objectives for all parties involved in the remedy. The NIBW remedy requires consistent and reliable groundwater extraction in the areas most favorable for capture and containment of the MAU/LAU plumes. This need is balanced with the fact that water providers have considerable, but variable, water demands in the NIBW Site area and that they access water supplies via a system of existing wells and infrastructure.

Through ongoing technical discussions and cooperation, the parties take steps to focus groundwater extraction and end uses for the remedy on optimum water resource management. The NIBW PCs provide technical assistance with the installation, testing, modification, and replacement of water provider wells to improve groundwater plume capture and mass removal. To ensure water providers can utilize the treated groundwater, the NIBW PCs upgrade treatment systems, enhance infrastructure, and control systems as needed. The water providers make

efforts to prioritize pumping to meet water demands using wells identified as most beneficial to the remedy.

In 2024, the NIBW PCs continued to support the City of Scottsdale's efforts to balance inorganic loading to their municipal system. Although not NIBW COCs, increasing concentrations of inorganic constituents have impacted the City of Scottsdale's ability to accept water from certain key remedial extraction wells. Through discussions with the Technical Committee, solutions were developed and are being implemented that enable the City of Scottsdale to manage inorganic constituents, as well as the new challenges with concentrations of PFAS that exceed new drinking water standards, while continuing to support extraction and treatment to provide for TCE plume containment. Actions planned and in progress are both beneficial to the NIBW remedy and improve the City of Scottsdale's ability to control inorganics and PFAS in its system. These actions include bringing well COS-71A back online as an MAU-only extraction well and initiating extraction at PG-41MA/LA in the northern LAU.

9.8 Monitoring Network Evaluation

The GM&EP requires an annual assessment of the scope and frequency of monitoring activities to optimize program effectiveness over time. Based on the significant remedy progress in the UAU, EPA approved formal abandonment of a total of 43 UAU monitoring wells. Because TCE concentrations for the remaining 28 UAU monitoring wells have remained below the MCL of 5 µg/L for the last 3 years (**Appendix C, Table C-1**), the NIBW PCs may request that EPA initiate a formal closure process for the UAU, consistent with the OU 2 CD. Until a request is submitted and approved, the NIBW PCs will continue to collect data from the UAU monitoring well network in accordance with the current approved GM&EP schedule.

The scope and frequency of the MAU and LAU groundwater monitoring program is evaluated in an ongoing manner relative to GM&EP performance evaluation requirements. In response to input received from EPA, the NIBW PCs conducted a comprehensive evaluation of the monitoring network in relation to compliance with the GM&EP, which was reported in the 2020 SMR. The current compliance monitoring network consists of 122 wells, 109 of which are monitoring wells (28 UAU wells, 48 MAU wells, 4 MAU/LAU wells, and 29 LAU wells), 11 of which are extraction wells, and two of which are production wells. While the current monitoring network provides good vertical and lateral coverage of the principal intervals of interest in the UAU, MAU, and LAU, a few monitoring wells have become less reliable over time. Specifically, the NIBW PCs have noted in the SMR that one or more wells do not appear to be providing representative data either with respect to measured water levels and/or collected water quality samples. To address these concerns, the NIBW PCs will update the monitoring evaluation conducted in 2020 as part of the GM&EP Update process and provide recommendations and priorities for changes in the monitoring program and/or selective well

replacements, as appropriate. Recommendations will be reviewed with EPA and implemented in a prioritized manner considering other Site needs.

Other changes that will occur in 2025 include the change in status of PG-41MA/LA from a monitoring well to an extraction well after construction of required pumping and conveyance infrastructure. When PG-41MA/LA is equipped, the adjacent monitoring well PG-40LA will be used as a continuous water level monitoring well for compliance purposes.

9.9 Evaluation of Need for Modeling Analyses

The NIBW PCs worked closely with EPA to complete a comprehensive update to the NIBW groundwater flow model in 2020 and 2021, coincident with the 2021 Five-Year Review (USACE, 2021). A draft report documenting the construction and calibration of the updated model as well as results of projections designed to evaluate remedy performance under current and potential future conditions was submitted in August 2023 (M&A, 2023). Comments on the draft report were received from EPA in November 2023. The NIBW PCs responded that EPA comments would be addressed as appropriate in a planned 2025 model update and associated report, which will be completed in late 2025 in advance of the 2026 Five-Year Review. The NIBW PCs will coordinate closely with EPA during the 2025 model update process, setting up meetings at critical junctures to provide information and seek feedback. While significant changes to the model are not anticipated, the NIBW PCs' goal is to ensure that the model continues to be a relevant and useful tool for evaluating performance of current and planned/potential remedial actions.

During 2024, the groundwater flow model was used to support annual assessments of hydraulic capture of the LAU plume for the Site Monitoring Report. In addition, efforts to use the groundwater flow model to evaluate impacts from planned City of Tempe pumping and injection that were started in 2023 were continued into 2024. Specifically, groundwater flow and particle tracking were applied to evaluate planned use by the City of Tempe of existing production well COT-6 as an injection well and use of a nearby, newly-constructed production well, COT-6R, as a replacement pumping well. Modeling assumptions were to the extent possible comparable with those used by the City of Tempe's hydrogeologic consultant, Leonard Rice Engineers (LRE), who was tasked with conducting particle tracking runs for injection permitting purposes through ADWR. ADEQ was tasked with conducting an independent evaluation of Site impacts from the planned injection and extraction program as part of the State permitting process. The NIBW PCs evaluated end-point potential future COT-6/COT-6R pumping and injection scenarios and compared results with projections for average and maximum historical usage of existing production well COT-6. Results were shared with the Technical Committee and summarized in a memorandum to ADEQ, ADWR, and EPA (M&A, 2024). Particle tracking model results showed capture of a portion of the southern MAU TCE plume for both historical and potential

maximum future pumping by the City of Tempe at the COT-6/COT-6R location. While impacts of planned injection were not significant in relation to the TCE plume, the potential for injection to move PFAS or other non-Site contaminants into the NIBW area or other unimpacted areas was noted but not evaluated. While modeling analyses indicated impacts beyond those noted historically could occur depending on future operations, planned use of COT-6 and COT-6R by the City of Tempe are not deemed by the NIBW PCs to be inconsistent with the remedy. COT-6 is not a peripheral production well and the City of Tempe has a blending plan in place for any TCE pumped during routine operations. The NIBW PCs plan to continue to coordinate sharing of information on operations and data collection with the City of Tempe in 2025.

9.10 CSM Evaluation

Interpretation of data from 2024 indicates no substantial changes to the overall understanding of the CSM around which the remedy was designed. Water level recovery observed in all three alluvial units due to decreased pumping and increased recharge beginning in the early to mid-2000s has begun to stabilize (**Appendix D**). Downward hydraulic gradients have decreased over time, due to increased recovery in the LAU and to a lesser extent the MAU, compared with the UAU. In some areas the hydraulic head in the LAU approaches the head in the MAU. Recent data from monitoring of the lowermost interval of the MAU shows localized upward gradients from the LAU to the Lower MAU in the vicinity of MAU extraction wells. That said, the overall pattern of downward gradients persists across the Site and water levels in the LAU in 2024 declined in the northern portion of the Site, indicative of a shift that may continue as reliance on groundwater resources increases.

Recognizing that significant data collection and analysis had occurred since the CSM was presented in the 2000 FSA, the NIBW PCs worked on a CSM update in 2020 in anticipation of the 2021 Five-Year Review. A draft report was delivered to EPA, ADEQ, and other members of the Technical Committee for review on February 1, 2021. EPA provided comments on the draft report on December 17, 2021, and the NIBW PCs responded to EPA's comments on April 29, 2022. The final CSM Update, which provides a consensus framework for evaluating new data and making sound technical decisions regarding the remedy, was transmitted to EPA and the Technical Committee in July 2023 (NIBW PCs, 2023). This update considered data through 2019. No changes are proposed to the CSM based on data for 2024. Coincident with the 2025 model update, the NIBW PCs will conduct a comprehensive CSM update in 2025 in advance of the 2026 Five-Year Review. The 2026 update will evaluate consistency of data collected with the CSM. Observations of anomalies or changes relevant to fate, transport, and cleanup of the groundwater plumes will be discussed with the Technical Committee.

10 SUPPLEMENTAL ACTIVITIES

10.1 Supplemental Data Collection

In 2024, supplemental data collected by the NIBW PCs included the following:

- Sampling on a monthly basis when operating at EPCOR production wells PV-11 and PV-12B, in coordination with EPCOR.
- Collection of high-frequency water level data at selected locations across the Site, beyond those identified in the GM&EP.

Information about these activities is summarized in the following sections.

10.1.1 Production Well Sampling

MRTF extraction wells PV-14 and PV-15 are sampled monthly when in operation in accordance with the GM&EP. Downgradient EPCOR production wells PV-11 and PV-12B, when operating, are also sampled monthly by the NIBW PCs during scheduled monitoring activities. These supplemental monitoring data from wells PV-11 and PV-12B are used to help verify that the LAU TCE plume has not migrated north of capture at MRTF extraction wells PV-15 and PV-14. Laboratory analytical results for samples collected from production wells PV-11 and PV-12B—which indicated all sample results for 2024 were below the detections limit for TCE—are included under separate cover as part of a supplemental data submittal.

10.1.2 Supplemental High-Frequency Water Level Data

The NIBW PCs collect supplemental high-frequency water level data from wells throughout the Site in addition to the wells required for continuous monitoring by the GM&EP (**Appendix A, Table A-3; Appendix B**). This effort has assisted the NIBW PCs to evaluate water level fluctuations in key areas of the Site, particularly in monitoring wells located near pumping wells and within capture zones. High-frequency water level data is also beneficial for evaluating vertical gradients and differences in hydraulic responses, which support conceptual and groundwater flow model assessments. Hydrographs showing high-frequency water level data collected at compliance and selected supplemental monitoring locations are presented in **Appendix B**. Locations for supplemental high-frequency water level monitoring are routinely evaluated and modified as needed to fill data gaps and respond to the current needs of the project.

Beginning in 2022 and continuing through 2024, continuous water level monitoring has been conducted at the well pairs S-1MA/LA and S-2MA/LA to better understand MAU and LAU

groundwater flow patterns near and outside the western edges of the MAU and LAU plumes. The goal is to evaluate the lateral and vertical pumping influence of the AWC wellfield (MAU and LAU) and the Area 7 extraction wells (MAU only). Pumping data from these two pumping centers are evaluated in conjunction with both recent high-frequency and historical manual water level data from the S-1MA/LA and S-2MA/LA well pairs. Results show that while water level data from well S-2MA demonstrate the well responds in a predictable manner to pumping at both Area 7 extraction wells and regional MAU water level stresses, well S-1MA exhibits a significantly muted response. Neither of these wells show a response to pumping from the AWC wells. Both S-1LA and S-2LA on the other hand show a strong response to pumping from the AWC wellfield. This pattern was continually observed throughout 2024 monitoring.

High-frequency water level monitoring was also initiated in 2022 and continued through 2024 at MAU well M-12MA2 to help assess the reliability of water level data from this well for evaluating capture in the Upper MAU associated with Area 7 and CGTF pumping. Of interest is the degree to which M-12MA2 responds to pumping from lower priority CGTF extraction well COS-31 compared with how it responds to Area 7 extraction wells. COS-31 pumps from the entire MAU interval and into the LAU, whereas the Area 7 extraction wells only pump from the Upper MAU. Data collected from M-12MA2 in 2024 continues to support the interpretation that this well is influenced primarily by Lower MAU and potentially LAU pumping (COS-31) rather than Upper MAU pumping (Area 7) and is therefore not reliable for use in interpretation of Upper MAU water levels and capture. Additional continuous monitoring at this well through 2025 will further clarify hydraulic responses, specifically the response to pumping from COS-71A once it comes back online.

10.2 Remedy Enhancements: COS-71A and PG-41MA/LA Pipeline Tie-in

Beginning in 2020, the NIBW PCs, in conjunction with the City of Scottsdale, developed and evaluated approaches to support remedy operation considering water provider concerns regarding increasing concentrations of inorganic constituents, specifically arsenic and nitrate. While unrelated to the Site, these inorganic constituents have impacted the ability of the City of Scottsdale to integrate treated water into its potable water system. Priorities for remedy enhancements to balance the needs of the City of Scottsdale with current and future NIBW remedy operation included: 1) increasing capture of MAU mass downgradient from Area 7 that would otherwise be captured in the LAU by bringing COS-71A back online as an MAU-only extraction well, and 2) providing redundancy in Northern LAU containment to increase protection of peripheral production wells by adding extraction at monitoring well PG-41MA/LA. Groundwater modeling was conducted in 2021 to evaluate these potential remedy enhancements and results were presented at Technical Committee meetings and summarized in the NIBW PCs draft model update report (M&A, 2023). Simulations demonstrated: 1) capture of the MAU plume downgradient from Area 7 was increased with the additional MAU-only extraction at

COS-71A, improving the efficiency of the remedy by capturing mass locally that would otherwise migrate to the Western Margin for capture at extraction wells in the Lower MAU and LAU; and 2) capture of the Northern LAU plume, while complete, was increased with the addition of extraction at PG-41MA/LA, providing additional assurance of plume containment, particularly if PCX-1 is down for an extended period of time.

The City of Scottsdale has indicated that these two extraction well programs are linked and both need to be in place before either can be accommodated into their water supply system. As reported in the 2023 SMR, COS-71A was modified by the NIBW PCs to extract exclusively from the MAU in 2023. The City has agreed to begin using this well again once PG-41MA/LA is substantially complete and permitting is in place to allow for water to be conveyed through the SRP PCX-1 pipeline to the NGTF. The operation of COS-71A is also contingent on capacity at the TGTF for further treatment of non-Site COCs (inorganics and PFAS). Actions toward the connection of PG-41MA/LA into the NGTF have been ongoing throughout 2024, as detailed herein. The PCs are hopeful that both COS-71A and PG-41MA/LA will be on-line by the end of 2025.

The City of Scottsdale and the NIBW PCs worked with the Privado Village Homeowners Association (HOA) on community concerns regarding the equipment installation and access to its property where development of PG-41MA/LA well infrastructure is planned. The City of Scottsdale ultimately purchased a parcel from the HOA. The City of Scottsdale also continued negotiations with SRP for access to the PCX-1 pipeline that conveys water to the NGTF and to its right-of-way for the connection piping and electrical corridors.

The NIBW PCs worked with Arizona Public Service on a preliminary design to bring electricity to the well site. A preliminary design for the well site development was completed by the NIBW PCs' engineer and submitted to the City of Scottsdale Building Department. A flood evaluation study was conducted to ascertain if the new equipment installation would affect water levels in the event of a potential flood in the area where the above ground equipment will be located. Work on a native plant and tree inventory and salvage plan began. The plan is intended to address City of Scottsdale concerns about the status and disposition of native vegetation and trees that might be removed or otherwise affected by the site development work.

Permitting work with the City of Scottsdale Building Department and Maricopa County Environmental Services Department will continue into 2025. Additionally, the City of Scottsdale is hopeful that an access agreement with SRP will be completed in the first half of 2025. Once the permitting and final access is secured, field construction on the well site development will begin.

10.3 Optimization Review

Beginning in 2020, the NIBW PCs supported the EPA Remedy Optimization Review process through sharing of applicable digital documents and data, collaborating to develop a 3D visualization model of the Site using LeapFrog, and reviewing and providing feedback on preliminary findings. During the 4-year process, which culminated with submittal of a final Optimization Review Memorandum in November 2024 (EPA, 2024e), the NIBW PCs have expressed concern regarding the scope of the evaluation, including duplicative efforts by the Optimization team to develop an independent 3D visualization model, anticipated costs, and repeated delays in delivery of a draft and then final work product.

While the original projection was for completion of the Optimization Review by summer 2021, EPA communicated in Technical Committee meetings that the delays were, in part, due to implications of PFAS being detected within the NIBW Site at concentrations above the MCL of 4 parts per trillion (ppt) for perfluorooctane sulfonic acid (PFOS) and perfluorooctane acid (PFOA). After a request from the NIBW PCs, EPA released a draft memorandum in summer 2024 that acknowledged that while PFAS had been detected at select wells at the Site, no PFAS-related site data were reviewed, and thus, no characterization-related findings were provided. ADEQ reviewed this draft memorandum and submitted their comments to EPA on July 18, 2024 (ADEQ, 2024). The Draft Final Optimization Review was released to the NIBW PCs on August 23, 2024, by the EPA (EPA, 2024d). The NIBW PCs reviewed the draft report and submitted a summary of principal comments and concerns on October 31, 2024 (NIBW PCs, 2024e). The Final Optimization Review was released on November 14, 2024 (EPA, 2024e).

The NIBW PCs appreciate the effort invested into the Optimization Review and support some of its recommendations. However, these recommendations have not been fully evaluated for their potential for success or improved efficacy of the remedy, and estimated costs provided in the report are believed to be conservatively low. The NIBW PCs support the adoption of some of the recommendations, as described in Section 11, while other recommendations will require significant additional evaluation. Implementation of the recommendations would be done voluntarily. In the context of ongoing discussions with EPA and the Technical Committee, the NIBW PCs will continue to evaluate both the current and potential future recommendations and consider implementation of high-value actions that reduce costs, increase efficiency, and comprise cost-effective ways to improve remedy performance.

10.4 GM&EP Update Process

In the October 2024 meeting of the Technical Committee (NIBW PCs, 2024f), the NIBW PCs presented a conceptual process for working together to develop a GM&EP Update. Previous discussions regarding updates to this more than 20-year-old document were stalled in 2019 when

priorities shifted to focusing on critical updates to the groundwater flow model and CSM in advance of the 2021 Five-Year Review and support for EPA's optimization evaluation of the Site. The Technical Committee agreed that timing was ripe for re-engaging on the GM&EP Update, since the Optimization Evaluation was released in November 2024 (EPA, 2024e) and any changes to the metrics would ideally be in place prior to the fourth Five-Year Review in 2026. A Working Group was formed, comprising technical representatives from EPA, ADEQ, the City of Scottsdale, SRP, and the NIBW PCs. The group has agreed to meet approximately once a month, and to the extent possible in person. Goals for the GM&EP Working Group are to ensure all updated metrics:

- Respond to ACD Performance Standards
- Focus on the most important areas of the Site
- Use best available science and practices
- Leverage updated tools and technology for improved evaluations
- Have longevity

The first Working Group meeting, which convened on December 9, 2024, focused on developing consensus around strategies for success and meeting structure, as well as understanding details of the UAU performance evaluation process currently in place. Responsive to UAU Performance Standards in the OU 2 CD, and in consideration of technical issues that have become apparent with the current UAU metrics as UAU groundwater approaches performance standards, the NIBW PCs presented potential alternative metrics for discussion by the group. Follow-up evaluations were requested for review in the January 2025 Working Group meeting.

Meetings for the GM&EP Update Working Group will continue into 2025 with the goal of developing consensus around updated metrics as appropriate in advance of the 2025 SMR. The completed GM&EP Update will fully describe the suite of updated Performance Criteria, Achievement Measures, Contingency Initiation Criteria, and Contingency Actions associated with the UAU, MAU/LAU, and Source Control Performance Standards. It will also provide an updated description of the compliance monitoring program and schedule for the Site.

10.5 Area 7 Vapor Intrusion Investigations

Based on findings in the second Five-Year Review (U.S. Army Corps of Engineers [USACE] on behalf of EPA, 2016), the NIBW PCs conducted activities to evaluate and address potential vapor intrusion risk at the Site in coordination with EPA between 2016 and 2018, with follow up activities focused on vapor intrusion risk ongoing at Area 7 between 2018 and 2023. On September 19, 2023, EPA sent Siemens and the City of Scottsdale a draft Administrative Order on Consent Letter and draft Statement of Work for a vapor intrusion RI/FS at Area 7. Following

receipt of these draft documents, the NIBW PCs developed an approach for the Area 7 RI/FS in coordination with the City of Scottsdale and EPA which included three virtual working meetings with EPA held on March 25, April 10, and April 19, and associated correspondence (EPA, 2024b; 2024c). The NIBW PCs submitted a draft Area 7 Vapor Intrusion Remedial Investigation/Feasibility Study Work Plan (Area 7 RI/FS Work Plan) to EPA on December 20, 2024, and is currently under review (NIBW PCs, 2024g). The draft Work Plan also included several documents required by the draft Statement of Work for a vapor intrusion RI/FS received from EPA, including: 1) Vadose Zone Previous Investigation Summary, 2) Vapor Intrusion CSM, 3) Vapor Intrusion RI/FS Work Plan, 4) Baseline Human Health Risk Assessment (HHRA) Work Plan, and 5) Preliminary Remedial Action Objectives, ARARs, and To Be Considered advisories (TBCs).

Activities pertaining to the evaluation and mitigation of vapor intrusion risk at the Site conducted by the NIBW PCs since 2016 are detailed in the work plan. In addition to preparing and submitting this document for review by EPA, the NIBW PCs conducted the following ongoing vapor intrusion-related activities at Area 7 in 2024:

- Conducted annual operation and maintenance inspection on vapor mitigation systems (VMS) in the four apartments in the northwest quadrant of the apartment complex located southeast from Area 7 in December 2024. The PCs verified that a vacuum was present beneath the floors of the four apartments that would prevent VI. The 2024 annual vapor mitigation system inspection report was submitted to EPA under a separate cover in February 2025.
- Conducted annual indoor air sampling at the apartments with mitigation systems in December 2024. Results of the indoor air monitoring reported no detectable TCE within any of the four apartments with mitigation systems for the second consecutive year. The laboratory detection limit was below the EPA residential screening level of 0.48 micrograms per cubic meter ($\mu g/m^3$). Indoor air data collected in December 2024 was submitted to EPA under separate cover in February 2025.

In addition to work being conducted by the NIBW PCs, EPA has taken the lead on assessing and mitigating TCE indoor air concentrations in an event center located on the northern portion of Area 7. Historical investigations and sampling conducted by EPA and the NIBW PCs in 2017 through 2024, and installation of a mitigation system by the event center owner in 2023 are documented both in the NIBW PCs Area 7 RI/FS Work Plan and in HGL's *2023 Area 7 Event Center Vapor Intrusion Technical Memorandum Summary Report* dated November 25, 2024. The NIBW PCs reviewed and prepared comments on this memorandum that were submitted to EPA on January 23, 2025 (HGL, 2024; NIBW PCs, 2025).

10.6 Emerging Contaminants

In recent years, many environmental sites have identified the presence of emerging contaminants such as 1,4-dioxane (1,4-DX) and PFAS in groundwater. While neither has been linked to historical NIBW Site operations that resulted in VOC impacts, the NIBW PCs have cooperated with EPA to investigate 1,4-DX and PFAS compounds at the NIBW Site. Previous sampling documented that 1,4-DX was not a COC at the Site, and no further sampling for 1,4-DX is planned. Details on the 1,4-DX investigation are included in the 2022 SMR. Work conducted prior to 2024 to evaluate PFAS compounds at the Site included:

- In 2017, at EPA's request, the City of Scottsdale analyzed samples from each of the CGTF wells and PCX-1 for 21 PFAS compounds, including PFOA and PFOS. Results were all significantly below EPA's then-applicable combined PFOA/PFOS health goal of 70 ppt and interim trigger level of 40 ppt individually for PFOA and PFOS.
- In 2022, the City of Scottsdale sampled active extraction wells COS-75A, COS-72, and PCX-1 for PFOA, PFOS, and perfluorobutane sulfonic acid (PFBS) in response to the release of new EPA health advisories. Results for PFOA and PFOS at each of the wells sampled exceeded then-applicable health advisories.
- In 2023, the City of Scottsdale again sampled the CGTF and NGTF extraction wells for PFAS. Results showed that three of the CGTF extraction wells for two of the PFAS compounds slightly above the new MCLs promulgated by EPA on April 10, 2024. Laboratory analyses indicated CGTF extraction wells COS-72 and COS-75A showed exceedances for the PFOS MCL of 4 ppt (6.10 and 7.02 ppt, respectively); and CGTF extraction wells COS-71A and COS-72 were found to be above the 4 ppt MCL for PFOA (5.28 and 4.32 ppt, respectively). No other PFAS compounds in these wells exceeded the established numerical MCLs and none of the wells were above the Hazard Index of 1 for other PFAS compounds. The treated water from both the CGTF and NGTF showed non-detect results for PFAS as it entered the drinking water system for the City of Scottsdale.

In 2024, the NIBW PCs voluntarily conducted PFAS sampling for both treatment systems, active extraction wells, and monitoring wells, as detailed below.

In response to a request from EPA to conduct sampling for PFAS at the NIBW Site and consistent with associated discussions in the Technical Committee meeting on March 18, 2024, the NIBW PCs agreed to voluntarily sample the NIBW treatment systems and associated active extraction wells for PFAS during the April-June 2024 quarterly monitoring event (EPA, 2024a; NIBW PCs, 2024a). Results of these samples were shared with the Technical Committee and presented on June 12, 2024. Results showed that extraction wells not previously sampled by the City of Scottsdale were all below their respective MCLs for PFAS. Extraction well samples and

treatment system process samples (influent and effluent) collected from the NGTF, MRTF, Area 7, and Area 12 were all below the PFAS MCLs. Samples of post-treatment water from the CGTF, which is blended with TGTF RO-treated water, were also below the MCL.

In the July 2024 Technical Committee meeting the NIBW PCs committed to sampling a subset of strategically selected wells across the three alluvial units during the October 2024 annual site monitoring event. The SIBW *Final QAPP for Remedial Investigation/Feasibility Study and Remedial Action Oversight* and the *Final Phase 1A/1B Remedial Investigation Field Sampling Plan* (SIBW QAPP-FSP) were prepared by HGL to assess the impacts of PFAS at the SIBW Superfund Site through an ongoing RI/FS process. The NIBW PCs prepared an Addendum (QAPP FSP Addendum) to the SIBW QAPP-FSP which was submitted to EPA on September 25, 2024 in preparation for the monitoring well sampling event (HGL, 2023a, 2023b; NIBW PCs, 2024d).

The NIBW PCs sampled a total of 43 monitoring wells in October 2025, including:

- 8 UAU wells
- 15 MAU wells
- 2 Lower MAU wells
- 1 MAU/LAU well
- 17 LAU wells

Results of the April extraction and treatment system sampling and the October monitoring well sampling events are undergoing data validation and an internal review process. Following completion of this process, results will be submitted to EPA in a subsequent PFAS data report.

11 CONCLUSIONS AND RECOMMENDATIONS

Data collected and evaluated throughout 2024 indicate that the NIBW treatment facilities continue to effectively remove COC mass from groundwater. Treated groundwater from NIBW is put to beneficial use by reinjection or use as irrigation or municipal supply. Additionally, higher concentration areas of the plume area continue to decrease over time, with TCE concentrations showing no trends, stable trends, or decreasing trends at the majority of wells in all three alluvial units. UAU groundwater is approaching restoration. With no detections of TCE in UAU monitoring wells for 3 consecutive years, the NIBW PCs may submit a request to EPA in 2025 to initiate a formal closure process for the UAU, in accordance with the OU 2 CD. As required by Performance Standards in the Amended CD SOW, containment is being achieved both for the MAU/LAU Program and the MAU Source Control Programs. In 2024, all GM&EP metrics were achieved for the UAU Program, the MAU/LAU Program, and the Northern LAU program, and half were achieved for the Source Control Programs. Exceptions are discussed in Section 9.6 and tracked carefully to ensure ongoing protectiveness of the remedy. In the limited cases where increasing concentrations are observed, conditions will be monitored and evaluated for consistency with the Site containment Performance Standards to ensure protection of peripheral production wells. To make the most up to date and comprehensive information package possible available to the 2026 Five-Year Review team, the CSM and groundwater flow model will be critically evaluated and updated in 2025. Recommendations for 2025 are summarized below.

Ongoing Evaluation of Selected Optimization Review Recommendations:

- The Optimization Review concluded that quarterly monitoring may be more frequent than necessary for a remedy at this mature stage of operation. The NIBW PCs agree with the recommendation to re-evaluate monitoring well frequency and are working closely with EPA to update the GM&EP, which dictates the frequency of monitoring. The NIBW PCs are hopeful that the GM&EP Update can be completed and approved in 2025 for implementation in 2026.
- The NIBW PCs agree that frequency of data analysis, review, and meetings may be higher than needed at this remedial stage, increasing program costs. Reductions should be evaluated as appropriate, including reduced meeting frequency between significant events or deliverables and collaborative sharing of information in advance of formal reports to reduce need for and extent of comments and revisions.
- The NIBW PCs agree that more work is needed to increase the understanding of the nature and extent of PFAS at the Site and are committed to voluntarily evaluating existing and new data from both the NIBW and South Indian Bend Wash Sites toward this end. However, the NIBW PCs believe that attention needs to be paid to potential

sources unrelated to the industrial activities that resulted in VOC impacts to groundwater at the NIBW Site. Working with EPA and other parties, if data point to sources other than the NIBW PCs (Motorola, Siemens, and Glaxo SmithKline), the NIBW PCs anticipate support from EPA to conduct or identify appropriate parties to conduct any required further evaluation related to PFAS.

Progress Toward Implementation of Additional Site Priorities:

- Complete a comprehensive update to the NIBW groundwater flow model, addressing comments from EPA on the previous groundwater flow modeling draft report (M&A, 2023) and documenting model structure, assumptions, and findings in a report to be approved by EPA in time for use by Five-Year Review team.
- Complete a comprehensive update to the Site CSM, adding data from 2020 through 2024, and completing a report for approval by EPA in time for use by the Five-Year Review team.
- Support efforts to bring modified extraction well COS-71A back online as an MAU-only extraction well in a high-priority pumping position to augment capture of the MAU plume associated with Area 7.
- Continue to support property access and permitting efforts to facilitate conversion of monitoring well PG-41MA/LA to an extraction well with tie-in to treatment at the NGTF.
- Continue to engage with EPA and the Technical Committee through regular meetings of the GM&EP Working Group to develop revised metrics and a monitoring plan that better reflect the status and needs of the Site as part of a comprehensive update to the GM&EP.
- Finalize the treatment system and well O&M Plans into the Sitewide O&M Plan, and finalize updates to the associated CERPs, in accordance with the NIBW Amended CD Statement of Work.
- Complete and submit to EPA for their records copies of both the 2025 Phase I Health & Safety Plan for sitewide groundwater monitoring activities and the update of the Phase II Health & Safety Plan for the NIBW treatment systems.

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13 ACRONYMS & ABBREVIATIONS

% .....percent
µg/L.....micrograms per liter
µg/m^3.....micrograms per cubic meter
1,1-DCE 1,1-dichloroethene
1,1,1-TCA 1,1,1-Trichloroethane
1,4-DX 1,4-dioxane
3D.....three-dimensional
AB .....abandoned
ADEQ .....Arizona Department of Environmental Quality
ADHS.....Arizona Department of Health Services
ADWR .....Arizona Department of Water Resources
AF .....acre-feet
amsl.....above mean sea level
APP .....Aquifer Protection Permit
AVI .....Arcadia Vista Improvement
AWC .....Arcadia Water Company
AZCO.....Arizona Canal Outfall Sample Identifier
AZPDES .....Arizona Pollutant Discharge Elimination System
CD.....Consent Decree
CERP.....Contingency and Emergency Response Plan
CGTF .....Central Groundwater Treatment Facility
CMR.....Compliance Monitoring Report
COCs.....Constituent of Concern
COS.....City of Scottsdale
COT.....City of Tempe
CSM .....Conceptual Site Model
CWTP .....Chaparral Water Treatment Plant
DMR .....Discharge Monitoring Reports
eff .....effluent
EPA.....U.S. Environmental Protection Agency
EPCOR.....EPCOR Water USA
Eurofins.....Eurofins Environment Testing Southwest
FSA .....Feasibility Study Addendum
GAC .....Granular Activated Carbon
GM&EP .....Groundwater Monitoring and Evaluation Plan
gpm .....gallons per minute
GRUSP.....Granite Reef Underground Storage Project
GWETS.....Groundwater Extraction and Treatment System

HGL .....HydroGeoLogic, Inc.
HHRA .....Human Health Risk Assessment
HydraSleeve...HydraSleeve™ technology method
IBGC .....Indian Bend Golf Course
ID .....identifier
inf.....influent
LAU .....Lower Alluvial Unit
LRE.....Leonard Rice Engineers
M&A.....Montgomery & Associates
MAU .....Middle Alluvial Unit
MCL.....Maximum Contaminant Level
MDWC.....McDowell Mountain Water Company
MG .....Million Gallons
MRL.....Method Reporting Limit
MRTF.....Miller Road Treatment Facility
NA.....Not available
NGTF .....NIBW Granular Activated Carbon Treatment Facility
NGTF-CP.....NGTF Effluent Chaparral Compliance Point Sample Identifier
NIBW.....North Indian Bend Wash
N.I.S. .....Not in service
O&M.....Operation & Maintenance
OU.....Operable Unit
PACE .....PACE Analytical National Center for Testing & Innovation
PCE .....Tetrachloroethene
PCs.....Participating Companies
PE.....Performance Evaluation
PFAS.....poly fluorinated alkyl substances
PFBS .....perfluorobutane sulfonic acid
PFOA .....perfluorooctanoic acid
PFOS.....perfluorooctane sulfonate
ppt .....parts per trillion
QA.....quality assurance
QAPP .....quality assurance project plan
QRIA.....Quail Run Irrigation District
RAOs.....Remedial Action Objective
RI/FS.....Remedial Investigation Feasibility Study
RO.....reverse osmosis
ROD.....Record of Decision
SAP .....Sampling and Analysis Plan
SCC.....Scottsdale Community College

SGS .....soil gas sampling
SMR .....Site Monitoring Report
SOW.....Statement of Work
SRIR.....Salt River Indian Reservation
SRP .....Salt River Project
SRPMIC.....Salt River Pima-Maricopa Indian Community
SVE.....Soil Vapor Extraction
TCE.....Trichloroethene
TCM.....chloroform
TGTF.....Thomas Groundwater Treatment Facility
UAU.....Upper Alluvial Unit
UIC.....Underground Injection Control
USACE .....U.S. Army Corps of Engineers
UV/OX.....Ultraviolet Oxidation
VMS.....Vapor Mitigation Systems
VOC .....Volatile Organic Compound

APPENDIX A
WELL INFORMATION AND SAMPLING FREQUENCY

Table A-1. Summary of Compliance Groundwater Monitoring Frequency
North Indian Bend Wash Area, Scottsdale, Arizona

Well Identifier	Well Type	Aquifer Unit	Water Quality Monitoring Frequency	Water Level Monitoring Frequency
7EX-3aMA	Extraction	MAU	Quarterly	---
7EX-6MA	Extraction	MAU	Quarterly	---
COS-31	Extraction	MAU/LAU	Monthly	---
COS-71A	Extraction	MAU	Monthly	---
COS-72	Extraction	MAU/LAU	Monthly	---
COS-75A	Extraction	LAU	Monthly	---
Granite Reef	Extraction	MAU	Quarterly	---
MEX-1MA	Extraction	MAU	Quarterly	---
PCX-1	Extraction	LAU	Monthly	---
PV-14	Extraction	LAU	Monthly	Continuous
PV-15	Extraction	MAU/LAU	Monthly	Continuous
PV-11	Production	LAU	---	Continuous
PV-17	Production	LAU	---	Continuous
B-1MA	Monitoring	MAU	---	Semi-Annually
B-1UA	Monitoring	UAU	---	Annually
B-J	Monitoring	UAU	Annually	Annually
D-4MA	Monitoring	MAU	Quarterly	Semi-Annually
E-1LA	Monitoring	LAU	---	Semi-Annually
E-1MA	Monitoring	MAU	Quarterly	Semi-Annually
E-1UA	Monitoring	UAU	---	Annually
E-2UA	Monitoring	UAU	---	Annually
E-5MA	Monitoring	MAU	Quarterly	Semi-Annually
E-5UA	Monitoring	UAU	Annually	Annually
E-6UA	Monitoring	UAU	---	Annually
E-7LA	Monitoring	LAU	Annually	Semi-Annually
E-7UA	Monitoring	UAU	Annually	Annually
E-8MA	Monitoring	MAU	Annually	Semi-Annually
E-10MA	Monitoring	MAU	Quarterly	Semi-Annually
E-12UA	Monitoring	UAU	Annually	Annually
E-13UA	Monitoring	UAU	Annually	Annually
E-14MA/LA	Monitoring	LAU	---	Semi-Annually
M-1MA	Monitoring	MAU	---	Semi-Annually
M-2LA	Monitoring	LAU	---	Semi-Annually
M-2MA	Monitoring	MAU	Annually	Semi-Annually
M-2UA	Monitoring	UAU	Annually	Annually
M-3MA	Monitoring	MAU	---	Semi-Annually
M-4MA	Monitoring	MAU	Quarterly	Semi-Annually
M-5LA	Monitoring	LAU	Annually	Semi-Annually
M-5MA	Monitoring	MAU	Quarterly	Semi-Annually

Table A-1. Summary of Compliance Groundwater Monitoring Frequency
North Indian Bend Wash Area, Scottsdale, Arizona

Well Identifier	Well Type	Aquifer Unit	Water Quality Monitoring Frequency	Water Level Monitoring Frequency
M-6MA	Monitoring	MAU	Quarterly	Semi-Annually
M-7MA	Monitoring	MAU	Annually	Semi-Annually
M-9LA	Monitoring	LAU	---	Semi-Annually
M-9MA	Monitoring	MAU	Annually	Semi-Annually
M-10LA2	Monitoring	LAU	Annually	Continuous
M-10MA2	Monitoring	MAU	Quarterly	Continuous
M-11MA	Monitoring	MAU	Annually	Semi-Annually
M-12MA2	Monitoring	MAU	Annually	Semi-Annually
M-14LA	Monitoring	LAU	Annually	Semi-Annually
M-14MA	Monitoring	MAU	---	Semi-Annually
M-15MA	Monitoring	MAU	Quarterly	Semi-Annually
M-16LA	Monitoring	LAU	Annually	Semi-Annually
M-16MA	Monitoring	MAU	Annually	Semi-Annually
M-17MA/LA	Monitoring	MAU/LAU	Quarterly	Semi-Annually
PA-1MA	Monitoring	MAU	---	Semi-Annually
PA-2LA	Monitoring	LAU	Annually	Semi-Annually
PA-3MA	Monitoring	MAU	---	Semi-Annually
PA-4MA	Monitoring	MAU	---	Semi-Annually
PA-5LA	Monitoring	LAU	Quarterly	Semi-Annually
PA-6LA	Monitoring	LAU	Quarterly	Semi-Annually
PA-7MA	Monitoring	MAU	---	Semi-Annually
PA-8LA2	Monitoring	LAU	Annually	Continuous
PA-9LA	Monitoring	LAU	Annually	Semi-Annually
PA-10MA	Monitoring	MAU	Quarterly	Semi-Annually
PA-11LA	Monitoring	LAU	Annually	---
PA-11LA2	Monitoring	LAU	---	Continuous
PA-12MA	Monitoring	MAU	Quarterly	---
PA-12MA2	Monitoring	MAU	---	Continuous
PA-13LA	Monitoring	LAU	Quarterly	Continuous
PA-14MA	Monitoring	MAU	---	Semi-Annually
PA-15LA	Monitoring	LAU	Annually	Semi-Annually
PA-16MA	Monitoring	MAU	Annually	Semi-Annually
PA-17MA2	Monitoring	MAU	---	Semi-Annually
PA-18LA	Monitoring	LAU	Annually	Semi-Annually
PA-19LA	Monitoring	LAU	Annually	Semi-Annually
PA-20MA	Monitoring	MAU	Annually	Semi-Annually
PA-21MA	Monitoring	MAU	Annually	Semi-Annually
PA-22LA	Monitoring	LAU	---	Semi-Annually
PA-23MA	Monitoring	MAU	---	Semi-Annually
PG-1LA	Monitoring	LAU	Quarterly	Semi-Annually

Table A-1. Summary of Compliance Groundwater Monitoring Frequency
North Indian Bend Wash Area, Scottsdale, Arizona

Well Identifier	Well Type	Aquifer Unit	Water Quality Monitoring Frequency	Water Level Monitoring Frequency
PG-2LA	Monitoring	LAU	Semi-Annually	Continuous
PG-4MA	Monitoring	MAU	Annually	Semi-Annually
PG-4UA	Monitoring	UAU	Annually	Annually
PG-5MA	Monitoring	MAU	Annually	Semi-Annually
PG-5UA	Monitoring	UAU	Annually	Annually
PG-6MA	Monitoring	MAU	Annually	Semi-Annually
PG-6UA	Monitoring	UAU	Annually	Annually
PG-7MA	Monitoring	MAU	Annually	Semi-Annually
PG-7UA	Monitoring	UAU	---	Annually
PG-8UA	Monitoring	UAU	Annually	Annually
PG-10UA	Monitoring	UAU	Annually	Annually
PG-11UA	Monitoring	UAU	Annually	Annually
PG-16UA	Monitoring	UAU	Annually	Annually
PG-18UA	Monitoring	UAU	Annually	Annually
PG-19UA	Monitoring	UAU	Annually	Annually
PG-22UA	Monitoring	UAU	Annually	Annually
PG-23MA/LA	Monitoring	MAU/LAU	Annually	Semi-Annually
PG-23UA	Monitoring	UAU	Annually	Annually
PG-24UA	Monitoring	UAU	Annually	Annually
PG-25UA	Monitoring	UAU	Annually	Annually
PG-28UA	Monitoring	UAU	Annually	Annually
PG-29UA	Monitoring	UAU	Annually	Annually
PG-30UA	Monitoring	UAU	---	Annually
PG-31UA	Monitoring	UAU	Annually	Annually
PG-38MA/LA	Monitoring	MAU/LAU	Annually	Semi-Annually
PG-39LA	Monitoring	LAU	Annually	Semi-Annually
PG-40LA	Monitoring	LAU	Quarterly	Semi-Annually
PG-41MA/LA	Monitoring	MAU/LAU	---	Continuous
PG-42LA	Monitoring	LAU	Quarterly	Continuous
PG-43LA	Monitoring	LAU	Quarterly	Semi-Annually
PG-44LA	Monitoring	LAU	Quarterly	Continuous
PG-47MA	Monitoring	MAU-Lower	---	Semi-Annually
PG-48MA	Monitoring	MAU-Lower	Quarterly	Semi-Annually
PG-50MA	Monitoring	MAU-Lower	Annually	Semi-Annually
PG-51MA	Monitoring	MAU-Lower	---	Semi-Annually
PG-53MA	Monitoring	MAU-Lower	Annually	---
PG-54MA	Monitoring	MAU-Lower	Annually	---
PG-55MA	Monitoring	MAU-Lower	Annually	---
PG-56MA	Monitoring	MAU-Lower	Annually	---
S-1LA	Monitoring	LAU	Annually	Semi-Annually
S-1MA	Monitoring	MAU	Annually	Semi-Annually

Table A-1. Summary of Compliance Groundwater Monitoring Frequency
North Indian Bend Wash Area, Scottsdale, Arizona

Well Identifier	Well Type	Aquifer Unit	Water Quality Monitoring Frequency	Water Level Monitoring Frequency
S-2LA	Monitoring	LAU	Quarterly	Continuous
S-2MA	Monitoring	MAU	Annually	Semi-Annually
W-1MA	Monitoring	MAU	Quarterly	Semi-Annually
W-2MA	Monitoring	MAU	Quarterly	Semi-Annually

EXPLANATION:

UAU = Upper Alluvial Unit
MAU = Middle Alluvial Unit
LAU = Lower Alluvial Unit
MAU-Lower = Lower Middle Alluvial Unit

NOTES:

1) Extraction wells are only sampled when operating during sampling event.

Table A-2. Summary Well Construction Details for NIBW Monitoring and Extraction Wells
North Indian Bend Wash Area, Maricopa County, Arizona

Well Name	Cadastral Location	ADWR Registration Number	Completion Date	Borehole Depth (ft, bls)	Well Total Depth (ft, bls)	Casing				Sampling Method	Pump Intake (ft, bls)	Latitude[1]	Longitude[1]	Land Surface Elevation (ft)[2]
						Diameter (inches)	Type	Depth Interval (ft, bls)	Perforated Interval (ft, bls)					
MONITORING WELLS:														
B-1MA	(A-1-4) 2ddd1	55-510690	04/19/85	305	300	14 8 5	steel	0-20 +1-250 +1.2-300	--- --- 250-300	Not Sampled	---	33.451897	-111.909709	1191.63
B-1UA	(A-1-4) 2ddd2	55-510691	05/01/85	122	122	6 4	steel	0-21 0-122	--- 72-122	Not Sampled	---	33.451900	-111.909567	1191.71
B-J	(A-1-4) 2dbd1	55-510693	05/20/85	114	114	8 4	steel	0-20 0-114	--- 64-114	Pump	Unknown	33.456741	-111.914229	1192.23
D-2MA	(A-2-4) 26bda1	55-529966	11/30/90	260	248	6 4	steel	0-20 0-248	--- 195-248	Not Sampled	---	33.490409	-111.918842	1240.03
D-4MA	(A-2-4) 26bda	55-240174	01/25/99	250	250	4	PVC	0-249.5	163.5-175 184-189.5 214.5-224 230-249.5	Pump	221	33.490465	-111.918839	1240.03
E-1LA	(A-1-4) 1abb1	55-510220	05/14/85	749	749	10 6 4	steel	+1-20 0-695 0-749	--- --- 689-749 [3]	Not Sampled	280	33.465686	-111.899727	1215
E-1MA	(A-1-4) 1abb2	55-510221	05/23/85	300	300	10 6 4	steel	+1-20 0-250 0-300	--- --- 250-300	Pump	Unknown	33.465689	-111.899631	1214.36
E-1UA	(A-1-4) 1abb3	55-510222	05/24/85	150	128	6 4	steel	+1-20 0-128	--- 78-128	Not Sampled	117	33.465689	-111.899799	1215.36
E-2UA	(A-2-4) 35daa1	55-510208	05/29/85	161	150	6 4	steel	+1-20 0-150	--- 97-150	Not Sampled	---	33.471792	-111.909791	1226.55
E-5MA	(A-1-4) 2acd2	55-520077	09/30/88	305	300	10 6 4	steel	+11-21 +1-250 +0.5-300	--- --- 250-300	Pump	210	33.460212	-111.914192	1199.43
E-5UA	(A-1-4) 2acd1	55-510210	06/02/85	132	132	6 4	steel	0-20 0-132	--- 78-132	HydraSleeve	---	33.460180	-111.914195	1199.55
E-6UA	(A-2-4) 35cbd	55-520079	09/02/88	167	160	10 4	steel	+1-21 +0.5-160	--- 120-160	Not Sampled	147	33.470253	-111.922033	1222.29
E-7LA	(A-1-4) 2abb2	55-520076	09/23/88	632	600	10 6 4	steel	+1-21 +1-530 +0.5-600	--- --- 550-600	Pump	Unknown	33.465112	-111.916059	1197.79
E-7UA	(A-1-4) 2abb3	55-520078	10/18/88	143	130	10 4	steel	+1-21 +0.5-130	--- 100-130	HydraSleeve	---	33.465297	-111.916109	1197.4
E-8MA	(A-1-4) 2dbd2	55-520075	10/24/88	315	300	10 6 4	steel	+1-21 +1-250 +1-300	--- --- 250-300	Pump	Unknown	33.456716	-111.914187	1192.89
E-10MA	(A-2-4) 26bcc	55-521791	07/23/88	369	300	10 4	steel	0-20 0-300	--- 250-300	HydraSleeve	---	33.488454	-111.925249	1243.86
E-12UA	(A-1-4) 2dad	55-523247	01/26/89	125	120	6 4	steel	0-20 0-125	--- 90-120	HydraSleeve	---	33.456015	-111.909780	1203.62
E-13UA	(A-1-4) 1cbb	55-523302	03/15/89	121	120	6 4	steel	0-20 20-121	--- 90-120	HydraSleeve	---	33.458239	-111.908174	1208.62
E-14MA/LA	(A-2-4) 34bad	55-521514	06/26/88	310	310	4	steel	0-310	290-310	Not Sampled	---	33.476826	-111.935063	1253.95
M-1MA	(A-1-4) 1bad2	55-507300	04/03/84	302	302	10 6 4	steel	+1-20 0-252 0-302	--- --- 252-302	Not Sampled	---	33.462270	-111.901285	1210.89

Table A-2. Summary Well Construction Details for NIBW Monitoring and Extraction Wells
North Indian Bend Wash Area, Maricopa County, Arizona

Well Name	Cadastral Location	ADWR Registration Number	Completion Date	Borehole Depth (ft, bls)	Well Total Depth (ft, bls)	Casing				Sampling Method	Pump Intake (ft, bls)	Latitude[1]	Longitude[1]	Land Surface Elevation (ft)[2]
						Diameter (inches)	Type	Depth Interval (ft, bls)	Perforated Interval (ft, bls)					
M-2LA	(A-1-4) 1bcc3	55-518239	09/29/87	710	710	10 6 4	steel	+1-20 0-659 0-710	--- --- 659-710	Not Sampled	Unknown	33.458837	-111.907445	1210.22
M-2MA	(A-1-4) 1bcc1	55-507296	04/09/84	303	303	10 6 4	steel	+1-21 0-251 0-303	--- --- 251-303	HydraSleeve	---	33.458873	-111.907681	1210.05
M-2UA	(A-1-4) 1bcc2	55-507303	04/12/84	125	121	6 4	steel	+1.5-21 0-121	--- 79-121	HydraSleeve	---	33.458864	-111.907596	1210.17
M-3MA	(A-1-4) 1bdd1	55-507294	04/19/84	303	303	10 6 4	steel	+1.5-21 0-250 0-303	--- --- 250-303	Not Sampled	Unknown	33.458762	-111.901552	1205.54
M-4MA	(A-1-4) 1bdb2	55-507295	04/26/84	302	302	10 6 4	steel	+1.5-19 0-251 0-302	--- --- 251-302	HydraSleeve	---	33.462226	-111.904554	1214.89
M-5LA	(A-1-4) 1bba3	55-518240	10/07/87	750	750	10 6 4	steel	+1-20 0-702 0-748	--- --- 700-750	Pump	Unknown	33.465492	-111.906038	1217.45
M-5MA	(A-1-4) 1bba1	55-507304	04/30/84	302	302	10 6 4	steel	+1.5-19 0-251 0-302	--- --- 250-302	Pump	260	33.465528	-111.906146	1217.42
M-6MA	(A-1-4) 1baa1	55-507298	05/09/84	302	302	10 6 4	steel	+1.5-19 0-251 0-302	--- --- 249-302 [3]	Pump	260	33.465651	-111.901275	1216.98
M-7MA	(A-1-4) 1bad3	55-507299	05/18/84	300	300	10 6 4	steel	+1-10 0-250 0-300	--- --- 258-300	Pump	Unknown	33.464102	-111.900938	1213.87
M-9LA	(A-2-4) 36dba3	55-518243	08/27/87	835	835	10 6 4	steel	+1-20 0-777 0-835	--- --- 777-835	Not Sampled	Unknown	33.472741	-111.896258	1220.52
M-9MA	(A-2-4) 36dba1	55-509772	03/27/85	302	302	10 4	steel	0-20 0-302	--- 249-302	Pump	260	33.472553	-111.896187	1220.51
M-10LA2	(A-2-4) 35ddc5	55-905027	10/23/06	720	700	5	steel	0.5-700	650-700	HydraSleeve	---	33.466086	-111.911519	1219.7
M-10MA2	(A-2-4) 35ddc4	55-905026	10/23/06	310	300	5	steel	0.5-300	250-300	Pump	210.5	33.466088	-111.911211	1220.05
M-11MA	(A-2-4) 35dba	55-509773	04/11/85	300	300	10 4	steel	0-18 0-300	--- 245-300	Pump	260	33.471516	-111.914409	1211.58
M-12MA2	(A-2-4) 26dda4	55-906269	02/07/07	301	299	5	steel	0-299	250-299	HydraSleeve	---	33.483832	-111.910129	1227.92
M-14LA	(A-2-4) 35daa2	55-518241	10/19/87	721	720	10 6 4	steel	+1-20 0-670 0-721	--- --- 679-720	HydraSleeve	---	33.471794	-111.909596	1226.22
M-14MA	(A-2-4) 35daa3	55-518242	10/22/87	302	302	10 6 4	steel	+1-20 0-251 0-302	--- --- 251-302	Not Sampled	---	33.471793	-111.909696	1226.34
M-15MA	(A-2-4) 36cdc1	55-518802	10/28/87	300	300	10 6 4	steel	+1-20 0-251 0-300	--- --- 251-300	Pump	210	33.467612	-111.903534	1218.9
M-16LA	(A-2-4) 36bca1	55-518799	11/11/87	779	779	10 6 4	steel	+1-20 0-729 0-779	--- --- 729-779	HydraSleeve	---	33.475689	-111.904934	1228
M-16MA	(A-2-4) 36bca2	55-518800	11/19/87	300	300	10 6 4	steel	+1-20 0-250 0-300	--- --- 250-300	Pump	Unknown	33.475782	-111.904940	1228.14

Table A-2. Summary Well Construction Details for NIBW Monitoring and Extraction Wells
North Indian Bend Wash Area, Maricopa County, Arizona

Well Name	Cadastral Location	ADWR Registration Number	Completion Date	Borehole Depth (ft, bls)	Well Total Depth (ft, bls)	Casing				Sampling Method	Pump Intake (ft, bls)	Latitude[1]	Longitude[1]	Land Surface Elevation (ft)[2]
						Diameter (inches)	Type	Depth Interval (ft, bls)	Perforated Interval (ft, bls)					
M-17MA/LA	(A-2-4) 34aca	55-594864	10/31/02	301	300	4	steel	0-300	250-300	HydraSleeve	---	33.473933	-111.927866	1237.7
PA-1MA	(A-2-4) 25ddc1	55-526966	03/23/90	301	301	10 6 4	steel	0-20 0-251 0-301	--- --- 241-301 [3]	Not Sampled	---	33.480586	-111.894394	1225.5
PA-2LA	(A-2-4) 24acb1	55-526957	04/04/90	898	898	10 6 4	steel	0-20 0-845 0-898	--- --- 835-898 [3]	Pump	477	33.503743	-111.899419	1253.75
PA-3MA	(A-2-4) 24acb2	55-526956	04/10/90	300	300	10 6 4	steel	0-20 0-250 0-300	--- --- 240-300 [3]	Not Sampled	---	33.503743	-111.899489	1253.44
PA-4MA	(A-2-4) 23ddd3	55-526954	04/13/90	300	300	10 6 4	steel	0-20 0-250 0-300	--- --- 240-300 [3]	Not Sampled	---	33.496748	-111.910162	1230.91
PA-5LA	(A-2-4) 23ddd4	55-526955	04/25/90	802	802	10 6 4	steel	0-20 0-750 0-802	--- --- 742-802 [3]	Pump	441	33.496804	-111.910083	1229.44
PA-6LA	(A-2-4) 23adb1	55-526949	05/07/90	770	770	10 6 4	steel	0-20 0-730 0-770	--- --- 720-770 [3]	HydraSleeve	---	33.504101	-111.913175	1252.92
PA-7MA	(A-2-4) 23adb2	55-526948	05/11/90	302	302	10 6 4	steel	0-20 0-252 0-302	--- --- 252-302 [3]	Not Sampled	Unknown	33.504191	-111.913175	1253.06
PA-8LA2	(A-2-4) 26dda5	55-906270	02/12/07	754	751	5	steel	0-751	700-751	Pump	365	33.483905	-111.910128	1228.33
PA-9LA	(A-2-4) 26ccb1	55-526951	06/01/90	681	681	10 6 4	steel	0-20 0-630 0-681	--- --- 630-681	HydraSleeve	---	33.483704	-111.924057	1236.78
PA-10MA	(A-2-4) 26ccb2	55-526950	06/06/90	300	300	10 6 4	steel	0-20 0-250 0-300	--- --- 240-300 [3]	HydraSleeve	---	33.483601	-111.924053	1236.79
PA-11LA	(A-2-4) 35bdb1	55-526961	06/15/90	585	585	10 6 4	steel	0-20 0-535 0-585	--- --- 525-585 [3]	Pump	273	33.476466	-111.921734	1223.19
PA-11LA2	(A-2-4) 35bdb3	55-906271	05/01/07	590	585	2	PVC	585	525-585	Not Sampled	---	33.476586	-111.921734	1224.95
PA-12MA	(A-2-4) 35bdb2	55-526960	06/21/90	300	300	10 6 4	PVC	0-20 0-250 0-300	--- --- 240-300 [3]	Pump	231	33.476540	-111.921733	1223.29
PA-12MA2	(A-2-4) 35bdb3	55-906271	05/01/07	590	301	2	steel	301	240-301	Not Sampled	---	33.476586	-111.921734	1224.95
PA-13LA	(A-2-4) 23cdd1	55-526953	07/23/90	710	710	6 4	steel	0-660 0-710	--- 650-710 [3]	Pump	462	33.496065	-111.919461	1248.98
PA-14MA	(A-2-4) 23cdd2	55-526952	07/27/90	306	305	10 6 4	steel	+0.5-20 0-255 0-305	--- --- 245-305 [3]	Not Sampled	---	33.496181	-111.919460	1249.08
PA-15LA	(A-1-4) 2cdb2	55-526965	08/03/90	525	525	10 6 4	steel	+1-20 0-475 0-525	--- --- 465-525 [3]	HydraSleeve	---	33.454336	-111.920851	1204.27
PA-16MA	(A-1-4) 2cdb3	55-526964	08/10/90	302	302	10 6 4	steel	+1-20 0-250 0-302	--- --- 242-302 [3]	HydraSleeve	---	33.454439	-111.920845	1204.47

Table A-2. Summary Well Construction Details for NIBW Monitoring and Extraction Wells
North Indian Bend Wash Area, Maricopa County, Arizona

Well Name	Cadastral Location	ADWR Registration Number	Completion Date	Borehole Depth (ft, bls)	Well Total Depth (ft, bls)	Casing				Sampling Method	Pump Intake (ft, bls)	Latitude[1]	Longitude[1]	Land Surface Elevation (ft)[2]
						Diameter (inches)	Type	Depth Interval (ft, bls)	Perforated Interval (ft, bls)					
PA-17MA2	(A-2-4) 25acc1	55-223679	07/10/14	305	303	2.375	PVC	0-303	243-303	Not Sampled	---	33.489903	-111.898958	1238.7
PA-18LA	(A-2-4) 25acc2	55-526963	08/28/90	840	840	10 6 4	steel	+0.5-20 0-795 0-845	--- --- 780-840 [3]	HydraSleeve	---	33.490250	-111.900068	1238.86
PA-19LA	(A-1-4) 2bba3	55-526959	09/13/90	405	405	10 6 4	steel	+1-20 0-355 0-405	--- --- 345-405 [3]	Pump	240	33.465528	-111.923724	1221.46
PA-20MA	(A-1-4) 2bba2	55-526958	09/19/90	260	260	10 6 4	steel	+1-20 0-210 0-260	--- --- 200-260 [3]	Pump	220	33.465528	-111.923618	1221.28
PA-21MA	(A-2-4) 36add	55-526967	09/28/90	302	302	10 6 4	steel	+1-20 0-250 0-302	--- --- 242-302 [3]	HydraSleeve	---	33.474963	-111.891986	1225.19
PA-22LA	(A-1-4) 11adb1	55-526969	10/01/90	635	635	6 4	steel	0-584 0-635	--- 574-635 [3]	Not Sampled	---	33.447509	-111.912847	1183.99
PA-23MA	(A-1-4) 11adb2	55-526968	10/19/90	300	300	10 6 4	steel	+1-20 0-250 0-300	--- --- 240-300 [3]	Not Sampled	---	33.447595	-111.912772	1184.42
PG-1LA	(A-2-4) 14dda	55-533846	12/30/91	810	809	10 6 4	steel	0-20 0-757 0-809	--- --- 754-809 [3]	Pump	483	33.512941	-111.909137	1249.66
PG-2LA	(A-2-4) 14cda1	55-533845	01/14/92	763	762	10 6 4	steel	0-20 0-710 0-762	--- --- 710-762	Pump	483	33.512932	-111.917459	1271.05
PG-4MA	(A-1-4) 3aad1	55-534407	03/05/92	303	225	10 4	steel	0-20 0-225	--- 183-225	Pump	200	33.462157	-111.927272	1227.47
PG-4UA	(A-1-4) 3aad2	55-534408	03/10/92	172	172	6 4	steel	0-20 0-172	--- 140-172	HydraSleeve	---	33.462154	-111.927351	1227.68
PG-5MA	(A-1-4) 2bca1	55-534411	03/18/92	503	301	10 6 4	steel	0-20 0-250 0-300	--- --- 249-300 [3]	HydraSleeve	---	33.460405	-111.922224	1214.21
PG-5UA	(A-1-4) 2bca2	55-534412	03/20/92	180	178	6 4	steel	0-20 0-178	--- 115-178	HydraSleeve	---	33.460321	-111.922194	1214.2
PG-6MA	(A-1-4) 2ccb2	55-534410	03/25/92	400	245	10 6 4	steel	0-20 0-195 0-245	--- --- 185-245 [3]	Pump	210	33.454703	-111.925289	1212.69
PG-6UA	(A-1-4) 2ccb1	55-534409	04/02/92	170	170	6 4	steel	+1-20 0-170	--- 107-170	Pump/ HydraSleeve	140	33.454793	-111.925289	1212.83
PG-7MA	(A-1-4) 11bab	55-534413	04/08/92	435	300	10 6 4	steel	0-20 0-250 0-300	--- --- 250-300 [3]	Pump	Unknown	33.450711	-111.922152	1197.65
PG-7UA	(A-1-4) 11bba	55-534414	04/16/92	156	156	6 4	steel	+1-20 0-156	--- 72-156	Not Sampled	---	33.450591	-111.922153	1197.42
PG-8UA	(A-1-4) 2bba1	55-534415	04/24/92	162	162	6 4	steel	+1-20 0-162	--- 122-162	Pump	160	33.465526	-111.923863	1222.56
PG-10UA	(A-2-4) 26bdb	55-535829	06/25/92	154	154	8 6	steel	+1-20 +1-154	--- 130-152	Pump	144	33.489743	-111.919585	1240.83
PG-11UA	(A-2-4) 35bba2	55-535459	06/25/92	157	157	8 6	steel	+1-20 0-157	--- 124-154	Pump/ HydraSleeve	Unknown ---	33.480162	-111.921979	1230.4

Table A-2. Summary Well Construction Details for NIBW Monitoring and Extraction Wells
North Indian Bend Wash Area, Maricopa County, Arizona

Well Name	Cadastral Location	ADWR Registration Number	Completion Date	Borehole Depth (ft, bls)	Well Total Depth (ft, bls)	Casing				Sampling Method	Pump Intake (ft, bls)	Latitude[1]	Longitude[1]	Land Surface Elevation (ft)[2]
						Diameter (inches)	Type	Depth Interval (ft, bls)	Perforated Interval (ft, bls)					
PG-16UA	(A-2-4) 26cbb	55-535458	07/18/92	166	166	8 6	steel	+1-20 0-166	--- 130-163	Pump	153.5	33.487392	-111.923954	1241.89
PG-18UA	(A-1-4) 2dcb	55-535470	07/28/92	160	160	8 6	steel	+1-20 0-160	--- 75-155	Pump	140	33.454715	-111.917537	1202.13
PG-19UA	(A-1-4) 2dbb2	55-535474	07/30/92	158	158	8 6	steel	+1-20 0-158	--- 82-155	Pump	140	33.458113	-111.917641	1204.3
PG-22UA	(A-1-4) 2abd	55-535467	08/07/92	148	147	8 6	steel	+1-20 0-147	--- 83-143	HydraSleeve	---	33.463474	-111.913899	1210.29
PG-23MA/LA	(A-1-4) 3add2	NA	10/15/93	300	300	11 4	steel	0-20 0-300	--- 250-300	Pump	Unknown	33.458535	-111.927121	1222.52
PG-23UA	(A-1-4) 3add1	55-535473	08/12/92	174	174	8 6	steel	+1-20 0-174	--- 118-168	HydraSleeve	---	33.458535	-111.927269	1222.77
PG-24UA	(A-1-4) 2cba	55-535471	08/13/92	163	163	8 6	steel	+1-20 0-163	--- 96-158	HydraSleeve	---	33.457657	-111.922843	1212.09
PG-25UA	(A-1-4) 2bda	55-535468	08/18/92	153	153	8 6	steel	+1-20 0-153	--- 87-150	HydraSleeve	---	33.461354	-111.917861	1206.19
PG-28UA	(A-2-4) 26caa2	55-539541	08/ /93	176	173	4	steel	0-173	113-173	Pump	163	33.486571	-111.918858	1234.94
PG-29UA	(A-2-4) 26acc	55-539540	07/16/93	155	152	8 4	steel	0-20 0-152	--- 92-152	Pump	135	33.487523	-111.915867	1233.03
PG-30UA	(A-2-4) 26dcb	55-539542	08/01/93	157	152	4	steel	0-152	107-152	Not Sampled	144	33.482279	-111.917370	1226.26
PG-31UA	(A-2-4) 26ccb3	55-539539	08/01/93	156	154	8 4	steel	0-20 0-154	--- 114-154	HydraSleeve	---	33.483932	-111.922877	1235.37
PG-38MA/LA	(A-1-4) 3abd2	55-540382	10/01/93	250	250	10 6 4	steel	0-20 0-200 0-250	--- --- 200-250	HydraSleeve	---	33.463494	-111.931033	1237.24
PG-39LA	(A-2-4) 34dad1	55-540380	11/07/93	300	300	8 4	steel	0-20 0-300	--- 250-300	Pump	252	33.469351	-111.926777	1232.58
PG-40LA	(A-2-4) 14acb3	55-544386	08/01/94	1,400	1,400	12 8 6	steel	0-20 0-900 856-1,400	--- --- 900-1,400	Pump	445	33.518203	-111.917000	1275.33
PG-41MA/LA	(A-2-4) 14acb4	55-550401	08/01/95	900	900	10 6	steel	0-503 492-900	--- 503-890	Not Sampled	---	33.518283	-111.916985	1275.48
PG-42LA	(A-2-4) 11ccd	55-557440	06/21/96	830	759	8 4	steel	0-20 0-759	--- 597-759	Pump	420	33.523318	-111.922877	1292.31
PG-43LA	(A-2-4) 11ddd	55-557441	07/15/96	907	900	8 4	steel	0-22 0-900	--- 720-900	HydraSleeve	---	33.524172	-111.909065	1265
PG-44LA	(A-2-4) 15dad	55-558952	08/01/96	869	759	8 4	steel	0-20 0-759	--- 633-759	HydraSleeve	---	33.513244	-111.927936	1297.59
PG-45MA	(A-2-4) 23ddd6	55-557414	05/09/96	708	560	4	steel	0-560	510-560	Not Sampled	253	33.496701	-111.910225	1232.26
PG-46MA	(A-2-4) 23ddd7	55-558618	07/01/96	664	630	4	steel	0-630	610-630	Not Sampled	609	33.496660	-111.910296	1233.31
PG-47MA	(A-1-4) 1baa4	55-566511	07/02/96	690	560	4	steel	0-560	510-560	Not Sampled	232	33.465645	-111.901429	1216.68
PG-48MA	(A-1-4) 1baa5	55-566512	07/12/96	450	430	4	steel	0-430	380-430	Pump	232	33.465649	-111.901578	1216.84
PG-49MA	(A-2-4) 35dba3	55-566513	07/26/96	609	574	4	steel	0-574	524-574	HydraSleeve	---	33.471383	-111.914415	1210.48
PG-50MA	(A-2-4) 26bda5	55-556193	08/08/96	638	562	4	steel	0-562	522-562	HydraSleeve	---	33.490186	-111.918715	1240.96
PG-51MA	(A-2-4) 26bda6	55-556194	08/16/96	481	480	4	steel	0-480	460-480	Not Sampled	463	33.490134	-111.918714	1240.9
PG-52MA	(A-2-4) 23adb3	55-556192	08/28/96	681	570	4	steel	0-570	520-270	Not Sampled	232	33.504246	-111.913144	1253.21
PG-53MA	(A-2-4)36cab	55-566514	09/13/96	690	585	4	steel	0-585	535-585	HydraSleeve	---	33.471612	-111.904163	1224.96
PG-54MA	(A-2-4) 36cab3	55-566515	09/27/96	444	424	4	steel	0-424	389-424	Pump	232	33.471566	-111.904151	1224.82
PG-55MA	(A-2-4) 26dca	55-559965	10/10/96	660	570	4	steel	0-570	520-570	Pump	274	33.483996	-111.913721	1225.77
PG-56MA	(A-2-4) 26aca2	55-560235	10/29/96	690	580	4	steel	0-580	530-580	Pump	253	33.490350	-111.913239	1231.85

Table A-2. Summary Well Construction Details for NIBW Monitoring and Extraction Wells
North Indian Bend Wash Area, Maricopa County, Arizona

Well Name	Cadastral Location	ADWR Registration Number	Completion Date	Borehole Depth (ft, bls)	Well Total Depth (ft, bls)	Casing				Sampling Method	Pump Intake (ft, bls)	Latitude[1]	Longitude[1]	Land Surface Elevation (ft)[2]
						Diameter (inches)	Type	Depth Interval (ft, bls)	Perforated Interval (ft, bls)					
S-1LA	(A-2-4) 27aab1	55-525290	08/26/89	660	657	10 6 4	steel	0-20 0-600 0-658	--- --- 607-657	Pump	Unknown	33.494044	-111.929281	1260.44
S-1MA	(A-2-4) 27aab2	55-525291	08/31/89	274	274	10 6 4	steel	+2-20 0-174 0-273	--- --- 254-274	HydraSleeve	---	33.493951	-111.929480	1260.34
S-2LA	(A-2-4) 23ccb1	55-525292	08/07/89	682	668	10 6 4	steel	+2-20 0-618 0-668	--- --- 618-668	Pump	505.4	33.497868	-111.924166	1259.97
S-2MA	(A-2-4) 23ccb2	55-525293	08/14/89	304	280	10 4	steel	+2-20 0-280	--- 230-280	HydraSleeve	---	33.497976	-111.924191	1260.48
W-1MA	(A-2-4) 26aca1	55-530928	03/04/91	290	290	4	steel	0-290	240-290	Pump	140	33.489720	-111.913139	1230.38
W-2MA	(A-2-4) 26caa1	55-530929	03/04/91	290	290	4	steel	0-290	240-290	Pump	280	33.486586	-111.919062	1235.08
EXTRACTION WELLS:														
7EX-3aMA	(A-2-4) 26bda7	55-577372	09/24/99	355	355	6	stainless steel	0-354.5	165-354.5	Pump	212	33.489537	-111.918722	1238.74
7EX-6MA	(A-2-4) 26cad	55-224306	07/02/15	381	362	8	stainless steel	0-362	200-362	Pump	300	33.485782	-111.919273	1232.32
COS-31	(A-2-4) 25cdb2	55-608435	08/02/57	1,300	1,300	20 16	steel	0-695 695-1,300	300-692 705-1,288	Pump	462	33.483906	-111.904478	1,228
COS-71A	(A-2-4) 35abb	55-222760	03/17/14	1,100	802	20	steel stainless steel	0-211 211-802	--- 211-402 422-507 552-687 713-792	Pump	406	33.479533	-111.917114	1229
COS-72	(A-2-4) 35aab2	55-626542	08/21/51	985	985	20	steel	0-985	200-970	Pump	483	33.480214	-111.912430	1220
COS-75A	(A-2-4) 23ddd5	55-546469	05/01/95	1,413	1,278	20	steel	0-1,278	658-1,258	Pump	402	33.496731	-111.910389	1237
Granite Reef	(A-1-4) 01aba1	55-617830	01/01/41	493	482	24 18 16	steel	0-482 0-199 0-472	199-465 --- 192-472	Pump	312	33.465672	-111.898427	1211
MEX-1MA	(A-2-4) 01bba4	55-566405	01/01/98	666	656	20	steel	0-656	140-544	Pump	415	33.465437	-111.906054	1224
PCX-1	(A-2-4) 14cda2	55-564426	05/01/95	1,350	1,245	20	steel	0-1,245	720-1,151	Pump	562	33.513160	-111.917630	1279
PV-14	(A-2-4) 11dcc3	55-624807	02/22/65	1,743	1,732	20 8	steel	0-1,400 1,400-1,730	700-1,400 1,400-1,730	Pump	580	33.524682	-111.916032	1280.43
PV-15	(A-2-4) 14abc1	55-624808	02/11/69	1,430	1,425	20 18 16	steel	0-660 0-1,208 1,193-1,429	505-643 643-1,193 1,193-1,424	Pump	569	33.522000	-111.916250	1282.1
PRODUCTION WELLS:														
AVI	(A-2-4) 14dab	55-800928	04/01/46	N/A	798	16	steel	0-798	165-798	Not Sampled	Unknown	33.513836	-111.931379	1310
AWC-7A	(A-2-4) 22dab5	55-608782	11/23/71	801	620	14	steel	0-620	300-620	Not Sampled	Unknown	33.501092	-111.930144	1275
AWC-8A	(A-2-4) 22dac	55-536833	02/05/94	630	625	20 16	steel	0-625 0-610	335-611 340-610	Not Sampled	Unknown	33.498840	-111.929952	1284
AWC-8B	(A-2-4) 22dab	55-585033	04/02/01	785	774	18	steel	0-774	460-760	Not Sampled	Unknown	33.501781	-111.928658	1275
AWC-9B	(A-2-4) 22daa	55-201729	06/16/04	1,210	1,200	18	steel	0-1200	500-1180	Not Sampled	Unknown	33.500603	-111.928328	1276
AWC-12A	(A-2-4) 22dba3	55-540859	02/27/94	696	650	20	steel	0-650	345-645	Not Sampled	Unknown	33.501991	-111.932343	1285
COS-6	(A-2-4) 25bcd	55-607686	11/09/53	1295	1295	20 16	steel	0-465 465-1295	Unknown	Not Sampled	Unknown	33.487725	-111.904850	1240.72
COS-25	(A-1-4) 02dda	55-626824	09/15/77	700	700	16 14	steel	0-500 500-700	Unknown	Not Sampled	Unknown	33.453681	-111.911635	1196

Table A-2. Summary Well Construction Details for NIBW Monitoring and Extraction Wells
North Indian Bend Wash Area, Maricopa County, Arizona

Well Name	Cadastral Location	ADWR Registration Number	Completion Date	Borehole Depth (ft, bls)	Well Total Depth (ft, bls)	Casing				Sampling Method	Pump Intake (ft, bls)	Latitude[1]	Longitude[1]	Land Surface Elevation (ft)[2]
						Diameter (inches)	Type	Depth Interval (ft, bls)	Perforated Interval (ft, bls)					
COS-74	(A-2-4) 25ddb	55-626615	03/13/74	1,200	1,200	20 16	steel	0-800 800-1,200	--- 800-1,200	Not Sampled	Unknown	33.483686	-111.895762	1228
COT-6	(A-1-4) 11aba	55-628167	12/12/60	1,054	1,050	16	steel	0-1,050	300-980	Not Sampled	Unknown	33.450762	-111.914432	1193
IBGC	(A-2-4) 11dba	55-527102	07/16/90	622	622	16	steel	0-622	300-610	Not Sampled	Unknown	33.443418	-111.914123	1179
Laird 2	(A-1-4) 11bdb	55-603767	11/01/73	492	445	16	steel	0-445	155-430	Not Sampled	Unknown	33.447134	-111.922291	1185
MDWC	(A-2-4) 14cbb	55-600523	02/23/50	750	750	20 12	steel	0-500 500-750	Unknown	Not Sampled	Unknown	33.516398	-111.925694	1299
PV-11	(A-2-4) 11dcb	55-624805	07/01/59	1,372	1,342	20 16	steel	0-1,020 1,000-1,342	509-1,020 1,000-1,225	Pump	Unknown	33.526793	-111.915422	1281.2
PV-12B	(A-2-4) 11dcb	55-220510	09/09/11	1,150	1,130	20	steel	0-1,130	716-1,130	Pump	Unknown	33.527877	-111.915644	1278
PV-16	(A-2-4) 11dbb	55-624809	03/27/80	1,505	1,500	18	steel	0-1,500	650-1,500	Not Sampled	Unknown	33.529599	-111.916200	1282.1
PV-17	(A-2-4) 11bdd	55-537967	04/20/93	1,590	1,145	20 16	steel	0-582 582-1,145	--- 582-1,125	Not Sampled	Unknown	33.531626	-111.918256	1286
SRIR SCC	(A-2-5) 19aba	Not Registered	03/01/58	1,106	984	20	steel	0-984	450-984	Not Sampled	Unknown	33.508377	-111.879310	1259
QRIA	(A-2-4) 15aa	55-802113	04/09/05	601	601	16 14	steel	0-450 450-601	Unknown	Not Sampled	Unknown	33.519280	-111.929246	1313
Radisson	(A-2-4) 11abb	55-609565	01/01/76	684	684	10	steel	0-684	Unknown	Not Sampled	Unknown	33.537541	-111.916236	1282
SRP21.5E,8N	(A-2-4) 22dcc	55-226628	03/15/17	630	630	20	steel	0-630	300-610	Not Sampled	Unknown	33.494956	-111.933857	1268
SRP22.5E,5.5N	(A-1-4) 02dbb	55-608363	11/16/48	610	520	20	steel	0-520	Unknown	Not Sampled	Unknown	33.457799	-111.917339	1204
SRP22.6E,10N	(A-2-4) 11dcc1	55-617843	12/01/40	1,003	996	20	steel	0-996	348-996	Pump	Unknown	33.523920	-111.915105	1275
SRP22.9E,10.8N	(A-2-4) 11aad2	55-202099	09/25/04	1,210	1,200	20	steel	0-1,200	400-540 640-760 840-1,180	Not Sampled	Unknown	33.534954	-111.908941	1276
SRP23.5E,5.3N	(A-1-4) 01cda	55-608365	07/06/52	850	840	20	steel	0-840	Unknown	Not Sampled	Unknown	33.454212	-111.900806	1192
SRP23.5E,8.8N	(A-2-4) 24bad	55-607687	01/28/49	1,300	1,300	24 20 16	steel	0-460 460-1,012 1,012-1,300	Unknown	Not Sampled	Unknown	33.505549	-111.900505	1252
SRP23.5E,9.5N	(A-2-4) 13caa	55-607716	04/03/52	1,020	1,020	20 16	steel	0-742 742-1,020	Unknown	Not Sampled	Unknown	33.515424	-111.901059	1264
SRP23.5E,10.6N	(A-2-4) 12bdd	55-214647	11/20/07	1,005	1,000	20	steel	0-1,000	380-630 730-980	Not Sampled	Unknown	33.532846	-111.902218	1280
SRP24E,10.5N	(A-2-4) 12add2	55-607710	05/06/49	1,200	1,200	24 20	steel	0-770 770-1,200	Unknown	Not Sampled	Unknown	33.531248	-111.891981	1284

EXPLANATION:

--- = Not applicable
ft = feet
ft, bls = feet, below land surface
NA = Not available

NOTES:

[1] Coordinates of well locations use datum NAD 1983.

[2] Surveyed land surface elevation shown where available; land surface elevation is approximated to the nearest foot from google earth or other where surveyed results are unavailable.

[3] The perforated interval in the production casing extends up into the sealed conductor casing. The effective perforated interval starts at bottom of outer blank casing.

Table A-3. Continuous Water Level Monitoring Locations, Northern LAU
North Indian Bend Wash Superfund Site

Northern LAU Well	Monitoring Location in GM&EP	Current Monitoring Location	Comments
PG-1LA	X		Transducer failed; replacement moved to well S-2LA
S-2LA		X	Replaced PG-1LA to provide better data for hydraulic capture and control
PG-2LA	X	X	
PG-40LA	X		Transducer failed; replacement moved to well PG-41MA/LA
PG-41MA/LA		X	Replaced PG-40LA to provide better data for hydraulic capture and control
PG-42LA	X	X	
PG-43LA	X		Transducer failed; replacement moved to well PA-13LA
PA-13LA		X	Replaced PG-43LA to provide better data for hydraulic capture and control
PG-44LA	X	X	
PV-11	X	X	
PV-12	X		Well abandoned; placed transducer in well PV-17
PV-17		X	Replaced PV-12 to provide better data for hydraulic capture and control
PV-14	X	X	
PV-15	X	X	

EXPLANATION:

LAU = Lower Alluvial Unit

GM&EP = Groundwater Monitoring & Evaluation Plan

APPENDIX B
WATER LEVEL TABLES AND COMPLIANCE/SUPPLEMENTAL CONTINUOUS GRAPHS

APPENDIX B
WATER LEVEL TABLES

Table B-1. Summary of Groundwater Level Measurements Taken by Montgomery & Associates
North Indian Bend Wash Area, Scottsdale, Arizona
April 2024

Monitoring Well Identifier	Measurement Date	Depth to Water (feet, bls)	Groundwater Altitude (feet, amsl)
B-1UA	Not included in April monitoring event		
B-J	Not included in April monitoring event		
E-1UA	Not included in April monitoring event		
E-2UA	Not included in April monitoring event		
E-5UA	Not included in April monitoring event		
E-6UA	Not included in April monitoring event		
E-7UA	Not included in April monitoring event		
E-12UA	Not included in April monitoring event		
E-13UA	Not included in April monitoring event		
M-2UA	Not included in April monitoring event		
PG-4UA	Not included in April monitoring event		
PG-5UA	Not included in April monitoring event		
PG-6UA	Not included in April monitoring event		
PG-7UA	Not included in April monitoring event		
PG-8UA	Not included in April monitoring event		
PG-10UA	Not included in April monitoring event		
PG-11UA	Not included in April monitoring event		
PG-16UA	Not included in April monitoring event		
PG-18UA	Not included in April monitoring event		
PG-19UA	Not included in April monitoring event		
PG-22UA	Not included in April monitoring event		
PG-23UA	Not included in April monitoring event		
PG-24UA	Not included in April monitoring event		
PG-25UA	Not included in April monitoring event		
PG-28UA	Not included in April monitoring event		
PG-29UA	Not included in April monitoring event		
PG-30UA	Not included in April monitoring event		
PG-31UA	Not included in April monitoring event		
B-1MA	04/01/2024 13:32	72.63	1119.00
D-4MA	04/11/2024 14:12	121.85	1118.18
E-1MA	04/12/2024 12:09	123.13	1091.24
E-5MA	04/12/2024 11:55	94.45	1104.98
E-8MA	04/12/2024 11:44	81.85	1111.04
E-10MA	04/11/2024 13:08	130.20	1,113.66
M-1MA	04/12/2024 11:02	109.39	1,101.50
M-2MA	04/12/2024 11:26	104.35	1,105.71
M-3MA	04/12/2024 11:17	92.31	1,113.24
M-4MA	04/12/2024 11:10	114.92	1,099.98
M-5MA	04/12/2024 10:14	140.17	1,077.26
M-6MA	04/12/2024 10:31	126.48	1,090.50
M-7MA	04/12/2024 10:52	115.38	1,098.49

Table B-1. Summary of Groundwater Level Measurements Taken by Montgomery & Associates
North Indian Bend Wash Area, Scottsdale, Arizona
April 2024

Monitoring Well Identifier	Measurement Date	Depth to Water (feet, bls)	Groundwater Altitude (feet, amsl)
M-9MA	04/12/2024 09:38	109.52	1,111.00
M-10MA2	04/11/2024 15:25	119.25	1,100.80
M-11MA	04/11/2024 15:35	95.49	1,116.10
M-12MA2	04/01/2024 13:10	109.92	1,118.00
M-14MA	04/12/2024 09:51	109.29	1,117.05
M-15MA	04/11/2024 15:16	120.15	1,098.76
M-16MA	04/02/2024 11:33	103.37	1,124.78
PA-1MA	04/02/2024 11:57	95.87	1,129.63
PA-3MA	04/01/2024 10:48	115.55	1,137.89
PA-4MA	04/11/2024 14:49	100.08	1,130.84
PA-7MA	04/02/2024 16:00	117.85	1,135.21
PA-10MA	04/11/2024 13:21	123.69	1,113.11
PA-12MA2 (A)	04/11/2024 13:51	111.30	1,113.66
PA-14MA	04/11/2024 14:25	124.01	1,125.08
PA-16MA	04/01/2024 13:46	86.18	1,118.30
PA-17MA2	04/04/2024 14:26	103.31	1,135.39
PA-20MA	04/01/2024 14:17	108.40	1,112.88
PA-21MA	04/02/2024 11:45	99.45	1,125.74
PA-23MA	04/02/2024 11:15	64.58	1,119.84
PG-4MA	04/02/2024 08:46	113.38	1,114.16
PG-5MA	04/02/2024 15:02	99.55	1,114.72
PG-6MA	04/02/2024 08:26	89.71	1,122.99
PG-7MA	04/02/2024 08:17	78.45	1,119.41
S-1MA	04/02/2024 12:59	136.00	1,124.34
S-2MA	04/11/2024 14:37	141.09	1,119.40
W-1MA	04/03/2024 10:36	97.10	1,133.28
W-2MA	04/10/2024 09:07	124.62	1,110.46
PG-45MA (B)	04/01/2024 16:08	110.54	1,121.72
PG-46MA (B)	04/01/2024 16:00	114.42	1,118.89
PG-47MA	04/03/2024 12:44	97.30	1,119.39
PG-48MA	04/03/2024 12:35	98.91	1,117.93
PG-50MA	04/03/2024 10:04	101.62	1,139.34
PG-51MA	04/03/2024 10:14	131.38	1,109.53
PG-52MA (B)	04/02/2024 15:59	122.82	1,130.39
PG-53MA (B)	04/02/2024 10:59	107.28	1,117.69
PG-54MA (B)	04/02/2024 11:02	104.78	1,120.05
PG-55MA (B)	04/02/2024 10:22	111.39	1,114.38
PG-56MA (B)	04/02/2024 14:08	114.12	1,117.74
E-14MA/LA	04/01/2024 14:39	144.23	1,109.72
M-17MA/LA	04/02/2024 09:15	121.16	1,116.54
PG-23MA/LA	04/02/2024 08:36	104.30	1,118.23

Table B-1. Summary of Groundwater Level Measurements Taken by Montgomery & Associates
North Indian Bend Wash Area, Scottsdale, Arizona
April 2024

Monitoring Well Identifier	Measurement Date	Depth to Water (feet, bls)	Groundwater Altitude (feet, amsl)
PG-38MA/LA	04/02/2024 08:56	122.95	1,114.29
PG-41MA/LA	04/10/2024 16:05	250.62	1,024.86
E-1LA	04/01/2024 15:50	113.38	1,101.62
E-7LA	04/01/2024 12:23	90.30	1,107.49
M-2LA	04/03/2024 13:58	104.39	1,105.84
M-5LA	04/03/2024 11:06	116.77	1,100.69
M-9LA	04/01/2024 09:27	123.29	1,097.23
M-10LA2	04/01/2024 13:48	120.14	1,099.56
M-14LA	04/01/2024 11:32	124.81	1,101.41
M-16LA	04/02/2024 11:12	133.33	1,094.75
PA-2LA	04/01/2024 10:58	212.85	1,040.91
PA-5LA	04/01/2024 16:16	196.02	1,033.43
PA-6LA	04/02/2024 16:11	219.63	1,033.30
PA-8LA2	04/01/2024 12:40	142.20	1,086.13
PA-9LA	04/01/2024 14:56	151.41	1,085.37
PA-11LA2 (C)	04/01/2024 14:45	125.23	1,099.73
PA-13LA	04/01/2024 10:40	203.64	1,045.35
PA-15LA	04/01/2024 13:55	87.74	1,116.54
PA-18LA	04/04/2024 14:35	171.25	1,067.61
PA-19LA	04/01/2024 14:10	110.23	1,111.23
PA-22LA	04/02/2024 11:24	70.31	1,113.69
PG-1LA	04/01/2024 10:31	213.85	1,035.81
PG-2LA	04/02/2024 13:25	252.55	1,018.51
PG-39LA	04/02/2024 09:05	121.51	1,111.07
PG-40LA	04/10/2024 15:45	251.51	1,023.82
PG-42LA	04/10/2024 16:53	267.51	1,024.80
PG-43LA	04/10/2024 17:09	221.43	1,043.58
PG-44LA	04/10/2024 17:24	271.22	1,026.37
S-1LA	04/02/2024 12:40	203.96	1,056.49
S-2LA	04/02/2024 17:37	226.50	1,033.47

EXPLANATION:

feet, bls = feet below land surface

feet, amsl = feet above mean sea level

GM&EP = Groundwater Monitoring & Extraction Plan

NOTES:

(A) = The water level was collected from the MAU completed well at piezometer PA-11/12 located approximately 70 feet northwest of original well PA-12MA.

(B) = A water level was collected from this well as supplemental data and is not required per the GM&EP. These data are included in the 2024 annual supplemental report.

(C) = The water level was collected from the LAU completed well at piezometer PA-11/12 located approximately 80 feet northwest of original well PA-11LA.

Table B-2. Summary of Groundwater Level Measurements Taken by Montgomery & Associates
North Indian Bend Wash Area, Scottsdale, Arizona
October 2024

Monitoring Well Identifier	Measurement Date & Time	Depth to Water (feet, bls)	Groundwater Level (feet, amsl)
B-1UA	10/01/2024 09:20	52.19	1,139.52
B-J	10/01/2024 11:08	54.97	1,137.27
E-1UA	10/04/2024 08:38	72.45	1,142.91
E-2UA	10/01/2024 13:36	84.34	1,142.21
E-5UA	10/04/2024 09:00	62.34	1,137.22
E-6UA	10/01/2024 14:28	88.24	1,134.06
E-7UA	10/01/2024 11:51	63.80	1,133.61
E-12UA	10/03/2024 13:51	63.90	1,139.73
E-13UA	10/04/2024 07:37	68.69	1,139.94
M-2UA	10/03/2024 11:52	69.85	1,140.32
PG-4UA	10/02/2024 14:54	98.81	1,129.02
PG-5UA	10/02/2024 14:44	81.85	1,132.35
PG-6UA	10/02/2024 14:32	82.11	1,130.98
PG-7UA	10/03/2024 09:18	64.32	1,133.24
PG-8UA	10/01/2024 12:46	91.24	1,130.77
PG-10UA	10/03/2024 10:16	100.11	1,140.73
PG-11UA	10/02/2024 07:06	93.60	1,136.80
PG-16UA	10/02/2024 11:41	103.48	1,138.41
PG-18UA	10/01/2024 09:37	66.74	1,135.39
PG-19UA	10/02/2024 07:23	69.22	1,135.08
PG-22UA	10/02/2024 13:33	72.48	1,137.81
PG-23UA	10/03/2024 13:03	93.72	1,129.24
PG-24UA	10/01/2024 10:49	80.18	1,132.04
PG-25UA	10/03/2024 13:40	71.28	1,135.26
PG-28UA	10/02/2024 09:44	95.37	1,139.58
PG-29UA	10/02/2024 13:06	92.67	1,140.36
PG-30UA	10/02/2024 09:02	87.63	1,138.73
PG-31UA	10/02/2024 09:15	98.67	1,136.78
B-1MA	10/01/2024 09:00	78.91	1,112.72
D-4MA	10/02/2024 10:11	123.53	1,116.50
E-1MA	10/04/2024 08:19	127.93	1,086.44
E-5MA	10/04/2024 14:36	98.18	1,101.25
E-8MA	10/01/2024 11:09	84.85	1,108.04
E-10MA	10/02/2024 11:11	133.13	1,110.73
M-1MA	10/01/2024 13:55	114.33	1,096.56
M-2MA	10/03/2024 11:57	109.22	1,100.84
M-3MA	10/03/2024 11:27	96.97	1,108.58
M-4MA	10/01/2024 14:03	119.78	1,095.12
M-5MA	10/01/2024 11:14	142.73	1,074.70
M-6MA	10/01/2024 12:49	131.20	1,085.78
M-7MA	10/01/2024 13:41	120.18	1,093.69

Table B-2. Summary of Groundwater Level Measurements Taken by Montgomery & Associates
North Indian Bend Wash Area, Scottsdale, Arizona
October 2024

Monitoring Well Identifier	Measurement Date & Time	Depth to Water (feet, bls)	Groundwater Level (feet, amsl)
M-9MA	10/01/2024 09:54	114.25	1,106.27
M-10MA2	10/04/2024 15:51	124.22	1,095.83
M-11MA	10/01/2024 14:13	99.81	1,111.78
M-12MA2	10/04/2024 09:49	114.46	1,113.46
M-14MA	10/01/2024 13:47	113.30	1,113.04
M-15MA	10/01/2024 13:19	124.41	1,094.50
M-16MA	10/02/2024 08:15	113.30	1,114.85
PA-1MA	10/03/2024 07:55	102.90	1,122.60
PA-3MA	10/02/2024 09:36	118.34	1,135.10
PA-4MA	10/02/2024 12:22	102.21	1,128.71
PA-7MA	10/03/2024 07:11	120.05	1,133.01
PA-10MA	10/03/2024 14:19	126.81	1,109.99
PA-12MA2 (A)	10/04/2024 10:50	114.53	1,110.43
PA-14MA	10/04/2024 10:08	126.59	1,122.50
PA-16MA	10/01/2024 09:59	89.87	1,114.61
PA-17MA2	10/04/2024 07:20	107.00	1,131.70
PA-20MA	10/01/2024 12:36	112.00	1,109.28
PA-21MA	10/02/2024 07:37	112.78	1,112.41
PA-23MA	10/01/2024 14:31	69.22	1,115.20
PG-4MA	10/02/2024 14:59	116.44	1,111.10
PG-5MA	10/04/2024 14:20	103.97	1,110.30
PG-6MA	10/02/2024 14:28	91.20	1,121.50
PG-7MA	10/02/2024 14:18	81.09	1,116.77
S-1MA	10/02/2024 09:57	137.69	1,122.65
S-2MA	10/02/2024 11:17	143.61	1,116.88
W-1MA	10/04/2024 10:50	102.45	1,127.93
W-2MA	10/02/2024 11:56	128.22	1,106.86
PG-45MA (B)	10/02/2024 12:29	115.61	1,116.65
PG-46MA (B)	10/02/2024 13:15	119.91	1,113.40
PG-47MA	10/01/2024 12:35	107.60	1,109.09
PG-48MA	10/01/2024 13:22	127.64	1,089.20
PG-50MA	10/02/2024 11:26	105.12	1,135.84
PG-51MA (C)	10/03/2024 10:40	105.13	1,135.78
PG-52MA (B)	10/02/2024 14:13	124.98	1,128.23
PG-53MA (B)	10/02/2024 07:54	116.28	1,108.69
PG-54MA (B)	10/02/2024 07:59	123.64	1,101.19
PG-55MA (B)	10/03/2024 14:45	118.42	1,107.35
PG-56MA (B)	10/02/2024 13:18	122.15	1,109.71
E-14MA/LA	10/02/2024 09:00	147.35	1,106.60
M-17MA/LA	10/02/2024 08:35	120.02	1,117.68

Table B-2. Summary of Groundwater Level Measurements Taken by Montgomery & Associates
North Indian Bend Wash Area, Scottsdale, Arizona
October 2024

Monitoring Well Identifier	Measurement Date & Time	Depth to Water (feet, bls)	Groundwater Level (feet, amsl)
PG-23MA/LA	10/03/2024 12:58	106.98	1,115.55
PG-38MA/LA	10/03/2024 13:16	125.71	1,111.53
PG-41MA/LA	10/03/2024 08:11	273.63	1,001.85
E-1LA	10/04/2024 15:30	119.51	1,095.49
E-7LA	10/01/2024 11:44	94.86	1,102.93
M-2LA	10/03/2024 12:34	109.44	1,100.79
M-5LA	10/01/2024 11:00	122.06	1,095.40
M-9LA	10/01/2024 10:20	130.25	1,090.27
M-10LA2	10/04/2024 09:25	122.21	1,097.49
M-14LA	10/02/2024 07:50	131.53	1,094.69
M-16LA	10/02/2024 08:08	140.55	1,087.53
PA-2LA	10/02/2024 09:47	233.50	1,020.26
PA-5LA	10/02/2024 12:02	213.13	1,016.32
PA-6LA	10/02/2024 13:34	238.46	1,014.47
PA-8LA2	10/04/2024 10:20	151.77	1,076.56
PA-9LA	10/03/2024 14:34	160.33	1,076.45
PA-11LA2 (D)	10/04/2024 13:39	131.29	1,093.67
PA-13LA	10/04/2024 16:11	219.35	1,029.64
PA-15LA	10/01/2024 09:49	90.65	1,113.63
PA-18LA	10/01/2024 09:20	183.69	1,055.17
PA-19LA	10/01/2024 12:35	113.99	1,107.47
PA-22LA	10/01/2024 14:43	73.19	1,110.81
PG-1LA	10/02/2024 14:40	241.10	1,008.56
PG-2LA	10/03/2024 15:27	273.82	997.24
PG-39LA	10/02/2024 08:49	124.90	1,107.68
PG-40LA	10/03/2024 07:41	274.79	1,000.54
PG-42LA	10/04/2024 09:52	292.27	1,000.04
PG-43LA	10/08/2024 11:11	261.36	1,003.65
PG-44LA	10/04/2024 06:48	292.83	1,004.76
S-1LA	10/02/2024 10:04	214.89	1,045.56
S-2LA	10/02/2024 10:50	238.95	1,021.02

EXPLANATION:

feet, bls = feet below land surface

feet, amsl = feet above mean sea level

GM&EP = Groundwater Monitoring & Extraction Plan

NOTES:

(A) = The water level was collected from the MAU completed well at piezometer PA-11/12 located approximately 70 feet northwest of original well PA-12MA.

(B) = A water level was collected from this well as supplemental data and is not required per the GM&EP. These data are included in the 2024 annual supplemental report.

(C) = Water level collected in 2024 after the surface completion was damaged due to construction activities is suspect.

(D) = The water level was collected from the LAU completed well at piezometer PA-11/12 located approximately 80 feet northwest of original well PA-11LA.

Table B-3. Summary of Groundwater Level Difference Between October 2023 and October 2024
North Indian Bend Wash Area, Scottsdale, Arizona

Alluvial Unit	Monitoring Well Identifier	October 2023 Depth to Groundwater Level (feet, bls)	October 2024 Depth to Groundwater Level (feet, bls)	Change in Depth to Groundwater Level (feet)
UAU	B-1UA	52.17	52.19	-0.02
	B-J	55.68	54.97	0.71
	E-1UA	71.69	72.45	-0.76
	E-2UA	85.49	84.34	1.15
	E-5UA	63.18	62.34	0.84
	E-6UA	90.78	88.24	2.54
	E-7UA	65.25	63.80	1.45
	E-12UA	63.99	63.90	0.09
	E-13UA	68.62	68.69	-0.07
	M-2UA	69.90	69.85	0.05
	PG-4UA	101.46	98.81	2.65
	PG-5UA	83.93	81.85	2.08
	PG-6UA	84.16	82.11	2.05
	PG-7UA	65.82	64.32	1.50
	PG-8UA	93.66	91.24	2.42
	PG-10UA	102.66	100.11	2.55
	PG-11UA	96.28	93.60	2.68
	PG-16UA	106.27	103.48	2.79
	PG-18UA	67.87	66.74	1.13
	PG-19UA	70.79	69.22	1.57
	PG-22UA	73.44	72.48	0.96
	PG-23UA	96.13	93.72	2.41
	PG-24UA	82.13	80.18	1.95
	PG-25UA	72.99	71.28	1.71
	PG-28UA	97.90	95.37	2.53
	PG-29UA	95.13	92.67	2.46
	PG-30UA	90.07	87.63	2.44
	PG-31UA	100.37	98.67	1.70
MAU	B-1MA	79.27	78.91	0.36
	D-4MA	124.39	123.53	0.86
	E-1MA	128.51	127.93	0.58
	E-5MA	100.32	98.18	2.14
	E-8MA	87.07	84.85	2.22
	E-10MA	135.23	133.13	2.10
	M-1MA	114.50	114.33	0.17
	M-2MA	109.98	109.22	0.76
	M-3MA	96.34	96.97	-0.63
	M-4MA	120.32	119.78	0.54
	M-5MA	147.20	142.73	4.47
	M-6MA	132.24	131.20	1.04
	M-7MA	120.15	120.18	-0.03
	M-9MA	114.15	114.25	-0.10
	M-10MA2	126.49	124.22	2.27
	M-11MA	102.92	99.81	3.11
	M-12MA2	117.90	114.46	3.44
	M-14MA	115.85	113.30	2.55
	M-15MA	127.12	124.41	2.71

Table B-3. Summary of Groundwater Level Difference Between October 2023 and October 2024
North Indian Bend Wash Area, Scottsdale, Arizona

Alluvial Unit	Monitoring Well Identifier	October 2023 Depth to Groundwater Level (feet, bls)	October 2024 Depth to Groundwater Level (feet, bls)	Change in Depth to Groundwater Level (feet)
MAU	M-16MA	114.00	113.30	0.70
	PA-1MA	101.40	102.90	-1.50
	PA-3MA	117.69	118.34	-0.65
	PA-4MA	103.01	102.21	0.80
	PA-7MA	120.73	120.05	0.68
	PA-10MA	129.82	126.81	3.01
	PA-12MA2 [A]	117.55	114.53	3.02
	PA-14MA	128.19	126.59	1.60
	PA-16MA	92.18	89.87	2.31
	PA-17MA2	107.11	107.00	0.11
	PA-20MA	114.98	112.00	2.98
	PA-21MA	114.15	112.78	1.37
	PA-23MA	69.45	69.22	0.23
	PG-4MA	119.55	116.44	3.11
	PG-5MA	106.21	103.97	2.24
	PG-6MA	93.62	91.20	2.42
	PG-7MA	83.16	81.09	2.07
	S-1MA	140.45	137.69	2.76
	S-2MA	145.69	143.61	2.08
	W-1MA	104.13	102.45	1.68
	W-2MA	131.62	128.22	3.40
Lower MAU	PG-45MA [B]	116.05	115.61	0.44
	PG-46MA [B]	119.58	119.91	-0.33
	PG-47MA	104.27	107.60	-3.33
	PG-48MA	128.33	127.64	0.69
	PG-50MA	106.90	105.12	1.78
	PG-51MA [C]	138.25	105.13	33.12
	PG-52MA [B]	131.74	124.98	6.76
	PG-53MA [B]	113.21	116.28	-3.07
	PG-54MA [B]	124.21	123.64	0.57
	PG-55MA [B]	119.14	118.42	0.72
	PG-56MA [C]	120.96	122.15	-1.19
MAU/LAU	E-14MA/LA	151.92	147.35	4.57
	M-17MA/LA	124.42	120.02	4.40
	PG-23MA/LA	109.77	106.98	2.79
	PG-38MA/LA	129.22	125.71	3.51
	PG-41MA/LA	271.33	273.63	-2.30
LAU	E-1LA	120.83	119.51	1.32
	E-7LA	97.23	94.86	2.37
	M-2LA	111.07	109.44	1.63
	M-5LA	123.89	122.06	1.83
	M-9LA	131.52	130.25	1.27
	M-10LA2	129.35	122.21	7.14
	M-14LA	132.74	131.53	1.21
	M-16LA	141.63	140.55	1.08
	PA-2LA	230.95	233.50	-2.55
	PA-5LA	211.05	213.13	-2.08

Table B-3. Summary of Groundwater Level Difference Between October 2023 and October 2024
North Indian Bend Wash Area, Scottsdale, Arizona

Alluvial Unit	Monitoring Well Identifier	October 2023 Depth to Groundwater Level (feet, bls)	October 2024 Depth to Groundwater Level (feet, bls)	Change in Depth to Groundwater Level (feet)
LAU	PA-6LA	236.20	238.46	-2.26
	PA-8LA2	152.24	151.77	0.47
	PA-9LA	161.32	160.33	0.99
	PA-11LA2 (C)	133.44	131.29	2.15
	PA-13LA	221.46	219.35	2.11
	PA-15LA	93.03	90.65	2.38
	PA-18LA	183.55	183.69	-0.14
	PA-19LA	116.93	113.99	2.94
	PA-22LA	74.64	73.19	1.45
	PG-1LA	238.20	241.10	-2.90
	PG-2LA	272.13	273.82	-1.69
	PG-39LA	128.11	124.90	3.21
	PG-40LA	272.28	274.79	-2.51
	PG-42LA	289.21	292.27	-3.06
	PG-43LA	255.92	261.36	-5.44
	PG-44LA	291.07	292.83	-1.76
	S-1LA	215.85	214.89	0.96
	S-2LA	236.31	238.95	-2.64

EXPLANATION:

feet, bls = feet below land surface
UAU = Upper Alluvial Unit monitor well
MAU = Middle Alluvial Unit monitor well
LAU = Lower Alluvial Unit monitor well
Lower MAU = Lower Middle Alluvial Unit monitor well

NOTES:

(A) = The water level was collected from the MAU completed well at piezometer PA-11LA2/12MA2 located approximately 70 feet northwest of original well PA-12MA
(B) = A water level was collected from this well as supplemental data and is not required per the GM&EP. Those data are included in Appendix Tables B-1 and B-2 and the 2024 annual supplemental report.
(C) = Water level collected in 2024 after the surface completion was damaged due to construction activities is suspect.
(D) = The water level was collected from the LAU completed well at piezometer PA-11LA2/12MA2 located approximately 80 feet northwest of original well PA-11LA

APPENDIX B
COMPLIANCE CONTINUOUS WATER LEVEL GRAPHS

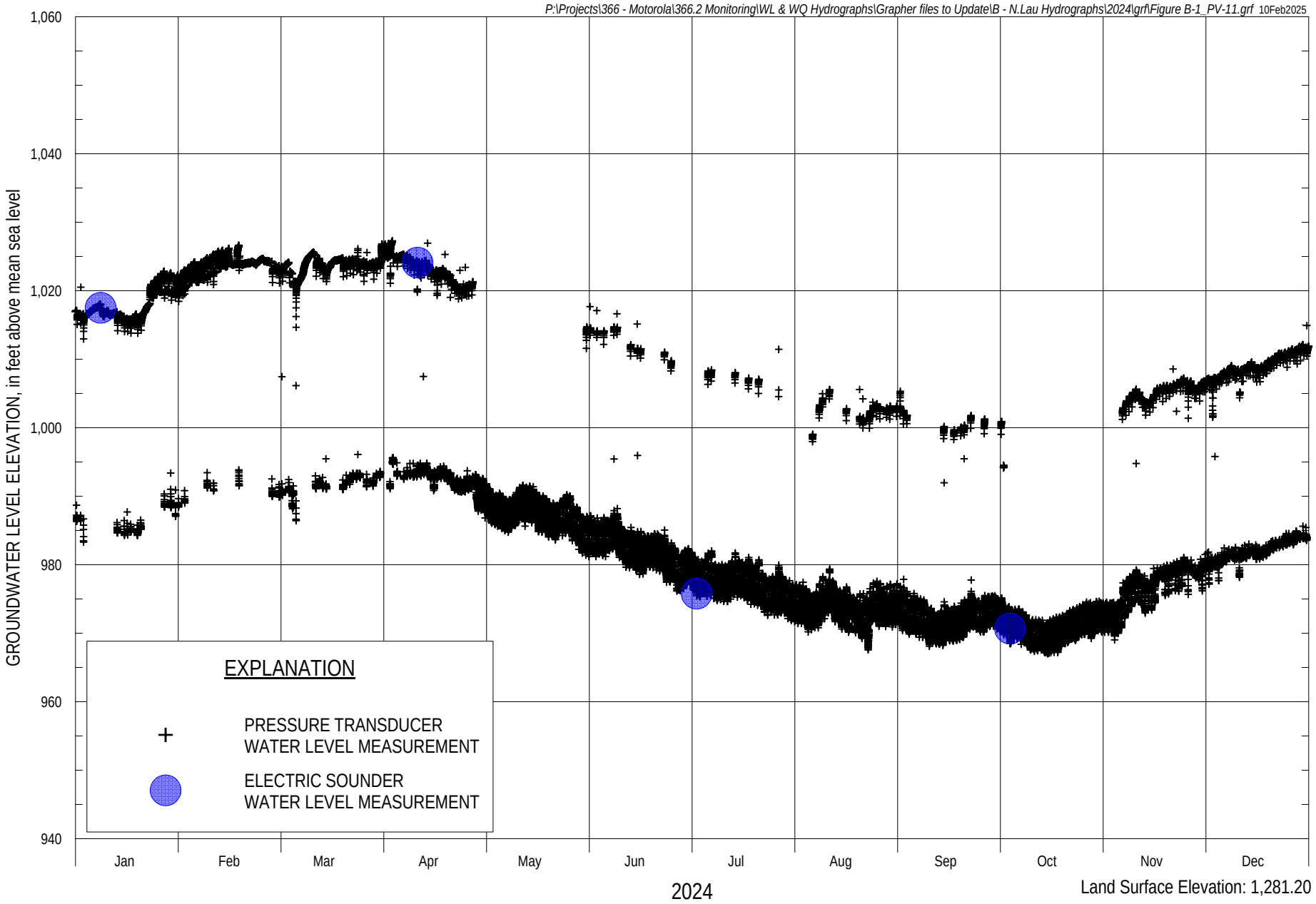


FIGURE B-1. GROUNDWATER LEVEL HYDROGRAPH FOR EXTRACTION WELL PV-11

Note: 1) Higher water levels are representative of non-pumping conditions; lower water levels are representative of pumping conditions.

North Indian Bend Wash Superfund Site

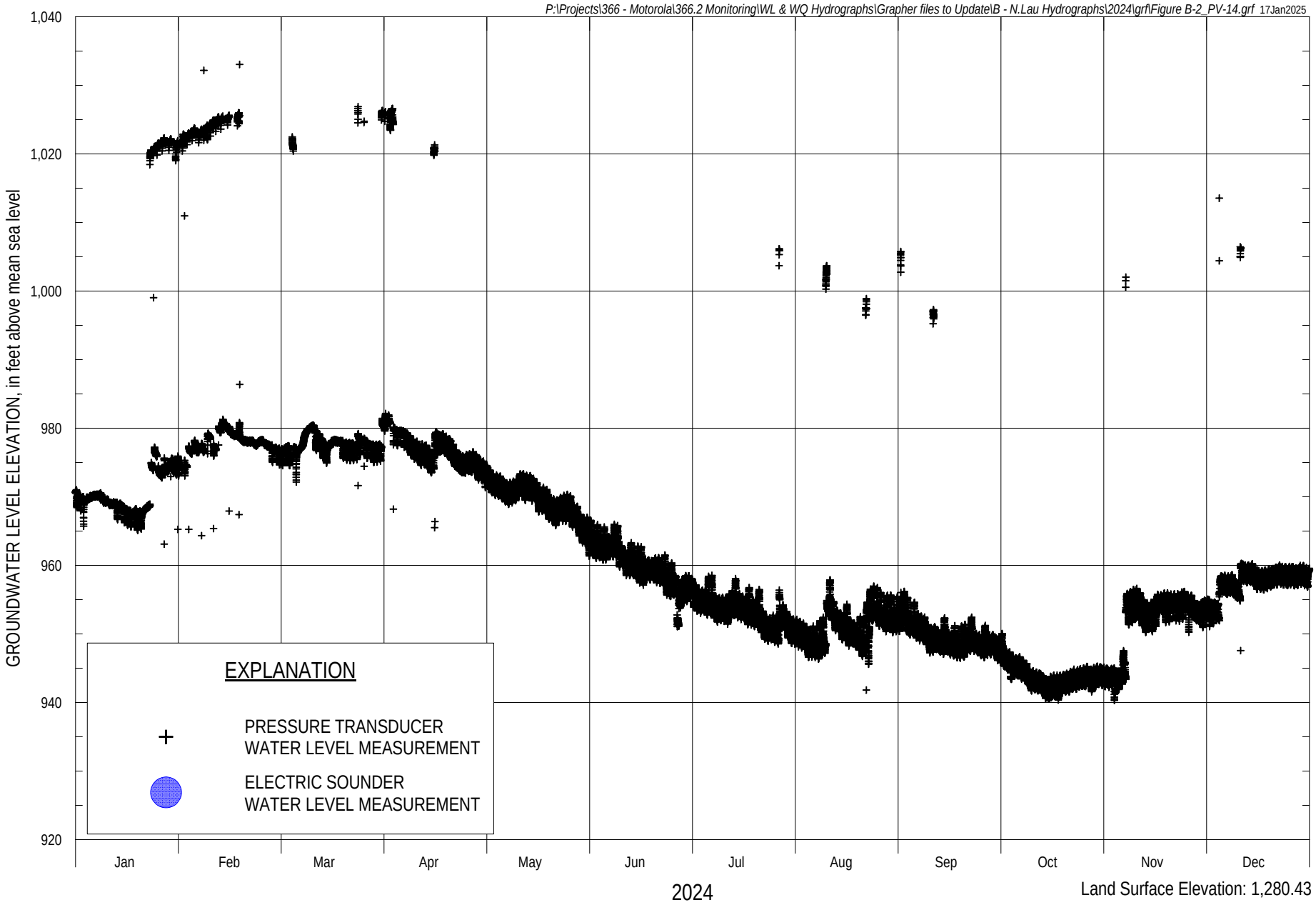


FIGURE B-2. GROUNDWATER LEVEL HYDROGRAPH FOR EXTRACTION WELL PV-14

Note: 1) Higher water levels are representative of non-pumping conditions; lower water levels are representative of pumping conditions.

North Indian Bend Wash Superfund Site

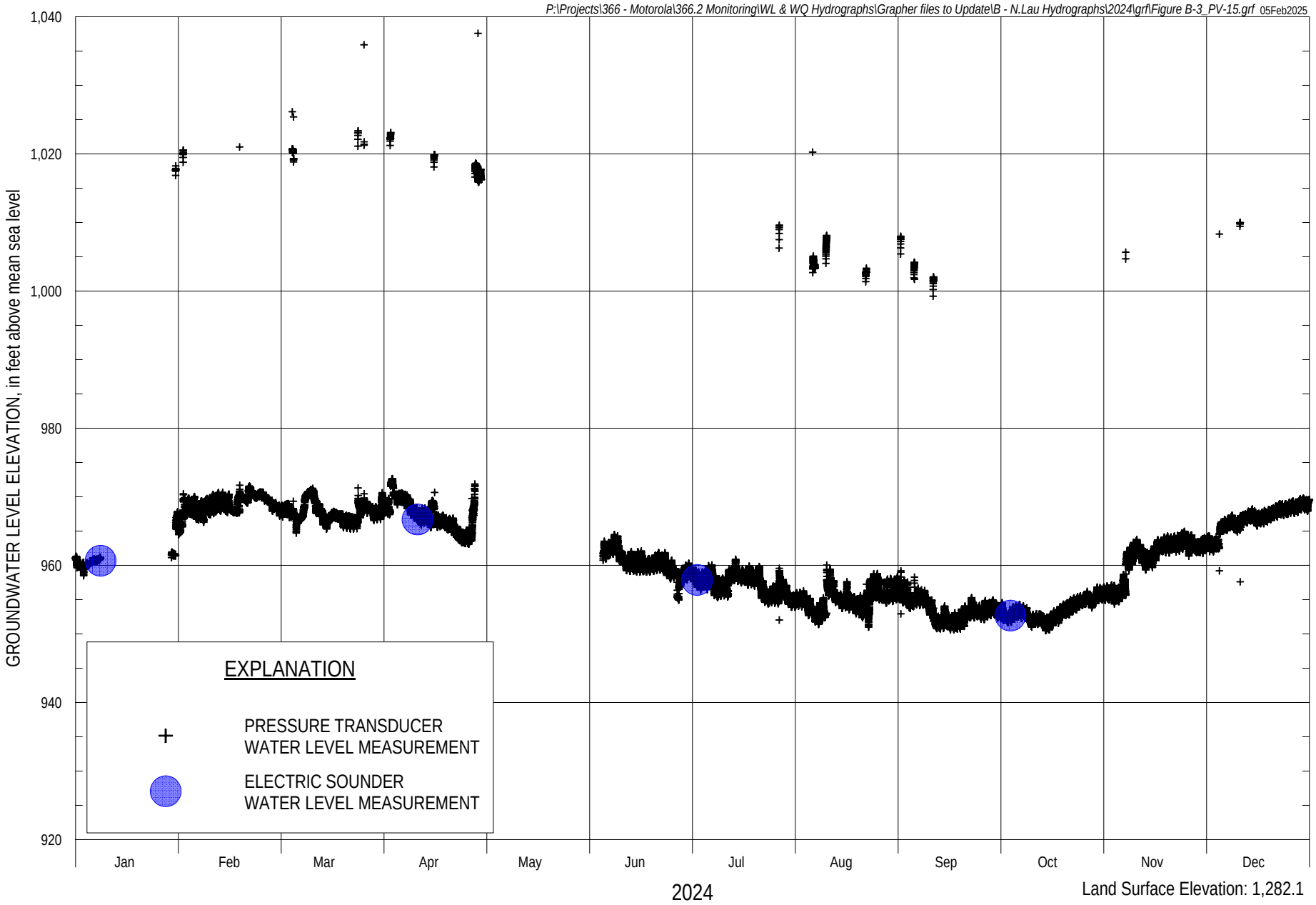


FIGURE B-3. GROUNDWATER LEVEL HYDROGRAPH FOR EXTRACTION WELL PV-15

Note: 1) Higher water levels are representative of non-pumping conditions; lower water levels are representative of pumping conditions.

North Indian Bend Wash Superfund Site

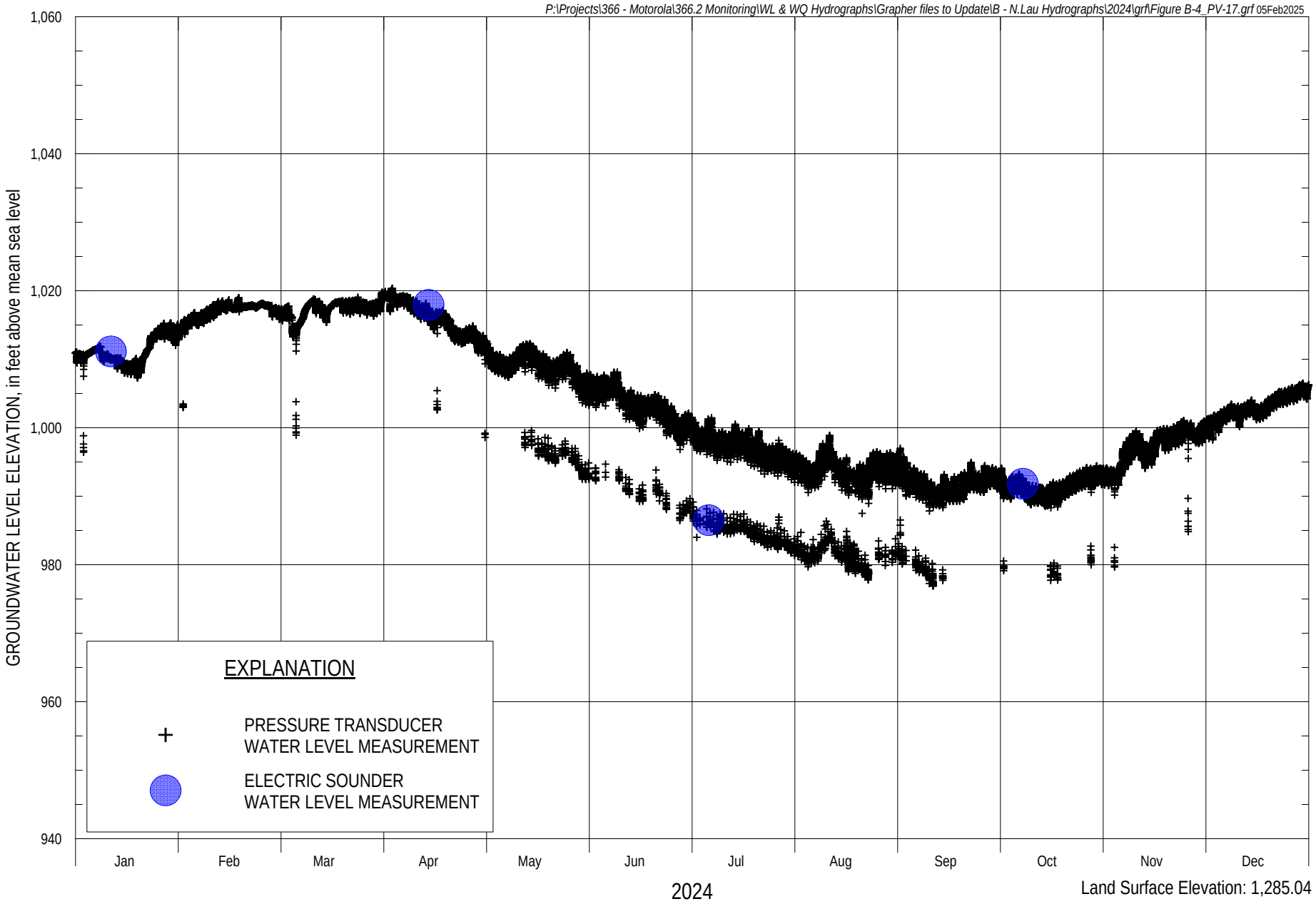


FIGURE B-4. GROUNDWATER LEVEL HYDROGRAPH FOR EXTRACTION WELL PV-17

Note: 1) Higher water levels are representative of non-pumping conditions; lower water levels are representative of pumping conditions.

North Indian Bend Wash Superfund Site

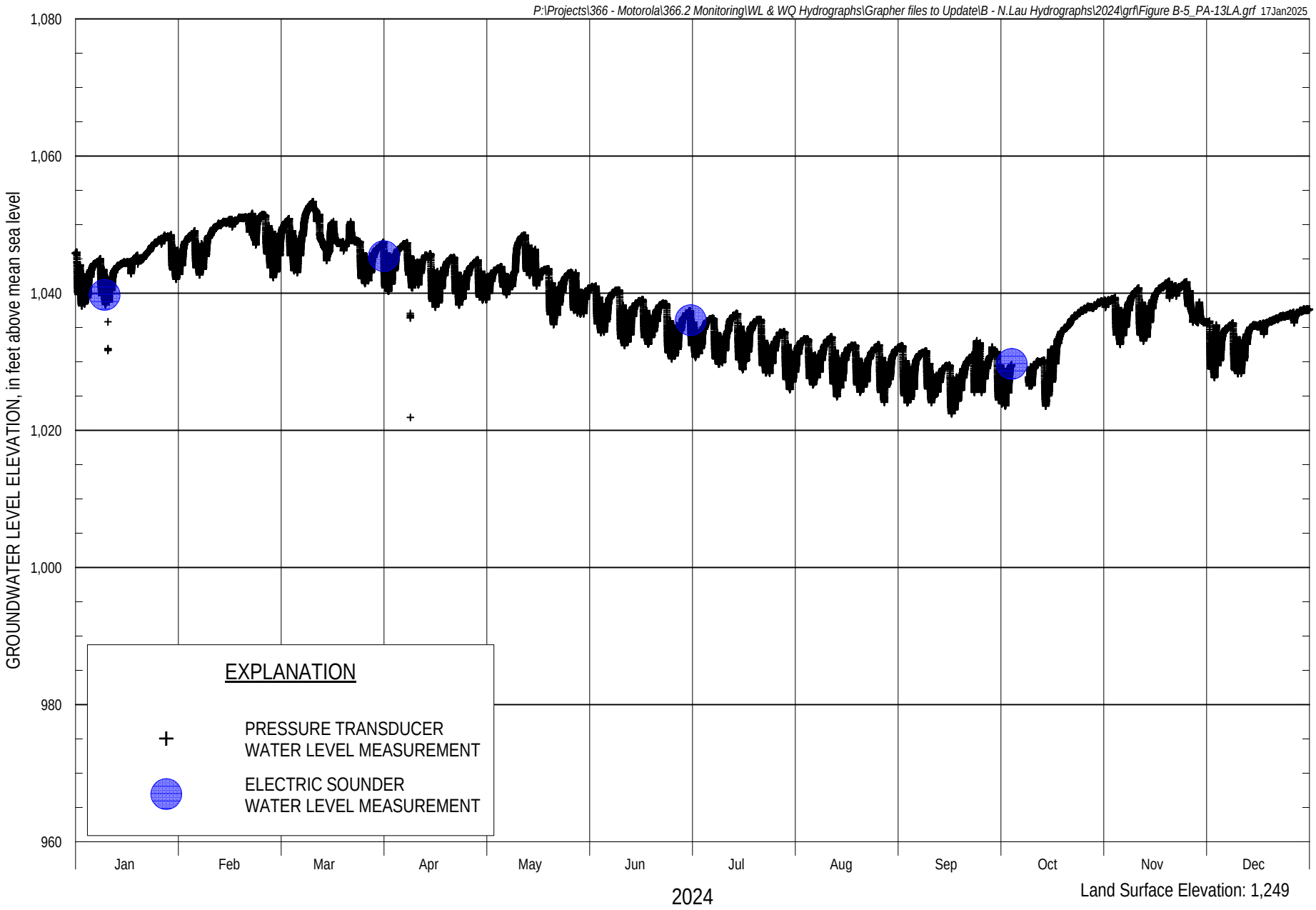


FIGURE B-5. GROUNDWATER LEVEL HYDROGRAPH FOR MONITOR WELL PA-13LA

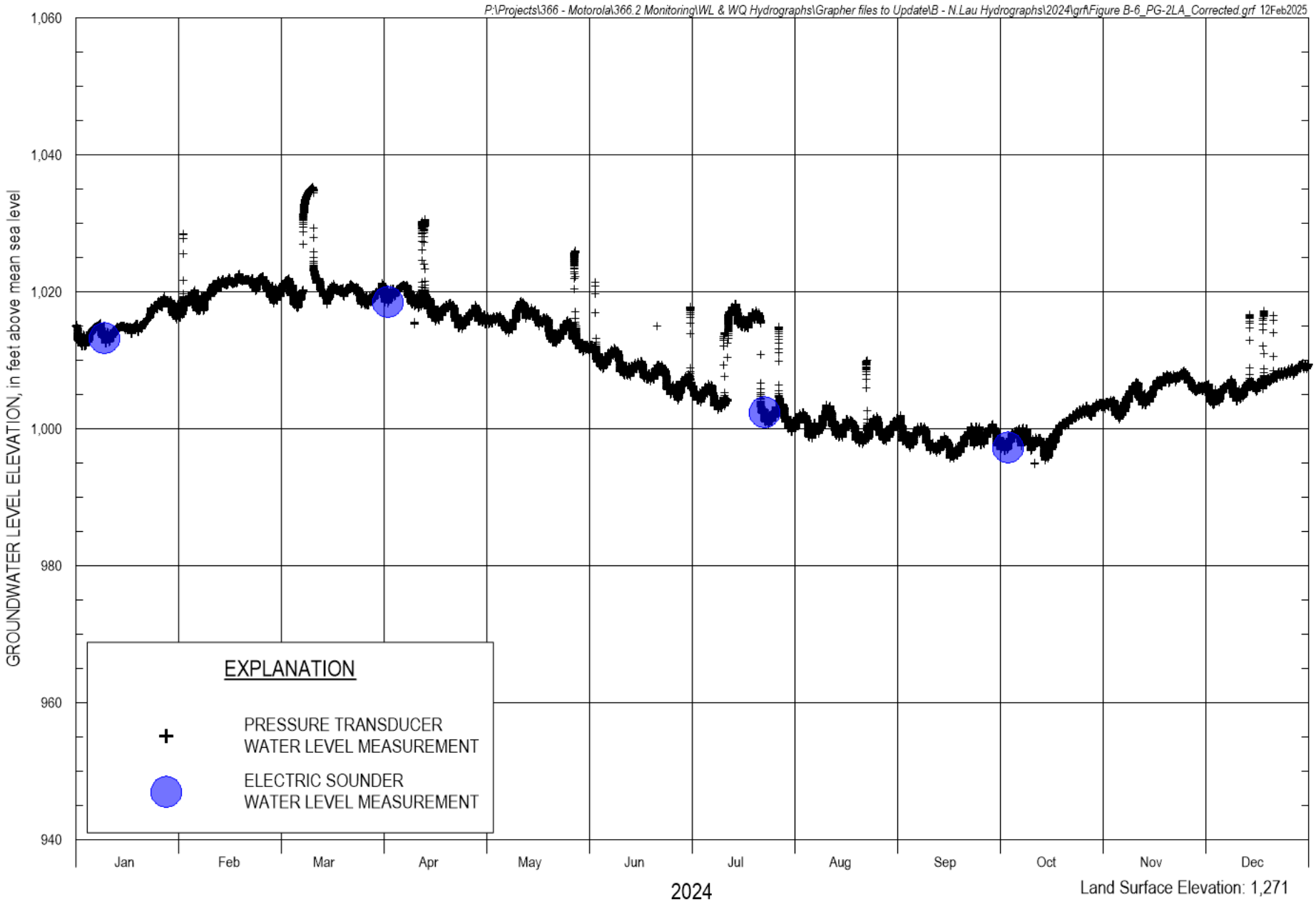


FIGURE B-6. GROUNDWATER LEVEL HYDROGRAPH FOR MONITOR WELL PG-2LA

North Indian Bend Wash Superfund Site

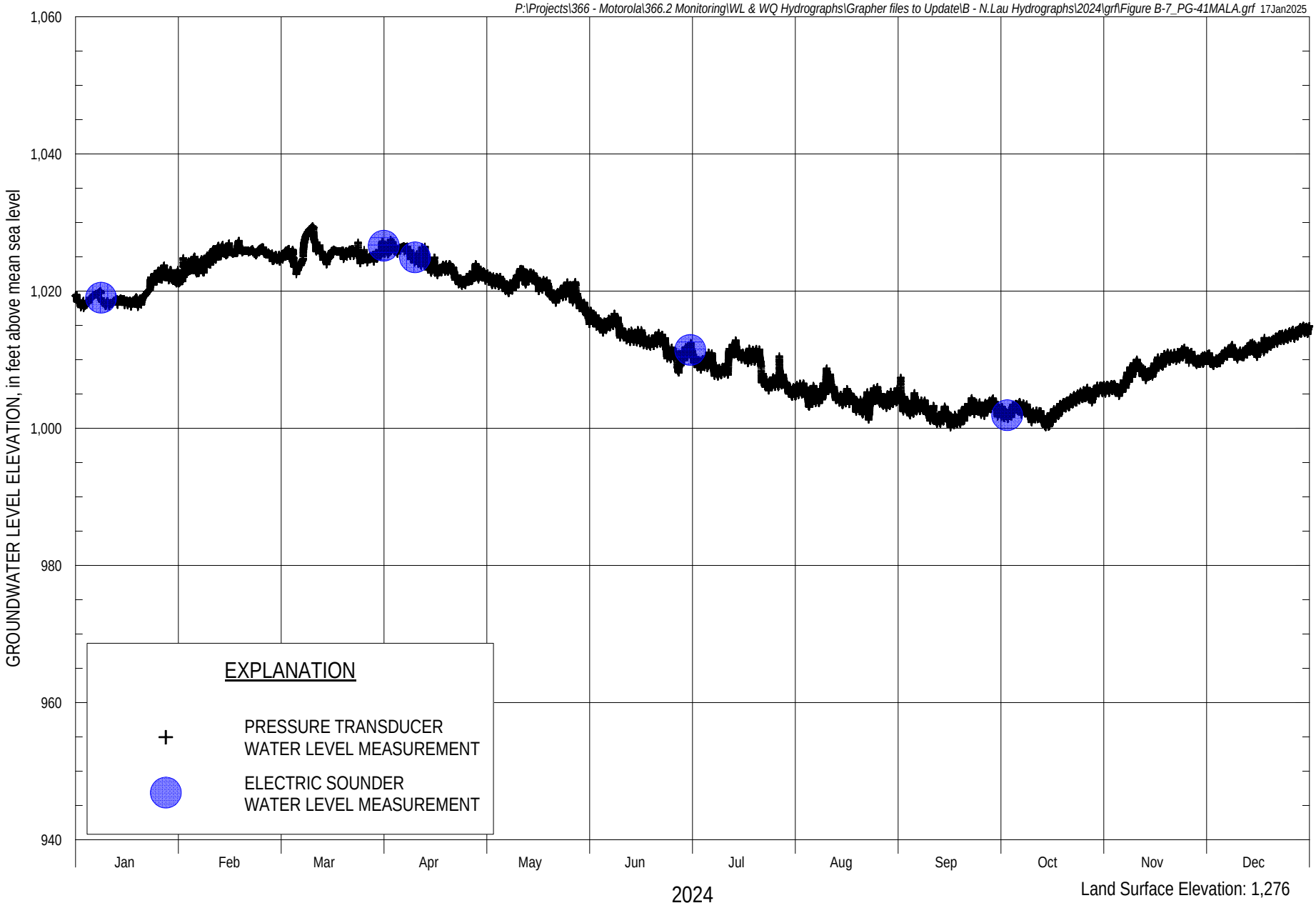


FIGURE B-7. GROUNDWATER LEVEL HYDROGRAPH FOR MONITOR WELL PG-41MA/LA

North Indian Bend Wash Superfund Site

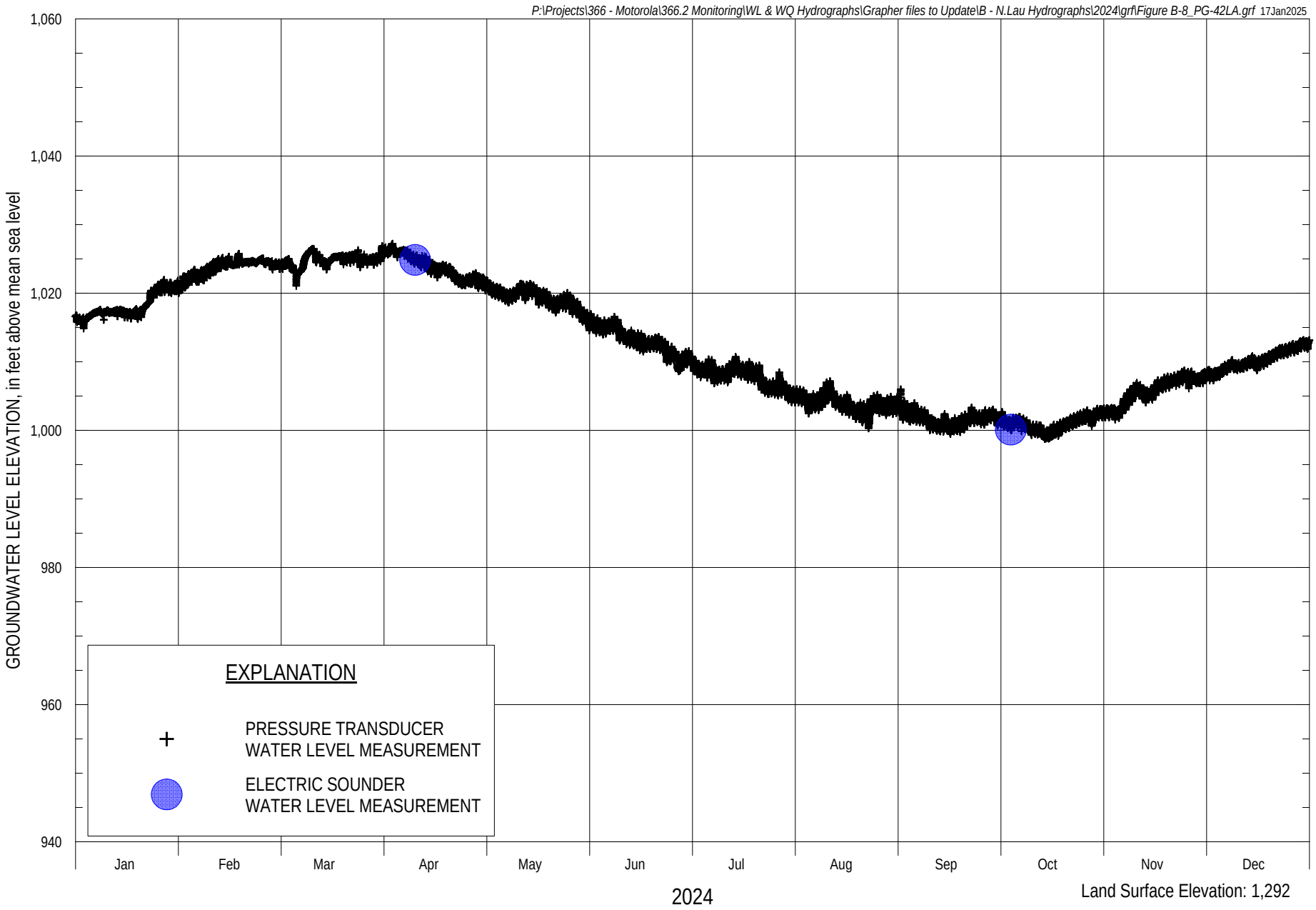


FIGURE B-8. GROUNDWATER LEVEL HYDROGRAPH FOR MONITOR WELL PG-42LA

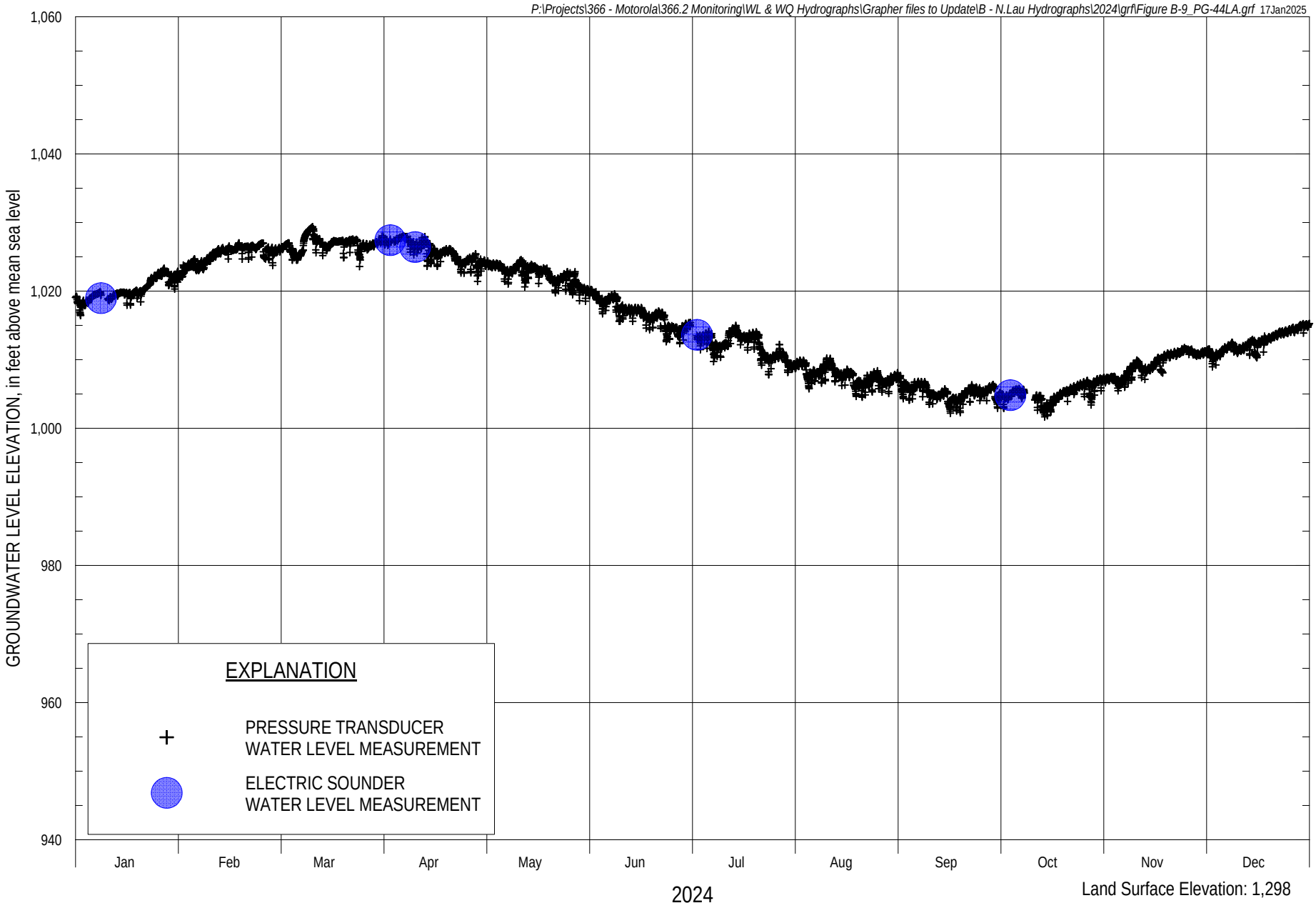


FIGURE B-9. GROUNDWATER LEVEL HYDROGRAPH FOR MONITOR WELL PG-44LA

North Indian Bend Wash Superfund Site

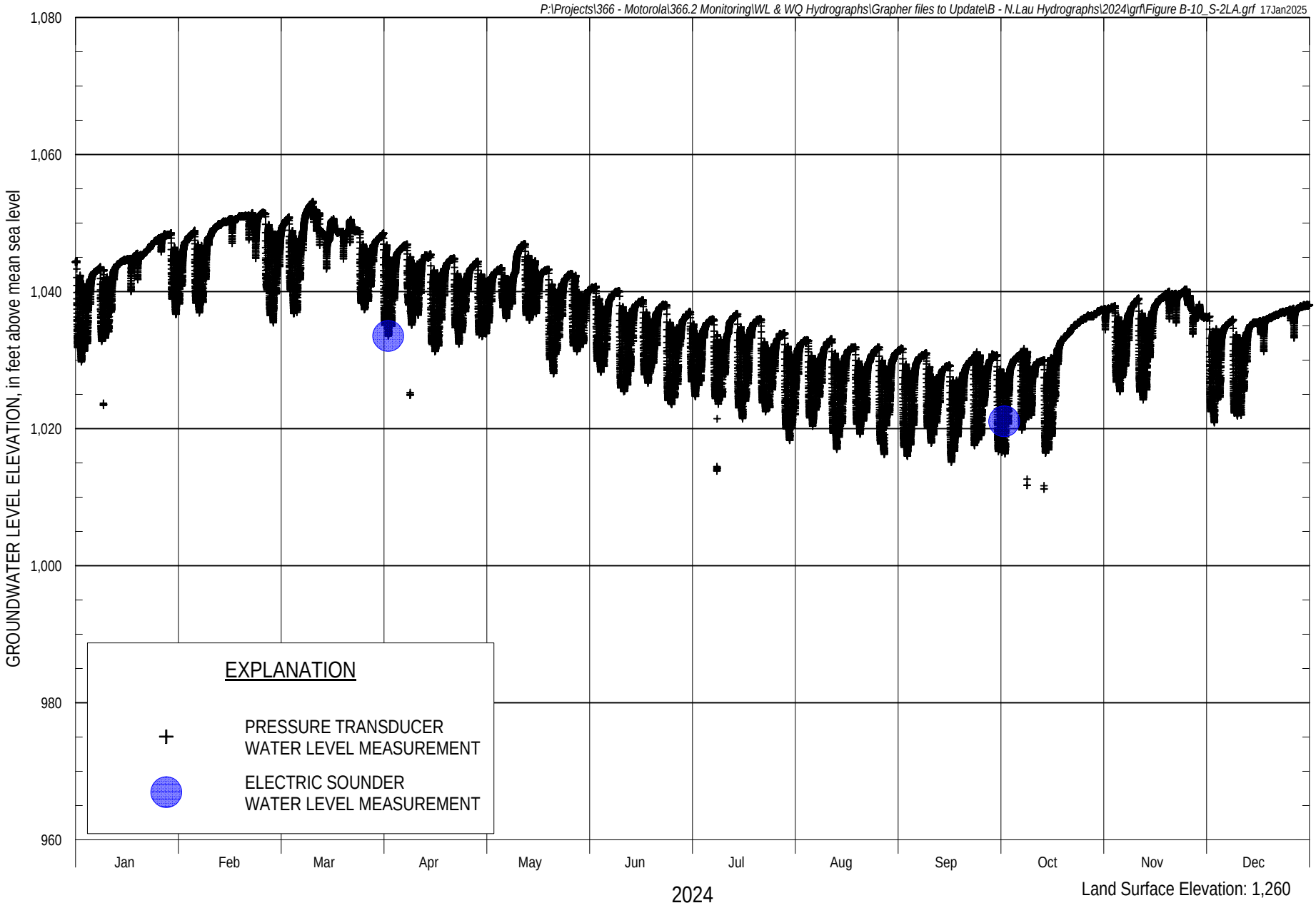


FIGURE B-10. GROUNDWATER LEVEL HYDROGRAPH FOR MONITOR WELL S-2LA

North Indian Bend Wash Superfund Site

APPENDIX B
SUPPLEMENTAL CONTINUOUS WATER LEVEL GRAPHS

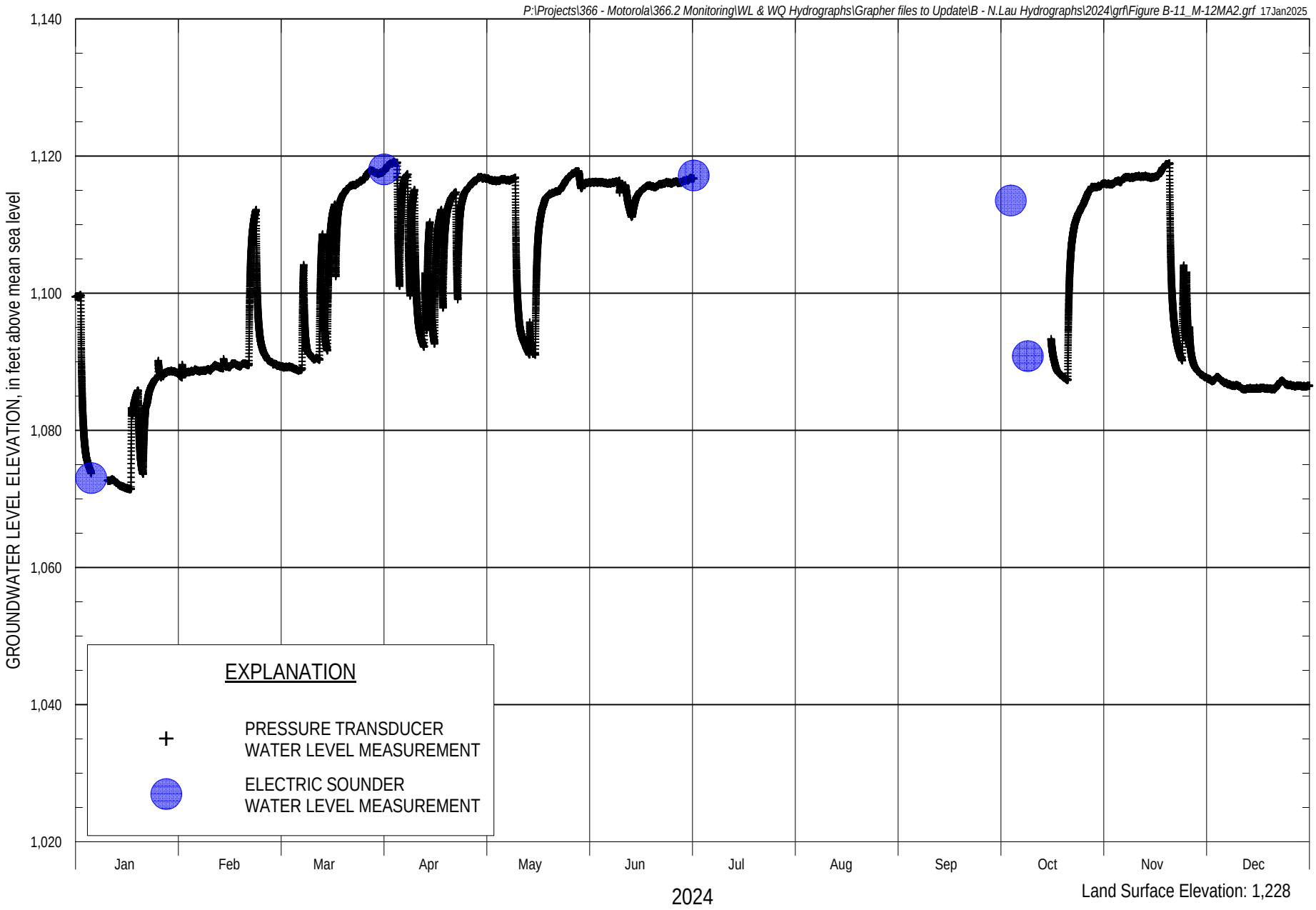


FIGURE B-11. GROUNDWATER LEVEL HYDROGRAPH FOR MONITOR WELL M-12MA2

North Indian Bend Wash Superfund Site

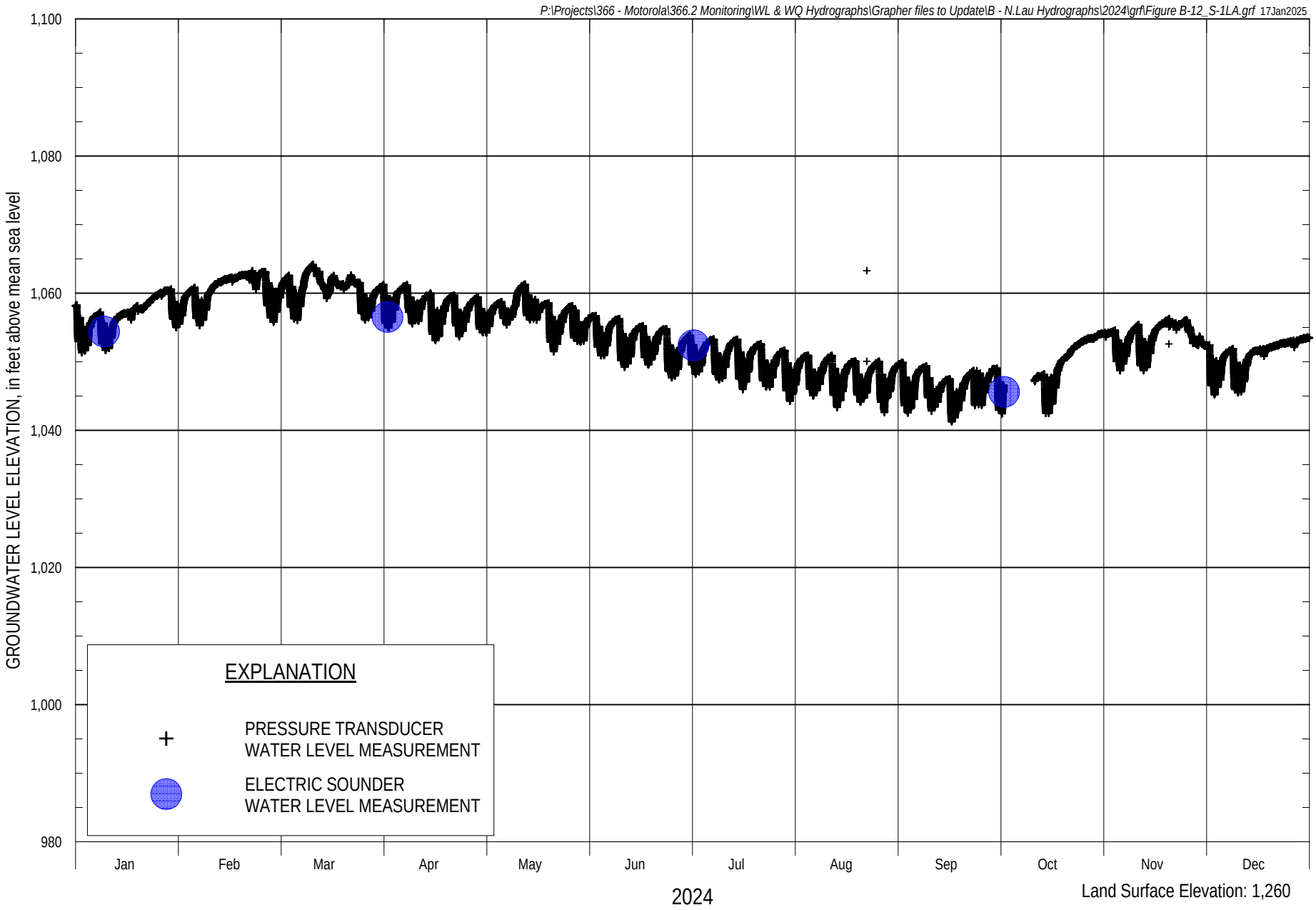


FIGURE B-12. GROUNDWATER LEVEL HYDROGRAPH FOR MONITOR WELL S-1LA

North Indian Bend Wash Superfund Site

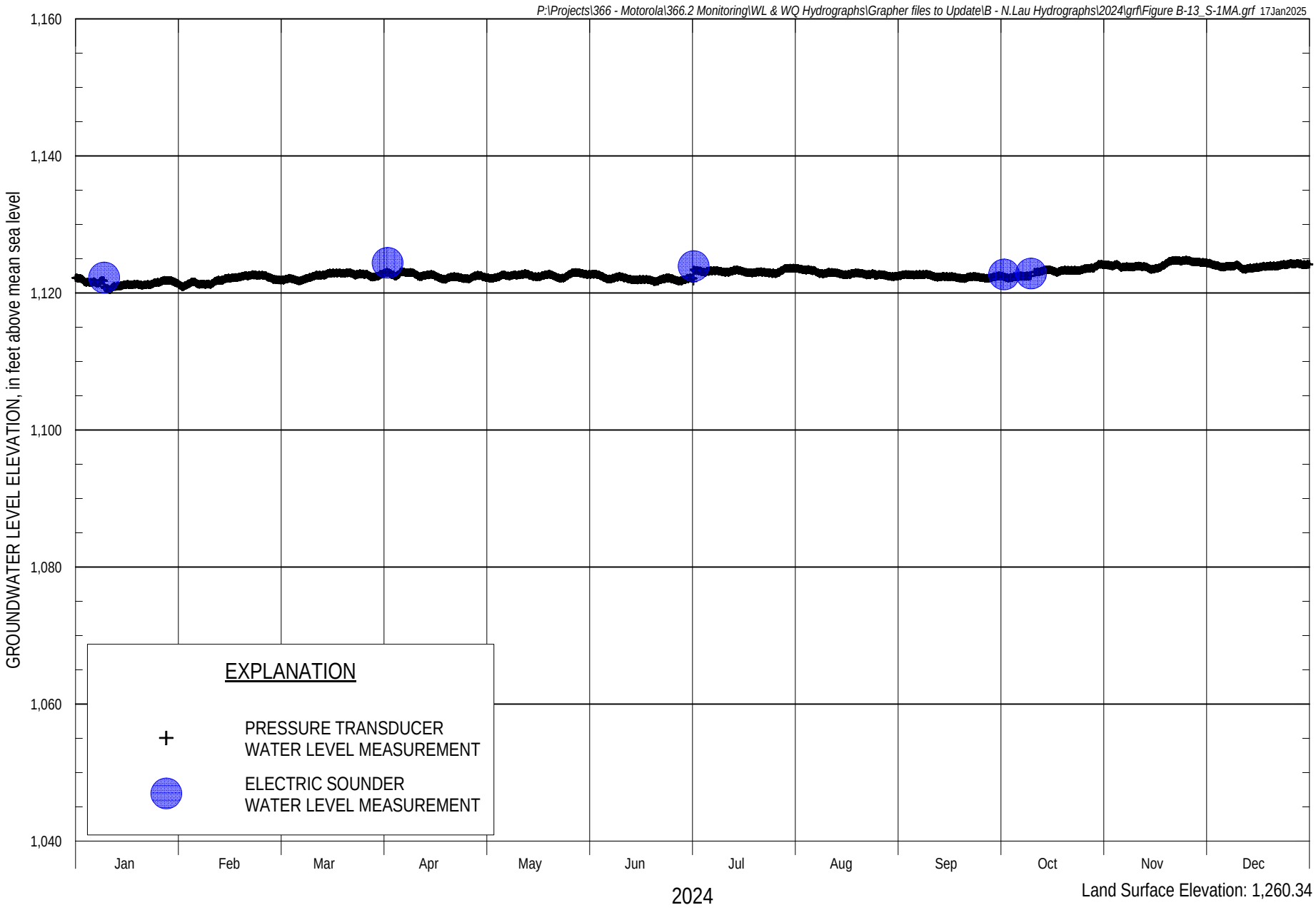


FIGURE B-13. GROUNDWATER LEVEL HYDROGRAPH FOR MONITOR WELL S-1MA

North Indian Bend Wash Superfund Site

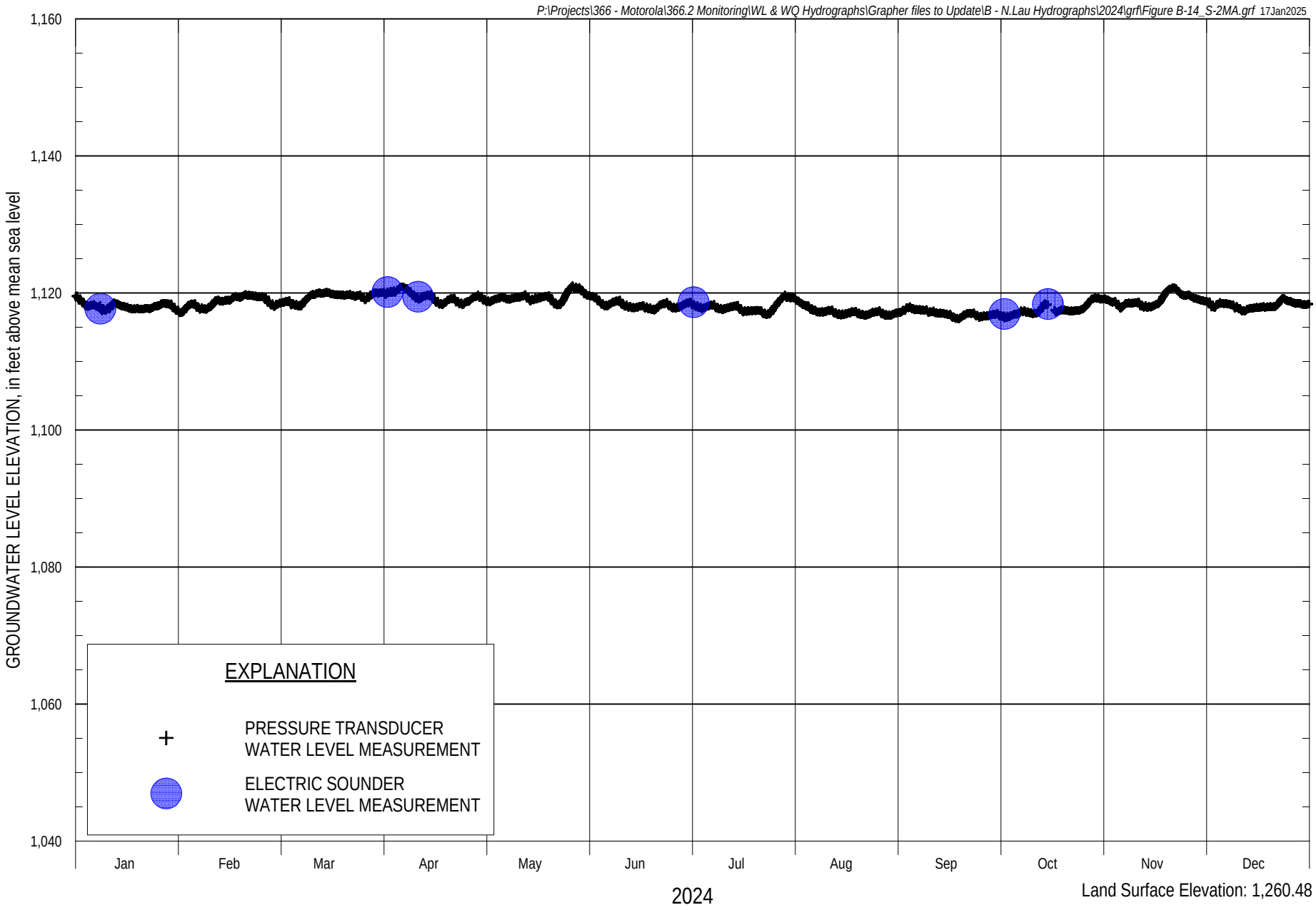


FIGURE B-14. GROUNDWATER LEVEL HYDROGRAPH FOR MONITOR WELL S-2MA

North Indian Bend Wash Superfund Site

APPENDIX C
LABORATORY RESULTS FOR VOLATILE ORGANIC COMPOUNDS, 2024

Table C-1. 2024 Laboratory Results For VOCs In Groundwater Monitoring Wells
North Indian Bend Wash Superfund Site, Scottsdale, Arizona
(results presented in micrograms per liter, µg/L)

Well Type	Sample Location	Sample ID	Sample Date	Sample Type	TCA	DCE	TCM	PCE	TCE	Report
					200	*6*	*6*	*5*	*5*	
MON	B-J	B-J	10/9/2024	Original	<0.500	<0.500	1.41	<0.500	2.49	L1787647
MON	D-4MA	D-4MA	1/11/2024	Original	<0.50	<0.50	1.4	6.7	640	550-212766
MON	D-4MA	D	1/11/2024	Duplicate	<0.50	<0.50	1.4	7.0	640	550-212766
MON	D-4MA	D-4MA	4/10/2024	Original	<0.500	<0.500	1.14	5.06	681	L1725330
MON	D-4MA	D-4MA	7/10/2024	Original	<0.500	<0.500	<12.5	4.67	536	L1756308
MON	D-4MA	D-4MA	10/12/2024	Original	<0.500	<0.500	1.45	7.29	599	L1789344
MON	E-1MA	E-1MA	1/9/2024	Original	<0.50	<0.50	<0.50	<0.50	7.7	550-212661
MON	E-1MA	E-1MA	4/9/2024	Original	<0.500	<0.500	<0.500	<0.500	0.788	L1724086
MON	E-1MA	E-1MA	7/9/2024	Original	<0.500	<0.500	<0.500	<0.500	4.66	L1755158
MON	E-1MA	E-1MA	10/12/2024	Original	<0.500	<0.500	<0.500	<0.500	3.65	L1789344
MON	E-5MA	E-5MA	1/9/2024	Original	<0.50	<0.50	2.1	0.72	30	550-212661
MON	E-5MA	E-5MA	4/9/2024	Original	<0.500	<0.500	2.02	0.751	36.8	L1724086
MON	E-5MA	E-5MA	7/9/2024	Original	<0.500	<0.500	1.90	0.624	34.3	L1755158
MON	E-5MA	E-5MA	10/9/2024	Original	<0.500	<0.500	2.15	0.906	39.0	L1787647
MON	E-5UA	*E-5UAHS*	10/10/2024	Original	<0.500	<0.500	0.545	<0.500	4.75	L1788407
MON	E-7LA	E-7LA	10/9/2024	Original	<0.500	<0.500	1.13	2.64	14.9	L1787647
MON	E-7UA	*E-7UAHS*	10/11/2024	Original	<0.500	<0.500	0.536	<0.500	1.61	L1788407
MON	E-8MA	E-8MA	10/9/2024	Original	<0.500	<0.500	1.70	<0.500	44.6	L1787647
MON	E-10MA	*E-10MAHS*	1/10/2024	Original	<0.50	<0.50	0.70	3.1	5.1	550-212741
MON	E-10MA	*E-10MAHS*	4/4/2024	Original	<0.500	<0.500	0.766	3.42	5.18	L1722794
MON	E-10MA	*E-10MAHS*	7/3/2024	Original	<0.500	<0.500	0.676	2.87	6.11	L1754077
MON	E-10MA	*E-10MAHS*	10/10/2024	Original	<0.500	<0.500	0.674	3.98	6.07	L1788523
MON	E-12UA	*E-12UAHS*	10/15/2024	Original	<0.500	<0.500	0.800	<0.500	2.98	L1789352
MON	E-13UA	*E-13UAHS*	10/11/2024	Original	<0.500	<0.500	0.798	<0.500	2.28	L1788407
MON	M-2MA	*M-2MAHS*	10/16/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1790203
MON	M-2MA	*AG*	10/16/2024	Duplicate	<0.500	<0.500	<0.500	<0.500	<0.500	L1790203
MON	M-2UA	*M-2UAHS*	10/16/2024	Original	<0.500	<0.500	1.36	<0.500	0.705	L1790203
MON	M-4MA	*M-4MAHS*	1/10/2024	Original	<0.50	<0.50	<0.50	1.1	16	550-212741
MON	M-4MA	*M-4MAHS*	4/4/2024	Original	<0.500	<0.500	<0.500	<0.500	8.93	L1722794
MON	M-4MA	*M-4MAHS*	7/3/2024	Original	<0.500	0.554	<0.500	1.08	23.7	L1754077
MON	M-4MA	*M-4MAHS*	10/17/2024	Original	<0.500	<0.500	<0.500	<0.500	12.1	L1790316-2
MON	M-5LA	M-5LA	10/12/2024	Original	<0.500	<0.500	1.45	<0.500	2.53	L1789344
MON	M-5MA	M-5MA	1/10/2024	Original	<0.50	<0.50	<0.50	<0.50	5.1	550-212740
MON	M-5MA	M-5MA	4/10/2024	Original	<0.500	<0.500	<0.500	<0.500	5.00	L1725330
MON	M-5MA	M-5MA	7/10/2024	Original	<0.500	<0.500	<0.500	<0.500	13.4	L1756308
MON	M-5MA	M-5MA	10/12/2024	Original	<0.500	<0.500	<0.500	<0.500	5.43	L1789344
MON	M-6MA	M-6MA	1/10/2024	Original	<0.50	<0.50	1.3	0.75	24	550-212740
MON	M-6MA	M-6MA	4/10/2024	Original	<0.500	<0.500	1.23	0.695	27.2	L1725330
MON	M-6MA	M-6MA	7/10/2024	Original	<0.500	<0.500	1.07	0.662	28.2	L1756308
MON	M-6MA	M-6MA	10/12/2024	Original	<0.500	<0.500	1.86	1.02	39.5	L1789344
MON	M-6MA	P	10/12/2024	Duplicate	<0.500	<0.500	1.76	1.01	39.6	L1789344
MON	M-7MA	M-7MA	10/12/2024	Original	<0.500 (REJ)	<0.500 (REJ)	1.16 (REJ)	<0.500 (REJ)	8.43 (REJ)	L1789344
				Lab dup	<0.500 (1),(2),(REJ)	<0.500 (1),(2),(REJ)	0.905 (1),(2),(REJ)	<0.500 (1),(2),(REJ)	6.32 (1),(2),(REJ)	
MON	M-7MA	M-7MA	11/20/2024	Original	<0.500	<0.500	1.38	<0.500	1.99	L1802600
MON	M-9MA	M-9MA	10/14/2024	Original	<0.500 (REJ)	<0.500 (REJ)	<0.500 (REJ)	<0.500 (REJ)	6.30 (REJ)	L1789344
				Lab dup	<0.500 (1),(2),(REJ)	<0.500 (1),(2),(REJ)	<0.500 (1),(2),(REJ)	<0.500 (1),(2),(REJ)	5.45 (1),(2),(REJ)	
MON	M-9MA	M-9MA	11/20/2024	Original	<0.500	<0.500	<0.500	<0.500	2.96	L1802600
MON	M-10LA2	*M-10LA2HS*	10/11/2024	Original	<0.500	<0.500	<0.500	<0.500	3.27	L1788407
MON	M-10MA2	M-10MA2	1/10/2024	Original	<0.50	1.9	1.7	2.2	71	550-212740
MON	M-10MA2	C	1/10/2024	Duplicate	<0.50	1.9	1.8	2.2	72	550-212740

Table C-1. 2024 Laboratory Results For VOCs In Groundwater Monitoring Wells
North Indian Bend Wash Superfund Site, Scottsdale, Arizona
(results presented in micrograms per liter, µg/L)

Well Type	Sample Location	Sample ID	Sample Date	Sample Type	TCA	DCE	TCM	PCE	TCE	Report
					200	6	6	5	5	
MON	M-10MA2	M-10MA2	4/9/2024	Original	<0.500	2.00	1.86	2.49	97.1	L1724086
MON	M-10MA2	F	4/9/2024	Duplicate	<0.500	1.91	1.84	2.54	95.3	L1724086
MON	M-10MA2	M-10MA2	7/9/2024	Original	<0.500	1.06	1.02	1.50	45.0	L1755158
MON	M-10MA2	M-10MA2	10/9/2024	Original	<0.500	1.10	1.01	1.90	43.7	L1787647
MON	M-11MA	M-11MA	10/9/2024	Original	<0.500	<0.500	<0.500	<0.500	0.720	L1787647
MON	M-12MA2	*M-12MA2HS*	1/10/2024	Original	<0.50	<0.50	<0.50	<0.50	6.4	550-212741
MON	M-12MA2	*M-12MA2HS*	10/16/2024	Original	<0.500	<0.500	<0.500	<0.500	5.96	L1790203
MON	M-14LA	*M-14LAHS*	10/16/2024	Original	<0.500	<0.500	1.11	11.1	12.1	L1790316-1
MON	M-14LA	*M-14LAHS*	11/19/2024	Original	<0.500	<0.500	0.841	5.40	9.08	L1802112
MON	M-15MA	M-15MA	1/8/2024	Original	<0.50	<0.50	<0.50	<0.50	3.0	550-212661
MON	M-15MA	M-15MA	4/9/2024	Original	<0.500	<0.500	<0.500	<0.500	3.72	L1724086
MON	M-15MA	M-15MA	7/9/2024	Original	<0.500	<0.500	<0.500	<0.500	3.66	L1755158
MON	M-15MA	M-15MA	10/12/2024	Original	<0.500	<0.500	<0.500	<0.500	3.38	L1789344
MON	M-16LA	*M-16LAHS*	10/15/2024	Original	<0.500	<0.500	<0.500	0.730	7.21	L1789352
MON	M-16MA	M-16MA	10/11/2024	Original	<0.500	<0.500	<0.500	<0.500	4.85	L1788575
MON	M-17MA/LA	*M-17MA/LAHS*	1/9/2024	Original	<0.50	<0.50	<0.50	<0.50	<0.50	550-212741
MON	M-17MA/LA	*M-17MALAHS*	4/10/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1725309
MON	M-17MA/LA	*M-17MALAHS*	7/10/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1755359
MON	M-17MA/LA	*M-17MA/LAHS*	10/9/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1787657
MON	PA-2LA	PA-2LA	10/7/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1786216
MON	PA-2LA	K	10/7/2024	Duplicate	<0.500	<0.500	<0.500	<0.500	<0.500	L1786216
MON	PA-5LA	PA-5LA	1/10/2024	Original	<0.50	0.53	2.4	5.3	45	550-212766
MON	PA-5LA	PA-5LA	4/9/2024	Original	<0.500	0.515	2.43	5.47	54.4	L1724086
MON	PA-5LA	PA-5LA	7/8/2024	Original	<0.500	<0.500	2.33	4.61	48.3	L1754797
MON	PA-5LA	PA-5LA	10/8/2024	Original	<0.500	<0.500	2.36	4.10	45.0	L1786896
MON	PA-6LA	*PA-6LAHS*	1/10/2024	Original	<0.50	1.5	1.1	4.8	54	550-212741
MON	PA-6LA	*PA-6LAHS*	4/4/2024	Original	<0.500	1.06	0.524	3.18	42.2	L1722794
MON	PA-6LA	*PA-6LAHS*	7/3/2024	Original	<0.500	1.17	0.601	3.10	43.4	L1754077
MON	PA-6LA	*AC*	7/3/2024	Duplicate	<0.500	1.17	0.601	3.09	44.3	L1754077
MON	PA-6LA	*PA-6LAHS*	10/17/2024	Original	<0.500	1.42	0.960	5.59	60.4	L1790316-2
MON	PA-6LA	*AH*	10/17/2024	Duplicate	<0.500	1.46	0.954	5.58	60.5	L1790316-2
MON	PA-8LA2	PA-8LA2	10/8/2024	Original	<0.500	<0.500	1.27	0.776	8.85	L1786896
MON	PA-9LA	*PA-9LAHS*	10/17/2024	Original	<0.500	<0.500	2.17	<0.500	10.4	L1790316-2
MON	PA-10MA	*PA-10MAHS*	1/10/2024	Original	<0.50	<0.50	<0.50	0.62	33	550-212741
MON	PA-10MA	*PA-10MAHS*	4/4/2024	Original	<0.500	<0.500	<0.500	0.983	55.9	L1722794
MON	PA-10MA	*AB*	4/4/2024	Duplicate	<0.500	<0.500	<0.500	0.832	48.6	L1722794
MON	PA-10MA	*PA-10MAHS*	7/3/2024	Original	<0.500	<0.500	<0.500	0.913	55.7	L1754077
MON	PA-10MA	*PA-10MAHS*	10/10/2024	Original	<0.500	<0.500	<0.500	1.71	74.9	L1788523
MON	PA-11LA	PA-11LA	10/8/2024	Original	<0.500	<0.500	1.59	<0.500	<0.500	L1786896
MON	PA-12MA	PA-12MA	1/9/2024	Original	<0.50	<0.50	0.66	3.7	260	550-212661
MON	PA-12MA	PA-12MA	4/9/2024	Original	<0.500	<0.500	0.648	3.94	279	L1724086
MON	PA-12MA	PA-12MA	7/9/2024	Original	<0.500	<0.500	0.660	3.61	307	L1755158
MON	PA-12MA	PA-12MA	10/8/2024	Original	<0.500	<0.500	0.731	3.77	364	L1786896
MON	PA-13LA	PA-13LA	1/10/2024	Original	<0.50	<0.50	1.6	0.98	56	550-212740
MON	PA-13LA	PA-13LA	4/9/2024	Original	<0.500	<0.500	1.69	1.00	71.8	L1724086
MON	PA-13LA	PA-13LA	7/8/2024	Original	<0.500	<0.500	1.63	2.29	28.0	L1754797
MON	PA-13LA	PA-13LA	10/8/2024	Original	<0.500	<0.500	1.72	0.902	71.8	L1786896
MON	PA-15LA	*PA-15LAHS*	10/17/2024	Original	<0.500	<0.500	2.40	1.40	<0.500	L1790316-1
MON	PA-16MA	*PA-16MAHS*	10/11/2024	Original	<0.500	<0.500	<0.500	<0.500	3.71	L1788407
MON	PA-18LA	*PA-18LAHS*	10/17/2024	Original	<0.500	<0.500	0.905	<0.500	0.947	L1790316-1
MON	PA-19LA	PA-19LA	10/8/2024	Original	<0.500	<0.500	1.13	1.51	29.4	L1786896

Table C-1. 2024 Laboratory Results For VOCs In Groundwater Monitoring Wells
North Indian Bend Wash Superfund Site, Scottsdale, Arizona
(results presented in micrograms per liter, µg/L)

Well Type	Sample Location	Sample ID	Sample Date	Sample Type	TCA	DCE	TCM	PCE	TCE	Report
					200	6	6	5	5	
MON	PA-20MA	PA-20MA	10/9/2024	Original	<0.500	1.01	1.32	5.21	63.4	L1787647
MON	PA-21MA	*PA-21MAHS*	10/9/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1787657
MON	PG-1LA	PG-1LA	1/8/2024	Original	<0.50	<0.50	1.9	<0.50	1.1	550-212661
MON	PG-1LA	PG-1LA	4/8/2024	Original	<0.500	<0.500	1.54	<0.500	0.854	L1723456
MON	PG-1LA	PG-1LA	7/8/2024	Original	<0.500	<0.500	1.95	<0.500	1.17	L1754797
MON	PG-1LA	PG-1LA	10/8/2024	Original	<0.500	<0.500	2.17	<0.500	1.35	L1786896
MON	PG-1LA	L	10/8/2024	Duplicate	<0.500	<0.500	2.22	<0.500	1.23	L1786896
MON	PG-2LA	PG-2LA	4/10/2024	Original	<0.500	<0.500	1.38	1.44	77.4	L1725330
MON	PG-2LA	G	4/10/2024	Duplicate	<0.500	<0.500	1.32	1.34	93.3	L1725330
MON	PG-2LA	PG-2LA	10/11/2024	Original	<0.500	<0.500	1.37	1.58	80.5	L1788575
MON	PG-4MA	PG-4MA	10/10/2024	Original	<0.500	<0.500	0.895	0.534	2.24	L1788285
MON	PG-4UA	*PG-4UAHS*	10/15/2024	Original	<0.500	<0.500	1.25	1.44	0.713	L1789352
MON	PG-5MA	*PG-5MAHS*	10/9/2024	Original	<0.500	<0.500	<0.500	<0.500	4.84	L1787657
MON	PG-5UA	*PG-5UAHS*	10/9/2024	Original	<0.500	<0.500	0.769	<0.500	2.32	L1787657
MON	PG-6MA	PG-6MA	10/10/2024	Original	<0.500	1.41	2.91	5.00	109 (1),(3),(A)	L1788285
				Lab dup	---	---	---	---	122 (4),(B)	
MON	PG-6UA	PG-6UA (C)	10/10/2024	Original	<0.500	<0.500	1.00	<0.500	2.15	L1788285
MON	PG-6UA	*PG-6UAHS*	10/22/2024	Original	<0.500	<0.500	0.573	<0.500	0.760	L1792533
MON	PG-6UA	AI	10/22/2024	Duplicate	<0.500	<0.500	0.593	<0.500	0.805	L1792533
MON	PG-7MA	PG-7MA	10/10/2024	Original	<0.500	<0.500	1.17	<0.500	1.74	L1788285
MON	PG-8UA	PG-8UA	10/9/2024	Original	<0.500	<0.500	0.784	<0.500	0.750	L1787647
MON	PG-8UA	M	10/9/2024	Duplicate	<0.500	<0.500	0.749	<0.500	0.737	L1787647
MON	PG-10UA	PG-10UA	10/14/2024	Original	<0.500 (REJ)	<0.500 (REJ)	0.595 REJ	<0.500 (REJ)	7.63 REJ	L1789344
				Lab dup	<0.500 (1),(2),(REJ)	<0.500 (1),(2),(REJ)	0.460 (1),(2),(REJ)	<0.500 (1),(2),(REJ)	5.92 (1),(2),(REJ)	
MON	PG-10UA	PG-10UA	11/19/2024	Original	<0.500	<0.500	<0.500	<0.500	1.68	L1802122
MON	PG-10UA	S	11/19/2024	Duplicate	<0.500	<0.500	<0.500	<0.500	1.59	L1802122
MON	PG-11UA	PG-11UA (C)	10/11/2024	Original	<0.500	<0.500	0.972	<0.500	<0.500	L1788575
MON	PG-11UA	*PG-11UAHS*	10/11/2024	Original	<0.500	<0.500	1.03	<0.500	<0.500	L1788407
MON	PG-16UA	PG-16UA	10/11/2024	Original	<0.500	<0.500	0.651	<0.500	1.48	L1788575
MON	PG-18UA	PG-18UA	10/9/2024	Original	<0.500 (REJ)	<0.500 (REJ)	1.55 (REJ)	<0.500 (REJ)	39.9 (REJ)	L1787647
				Lab dup	<0.500 (1),(REJ)	<0.500 (1),(REJ)	1.23 (1),(REJ)	<0.500 (1),(REJ)	31.0 (1),(REJ)	
MON	PG-18UA	PG-18UA	11/20/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1802600
MON	PG-19UA	PG-19UA	10/12/2024	Original	<0.500 (REJ)	<0.500 (REJ)	0.784 (REJ)	<0.500 (REJ)	14.2 (REJ)	L1789344
				Lab dup	<0.500 (1),(2),(REJ)	<0.500 (1),(2),(REJ)	0.633 (1),(2),(REJ)	<0.500 (1),(2),(REJ)	11.3 (1),(2),(REJ)	
MON	PG-19UA	PG-19UA	11/19/2024	Original	<0.500	<0.500	<0.500	<0.500	1.58	L1802122
MON	PG-22UA	*PG-22UAHS*	10/17/2024	Original	<0.500	<0.500	<0.500	0.574	2.50	L1790316-2
MON	PG-23MA/LA	PG-23MA/LA	10/10/2024	Original	<0.500	<0.500	1.19	1.49	15.1	L1788285
MON	PG-23MA/LA	N	10/10/2024	Duplicate	<0.500	<0.500	1.21	1.51	15.0	L1788285
MON	PG-23UA	*PG-23UAHS*	10/9/2024	Original	<0.500	<0.500	0.665	<0.500	1.31	L1787657
MON	PG-24UA	*PG-24UAHS*	10/11/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1788407
MON	PG-24UA	*AE*	10/11/2024	Duplicate	<0.500	<0.500	<0.500	<0.500	<0.500	L1788407
MON	PG-25UA	*PG-25UAHS*	10/9/2024	Original	<0.500	<0.500	0.589	<0.500	<0.500	L1787657
MON	PG-28UA	PG-28UA	10/11/2024	Original	<0.500	<0.500	2.30	<0.500	1.64	L1788575
MON	PG-29UA	PG-29UA	10/11/2024	Original	<0.500	<0.500	0.728	<0.500	0.830	L1788575
MON	PG-31UA	*PG-31UAHS*	10/15/2024	Original	<0.500	<0.500	3.28	<0.500	4.52	L1789352
MON	PG-38MA/LA	*PG-38MA/LAHS*	10/15/2024	Original	<0.500	<0.500	0.635	1.05	0.769	L1789352
MON	PG-38MA/LA	*AF*	10/15/2024	Duplicate	<0.500	<0.500	<0.500	0.994	0.637	L1789352

Table C-1. 2024 Laboratory Results For VOCs In Groundwater Monitoring Wells
North Indian Bend Wash Superfund Site, Scottsdale, Arizona
(results presented in micrograms per liter, µg/L)

Well Type	Sample Location	Sample ID	Sample Date	Sample Type	TCA	DCE	TCM	PCE	TCE	Report
					200	6	6	5	5	
MON	PG-39LA	PG-39LA	10/11/2024	Original	<0.500	<0.500	1.02	1.69	2.19	L1788575
MON	PG-39LA	O	10/11/2024	Duplicate	<0.500	<0.500	1.03	1.71	2.28	L1788575
MON	PG-40LA	PG-40LA	1/8/2024	Original	<0.50	<0.50	0.87	0.80	21	550-212661
MON	PG-40LA	A	1/8/2024	Duplicate	<0.50	<0.50	0.91	0.80	21	550-212661
MON	PG-40LA	PG-40LA	4/8/2024	Original	<0.500	<0.500	0.890	0.759	21.4	L1723456
MON	PG-40LA	E	4/8/2024	Duplicate	<0.500	<0.500	0.913	0.777	22.2	L1723456
MON	PG-40LA	PG-40LA	7/11/2024	Original	<0.500	<0.500	0.537	<0.500	4.37	L1756310
MON	PG-40LA	J	7/11/2024	Duplicate	<0.500	<0.500	0.633	<0.500	4.33	L1756310
MON	PG-40LA	PG-40LA	10/15/2024	Original	<0.500	<0.500	1.16	1.17	28.2	L1789337
MON	PG-40LA	R	10/15/2024	Duplicate	<0.500	<0.500	1.25	1.21	29.0	L1789337
MON	PG-42LA	PG-42LA	1/9/2024	Original	<0.50	<0.50	0.63	<0.50	1.1	550-212661
MON	PG-42LA	PG-42LA	4/8/2024	Original	<0.500	<0.500	0.662	<0.500	1.38	L1723456
MON	PG-42LA	PG-42LA	7/9/2024	Original	<0.500	<0.500	<0.500	<0.500	1.10	L1755158
MON	PG-42LA	PG-42LA	10/7/2024	Original	<0.500	<0.500	<0.500	<0.500	1.29	L1786216
MON	PG-43LA	*PG-43LAHS*	1/10/2024	Original	<0.50	<0.50	<0.50	<0.50	<0.50	550-212741
MON	PG-43LA	*PG-43LAHS*	4/4/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1722794
MON	PG-43LA	*PG-43LAHS*	7/3/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1754077
MON	PG-43LA	*PG-43LAHS*	10/17/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1790316-1
MON	PG-44LA	*PG-44LAHS*	1/10/2024	Original	<0.50	<0.50	1.5	<0.50	<0.50	550-212741
MON	PG-44LA	*PG-44LAHS*	4/4/2024	Original	<0.500	<0.500	1.50	<0.500	<0.500	L1722794
MON	PG-44LA	*PG-44LAHS*	7/3/2024	Original	<0.500	<0.500	2.40	<0.500	<0.500	L1754077
MON	PG-44LA	*PG-44LAHS*	10/11/2024	Original	<0.500	<0.500	2.63	<0.500	<0.500	L1788523
MON	PG-48MA	PG-48MA	1/10/2024	Original	<0.50	<0.50	0.53	<0.50	11	550-212740
MON	PG-48MA	PG-48MA	4/10/2024	Original	<0.500	<0.500	0.594	<0.500	16.9	L1725330
MON	PG-48MA	PG-48MA	7/9/2024	Original	<0.500	<0.500	0.508	<0.500	13.9	L1755158
MON	PG-48MA	PG-48MA	10/12/2024	Original	<0.500	<0.500	0.682	<0.500	16.9	L1789344
MON	PG-50MA	*PG-50MAHS*	10/16/2024	Original	<0.500	<0.500	0.811	<0.500	1.28	L1790203
MON	PG-53MA	*PG-53MAHS*	10/9/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1787657
MON	PG-53MA	*AD*	10/9/2024	Duplicate	<0.500	<0.500	<0.500	<0.500	<0.500	L1787657
MON	PG-54MA	PG-54MA	10/11/2024	Original	<0.500	<0.500	1.58	1.44	42.2	L1788575
MON	PG-55MA	PG-55MA	10/11/2024	Original	<0.500	<0.500	<0.500	<0.500	5.02	L1788575
MON	PG-56MA	PG-56MA	10/11/2024	Original	<0.500	<0.500	0.737	<0.500	2.46	L1788575
MON	S-1LA	S-1LA	10/14/2024	Original	<0.500 (REJ)	<0.500 (REJ)	0.532 (REJ)	<0.500 (REJ)	14.8 (REJ)	L1789344
				Lab dup	<0.500 (1),(2),(REJ)	<0.500 (1),(2),(REJ)	0.380 (1),(2),(REJ)	<0.500 (1),(2),(REJ)	11.2 (1),(2),(REJ)	
MON	S-1LA	S-1LA	11/20/2024	Original	<0.500	<0.500	2.63	98.6 (1),(5),(A)	1.14	L1802600
				Lab dup	---	---	---	104 (4),(B)	---	
MON	S-1LA	T	11/20/2024	Duplicate	<0.500	<0.500	2.73	101 (1),(5),(A)	1.23	L1802600
				Lab dup	---	---	---	108 (4),(B)	---	
MON	S-1MA	*S-1MAHS*	10/11/2024	Original	<0.500	<0.500	<0.500	7.08	<0.500	L1788523
MON	S-2LA	S-2LA	1/9/2024	Original	<0.50	<0.50	<0.50	<0.50	14	550-212661
MON	S-2LA	B	1/9/2024	Duplicate	<0.50	<0.50	<0.50	<0.50	14	550-212661
MON	S-2LA	S-2LA	4/9/2024	Original	<0.500	<0.500	<0.500	<0.500	14.1	L1724086
MON	S-2LA	S-2LA	7/9/2024	Original	<0.500	<0.500	<0.500	<0.500	13.3	L1755158
MON	S-2LA	H	7/9/2024	Duplicate	<0.500	<0.500	<0.500	<0.500	13.0	L1755158
MON	S-2LA	S-2LA	10/9/2024	Original	<0.500	<0.500	<0.500	<0.500	13.1	L1787647
MON	S-2MA	*S-2MAHS*	10/17/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1790316-2
MON	W-1MA	W-1MA	1/11/2024	Original	<0.50	<0.50	1.2	2.3	380	550-212766
MON	W-1MA	W-1MA	7/10/2024	Original	<0.500	<0.500	<10.0	2.03	468	L1756308
MON	W-1MA	W-1MA	10/14/2024	Original	<0.500	<0.500	1.30	2.84	428	L1789344
MON	W-1MA	Q	10/14/2024	Duplicate	<0.500	<0.500	1.24	2.69	391	L1789344

Table C-1. 2024 Laboratory Results For VOCs In Groundwater Monitoring Wells
North Indian Bend Wash Superfund Site, Scottsdale, Arizona
(results presented in micrograms per liter, µg/L)

Well Type	Sample Location	Sample ID	Sample Date	Sample Type	TCA	DCE	TCM	PCE	TCE	Report
					200	*6*	*6*	*5*	*5*	
MON	W-2MA	W-2MA	1/9/2024	Original	<0.50	<0.50	0.52	3.6	840	550-212661
MON	W-2MA	W-2MA	4/10/2024	Original	<0.500	<0.500	0.585	4.03	1030	L1725330
MON	W-2MA	W-2MA	7/10/2024	Original	<0.500	<0.500	<25.0	3.06	1060	L1756308
MON	W-2MA	I	7/10/2024	Duplicate	<0.500	<0.500	<25.0	3.18	1070	L1756308
MON	W-2MA	W-2MA	10/11/2024	Original	<0.500	<0.500	<0.500	3.69	947 (1),(3),(A)	L1788575
				Lab dup	---	---	---	---	1020 (4),(B)	
Trip/Field Blanks										
--	QC	FRB (Trip)	1/8/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-212661
--	QC	FRB (Trip)	1/9/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-212661
--	QC	FBR (Trip)	1/10/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-212740
--	QC	FRB (Trip)	1/10/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-212741
--	QC	FRB (Trip)	1/11/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-212766
--	QC	FRB(TRIP)	4/4/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1722794
--	QC	FRB (TRIP)	4/8/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1723456
--	QC	TRIP BLANK	4/9/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1724086
--	QC	FRB (TRIP)	4/10/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1725309
--	QC	FRB (TRIP)	4/10/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1725330
--	QC	FRB (TRIP)	7/3/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1754077
--	QC	FRB (TRIP)	7/8/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1754797
--	QC	FRB (TRIP)	7/9/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1755158
--	QC	FRB (TRIP)	7/10/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1755359
--	QC	FRB (TRIP)	7/10/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1756308
--	QC	FRB (TRIP)	7/11/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1756310
--	QC	FRB (TRIP)	10/7/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1786216
--	QC	FRB (TRIP)	10/8/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1786896
--	QC	FRB(TRIP)	10/9/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1787647
--	QC	FRB(TRIP)	10/9/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1787657
--	QC	FRB(TRIP)	10/10/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1788285
--	QC	FRB (TRIP)	10/10/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1788407
--	QC	FRB (TRIP)	10/11/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1788523
--	QC	FRB(TRIP)	10/11/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1788575
--	QC	FRB (TRIP)	10/12/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1789344
--	QC	FRB (TRIP)	10/15/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1789337
--	QC	FRB (TRIP)	10/15/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1789352
--	QC	FRB (TRIP)	10/16/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1790203
--	QC	FRB(TRIP)	10/17/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1790316-1
--	QC	FRB(TRIP)	10/17/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1790316-2
--	QC	FRB-TRIP	10/22/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1792533
--	QC	FRB(TRIP)	11/19/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1802112
--	QC	FRB(TRIP)	11/19/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1802122
--	QC	FRB (TRIP)	11/20/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1802600

EXPLANATION:

TCA = 1,1,1-Trichloroethane
DCE = 1,1-Dichloroethene
TCM = Chloroform
PCE = Tetrachloroethene
TCE = Trichloroethene
FRB = Field Reagent Blank (Trip Blank)
ID = Identifier
Lab dup = Laboratory duplicate
MON = Monitoring
QC = Quality Control
TB = Trip Blank
VOC = Volatile Organic Compound

NOTES:

* Samples analyzed by PACE Analytical National Center for Testing & Innovation (PACE) and Eurofins Environment Testing Southwest

** *Italicized Sample IDs* indicate sample was collected via HydraSleeve. All other samples are collected via purge method (pumped).

<0.50	Analytical result is less than laboratory detection limit (Non-Detect)
5	Cleanup Standards for Treated Water (µg/L)
5.1	Results in **bold** exceed Cleanup Standard for Treated Water

Table C-1. 2024 Laboratory Results For VOCs In Groundwater Monitoring Wells
North Indian Bend Wash Superfund Site, Scottsdale, Arizona
(results presented in micrograms per liter, µg/L)

REJ Lab analysis rejected; unusually high observed TCE results could not be explained by sampler or lab; re-sample does not confirm value
(A) Diluted sample results (past holding time)
(B) Estimated undiluted sample results (within holding time)
(C) Pumped sample; collected before pump was pulled

Laboratories use standardized data qualifiers defined by Arizona Department of Health Services and listed in ADEQ document WQR282:

(1) H1 Flag: Sample analysis performed past holding time.
(2) N1 Flag: Reporting Outside of Hold (OOH) to confirm results.
(3) N1 Flag: Reporting Outside of Hold (OOH) to confirm E result.
(4) E1 Flag: Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
(5) N1 Flag: Reporting PCE Outside of Hold (OOH) to confirm E result.

Table C-2. 2024 Laboratory Results For VOCs In Groundwater Extraction Wells
North Indian Bend Wash Superfund Site, Scottsdale, Arizona
(results presented in micrograms per liter, µg/L)

Well Type	Sample Location	Sample ID	Sample Date	Sample Type	TCA	DCE	TCM	PCE	TCE	Report
					200	*6*	*6*	*5*	*5*	
AREA 7 GWETS										
Extraction	7EX-3aMA	7EX-3aMA	1/15/2024	Original	<0.50	<0.50	0.81	3.8	460	550-212911
Extraction	7EX-3aMA	7EX-3AMA	4/10/2024	Original	<0.500	<0.500	0.812	4.18	513	L1724789
Extraction	7EX-3aMA (C)	7EX-3AMA	7/2/2024	Original	<0.500	<0.500	0.814	3.73	580 (1),(2),(A)	L1753323
				Lab dup	---	---	---	---	590 (3),(B)	
Extraction	7EX-3aMA (C)	7EX-3AMA	10/1/2024	Original	<0.500	<0.500	0.925	3.38	551 (1),(4),(A)	L1784494
				Lab dup	---	---	---	---	566 (3),(B)	
Extraction	7EX-6MA	7EX-6MA	1/15/2024	Original	<0.50	<0.50	0.79	2.8	400	550-212911
Extraction	7EX-6MA	7EX-6MA	4/10/2024	Original	<0.500	<0.500	0.859	2.65	316	L1724789
Extraction	7EX-6MA (C)	7EX-6MA	7/2/2024	Original	<0.500	<0.500	0.698	2.28	379 (2),(5),(A)	L1753323
				Lab dup	---	---	---	---	428 (3),(6),(B)	
Extraction	7EX-6MA (C)	7EX-6MA	10/1/2024	Original	<0.500	<0.500	0.879	2.30	400 (1),(4),(A)	L1784494
				Lab dup	---	---	---	---	441 (3),(B)	
CGTF										
Extraction	COS-31	COS-31	1/4/2024	Original	<0.50	<0.50	<0.50	<0.50	4.0	550-212427
Extraction	COS-31	COS-31	2/1/2024	Original	<0.50	<0.50	0.59	1.5	10	550-213692
Extraction	COS-31	EXT-1A-02012024	2/1/2024	Duplicate	<0.50	<0.50	0.59	1.5	10	550-213692
Extraction	COS-31	COS-31	3/7/2024	Original	<0.50	<0.50	0.64	1.9	11	550-215280
Extraction	COS-31	EXT-1A-03072024	3/7/2024	Duplicate	<0.50	<0.50	0.67	2.1	11	550-215280
Extraction	COS-31	COS-31	4/5/2024	Original	<0.500	<0.500	<0.500	<0.500	4.24	L1723142
Extraction	COS-31	COS-31	12/2/2024	Original	<0.50	<0.50	0.509	1.71	10.6	L1804984
Extraction	COS-31	EXT-1A-12022024	12/2/2024	Duplicate	<0.50	<0.50	0.521	1.60	10.5	L1804984
Extraction	COS-72	COS-72	1/4/2024	Original	<0.50	<0.50	0.85	0.89	8.8	550-212427
Extraction	COS-72	EXT-1A-01042024	1/4/2024	Duplicate	<0.50	<0.50	0.87	0.94	9.1	550-212427
Extraction	COS-75A	COS-75A	4/5/2024	Original	<0.500	0.502	1.45	8.11	31.2	L1723142
Extraction	COS-75A	EXT-1A-04052024	4/5/2024	Duplicate	<0.500	0.505	1.44	7.99	30.6	L1723142
Extraction	COS-75A	COS-75A	5/8/2024	Original	<0.500	0.510	1.56	7.56	31.9	L1734373
Extraction	COS-75A	EXT-1A-05082024	5/8/2024	Duplicate	<0.500	0.514	1.45	7.26	31.2	L1734373
Extraction	COS-75A	COS-75A	6/5/2024	Original	<0.500	0.542	1.52	8.21	32.3	L1743714
Extraction	COS-75A	EXT-1A-06052024	6/5/2024	Duplicate	<0.500	0.570	1.43	7.94	32.5	L1743714
Extraction	COS-75A	COS-75A	7/2/2024	Original	<0.500	0.550	1.66	6.95	32.6	L1753331
Extraction	COS-75A	EXT-1A-07022024	7/2/2024	Duplicate	<0.500	0.582	1.57	6.99	33.1	L1753331
Extraction	COS-75A	COS-75A	8/1/2024	Original	<0.500	<0.500	1.55	7.74	30.7	L1763061
Extraction	COS-75A	EXT-1A-08012024	8/1/2024	Duplicate	<0.500	<0.500	1.56	7.50	29.5	L1763061
Extraction	COS-75A	COS-75A	9/4/2024	Original	<0.500	0.649	1.62	7.36	33.1	L1774579
Extraction	COS-75A	EXT-1A-09042024	9/4/2024	Duplicate	<0.500	0.581	1.53	7.41	32.8	L1774579
Extraction	COS-75A	COS-75A	10/1/2024	Original	<0.500	0.698	1.77	7.88	34.8	L1784504
Extraction	COS-75A	EXT-1A-10012024	10/1/2024	Duplicate	<0.500	0.655	1.87	7.71	35.0	L1784504
Extraction	COS-75A	COS-75A	12/13/2024	Original	<0.500	0.591	1.55	8.00	29.2	L1809754
AREA 12 GWETS										
Extraction	MEX-1MA	MEX-1-1A-041024	4/10/2024	Original	<0.500	2.08	1.63	4.63	62.5	L1724787
Extraction	MEX-1MA	MEX-1-1A-05012024	5/1/2024	Original	<0.500	1.43	1.66	3.15	55.1	L1732031
Extraction	MEX-1MA	MEX-1-1A-06032024	6/3/2024	Original	<0.500	1.49	1.53	3.30	59.1	L1742823
Extraction	MEX-1MA	MEX-1-1A-07022024	7/2/2024	Original	<0.500	1.54	1.64	2.91	59.4	L1753339
Extraction	MEX-1MA	MEX-1-1A-08012024	8/1/2024	Original	<0.500	1.54	1.75	3.28	58.3	L1763062
Extraction	MEX-1MA	MEX-1-1A-09042024	9/4/2024	Original	<0.500	1.66	1.81	3.18	66.1	L1774578
Extraction	MEX-1MA	MEX-1-1A-10012024	10/1/2024	Original	<0.500	1.55	1.88	3.05	65.8	L1784499

Table C-2. 2024 Laboratory Results For VOCs In Groundwater Extraction Wells
North Indian Bend Wash Superfund Site, Scottsdale, Arizona
(results presented in micrograms per liter, µg/L)

Well Type	Sample Location	Sample ID	Sample Date	Sample Type	TCA	DCE	TCM	PCE	TCE	Report
					200	*6*	*6*	*5*	*5*	
Extraction	MEX-1MA	MEX-1-1A-11042024	11/4/2024	Original	<0.500	1.31	1.62	2.82	54.3	L1795691
Extraction	MEX-1MA	MEX-1-1A-12022024	12/2/2024	Original	<0.500	1.56	1.78	3.05	61.3	L1804973
Extraction	Granite Reef	GR-1-1A-02122024	2/12/2024	Original	<0.50	1.5	3.6	2.4	89	550-214166
Extraction	Granite Reef	GR-1-1A-03072024	3/7/2024	Original	<0.50	2.4	4.8	3.4	94	550-215315
Extraction	Granite Reef	GR-1-1A-041024	4/10/2024	Original	<0.500	1.84	4.51	3.27	105	L1724787
Extraction	Granite Reef	GR-1-1A-05012024	5/1/2024	Original	<0.500	1.20	4.18	3.41	105	L1732031
Extraction	Granite Reef [C]	GR-1-1A-07022024	7/2/2024	Original	<0.500	1.19	3.45	2.04	101 [2],[5],[A]	L1753339
				Lab dup	---	---	---	---	103 [3],[B]	
Extraction	Granite Reef	GR-1-1A-08012024	8/1/2024	Original	<0.500	1.70	4.37	3.10	91.8	L1763062
Extraction	Granite Reef	GR-1-1A-09042024	9/4/2024	Original	<0.500	1.72	4.48	2.91	121	L1774578
Extraction	Granite Reef	GR-1-1A-10012024	10/1/2024	Original	<0.500	1.90	4.78	3.14	132	L1784499
Extraction	Granite Reef	GR-1-1A-11042024	11/4/2024	Original	<0.500	1.50	3.72	2.78	111	L1795691
Extraction	Granite Reef	GR-1-1A-12022024	12/2/2024	Original	<0.500	1.72	4.17	2.80	102	L1804973
NGTF										
Extraction	PCX-1	PCX-1	1/4/2024	Original	<0.50	0.61	1.9	3.6	43	550-212426
Extraction	PCX-1	PCX-1	2/1/2024	Original	<0.50	<0.50	1.8	2.7	38	550-213690
Extraction	PCX-1	PCX-1	3/7/2024	Original	<0.50	0.61	1.8	3.1	40	550-215303
Extraction	PCX-1	PCX-1	4/12/2024	Original	<0.500	0.500	1.75	3.11	43.0	L1725587
Extraction	PCX-1	PCX-1	5/8/2024	Original	<0.500	0.634	1.91	3.93	51.0	L1734376
Extraction	PCX-1	PCX-1	6/5/2024	Original	<0.500	0.541	1.79	3.79	46.3	L1743714
Extraction	PCX-1	PCX-1	7/2/2024	Original	<0.500	0.595	1.83	3.48	49.0	L1753296
Extraction	PCX-1	PCX-1	8/1/2024	Original	<0.500	0.590	1.99	3.74	45.9	L1763057
Extraction	PCX-1	PCX-1	9/4/2024	Original	<0.500	0.559	1.83	3.43	47.6	L1774585
Extraction	PCX-1	PCX-1	10/1/2024	Original	<0.500	0.592	2.04	3.68	50.2	L1784506
Extraction	PCX-1	PCX-1	11/4/2024	Original	<0.500	<0.500	1.59	3.14	40.9	L1795704
Extraction	PCX-1	PCX-1	12/2/2024	Original	<0.500	<0.500	1.76	3.20	44.0	L1804982
MRTF										
Extraction	PV-14	PV 14	1/4/2024	Original	<0.50	<0.50	0.52	<0.50	<0.50	550-212429
Extraction	PV-14	PV 14	2/1/2024	Original	<0.50	<0.50	<0.50	<0.50	<0.50	550-213688
Extraction	PV-14	PV 14	3/7/2024	Original	<0.50	<0.50	0.50	<0.50	<0.50	550-215311
Extraction	PV-14	PV-14	4/10/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1724786
Extraction	PV-14	PV-14	5/1/2024	Original	<0.500	<0.500	0.518	<0.500	<0.500	L1732038
Extraction	PV-14	PV-14	6/3/2024	Original	<0.500	<0.500	0.515	<0.500	<0.500	L1742778
Extraction	PV-14	PV-14	7/2/2024	Original	<0.500	<0.500	0.538	<0.500	<0.500 [5]	L1753347
Extraction	PV-14	PV-14	8/1/2024	Original	<0.500	<0.500	0.554	<0.500	<0.500	L1763016
Extraction	PV-14	PV-14	9/4/2024	Original	<0.500	<0.500	0.561	<0.500	0.580	L1774580
Extraction	PV-14	PV-14	10/1/2024	Original	<0.500	<0.500	0.613	<0.500	0.516	L1784513
Extraction	PV-14	PV-14	11/4/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1795693
Extraction	PV-14	PV-14	12/2/2024	Original	<0.500	<0.500	0.520	<0.500	<0.500	L1804948
Extraction	PV-15	PV 15	1/4/2024	Original	<0.50	<0.50	0.79	<0.50	4.4	550-212429
Extraction	PV-15	PV 15	2/1/2024	Original	<0.50	<0.50	0.75	<0.50	4.0	550-213688
Extraction	PV-15	PV 15	3/7/2024	Original	<0.50	<0.50	0.78	<0.50	3.7	550-215311
Extraction	PV-15	PV-15	4/10/2024	Original	<0.500	<0.500	0.791	<0.500	4.56	L1724786
Extraction	PV-15	PV-15	6/3/2024	Original	<0.500	<0.500	0.981	<0.500	5.26	L1742778
Extraction	PV-15	PV-15	7/2/2024	Original	<0.500	<0.500	0.920	<0.500	5.55	L1753347
Extraction	PV-15	PV-15	8/1/2024	Original	<0.500	<0.500	0.948	<0.500	5.60	L1763016
Extraction	PV-15	PV-15	9/4/2024	Original	<0.500	<0.500	0.986	<0.500	6.03	L1774580

Table C-2. 2024 Laboratory Results For VOCs In Groundwater Extraction Wells
North Indian Bend Wash Superfund Site, Scottsdale, Arizona
(results presented in micrograms per liter, µg/L)

Well Type	Sample Location	Sample ID	Sample Date	Sample Type	TCA	DCE	TCM	PCE	TCE	Report
					200	*6*	*6*	*5*	*5*	
Extraction	PV-15	PV-15	10/1/2024	Original	<0.500	<0.500	1.12	<0.500	6.19	L1784513
Extraction	PV-15	PV-15	11/4/2024	Original	<0.500	<0.500	0.933	<0.500	5.09	L1795693
Extraction	PV-15	PV-15	12/2/2024	Original	<0.500	<0.500	0.906	<0.500	4.87	L1804948
Trip/Field Blanks										
--	EX-QC (D)	FRB (Trip)	1/4/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-212430
--	EX-QC (D)	FRB (TRIP)	1/15/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-212913
--	EX-QC (D)	FRB (TRIP)	2/1/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-213694
--	EX-QC (D)	FRB (TRIP)	2/12/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-214166
--	EX-QC (D)	FRB (TRIP)	3/7/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-215317
--	EX-QC (D)	FRB (TRIP)	4/5/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1723124
--	EX-QC (D)	FRB (TRIP)	4/10/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1724792
--	EX-QC (D)	FRB (TRIP)	5/1/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1731998
--	EX-QC (D)	FRB (TRIP)	5/8/2024	TB	---	---	---	<0.500	<0.500	L1734374
--	EX-QC (D)	TB-2-1A-05082024	5/8/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1734375
--	EX-QC (D)	FRB (TRIP)	6/3/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1742734
--	EX-QC (D)	FRB TRIP	6/5/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1743714
--	EX-QC (D)	FRB TRIP	7/2/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1753331
--	EX-QC (D)	FRB TRIP	8/1/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1763057
--	EX-QC (D)	FRB-(TRIP)	9/4/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1774589
--	EX-QC (D)	FRB-(TRIP)	10/1/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1784508
--	EX-QC (D)	FRB-(TRIP)	11/4/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1795680
--	EX-QC (D)	FRB (TRIP)	12/2/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1804958
--	EX-QC (D)	FRB TRIP	12/13/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1809754

EXPLANATION:

TCA = 1,1,1-Trichloroethane
DCE = 1,1-Dichloroethene
TCM = Chloroform
PCE = Tetrachloroethene
TCE = Trichloroethene
CGTF = Central Groundwater Treatment Facility
FRB = Field Reagent Blank (Trip Blank)
GWETS = Groundwater Extraction and Treatment System
ID = Identifier
Lab dup = Laboratory duplicate
MRTF = Miller Road Treatment Facility
NGTF = NIBW Granular Activated Carbon Treatment Facility
QC = Quality Control
TB = Trip Blank
VOC = Volatile Organic Compound

NOTES:

* Samples analyzed by PACE Analytical National Center for Testing & Innovation (PACE) and Eurofins Environment Testing Southwest
<0.50 Analytical result is less than laboratory detection limit (Non-Detect)
5 Cleanup Standards for Treated Water (µg/L)
5.1 Results in **bold** exceed Cleanup Standard for Treated Water

(A) Diluted sample results (past holding time)
(B) Estimated undiluted sample results (within holding time)
(C) Estimated and diluted results are within 20% relative percent difference (project acceptance criteria) of each other and are consistent with historical data. Results are therefore deemed valid with qualification.
(D) EX-QC - A single trip blank is collected for all extraction well samples, regardless of facility, when collected and shipped on the same

Table C-2. 2024 Laboratory Results For VOCs In Groundwater Extraction Wells
North Indian Bend Wash Superfund Site, Scottsdale, Arizona
(results presented in micrograms per liter, µg/L)

Laboratories use standardized data qualifiers defined by Arizona Department of Health Services and listed in ADEQ document WQR282: Water Quality Database Arizona Lab Data Qualifiers.

(1) H1 Flag: Sample analysis performed past holding time.

(2) N1 Flag: Re-analysis for dilution or confirmation outside of hold (OOH). Reporting OOH to confirm E results.

(3) E1 Flag: Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.

(4) N1 Flag: Reporting Outside of Hold (OOH) to confirm E result.

(5) H3 Flag: Sample was received and/or analysis requested past holding time.

(6) N1 Flag: Report Outside of Hold (OOH) due to high concentration of TCE the peak flat tops and is not accurate result.

Table C-3. 2024 Laboratory Results For VOCs In Treatment System Samples
North Indian Bend Wash Superfund Site, Scottsdale, Arizona
(results presented in micrograms per liter, µg/L)

Sample Location	Sample ID	Sample Date	Sample Type	TCA 200	DCE 6	TCM 6	PCE 5	TCE 5	Report
AREA 7 GWETS									
SP-102 (influent)	SP-102	1/15/2024	Original	<0.50	<0.50	0.78	2.9	430	550-212912
SP-102 (influent)	TS-2-1A-01152024	1/15/2024	Duplicate	<0.50	<0.50	0.83	3.2	440	550-212912
SP-102 (influent)	SP-102	2/1/2024	Original	<0.50	<0.50	0.82	2.8	390 (1)	550-213691
SP-102 (influent)	TS-2-1A-02012024	2/1/2024	Duplicate	<0.50	<0.50	0.82	2.6	430 (1)	550-213691
SP-102 (influent)	SP-102	3/7/2024	Original	<0.50	<0.50	0.91	3.5	440	550-215307
SP-102 (influent)	TS-2-1A-03072024	3/7/2024	Duplicate	<0.50	<0.50	0.80	2.9	390	550-215307
SP-102 (influent)	SP-102	4/10/2024	Original	<0.500	<0.500	0.857	4.27	495	L1724790
SP-102 (influent)	TS-2-1A-04102024	4/10/2024	Duplicate	<0.500	<0.500	0.846	4.23	514	L1724790
SP-102 (influent)	SP-102	5/1/2024	Original	<0.500	<0.500	0.835	3.72	471	L1732040
SP-102 (influent)	TS-2-1A-05012024	5/1/2024	Duplicate	<0.500	<0.500	0.835	3.93	505	L1732040
SP-102 (influent)	SP-102	6/3/2024	Original	<0.500	<0.500	0.811	3.73	506	L1742871
SP-102 (influent)	TS-2-1A-06032024	6/3/2024	Duplicate	<0.500	<0.500	0.803	3.61	485	L1742871
SP-102 (influent) (C)	SP-102	7/2/2024	Original	<0.500	<0.500	0.793	3.11	500 (2),(3),(A)	L1753326
			Lab dup	---	---	---	---	544 (4),(B)	
SP-102 (influent) (C)	TS-2-1A-07022024	7/2/2024	Duplicate	<0.500	<0.500	0.789	3.13	514 (2),(3),(A)	L1753326
			Lab dup	---	---	---	---	542 (4),(B)	
SP-102 (influent)	SP-102	8/8/2024	Original	<0.500	<0.500	0.914	3.56	430	L1765557
SP-102 (influent)	TS-2-1A-08082024	8/8/2024	Duplicate	<0.500	<0.500	0.852	3.50	432	L1765557
SP-102 (influent)	SP-102	9/4/2024	Original	<0.500	<0.500	0.856	3.38	470	L1774576
SP-102 (influent)	TS-2-1A-09042024	9/4/2024	Duplicate	<0.500	<0.500	0.799	3.37	453	L1774576
SP-102 (influent) (C)	SP-102	10/1/2024	Original	<0.500	<0.500	0.876	2.97	500 (5),(3),(A)	L1784495
			Lab dup	---	---	---	---	513 (4),(B)	
SP-102 (influent) (C)	TS-2-1A-10012024	10/1/2024	Duplicate	<0.500	<0.500	0.919	3.09	521 (5),(3),(A)	L1784495
			Lab dup	---	---	---	---	539 (4),(B)	
SP-102 (influent)	SP-102	11/4/2024	Original	<0.500	<0.500	0.733	3.04	435	L1795701
SP-102 (influent)	TS-2-1A-11042024	11/4/2024	Duplicate	<0.500	<0.500	0.727	3.09	450	L1795701
SP-102 (influent)	SP-102	12/2/2024	Original	<0.500	<0.500	0.815	3.25	434	L1804979
SP-102 (influent)	TS-2-1A-12022024	12/2/2024	Duplicate	<0.500	<0.500	0.789	3.13	438	L1804979
SP-103 (UV/Ox effluent)	SP-103	1/15/2024	Original	<0.50	<0.50	0.78	1.4	89	550-212912
SP-103 (UV/Ox effluent)	SP-103	2/1/2024	Original	<0.50	<0.50	0.79	1.1	93	550-213691
SP-103 (UV/Ox effluent)	SP-103	3/7/2024	Original	<0.50	<0.50	0.82	1.6	110	550-215307
SP-103 (UV/Ox effluent)	SP-103	4/10/2024	Original	<0.500	<0.500	0.740	0.923	44.2	L1724790
SP-103 (UV/Ox effluent)	SP-103	5/1/2024	Original	<0.500	<0.500	0.781	2.88	317	L1732040
SP-103 (UV/Ox effluent)	SP-103	6/3/2024	Original	<0.500	<0.500	0.784	1.63	117	L1742871
SP-103 (UV/Ox effluent) (C)	SP-103	7/2/2024	Original	<0.500	<0.500	0.752	1.40	143 (2),(3),(A)	L1753326
			Lab dup	---	---	---	---	127 (4),(B)	
SP-103 (UV/Ox effluent)	SP-103	8/8/2024	Original	<0.500	<0.500	0.833	1.87	123	L1765557
SP-103 (UV/Ox effluent)	SP-103	9/4/2024	Original	<0.500	<0.500	0.835	2.11	175	L1774576
SP-103 (UV/Ox effluent) (C)	SP-103	10/1/2024	Original	<0.500	<0.500	0.870	1.51	153 (5),(3),(A)	L1784495
			Lab dup	---	---	---	---	167 (4),(B)	
SP-103 (UV/Ox effluent)	SP-103	11/4/2024	Original	<0.500	<0.500	0.745	1.58	133	L1795701
SP-103 (UV/Ox effluent)	SP-103	12/2/2024	Original	<0.500	<0.500	0.787	1.01	64.9	L1804979
SP-105 (Air Stripper Effluent)	SP-105	1/15/2024	Original	<0.50	<0.50	<0.50	<0.50	0.65	550-212912
SP-105 (Air Stripper Effluent)	SP-105	2/1/2024	Original	<0.50	<0.50	<0.50	<0.50	<0.50	550-213691
SP-105 (Air Stripper Effluent)	SP-105	3/7/2024	Original	<0.50	<0.50	<0.50	<0.50	0.68	550-215307
SP-105 (Air Stripper Effluent)	SP-105	4/10/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1724790
SP-105 (Air Stripper Effluent)	SP-105	5/1/2024	Original	<0.500	<0.500	<0.500	<0.500	1.65	L1732040

Table C-3. 2024 Laboratory Results For VOCs In Treatment System Samples
North Indian Bend Wash Superfund Site, Scottsdale, Arizona
(results presented in micrograms per liter, µg/L)

Sample Location	Sample ID	Sample Date	Sample Type	TCA	DCE	TCM	PCE	TCE	Report
				200	*6*	*6*	*5*	*5*	
SP-105 (Air Stripper Effluent)	SP-105	6/3/2024	Original	<0.500	<0.500	<0.500	<0.500	0.716	L1742871
SP-105 (Air Stripper Effluent)	SP-105	7/2/2024	Original	<0.500	<0.500	<0.500	<0.500	0.640 (2),(6)	L1753326
			Lab dup	---	---	---	---	0.871 (7)	
SP-105 (Air Stripper Effluent)	SP-105	8/8/2024	Original	<0.500	<0.500	<0.500	<0.500	0.865	L1765557
SP-105 (Air Stripper Effluent)	SP-105	9/4/2024	Original	<0.500	<0.500	<0.500	<0.500	0.845	L1774576
SP-105 (Air Stripper Effluent)	SP-105	10/1/2024	Original	<0.500	<0.500	<0.500	<0.500	0.629	L1784489
SP-105 (Air Stripper Effluent)	SP-105	11/4/2024	Original	<0.500	<0.500	<0.500	<0.500	0.558	L1795701
SP-105 (Air Stripper Effluent)	SP-105	12/2/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1804979
AREA 12 GWETS									
WSP-1 (Influent)	WSP-1-1A-02122024	2/12/2024	Original	<0.50	1.5	3.8	2.4	91	550-214167
WSP-1 (Influent)	TS-1-1A-02122024	2/12/2024	Duplicate	<0.50	1.5	3.8	2.5	93	550-214167
WSP-1 (Influent)	WSP-1-1A-03072024	3/7/2024	Original	<0.50	1.7	4.3	2.5	100	550-215315
WSP-1 (Influent)	TS-1-1A-03072024	3/7/2024	Duplicate	<0.50	2.1	4.7	3.1	100	550-215315
WSP-1 (Influent)	WSP-1-1A-041024	4/10/2024	Original	<0.500	1.89	2.74	3.81	93.9	L1724795
WSP-1 (Influent)	WSP-1-1A-05012024	5/1/2024	Original	<0.500	1.55	2.73	3.03	93.1	L1732010
WSP-1 (Influent)	TS-1-1A-05012024	5/1/2024	Duplicate	<0.500	1.54	2.69	2.97	90.3	L1732010
WSP-1 (Influent)	WSP-1-1A-06032024	6/3/2024	Original	<0.500	1.57	1.76	3.25	59.8	L1742823
WSP-1 (Influent)	TS-1-1A-06032024	6/3/2024	Duplicate	<0.500	1.59	1.67	3.19	59.5	L1742823
WSP-1 (Influent)	WSP-1-1A-07022024	7/2/2024	Original	<0.500	1.54	2.58	2.62	84.3	L1753316
WSP-1 (Influent)	TS-1-1A-07022024	7/2/2024	Duplicate	<0.500	1.39	2.54	2.62	81.4	L1753316
WSP-1 (Influent)	WSP-1-1A-08012024	8/1/2024	Original	<0.500	1.65	2.81	3.29	84.1	L1763055
WSP-1 (Influent)	TS-1-1A-08012024	8/1/2024	Duplicate	<0.500	1.70	2.91	3.36	85.7	L1763055
WSP-1 (Influent)	WSP-1-1A-09042024	9/4/2024	Original	<0.500	1.83	3.18	3.01	90.4	L1774583
WSP-1 (Influent)	TS-1-1A-09042024	9/4/2024	Duplicate	<0.500	1.86	3.12	3.12	90.7	L1774583
WSP-1 (influent)	WSP-1-1A-10012024	10/1/2024	Original	<0.500	1.92	3.25	2.80	92.8 (5),(3),(A)	L1784498
			Lab dup	---	---	---	---	101 (4),(B)	
WSP-1 (influent)	TS-1-1A-10012024	10/1/2024	Duplicate	<0.500	1.97	3.36	2.77	95.4 (5),(3),(A)	L1784498
			Lab dup	---	---	---	---	101 (4),(B)	
WSP-1 (Influent)	WSP-1-1A-11042024	11/4/2024	Original	<0.500	1.39	2.55	2.76	78.5	L1795686
WSP-1 (Influent)	TS-1-1A-11042024	11/4/2024	Duplicate	<0.500	1.41	2.63	2.78	80.7	L1795686
WSP-1 (Influent)	WSP-1-1A-12022024	12/2/2024	Original	<0.500	1.64	2.85	2.86	86.0	L1804987
WSP-1 (Influent)	TS-1-1A-12022024	12/2/2024	Duplicate	<0.500	1.50	2.86	2.86	85.9	L1804987
WSP-2 (Air Stripper Effluent)	WSP-2-1A-02122024	2/12/2024	Original	<0.50	<0.50	<0.50	<0.50	<0.50	550-214165
WSP-2 (Air Stripper Effluent)	WSP-2-1A-03072024	3/7/2024	Original	<0.50	<0.50	<0.50	<0.50	<0.50	550-215316
WSP-2 (Air Stripper Effluent)	WSP-2-1A-041024	4/10/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1724794
WSP-2 (Air Stripper Effluent)	WSP-2-1A-05012024	5/1/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1732005
WSP-2 (Air Stripper Effluent)	WSP-2-1A-06032024	6/3/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1742819
WSP-2 (Air Stripper Effluent)	WSP-2-1A-07022024	7/2/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1753306
WSP-2 (Air Stripper Effluent)	WSP-2-1A-08012024	8/1/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1763049
WSP-2 (Air Stripper Effluent)	WSP-2-1A-09042024	9/4/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1774586
WSP-2 (Air Stripper Effluent)	WSP-2-1A-10012024	10/1/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500 (5)	L1784496
WSP-2 (Air Stripper Effluent)	WSP-2-1A-11042024	11/4/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1795679
WSP-2 (Air Stripper Effluent)	WSP-2-1A-12022024	12/2/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1804971
MRTF									
Tower 1 Effluent	Tower 1	3/7/2024	Original	<0.50	<0.50	<0.50	<0.50	<0.50	550-215309
Tower 1 Effluent	TOWER 1	4/10/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1724791
Tower 1 Effluent	TOWER1	6/3/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1742827
Tower 1 Effluent	TOWER 1	7/2/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1753367

Table C-3. 2024 Laboratory Results For VOCs In Treatment System Samples
North Indian Bend Wash Superfund Site, Scottsdale, Arizona
(results presented in micrograms per liter, µg/L)

Sample Location	Sample ID	Sample Date	Sample Type	TCA	DCE	TCM	PCE	TCE	Report
				200	6	6	5	5	
Tower 1 Effluent	TOWER 1	8/1/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1763013
Tower 1 Effluent	TOWER 1	9/4/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1774577
Tower 1 Effluent	TOWER 1	10/1/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1784503
Tower 1 Effluent	TOWER 1	11/4/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1795697
Tower 1 Effluent	TOWER 1	12/2/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1804969
Tower 2 Effluent	Tower 2	1/4/2024	Original	<0.50	<0.50	<0.50	<0.50	<0.50	550-212428
Tower 2 Effluent	Tower 2	2/1/2024	Original	<0.50	<0.50	<0.50	<0.50	<0.50	550-213689
Tower 2 Effluent	TOWER 2	5/1/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1732035
Tower 2 Effluent	TOWER 2	6/3/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1742827
Tower 2 Effluent	TOWER 2	7/2/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1753367
Tower 2 Effluent	TOWER 2	8/1/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1763013
Tower 2 Effluent	TOWER 2	9/4/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1774577
Tower 2 Effluent	TOWER 2	10/1/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1784503
Tower 2 Effluent	TOWER 2	11/4/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1795697
Tower 2 Effluent	TOWER 2	12/2/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1804969
Tower 3 Effluent	Tower 3	1/4/2024	Original	<0.50	<0.50	<0.50	<0.50	<0.50	550-212428
Tower 3 Effluent	Tower 3	2/1/2024	Original	<0.50	<0.50	<0.50	<0.50	<0.50	550-213689
Tower 3 Effluent	Tower 3	3/7/2024	Original	<0.50	<0.50	<0.50	<0.50	<0.50	550-215309
Tower 3 Effluent	TOWER 3	4/10/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1724791
NGTF									
NGTF INFLUENT	NGTF-INF	2/20/2024	Original	<0.50	0.59	1.7	3.1	39	550-214539
NGTF INFLUENT	NGTF-INF	5/13/2024	Original	<0.50	0.63	2.4	3.7	51	550-218335
Outfall 001 (Effluent)	NGTF-CP	1/2/2024	Original	<0.50	<0.50	1.2	<0.50	<0.50	550-212267
Outfall 001 (Effluent)	NGTF-CP	1/8/2024	Original	<0.50	<0.50	1.5	<0.50	<0.50	550-212578
Outfall 001 (Effluent)	NGTF-CP	1/16/2024	Original	<0.50	<0.50	1.8	<0.50	<0.50	550-212959
Outfall 001 (Effluent)	NGTF-CP	1/22/2024	Original	<0.50	<0.50	1.0	<0.50	<0.50	550-213253
Outfall 001 (Effluent)	NGTF-CP	1/29/2024	Original	<0.50	<0.50	1.4	<0.50	<0.50	550-213535
Outfall 001 (Effluent)	NGTF-CP	2/5/2024	Original	<0.50	<0.50	0.91	<0.50	<0.50	550-213805
Outfall 001 (Effluent)	NGTF-CP	2/12/2024	Original	<0.50	<0.50	1.1	<0.50	<0.50	550-214180
Outfall 001 (Effluent)	NGTF-CP	2/20/2024	Original	<0.50	<0.50	1.5	<0.50	<0.50	550-214539
Outfall 001 (Effluent)	NGTF-CP	2/26/2024	Original	<0.50	<0.50	0.92	<0.50	<0.50	550-214767
Outfall 001 (Effluent)	NGTF-CP	3/4/2024	Original	<0.50	<0.50	0.62	<0.50	<0.50	550-215068
Outfall 001 (Effluent)	NGTF-CP	3/13/2024	Original	<0.50	<0.50	1.2	<0.50	<0.50	550-215586
Outfall 001 (Effluent)	NGTF-CP	3/18/2024	Original	<0.50	<0.50	1.3	<0.50	<0.50	550-215719
Outfall 001 (Effluent)	NGTF-CP	3/25/2024	Original	<0.50	<0.50	1.1	<0.50	<0.50	550-216014
Outfall 001 (Effluent)	NGTF-CP	4/1/2024	Original	<0.50	<0.50	1.4	<0.50	<0.50	550-216298
Outfall 001 (Effluent)	NGTF-CP	4/8/2024	Original	<0.50	<0.50	1.7	<0.50	<0.50	550-216677
Outfall 001 (Effluent)	NGTF-CP	4/15/2024	Original	<0.50	<0.50	1.3	<0.50	<0.50	550-217023
Outfall 001 (Effluent)	NGTF-CP	4/22/2024	Original	<0.50	<0.50	0.82	<0.50	<0.50	550-217364
Outfall 001 (Effluent)	NGTF-CP	4/29/2024	Original	<0.50	<0.50	1.1	<0.50	<0.50	550-217659
Outfall 001 (Effluent)	NGTF-CP	5/6/2024	Original	<0.50	<0.50	1.4	<0.50	<0.50	550-217947
Outfall 001 (Effluent)	NGTF-CP	5/13/2024	Original	<0.50	<0.50	1.2	<0.50	<0.50	550-218335
Outfall 001 (Effluent)	NGTF-CP	5/20/2024	Original	<0.50	<0.50	1.5	<0.50	<0.50	550-218617
Outfall 001 (Effluent)	NGTF-CP	5/28/2024	Original	<0.50	<0.50	1.1	<0.50	<0.50	550-218926
Outfall 001 (Effluent)	NGTF-CP	6/3/2024	Original	<0.50	<0.50	<0.50	<0.50	<0.50	550-219163
Outfall 001 (Effluent)	NGTF-CP	6/10/2024	Original	<0.50	<0.50	<0.50	<0.50	<0.50	550-219471
Outfall 001 (Effluent)	NGTF-CP	6/17/2024	Original	<0.50	<0.50	<0.50	<0.50	<0.50	550-219779
Outfall 001 (Effluent)	NGTF-CP	6/24/2024	Original	<0.50	<0.50	<0.50	<0.50	<0.50	550-219998

Table C-3. 2024 Laboratory Results For VOCs In Treatment System Samples
North Indian Bend Wash Superfund Site, Scottsdale, Arizona
(results presented in micrograms per liter, µg/L)

Sample Location	Sample ID	Sample Date	Sample Type	TCA	DCE	TCM	PCE	TCE	Report
				200	6	6	5	5	
Outfall 001 (Effluent)	NGTF-CP	7/3/2024	Original	<0.50	<0.50	0.65	<0.50	<0.50	550-220406
Outfall 001 (Effluent)	NGTF-CP	7/8/2024	Original	<0.50	<0.50	0.88	<0.50	<0.50	550-220538
Outfall 001 (Effluent)	NGTF-CP	7/24/2024	Original	<0.50	<0.50 (8),(9),(10)	<0.50	<0.50	<0.50	550-221305
Outfall 001 (Effluent)	NGTF-CP	7/29/2024	Original	<0.50	<0.50	<0.50	<0.50	<0.50	550-221492
Outfall 001 (Effluent)	NGTF-CP	8/5/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1764003
Outfall 001 (Effluent)	NGTF-CP	8/12/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1766625
Outfall 001 (Effluent)	NGTF-CP	8/19/2024	Original	<0.500	<0.500	0.612	<0.500	<0.500	L1769486
Outfall 001 (Effluent)	NGTF-CP	8/26/2024	Original	<0.500	<0.500	0.853	<0.500	<0.500	L1771635
Outfall 001 (Effluent)	NGTF-CP	9/3/2024	Original	<0.500	<0.500	0.631	<0.500	<0.500	L1773868
Outfall 001 (Effluent)	NGTF-CP	9/9/2024	Original	<0.500	<0.500	0.891	<0.500	<0.500	L1776305
Outfall 001 (Effluent)	NGTF-CP	9/16/2024	Original	<0.500	<0.500	0.723	<0.500	<0.500	L1778850
Outfall 001 (Effluent)	NGTF-CP	9/23/2024	Original	<0.500	<0.500	1.05	<0.500	<0.500	L1781754
Outfall 001 (Effluent)	NGTF-CP	9/30/2024	Original	<0.500	<0.500	1.23	<0.500	<0.500	L1783727
Outfall 001 (Effluent)	NGTF-CP	10/7/2024	Original	<0.500	<0.500	1.22	<0.500	<0.500	L1787124
Outfall 001 (Effluent)	NGTF-CP	10/14/2024	Original	<0.500	<0.500	0.972	<0.500	<0.500	L1788887
Outfall 001 (Effluent)	NGTF-CP	10/21/2024	Original	<0.500	<0.500	1.21	<0.500	<0.500	L1791248
Outfall 001 (Effluent)	NGTF-CP	10/28/2024	Original	<0.500	<0.500	0.736	<0.500	<0.500	L1793487
Outfall 001 (Effluent)	NGTF-CP	11/4/2024	Original	<0.500	<0.500	0.693	<0.500	<0.500	L1795717
Outfall 001 (Effluent)	NGTF-CP	11/12/2024	Original	<0.500	<0.500	1.15	<0.500	<0.500	L1798896
Outfall 001 (Effluent)	NGTF-CP	11/18/2024	Original	<0.500	<0.500	0.872	<0.500	<0.500	L1801257
Outfall 001 (Effluent)	NGTF-CP	11/25/2024	Original	<0.500	<0.500	0.904	<0.500	<0.500	L1803988
Outfall 001 (Effluent)	NGTF-CP	12/2/2024	Original	<0.500	<0.500	1.21	<0.500	<0.500	L1805019
Outfall 001 (Effluent)	NGTF-CP	12/9/2024	Original	<0.500	<0.500	0.782	<0.500	<0.500	L1807535
Outfall 001 (Effluent)	NGTF-CP	12/16/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1810060
Outfall 001 (Effluent)	NGTF-CP	12/23/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1812596
Outfall 001 (Effluent)	NGTF-CP	12/30/2024	Original	<0.500	<0.500	<0.500	<0.500	<0.500	L1813354
Trip/Field Blanks									
QC - Area 12	FB-1-1A-02122024	2/12/2024	FB	<0.50	<0.50	<0.50	<0.50	<0.50	550-214163
QC - Area 12	TB-1-1A-02122024	2/12/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-214163
QC - Area 12	FB-1-1A-03072024	3/7/2024	FB	<0.50	<0.50	<0.50	<0.50	<0.50	550-215321
QC - Area 12	TB-1-1A-03072024	3/7/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-215321
QC - Area 12	FB-1-1A-041024	4/10/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1724783
QC - Area 12	TB-1-1A-041024	4/10/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1724783
QC - Area 12	FB-1-1A-05012024	5/1/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1732001
QC - Area 12	TB-1-1A-05012024	5/1/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1732001
QC - Area 12	FB-1-1A-06032024	6/3/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1742784
QC - Area 12	TB-1-1A-06032024	6/3/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1742784
QC - Area 12	FB-1-1A-07022024	7/2/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1753351
QC - Area 12	TB-1-1A-07022024	7/2/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1753351
QC - Area 12	FB-1-1A-08012024	8/1/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1763056
QC - Area 12	TB-1-1A-08012024	8/1/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1763056
QC - Area 12	FB-1-1A-09042024	9/4/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1774588
QC - Area 12	TB-1-1A-09042024	9/4/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1774588
QC - Area 12	FB-1-1A-10012024	10/1/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1784507
QC - Area 12	TB-1-1A-10012024	10/1/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1784507
QC - Area 12	FB-1-1A-11042024	11/4/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1795682
QC - Area 12	TB-1-1A-11042024	11/4/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1795682
QC - Area 12	FB-1-1A-12022024	12/2/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1804942

Table C-3. 2024 Laboratory Results For VOCs In Treatment System Samples
North Indian Bend Wash Superfund Site, Scottsdale, Arizona
(results presented in micrograms per liter, µg/L)

Sample Location	Sample ID	Sample Date	Sample Type	TCA	DCE	TCM	PCE	TCE	Report
				200	6	6	5	5	
QC - Area 12	TB-1-1A-12022024	12/2/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1804942
QC - NGTF	TB	1/2/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-212267
QC - NGTF	TB	1/8/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-212578
QC - NGTF	TB	1/16/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-212959
QC - NGTF	TB	1/22/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-213253
QC - NGTF	TB	1/29/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-213535
QC - NGTF	TB	2/5/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-213805
QC - NGTF	TB	2/12/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-214180
QC - NGTF	TB	2/20/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-214539
QC - NGTF	TB	2/26/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-214767
QC - NGTF	TB	3/4/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-215068
QC - NGTF	TB	3/13/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-215586
QC - NGTF	TB	3/18/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-215719
QC - NGTF	TB	3/25/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-216014
QC - NGTF	TB	4/1/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-216298
QC - NGTF	TB	4/8/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-216677
QC - NGTF	TB	4/15/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-217023
QC - NGTF	TB	4/22/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-217364
QC - NGTF	TB	4/29/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-217659
QC - NGTF	TB	5/6/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-217947
QC - NGTF	TB	5/13/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-218335
QC - NGTF	TB	5/20/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-218617
QC - NGTF	TB	5/28/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-218926
QC - NGTF	TB	6/3/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-219163
QC - NGTF	TB	6/10/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-219471
QC - NGTF	TB	6/17/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-219779
QC - NGTF	TB	6/24/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-219998
QC - NGTF	TB	7/3/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-220406
QC - NGTF	TB	7/8/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-220538
QC - NGTF	TB	7/24/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-221305
QC - NGTF	TB	7/29/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-221492
QC - NGTF	TB	8/5/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1764003
QC - NGTF	TB	8/12/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1766625
QC - NGTF	TB	8/19/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1769486
QC - NGTF	TB	8/26/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1771635
QC - NGTF	TB	9/3/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1773868
QC - NGTF	TB	9/9/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1776305
QC - NGTF	TB	9/16/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1778850
QC - NGTF	TB	9/23/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1781754
QC - NGTF	TB	9/30/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1783727
QC - NGTF	TB	10/7/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1787124
QC - NGTF	TB	10/14/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1788887
QC - NGTF	TB	10/21/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1791248
QC - NGTF	TB	10/28/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1793487
QC - NGTF	TB	11/4/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1795717
QC - NGTF	TB	11/12/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1798896
QC - NGTF	TB	11/18/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1801257
QC - NGTF	TB	11/25/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1803988

Table C-3. 2024 Laboratory Results For VOCs In Treatment System Samples
North Indian Bend Wash Superfund Site, Scottsdale, Arizona
(results presented in micrograms per liter, µg/L)

Sample Location	Sample ID	Sample Date	Sample Type	TCA	DCE	TCM	PCE	TCE	Report
				200	*6*	*6*	*5*	*5*	
QC - NGTF	TB	12/2/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1805019
QC - NGTF	TB	12/9/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1807535
QC - NGTF	TB	12/16/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1810060
QC - NGTF	TB	12/23/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1812596
QC - NGTF	TB	12/30/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1813354
QC-TS [D]	FB-2-1A-01042024	1/4/2024	FB	<0.50	<0.50	<0.50	<0.50	<0.50	550-212430
QC-TS [D]	TB-2-1A-01042024	1/4/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-212430
QC-TS [D]	FB-2-1A-01152024	1/15/2024	FB	<0.50	<0.50	<0.50	<0.50	<0.50	550-212913
QC-TS [D]	TB-2-1A-01152024	1/15/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-212913
QC-TS [D]	FB-2-1A-02012024	2/1/2024	FB	<0.50	<0.50	<0.50	<0.50	<0.50	550-213694
QC-TS [D]	TB-2-1A-02012024	2/1/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-213694
QC-TS [D]	FB-2-1A-03072024	3/7/2024	FB	<0.50	<0.50	<0.50	<0.50	<0.50	550-215317
QC-TS [D]	TB-2-1A-03072024 [E]	3/7/2024	TB	---	---	---	---	---	550-215317
EX-QC	FRB (TRIP)	3/7/2024	TB	<0.50	<0.50	<0.50	<0.50	<0.50	550-215317
QC-TS [D]	FB-2-1A-04102024	4/10/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1724792
QC-TS [D]	TB-2-1A-04102024	4/10/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1724792
QC-TS [D]	FB-2-1A-05012024	5/1/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1731998
QC-TS [D]	TB-2-1A-05012024	5/1/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1731998
QC-TS [D]	FB-2-1A-06032024	6/3/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1742734
QC-TS [D]	TB-2-1A-06032024	6/3/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1742734
QC-TS [D]	FB-2-1A-07022024	7/2/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1753359
QC-TS [D]	TB-2-1A-07022024	7/2/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1753359
QC-TS [D]	FB-2-1A-08012024	8/1/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1763020
QC-TS [D]	TB-2-1A-08012024	8/1/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1763020
QC-TS [D]	FB-2-1A-08082024	8/8/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1765561
QC-TS [D]	TB-2-1A-08082024	8/8/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1765561
QC-TS [D]	FB-2-1A-09042024	9/4/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1774587
QC-TS [D]	TB-2-1A-09042024	9/4/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1774587
QC-TS [D]	FB-2-1A-10012024	10/1/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1784510
QC-TS [D]	TB-2-1A-10012024	10/1/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1784510
QC-TS [D]	FB-2-1A-11042024	11/4/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1795683
QC-TS [D]	TB-2-1A-11042024	11/4/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1795683
QC-TS [D]	FB-2-1A-12022024	12/2/2024	FB	<0.500	<0.500	<0.500	<0.500	<0.500	L1804958
QC-TS [D]	TB-2-1A-12022024	12/2/2024	TB	<0.500	<0.500	<0.500	<0.500	<0.500	L1804958

EXPLANATION:

TCA = 1,1,1-Trichloroethane
DCE = 1,1-Dichloroethene
TCM = Chloroform
PCE = Tetrachloroethene
TCE = Trichloroethene
AZCO = Arizona Canal Outfall
CP = Chaparral Compliance Point
FB = Field Blank
GWETS = Groundwater Extraction and Treatment System
ID = Identifier
Lab dup = Laboratory duplicate
MRTF = Miller Road Treatment Facility
NGTF = NIBW Granular Activated Carbon Treatment Facility
QC = Quality Control
TB = Trip Blank
TS = Treatment System
VOC = Volatile Organic Compound

Table C-3. 2024 Laboratory Results For VOCs In Treatment System Samples
North Indian Bend Wash Superfund Site, Scottsdale, Arizona
(results presented in micrograms per liter, µg/L)

NOTES:

*	Samples analyzed by PACE Analytical National Center for Testing & Innovation (PACE) and Eurofins Environment Testing Southwest
<0.50	Analytical result is less than laboratory detection limit (Non-Detect)
5	Cleanup Standards for Treated Water (µg/L)
5.1	Results in **bold** exceed Cleanup Standard for Treated Water

(A) Diluted sample results (past holding time)

(B) Estimated undiluted sample results (within holding time)

(C) Estimated and diluted results are within 20% relative percent difference (project acceptance criteria) of each other for both wells and are consistent with historical data at each well. Results are therefore deemed valid with qualification.

(D) QC-TS - A single trip blank and a single field blank are collected for Area 7 and MRTF samples, when collected and shipped on the same day.

(E) Sample cancelled by lab due to QC failure and no additional volume to reanalyze.

Laboratories use standardized data qualifiers defined by Arizona Department of Health Services and listed in ADEQ document WQR282:

(1) N1 Flag: The following samples were re-analyzed with headspace in the sample vial: SP-102 (550-213691-2) and TS-2-1A-02012024 (550-213691-3). This sample was re-analyzed with headspace due to require a dilution. The re-analysis will be reported with an N1 qualifier, see analytical batch 550-315323.

(2) H3 Flag: Sample was received and/or analysis requested past holding time.

(3) N1 Flag: Reporting outside of hold (OOH) to confirm E result.

(4) E1 Flag: Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.

(5) H1 Flag: Sample analysis performed past holding time.

(6) N1 Flag: Re-analysis for confirmation outside of hold.

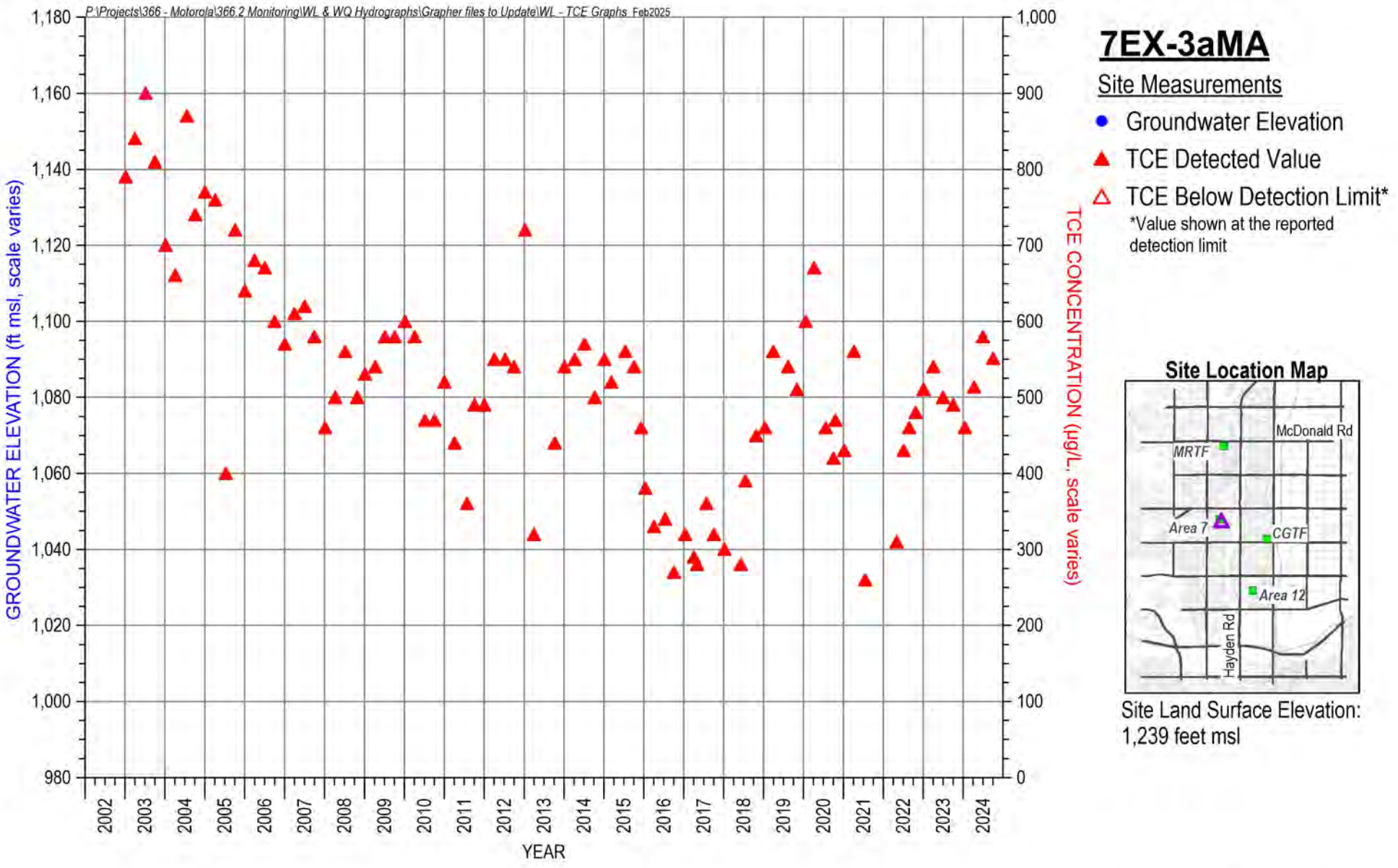
(7) N1 Flag: TCE result in original run is a false positive due to carryover from previous sample.

(8) L5 Flag: The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.

(9) N1 Flag: The initial calibration verification (ICV) result for batch 550-324089 was above the upper control limit for 1,1-Dichloroethene. Samples results were non-detects, and have been reported as N1 qualified data.

(10) V1 Flag: CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

APPENDIX D
WATER LEVEL/TCE TIME-SERIES HYDROGRAPHS FOR NIBW WELLS



7EX-3aMA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation: 1,239 feet msl

FIGURE D-001. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR EXTRACTION WELL 7EX-3aMA

North Indian Bend Wash Superfund Site

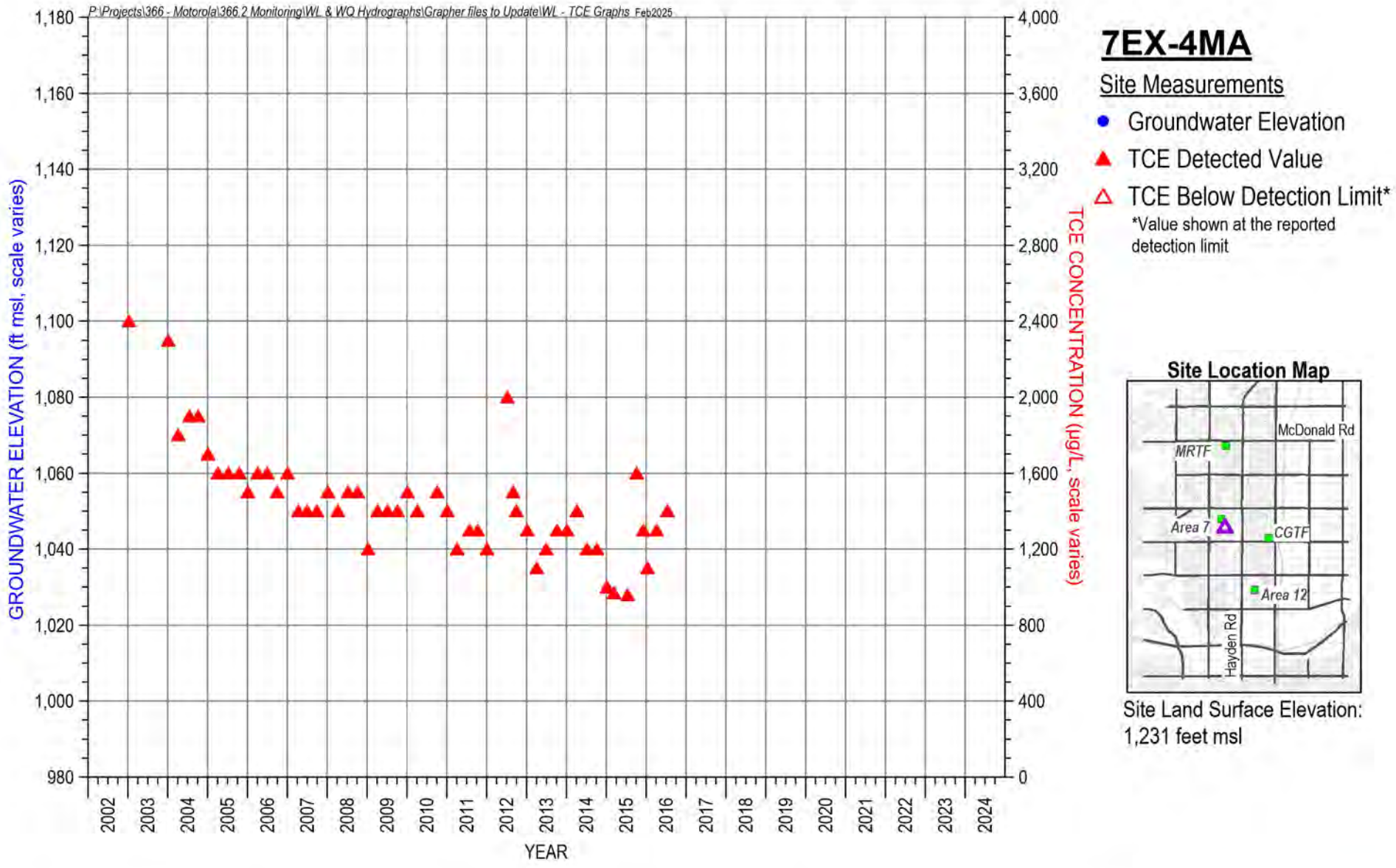


FIGURE D-002. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR EXTRACTION WELL 7EX-4MA

North Indian Bend Wash Superfund Site

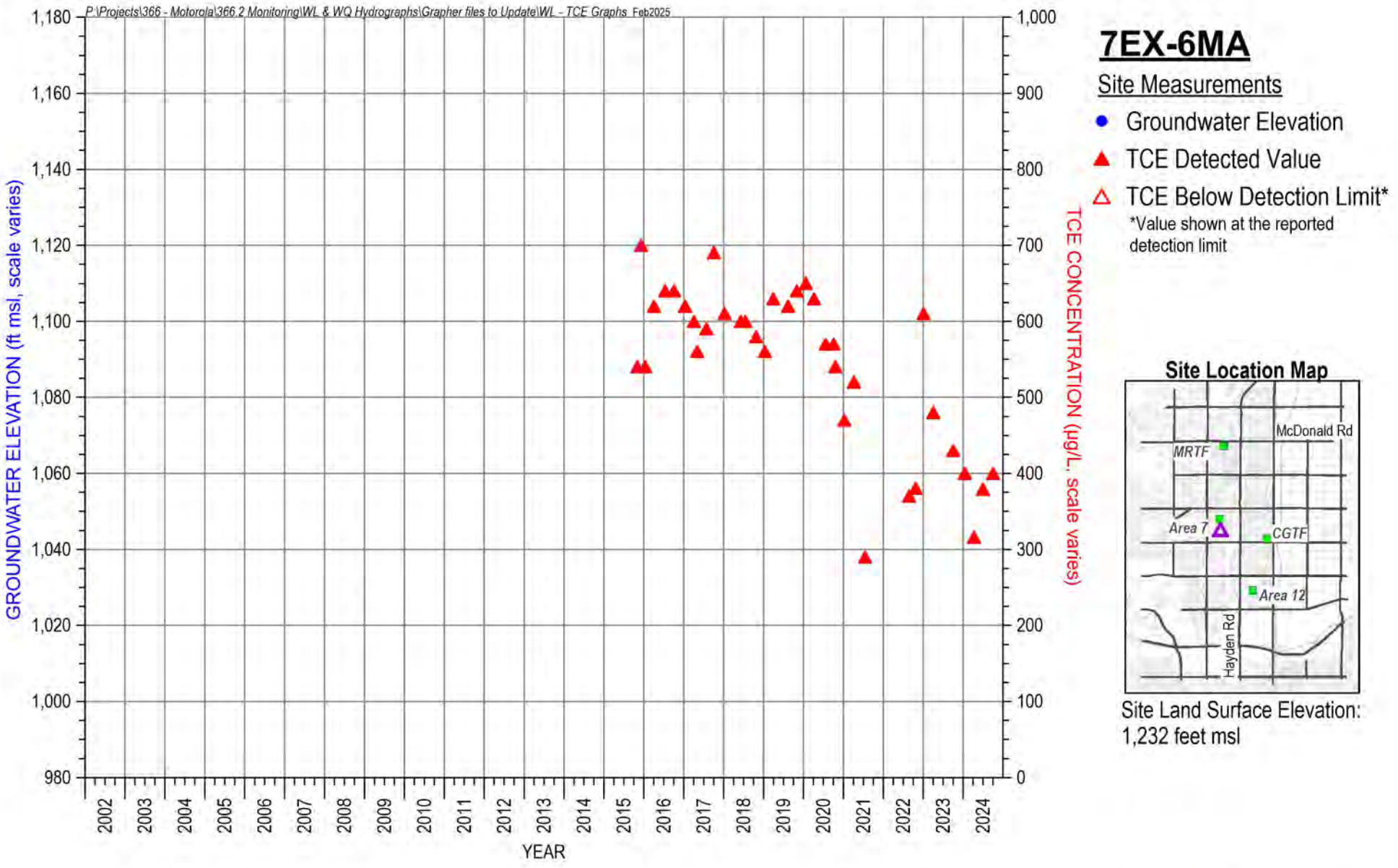


FIGURE D-003. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR EXTRACTION WELL 7EX-6MA

North Indian Bend Wash Superfund Site

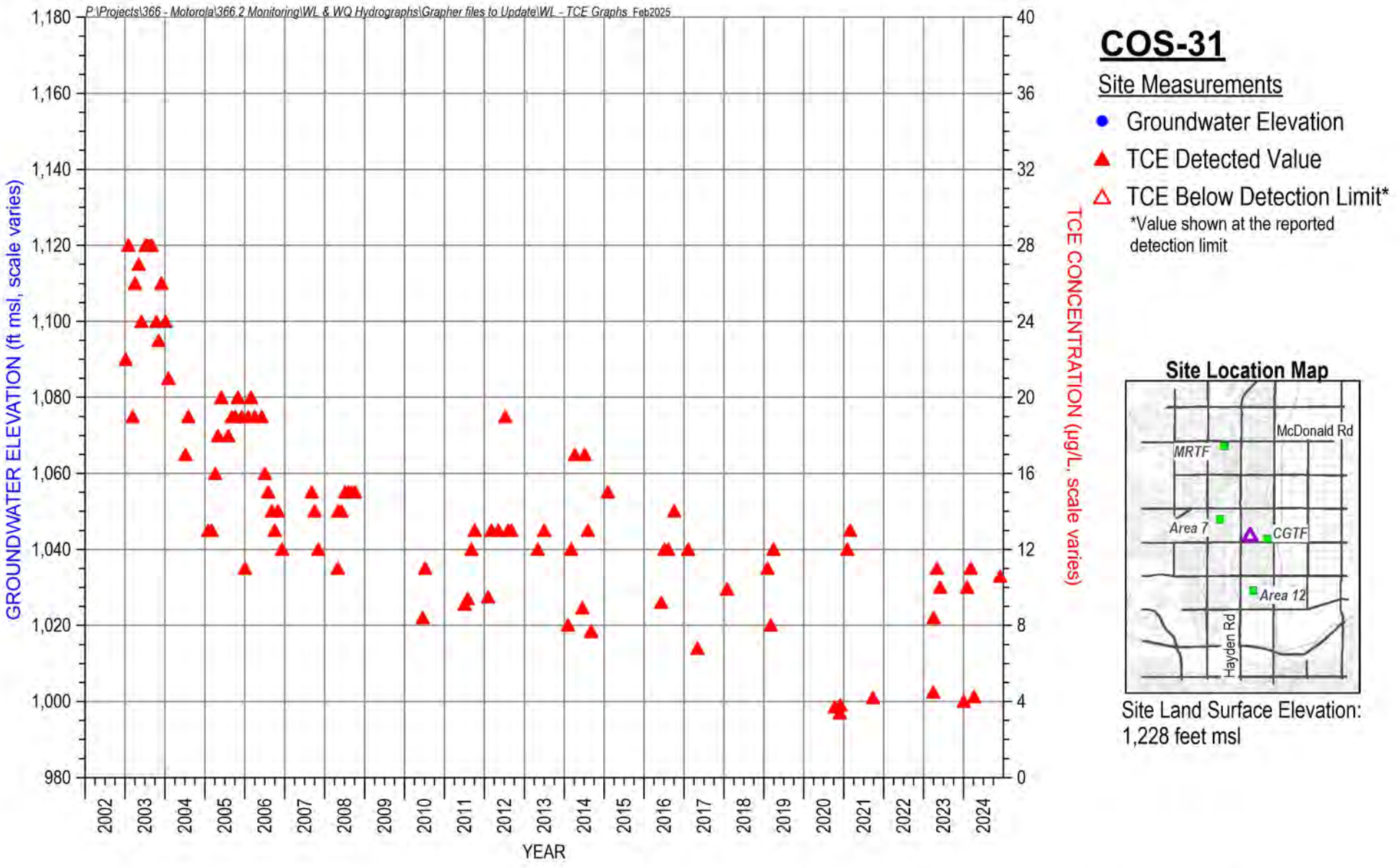
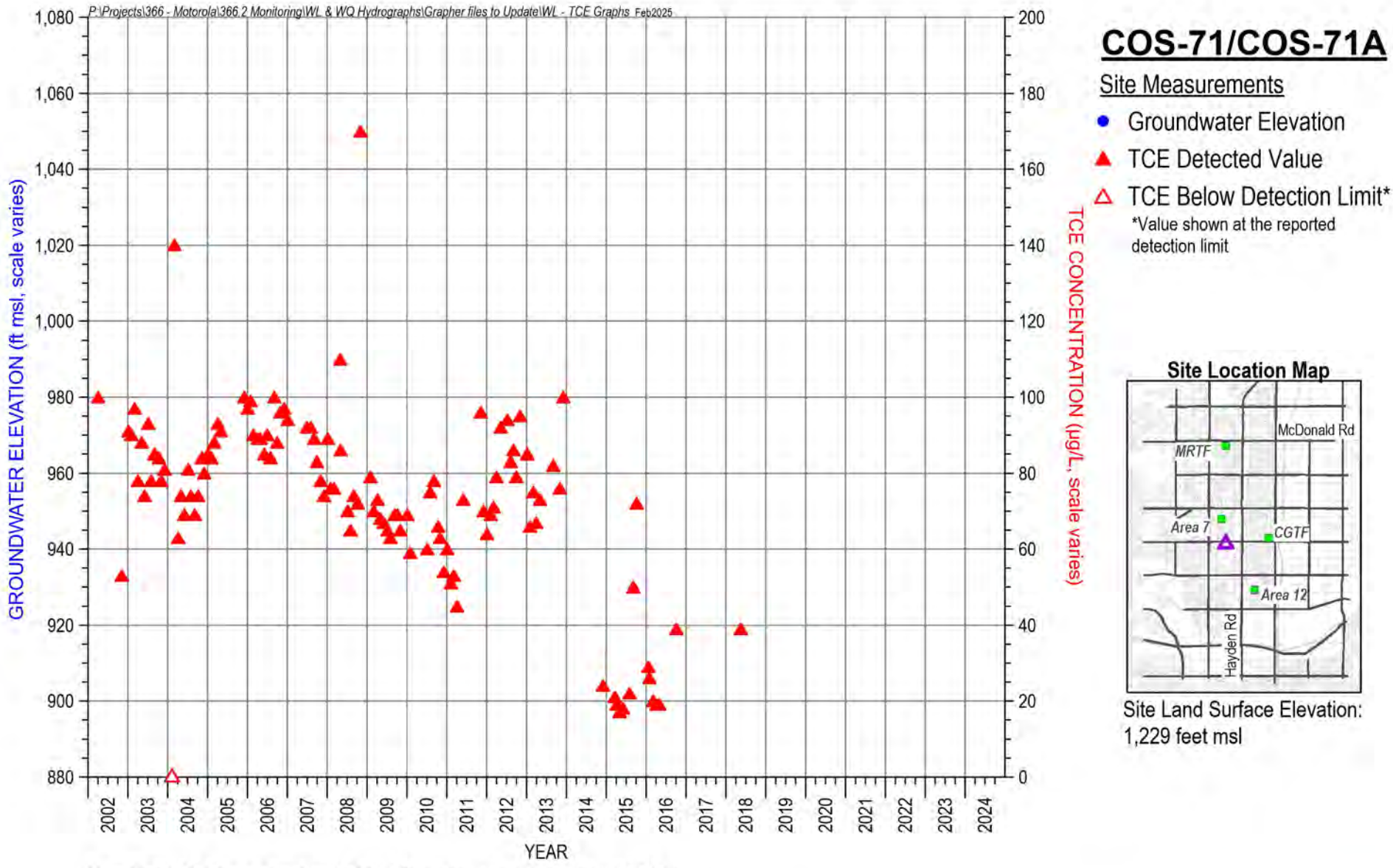


FIGURE D-004. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR EXTRACTION WELL COS-31

North Indian Bend Wash Superfund Site



Note: Well COS-71 was abandoned 04/10/2014 and was replaced by Well COS-71A.

COS-71/COS-71A

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation: 1,229 feet msl

FIGURE D-005. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR EXTRACTION WELL COS-71/COS-71A

North Indian Bend Wash Superfund Site

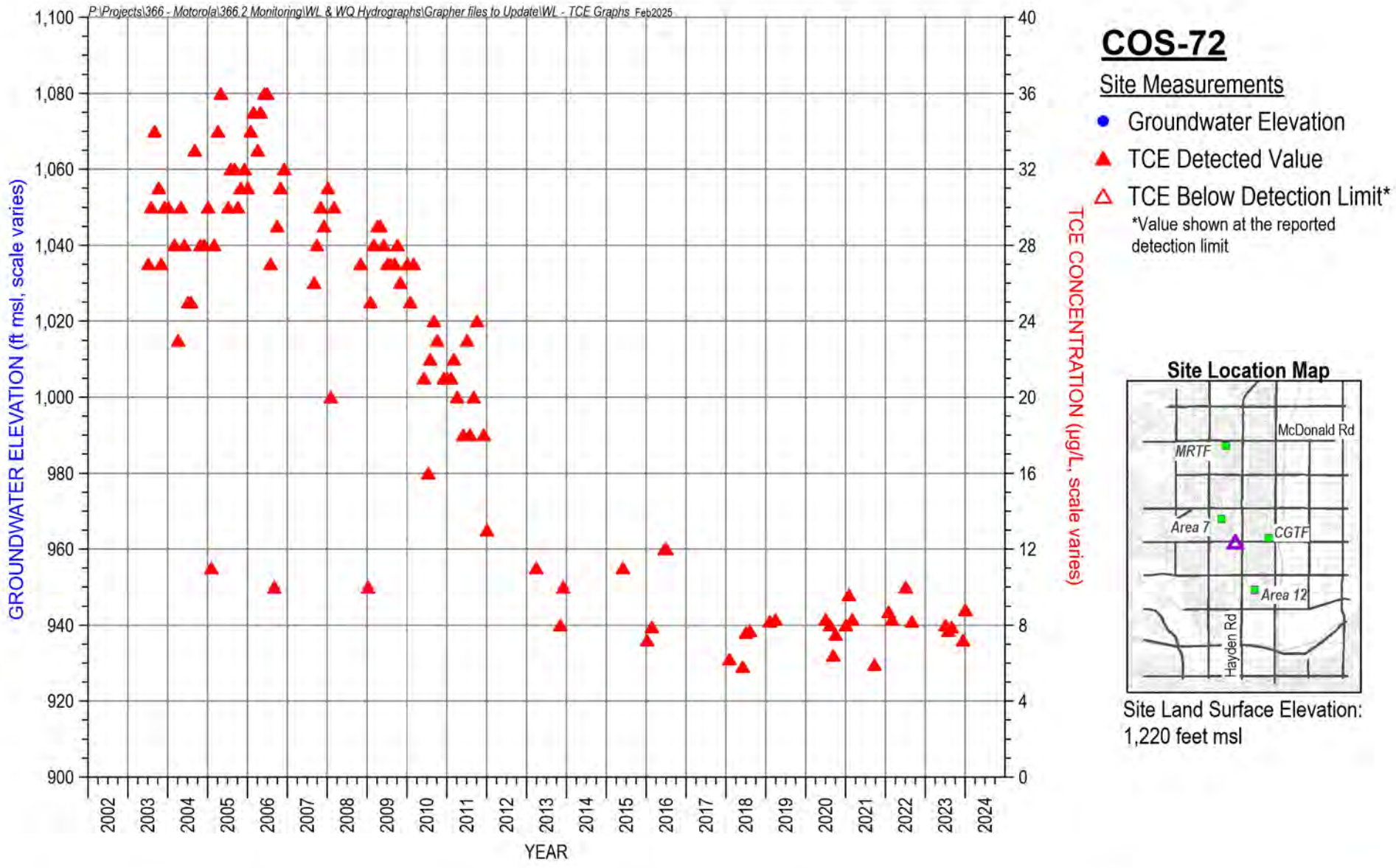


FIGURE D-006. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR EXTRACTION WELL COS-72

North Indian Bend Wash Superfund Site

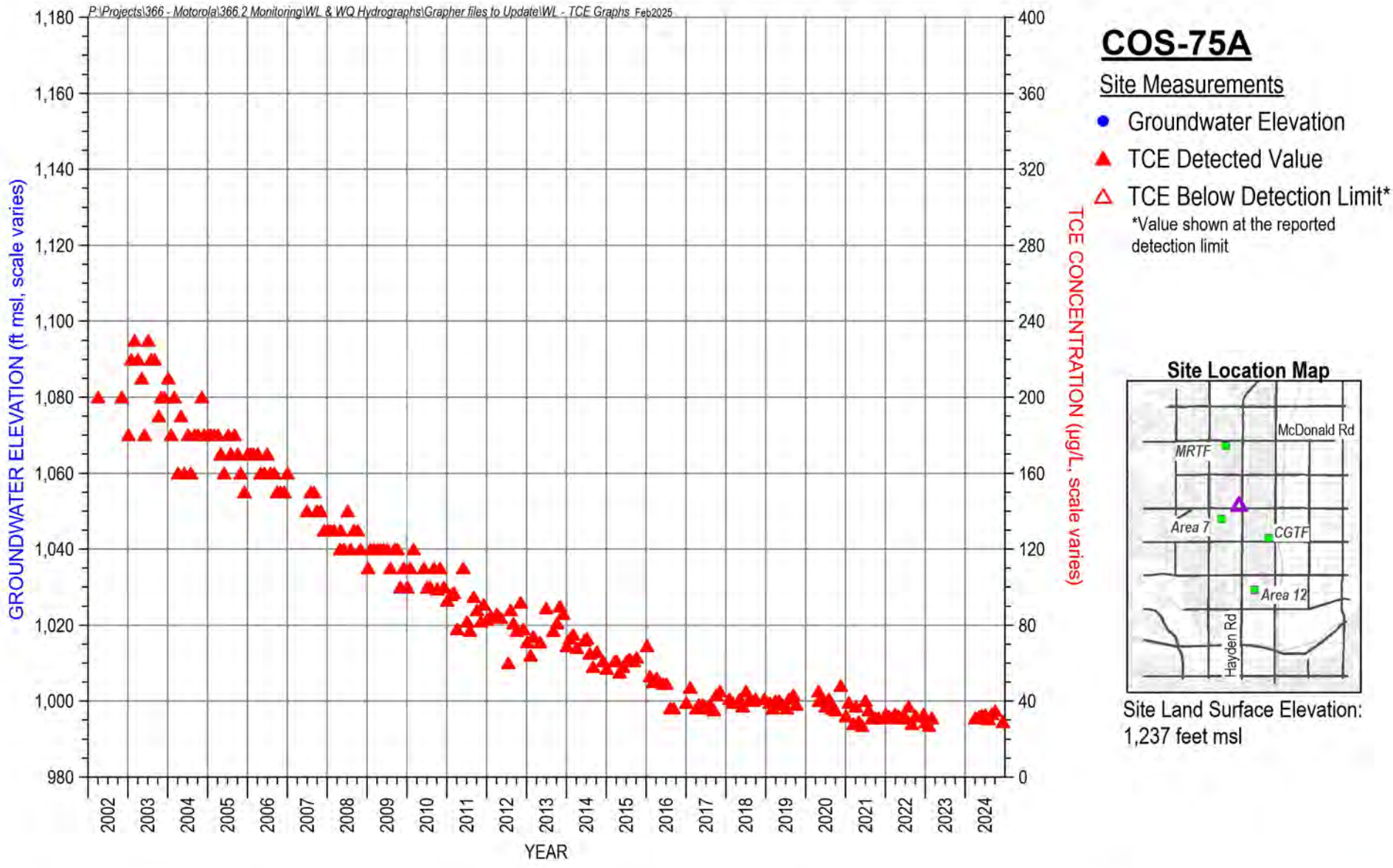


FIGURE D-007. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR EXTRACTION WELL COS-75A

North Indian Bend Wash Superfund Site

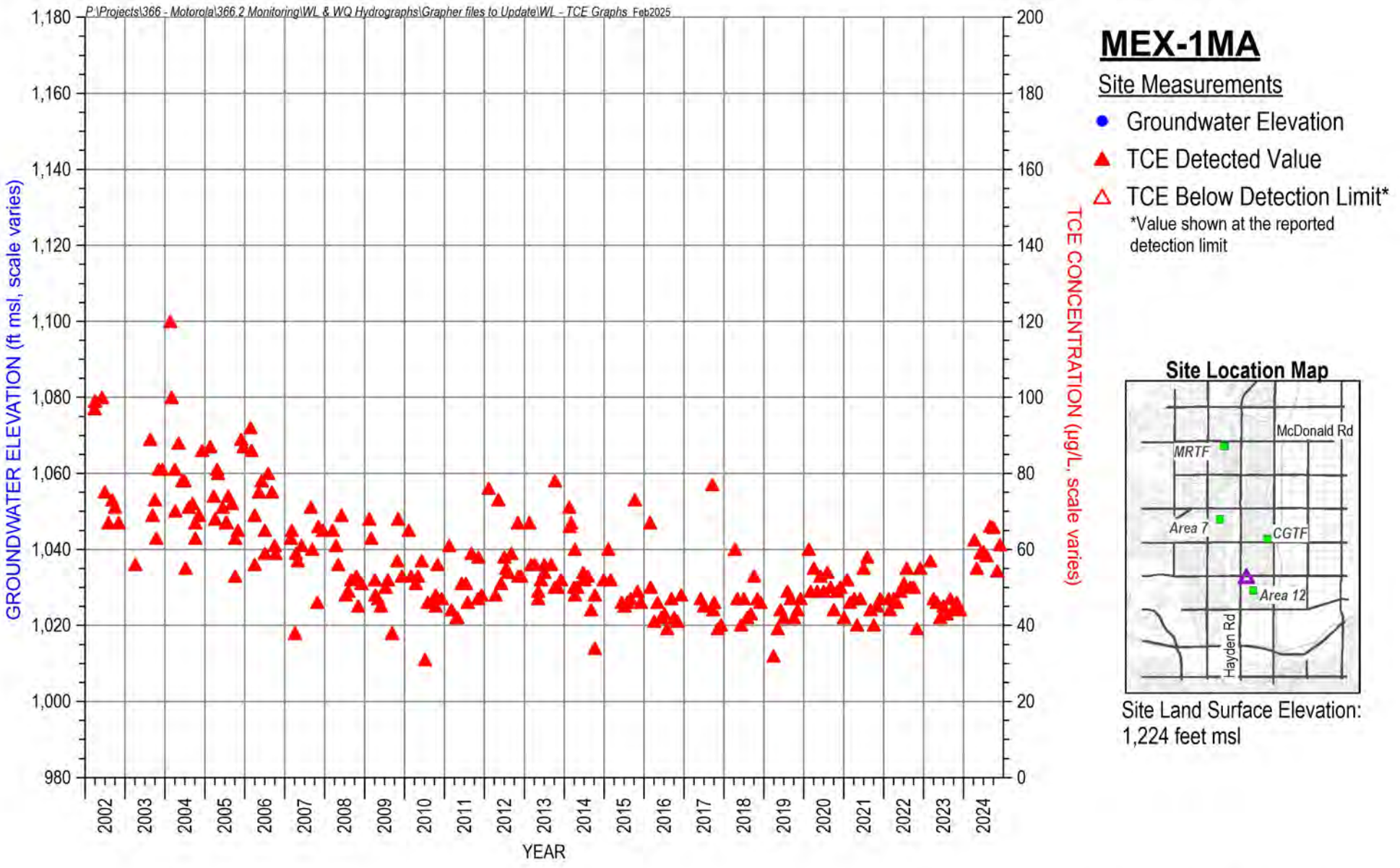


FIGURE D-008. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR EXTRACTION WELL MEX-1MA

North Indian Bend Wash Superfund Site

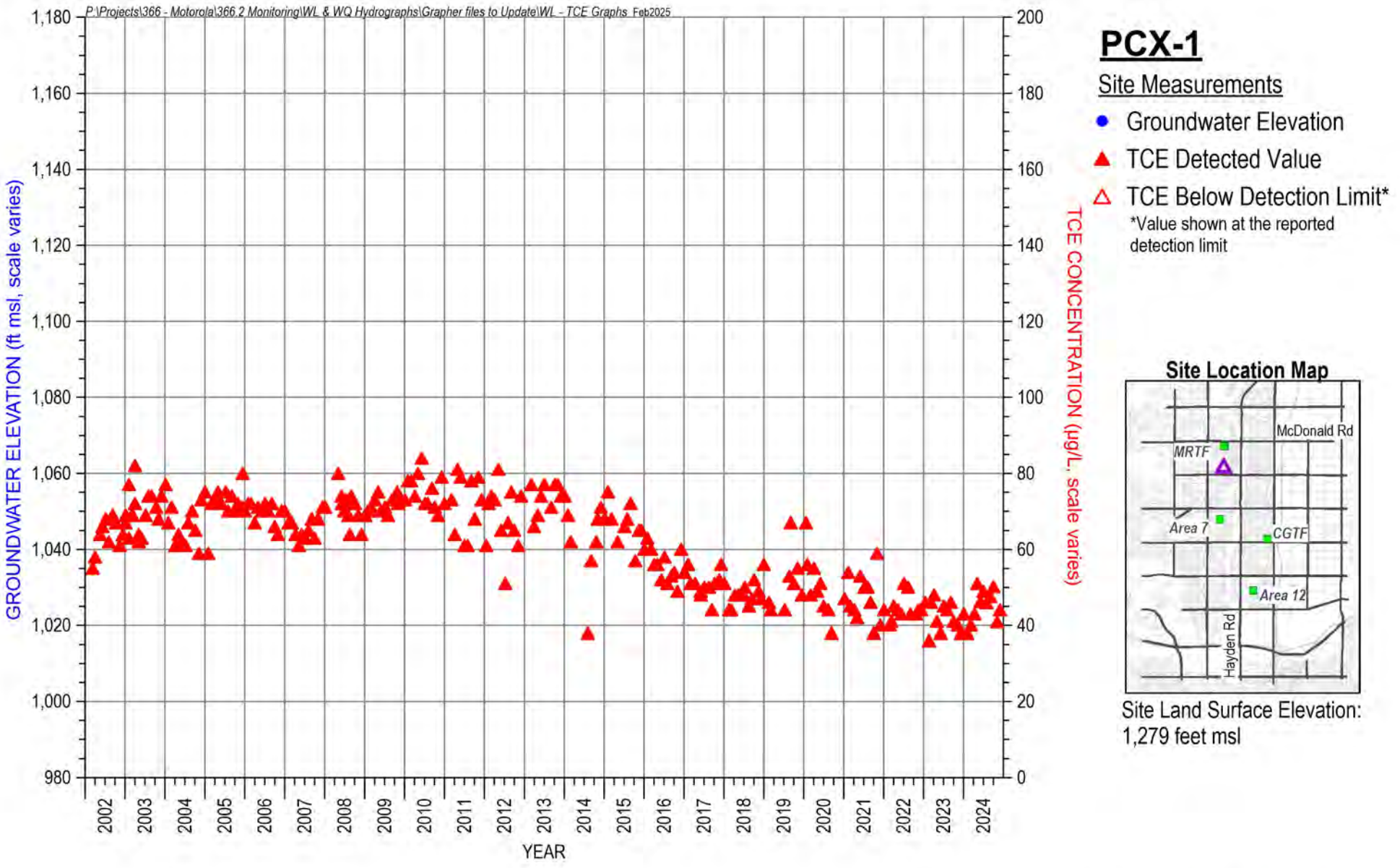
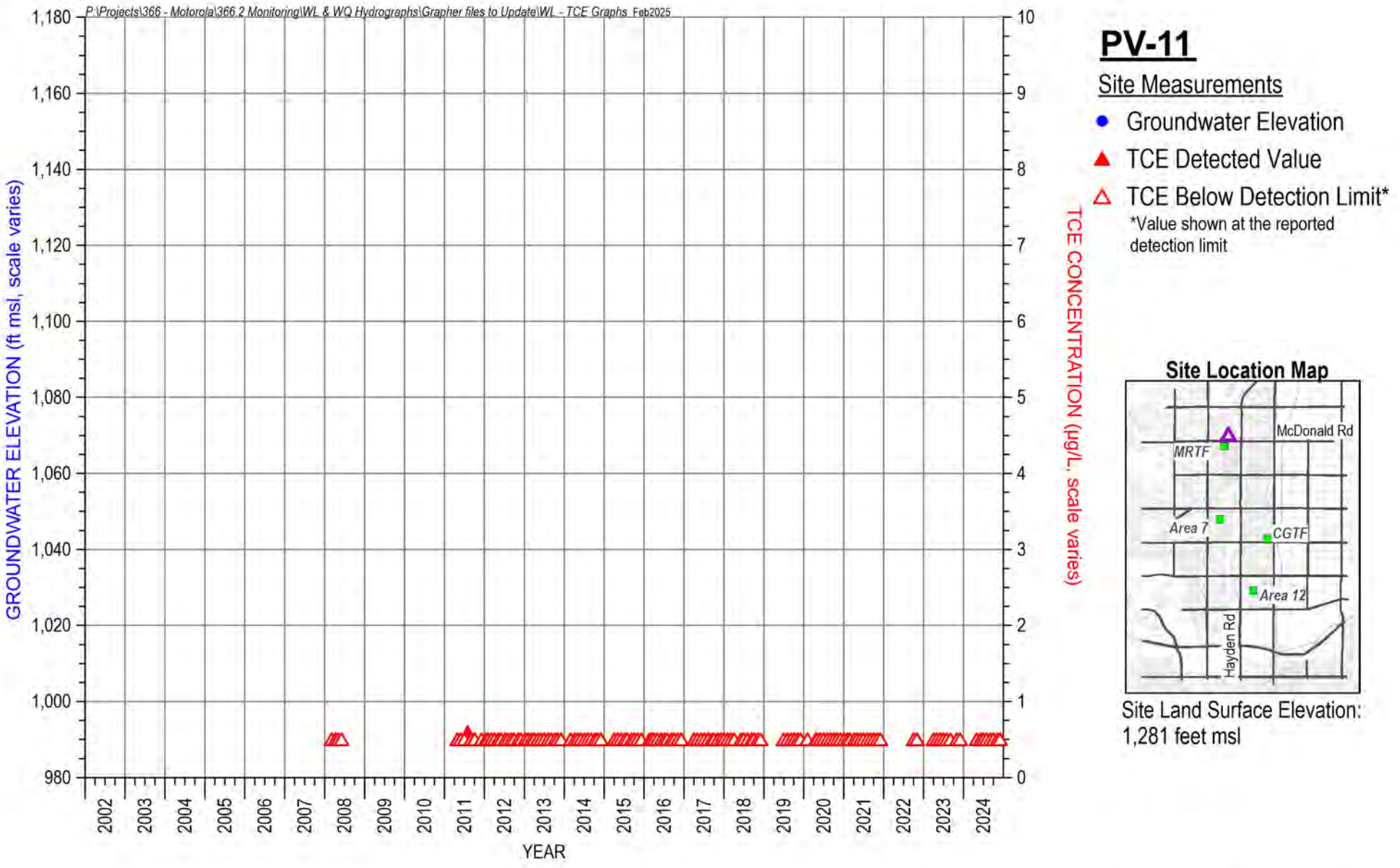


FIGURE D-009. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR EXTRACTION WELL PCX-1

North Indian Bend Wash Superfund Site



PV-11

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation: 1,281 feet msl

FIGURE D-010. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR PRODUCTION WELL PV-11

North Indian Bend Wash Superfund Site

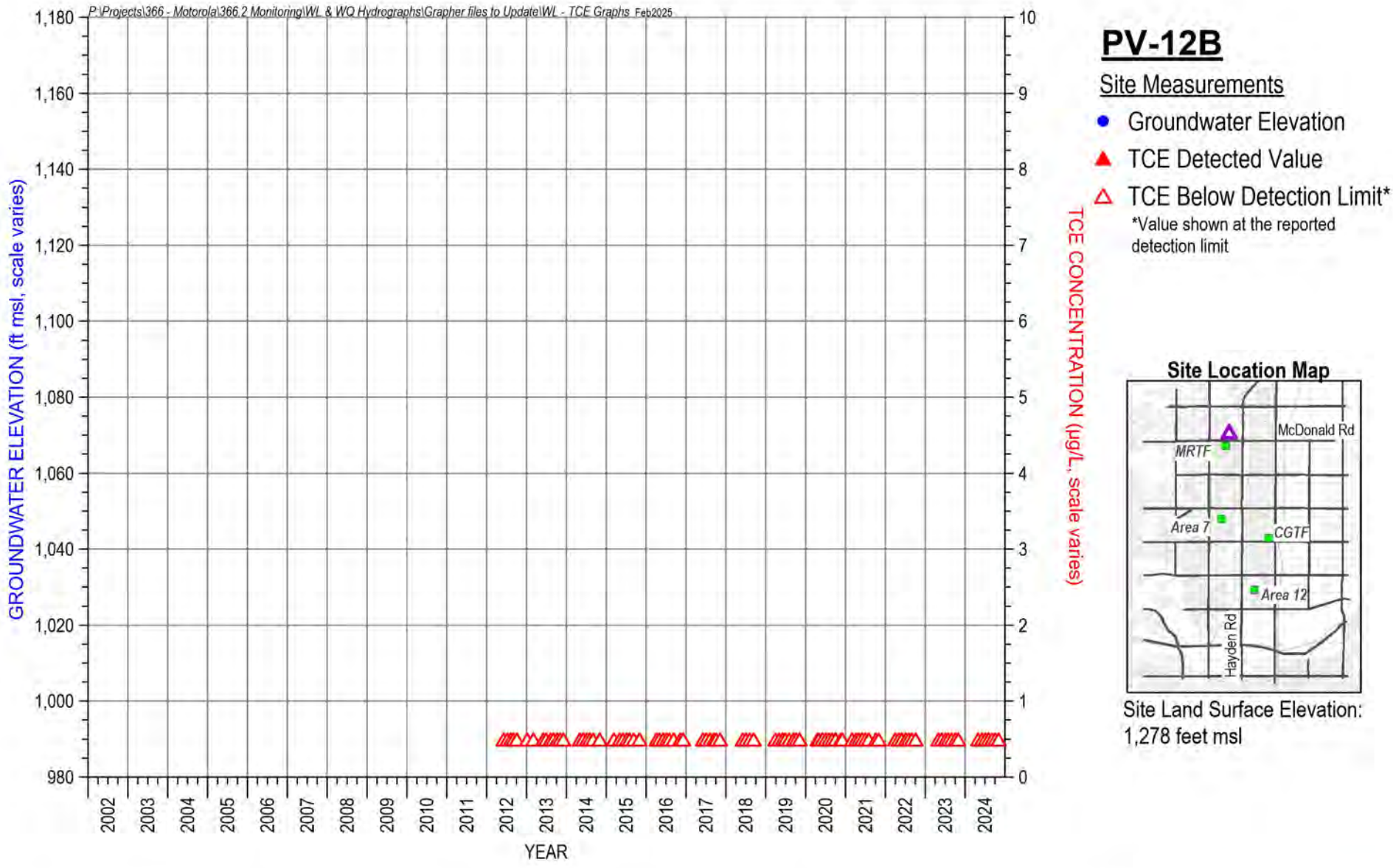


FIGURE D-011. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR PRODUCTION WELL PV-12B

North Indian Bend Wash Superfund Site

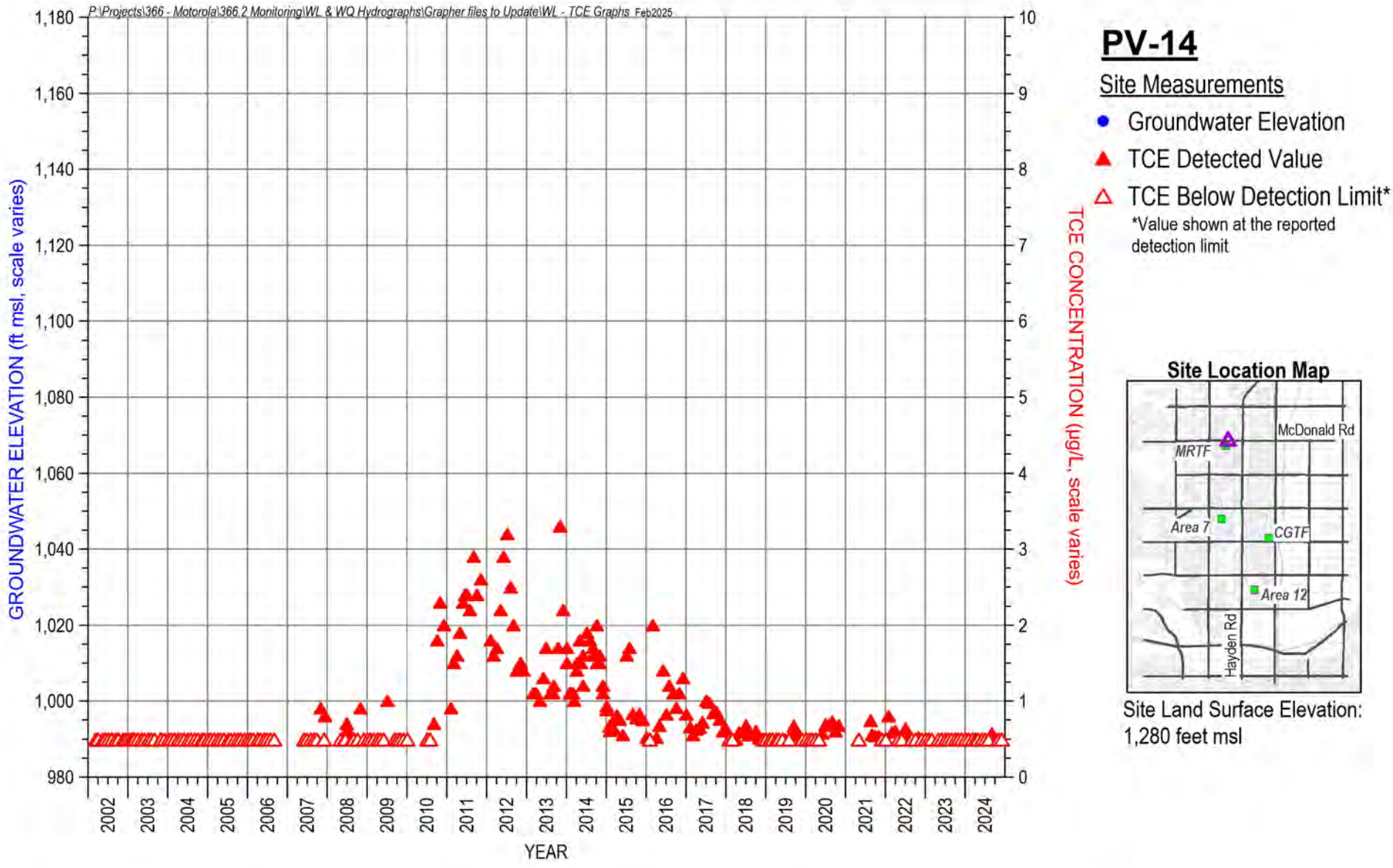


FIGURE D-012. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR PRODUCTION WELL PV-14

North Indian Bend Wash Superfund Site

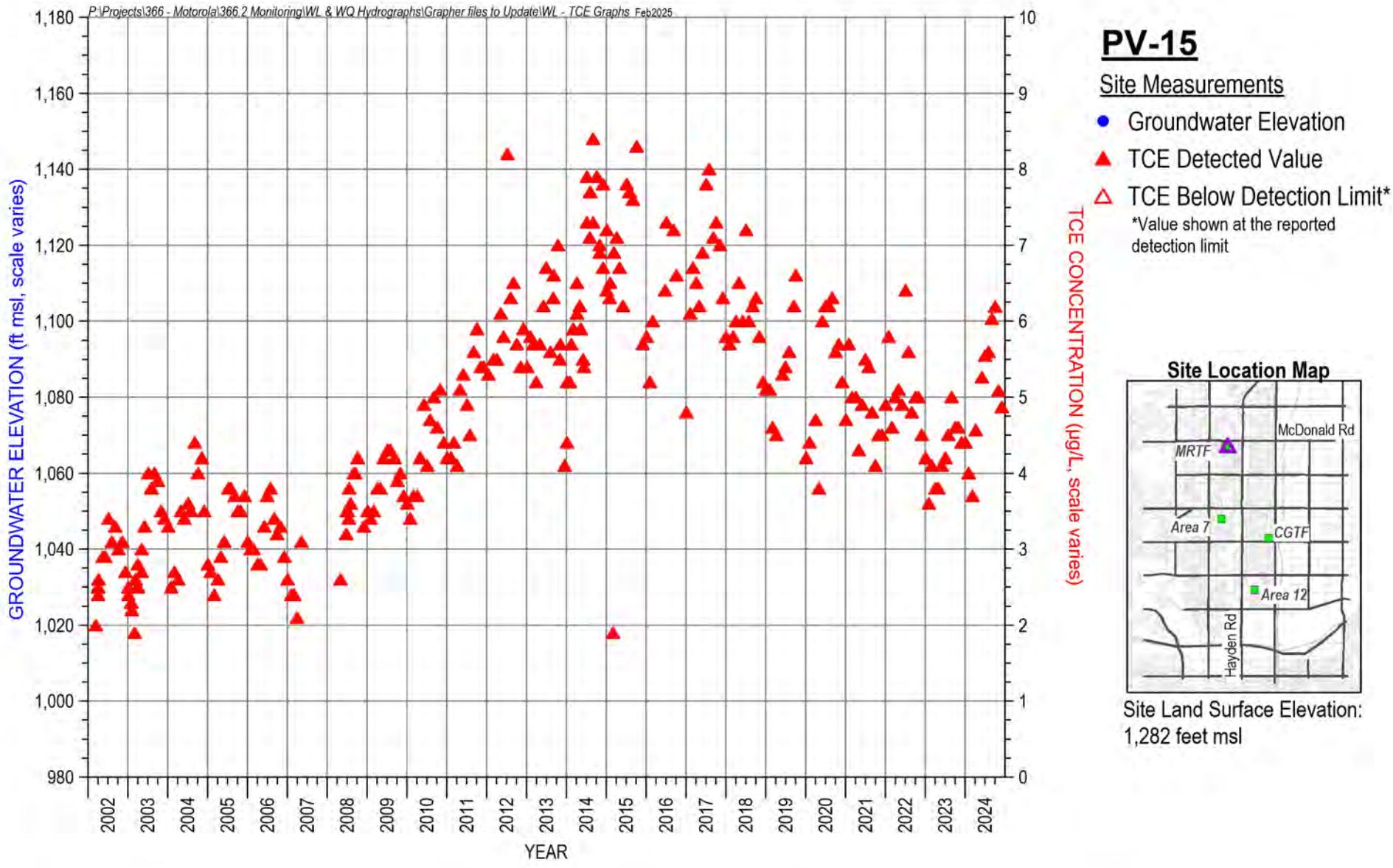
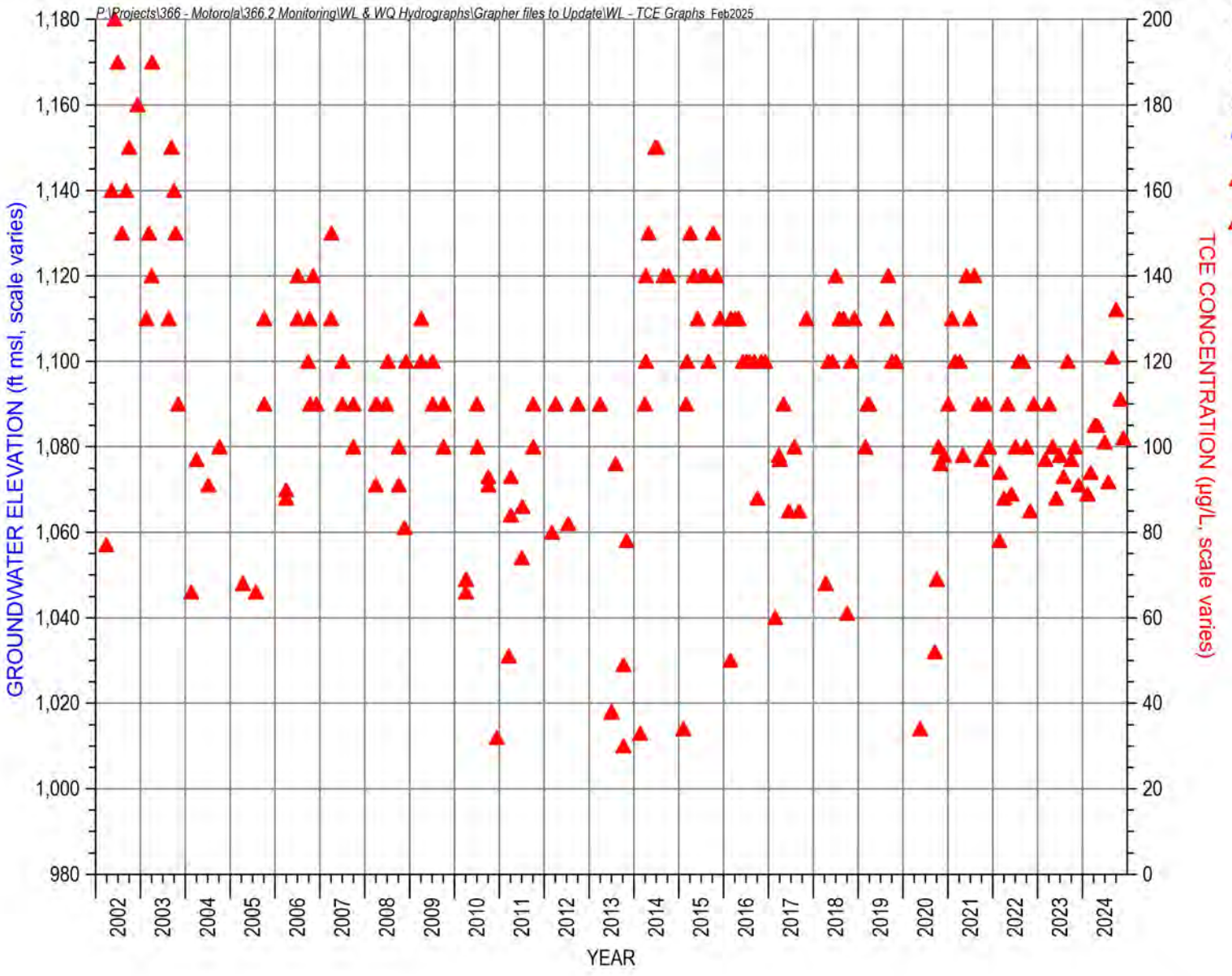


FIGURE D-013. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR PRODUCTION WELL PV-15

North Indian Bend Wash Superfund Site



SRP23.6E6N (Granite Reef)

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

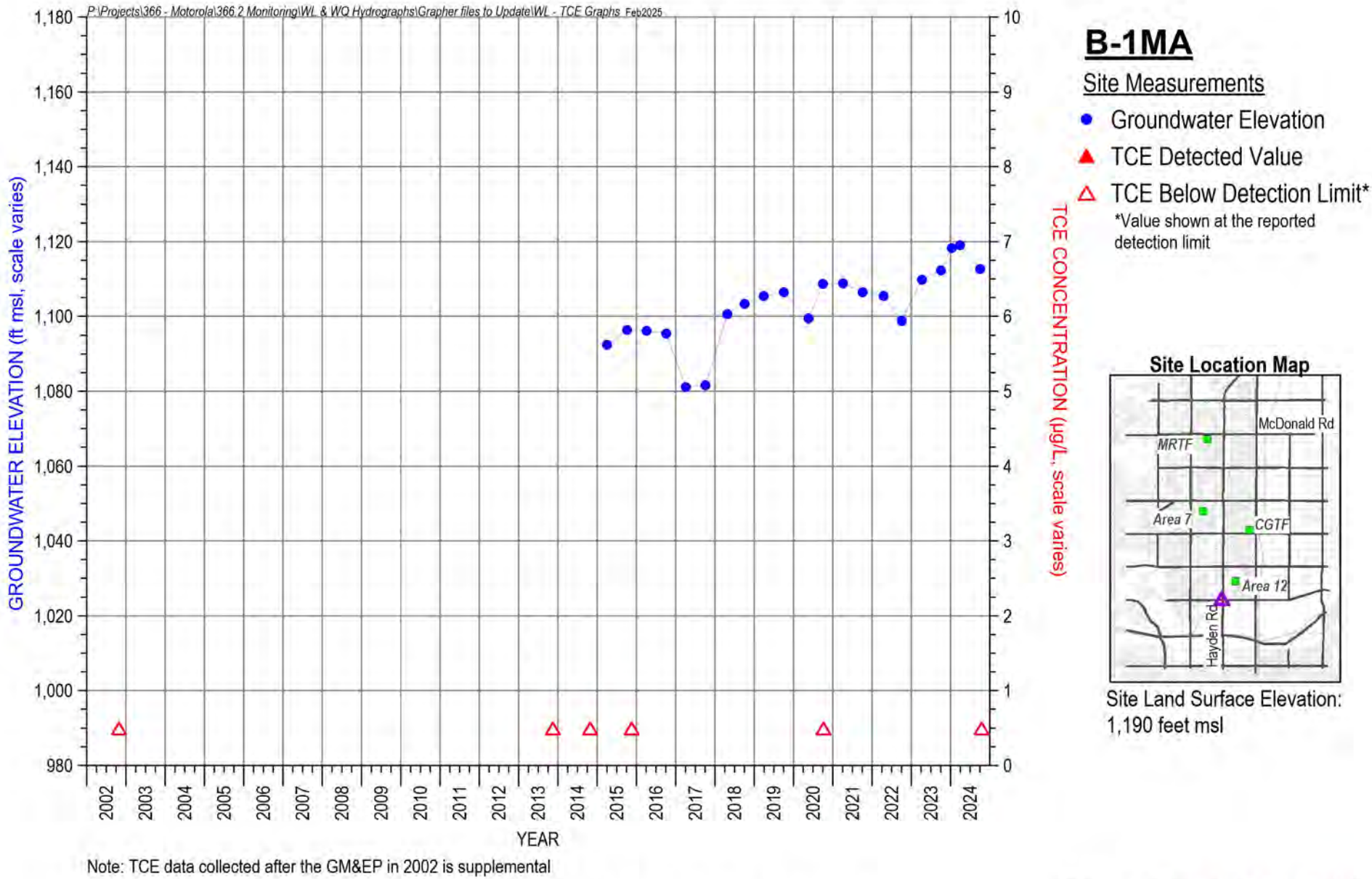
Site Location Map



Site Land Surface Elevation: 1,211 feet msl

FIGURE D-014. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR EXTRACTION WELL SRP23.6E6N (Granite Reef)

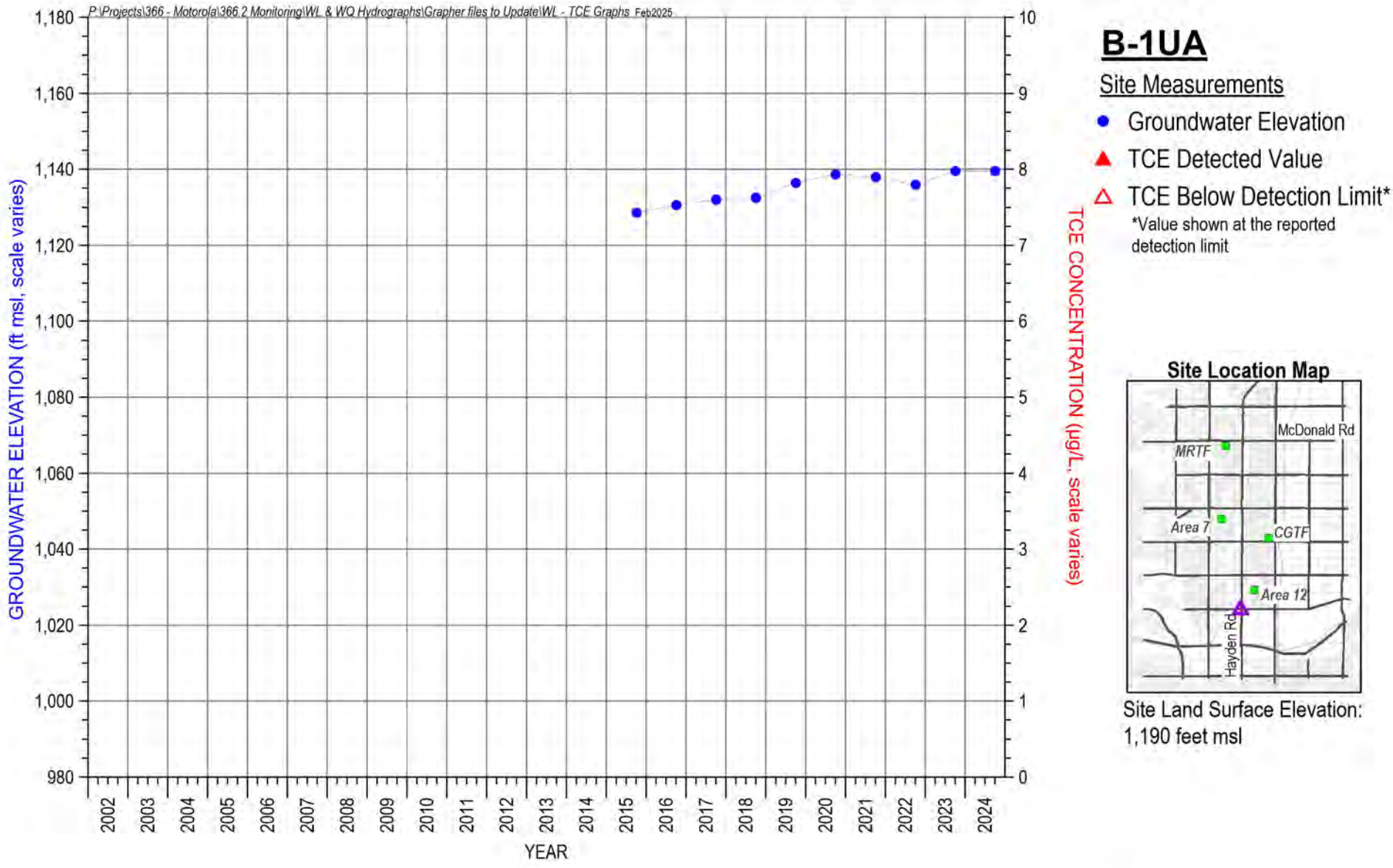
North Indian Bend Wash Superfund Site



Note: TCE data collected after the GM&EP in 2002 is supplemental

FIGURE D-015. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL B-1MA

North Indian Bend Wash Superfund Site



B-1UA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation: 1,190 feet msl

FIGURE D-016. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL B-1UA

North Indian Bend Wash Superfund Site

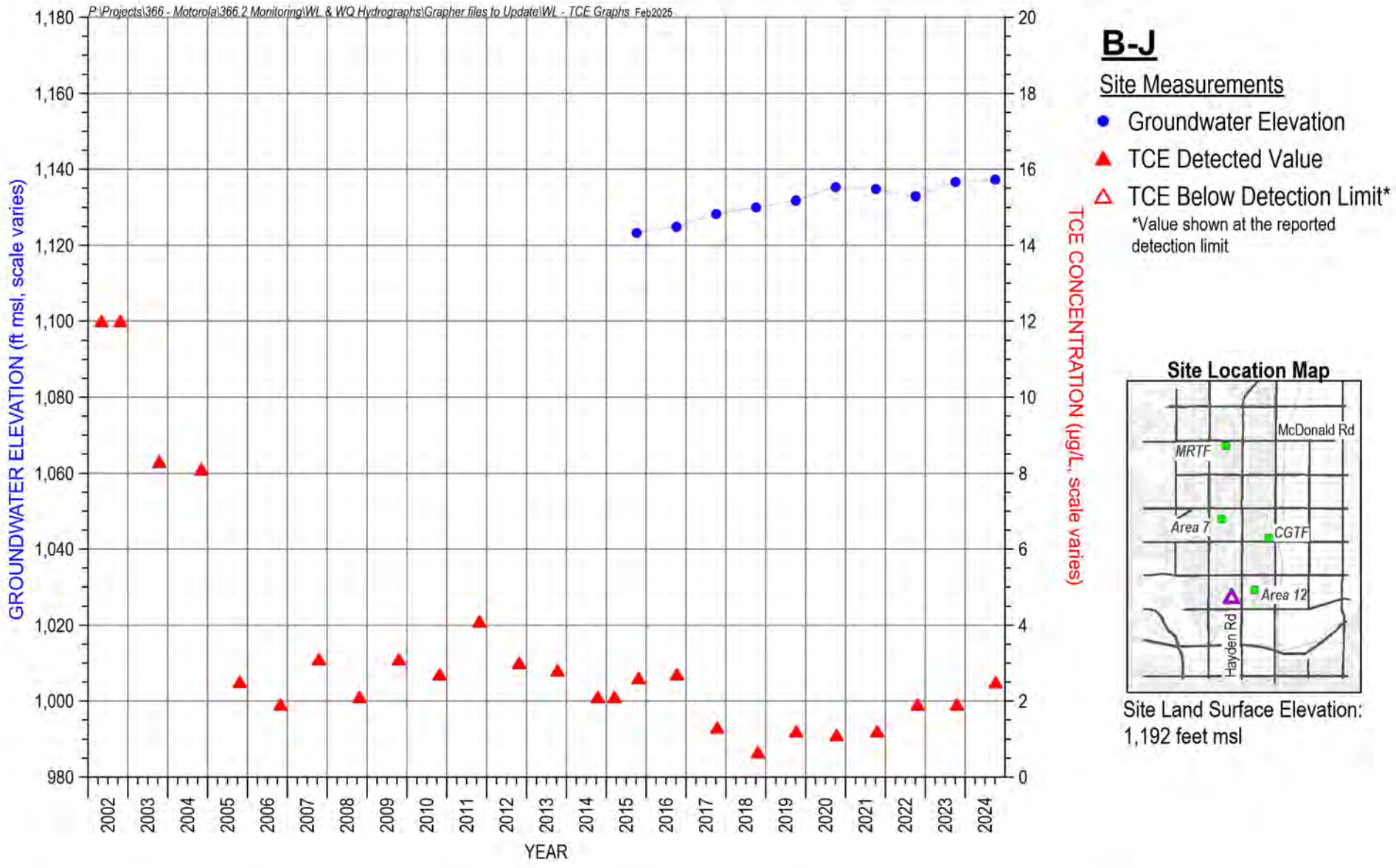


FIGURE D-017. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL B-J

North Indian Bend Wash Superfund Site

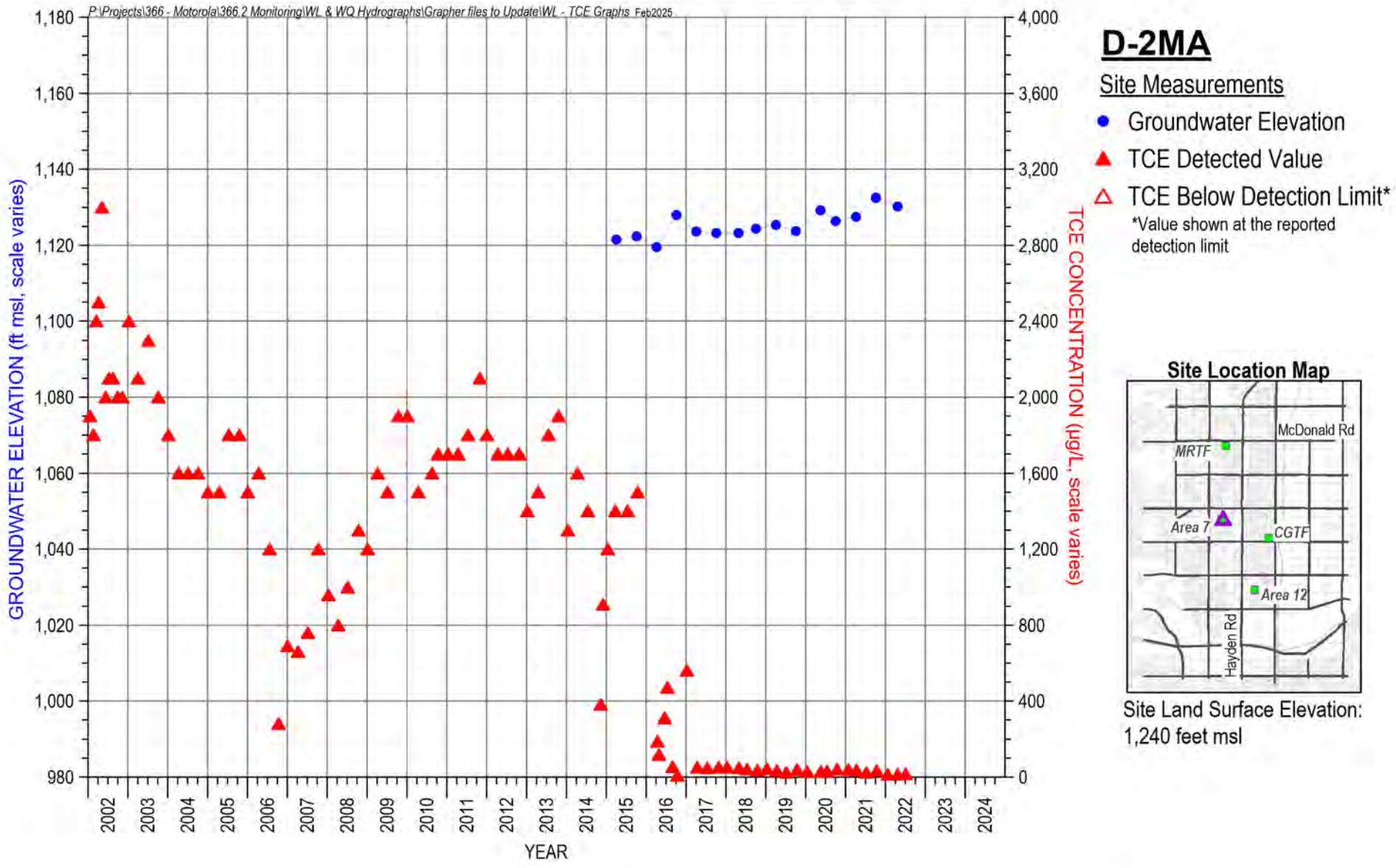
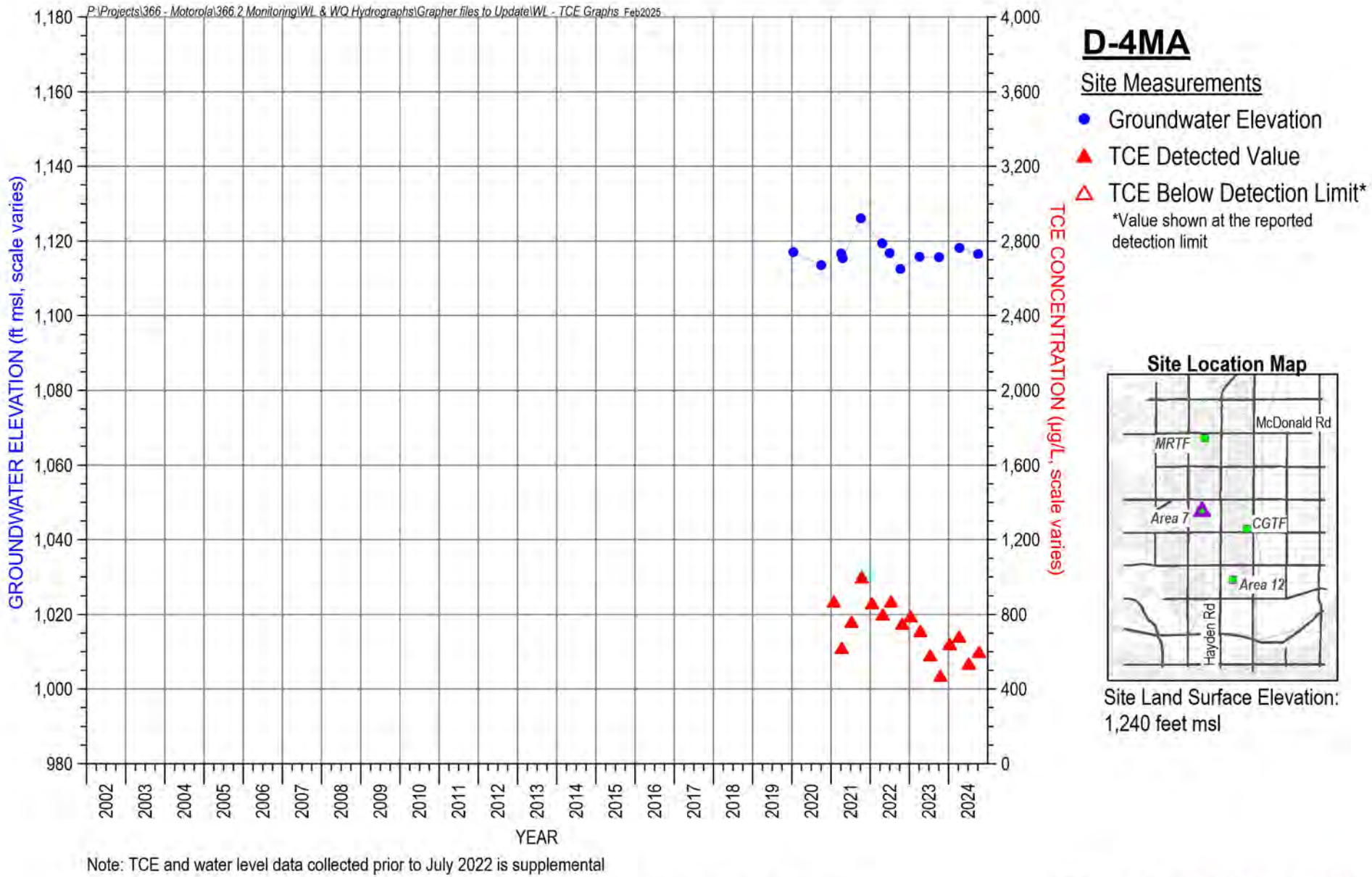


FIGURE D-018. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL D-2MA

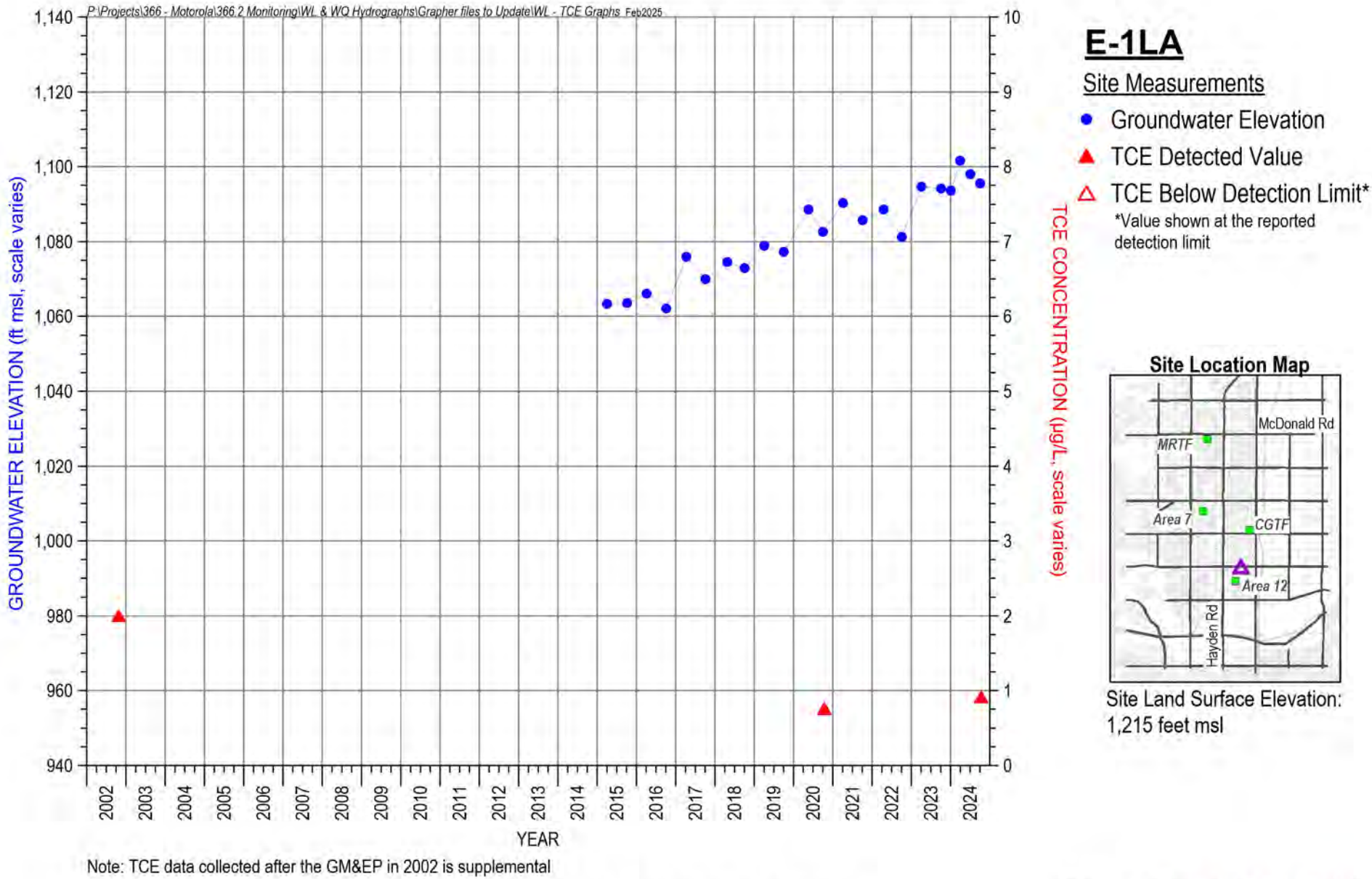
North Indian Bend Wash Superfund Site



Note: TCE and water level data collected prior to July 2022 is supplemental

FIGURE D-019. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL D-4MA

North Indian Bend Wash Superfund Site



Note: TCE data collected after the GM&EP in 2002 is supplemental

FIGURE D-020. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL E-1LA

North Indian Bend Wash Superfund Site

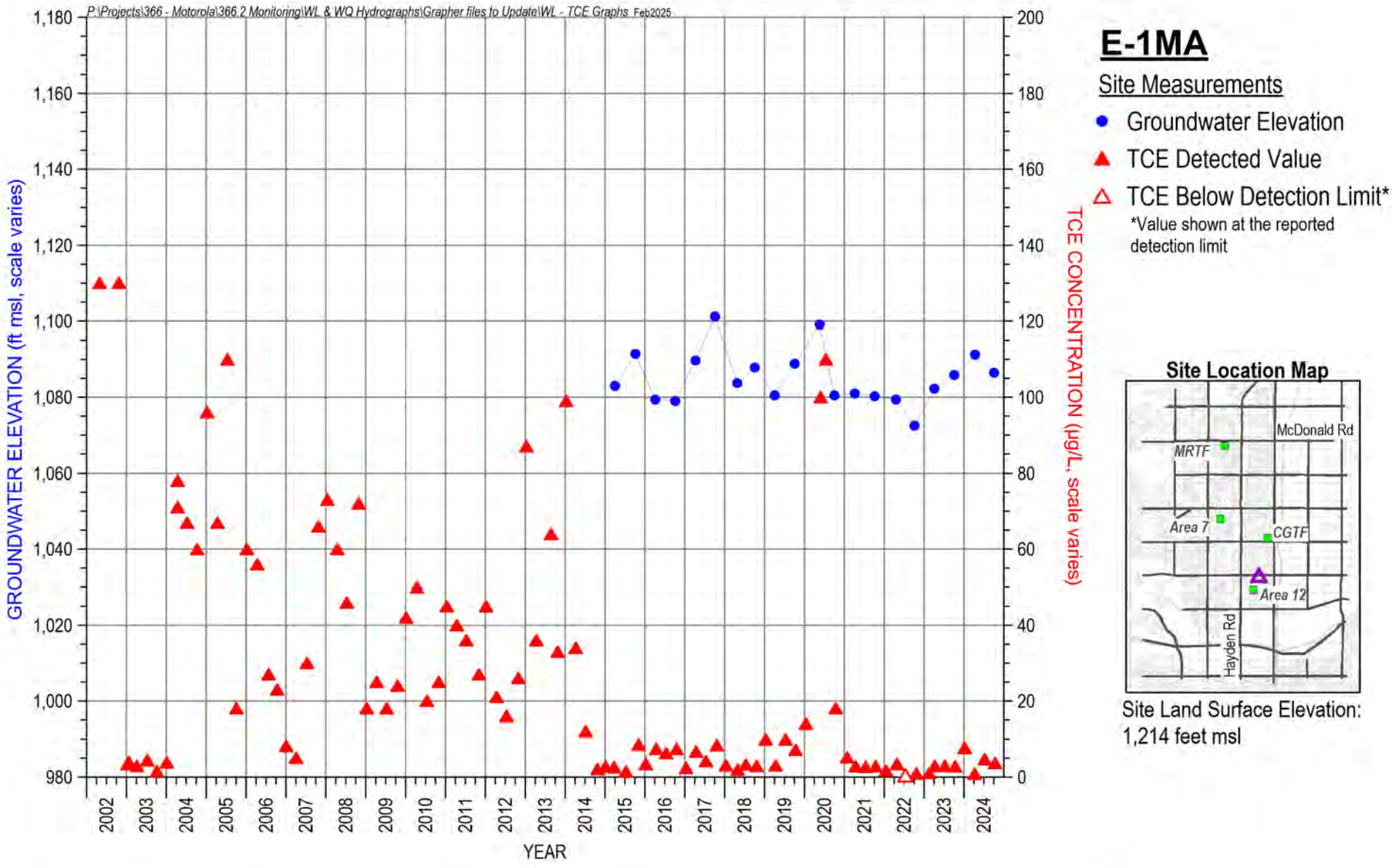


FIGURE D-021. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL E-1MA

North Indian Bend Wash Superfund Site

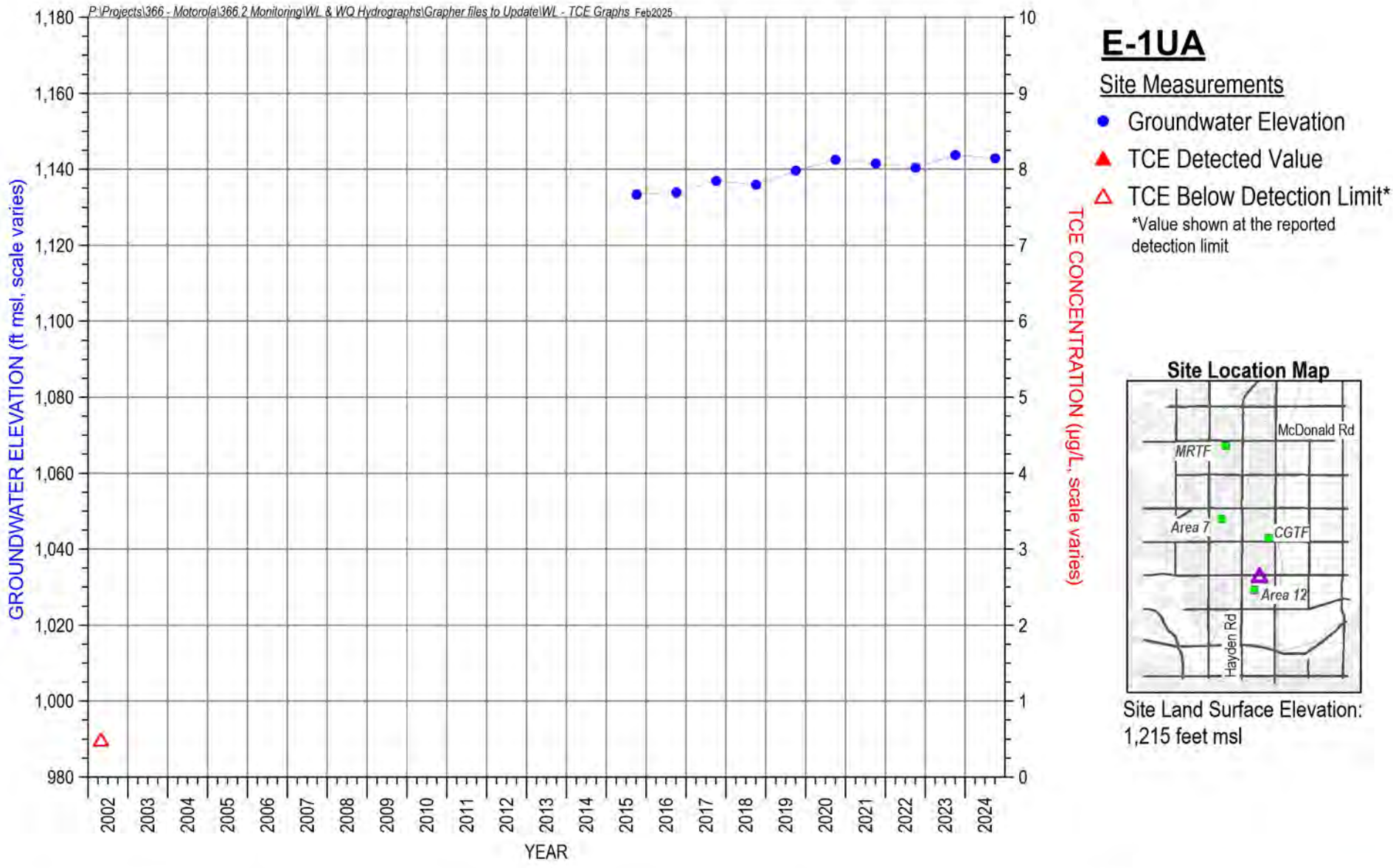


FIGURE D-022. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL E-1UA

North Indian Bend Wash Superfund Site

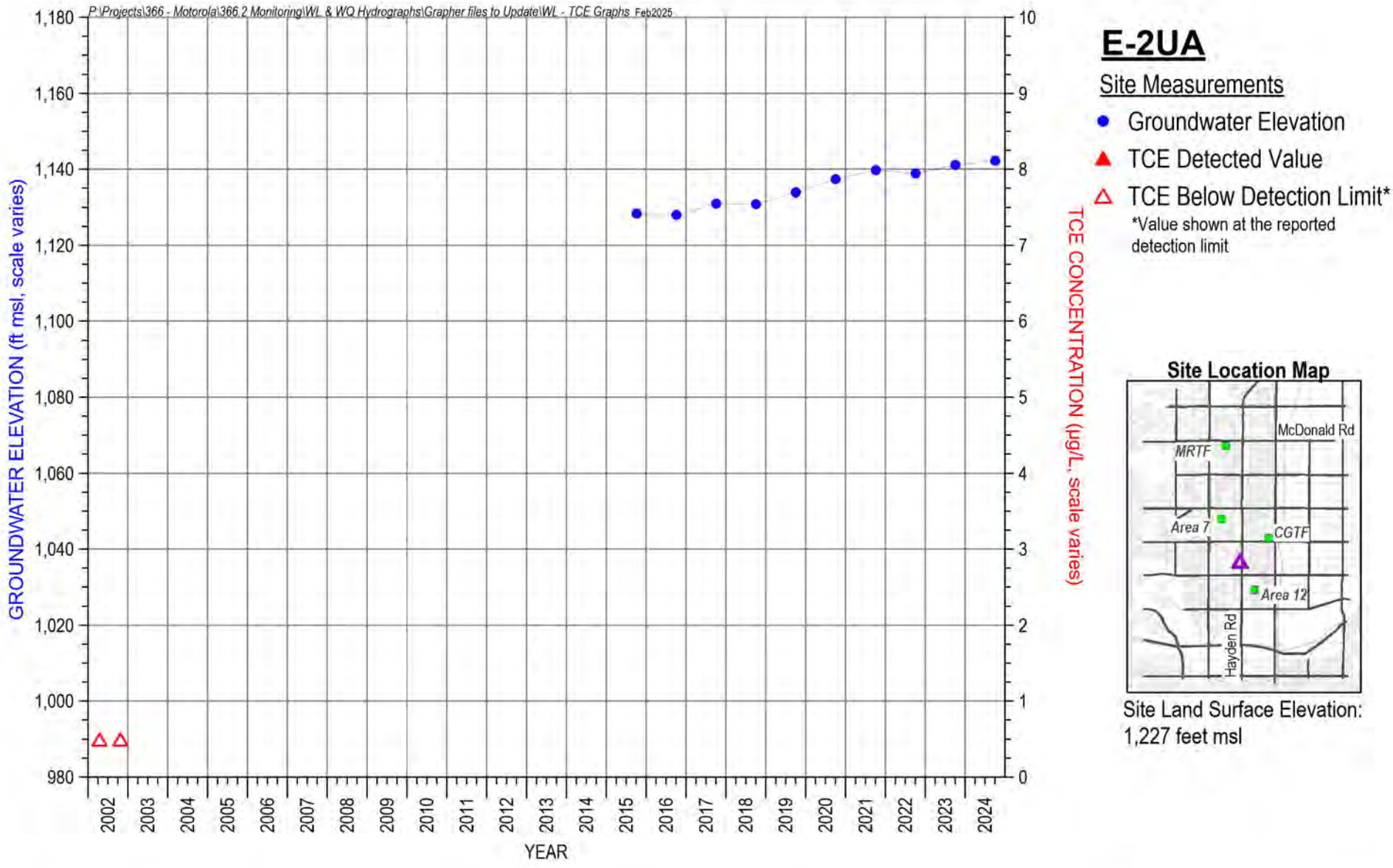


FIGURE D-023. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL E-2UA

North Indian Bend Wash Superfund Site

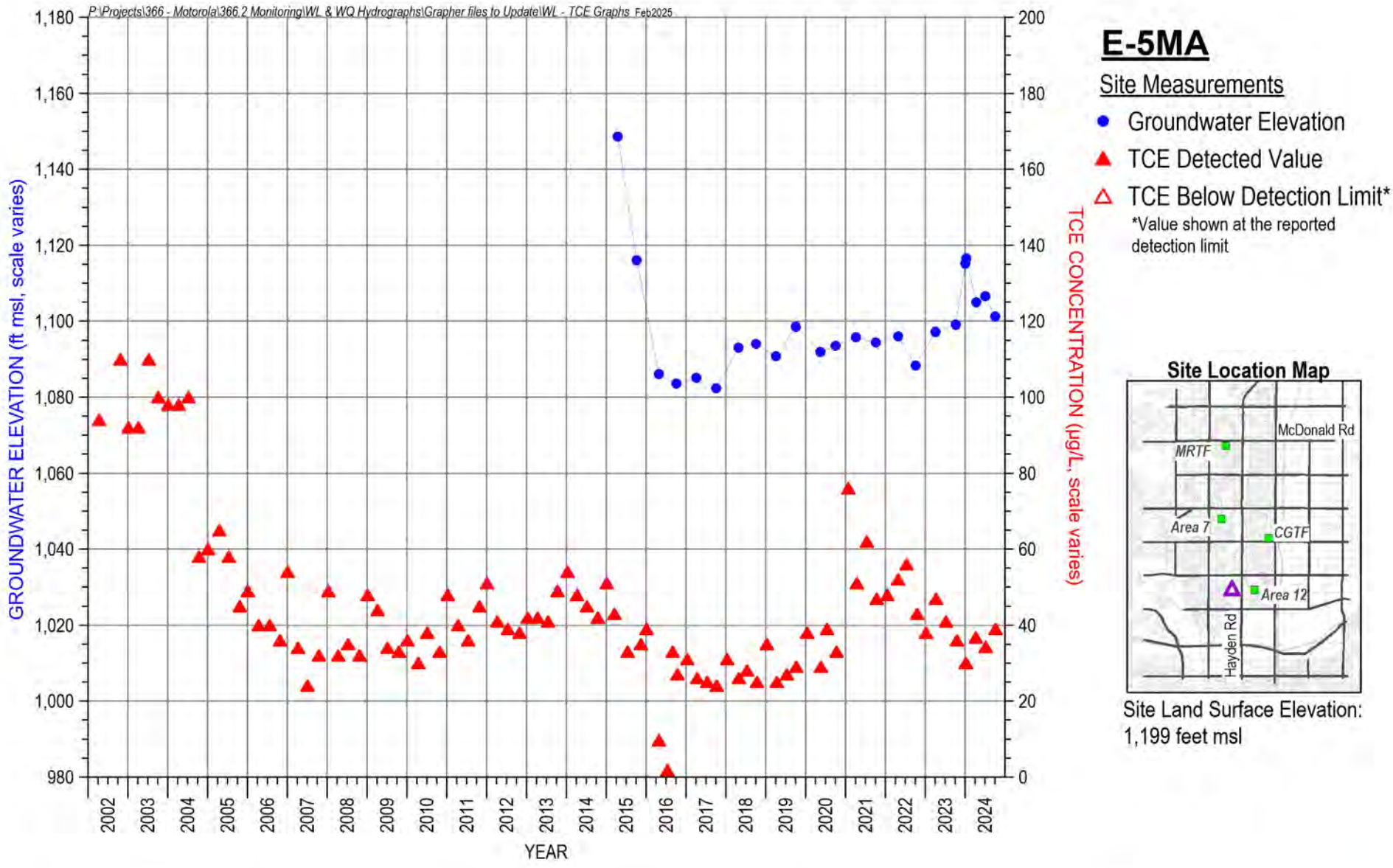


FIGURE D-024. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL E-5MA

North Indian Bend Wash Superfund Site

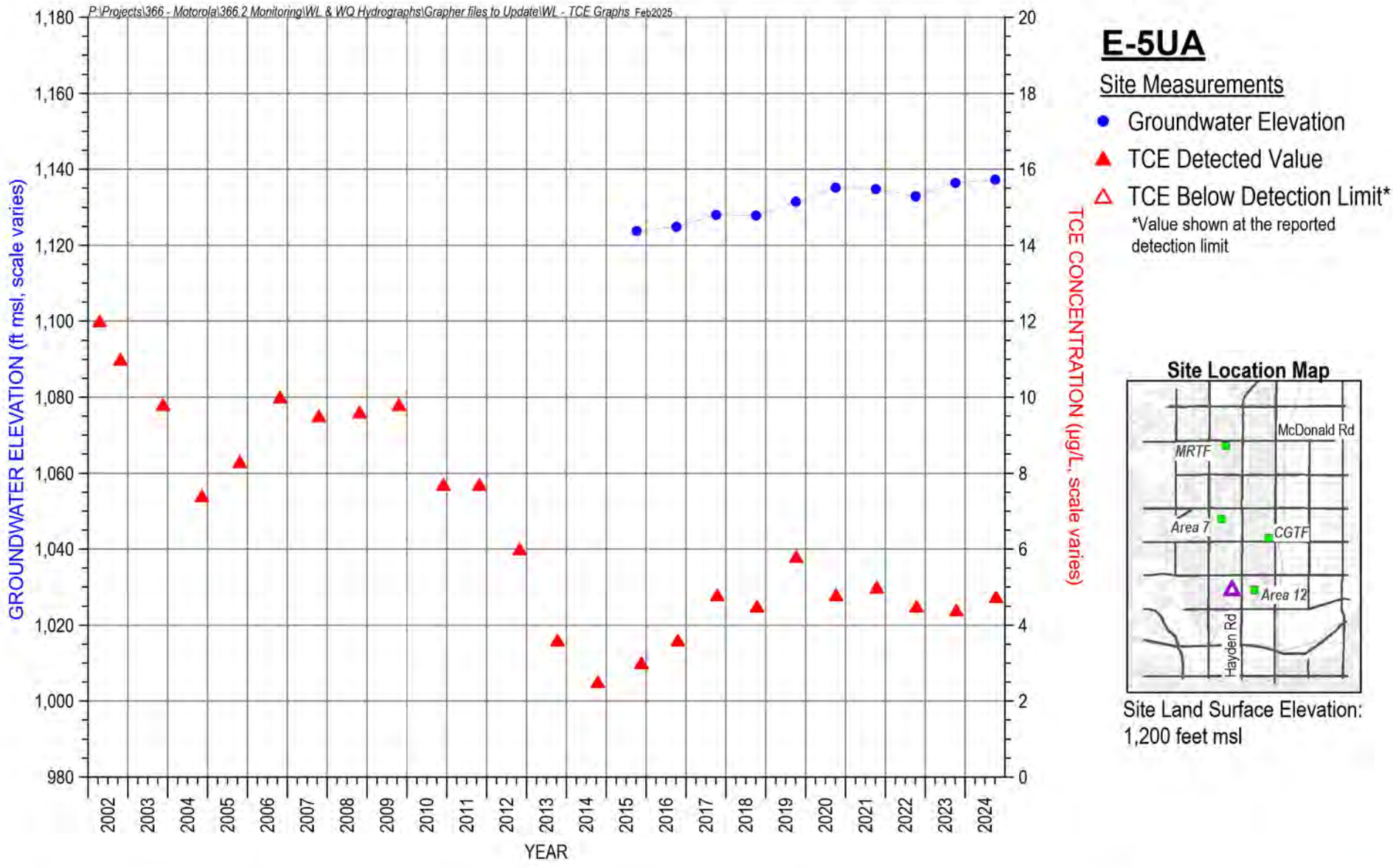


FIGURE D-025. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL E-5UA

North Indian Bend Wash Superfund Site

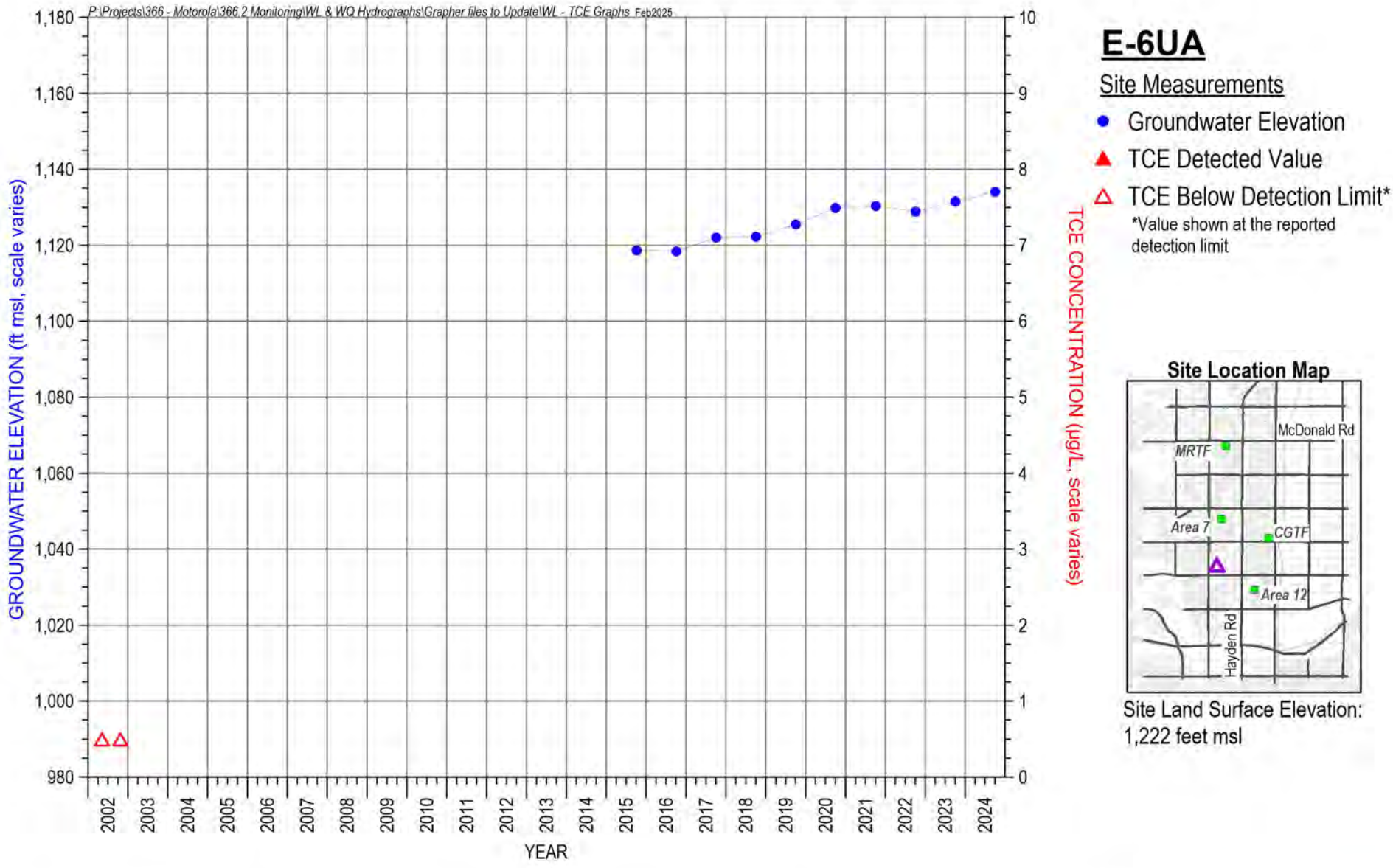


FIGURE D-026. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL E-6UA

North Indian Bend Wash Superfund Site

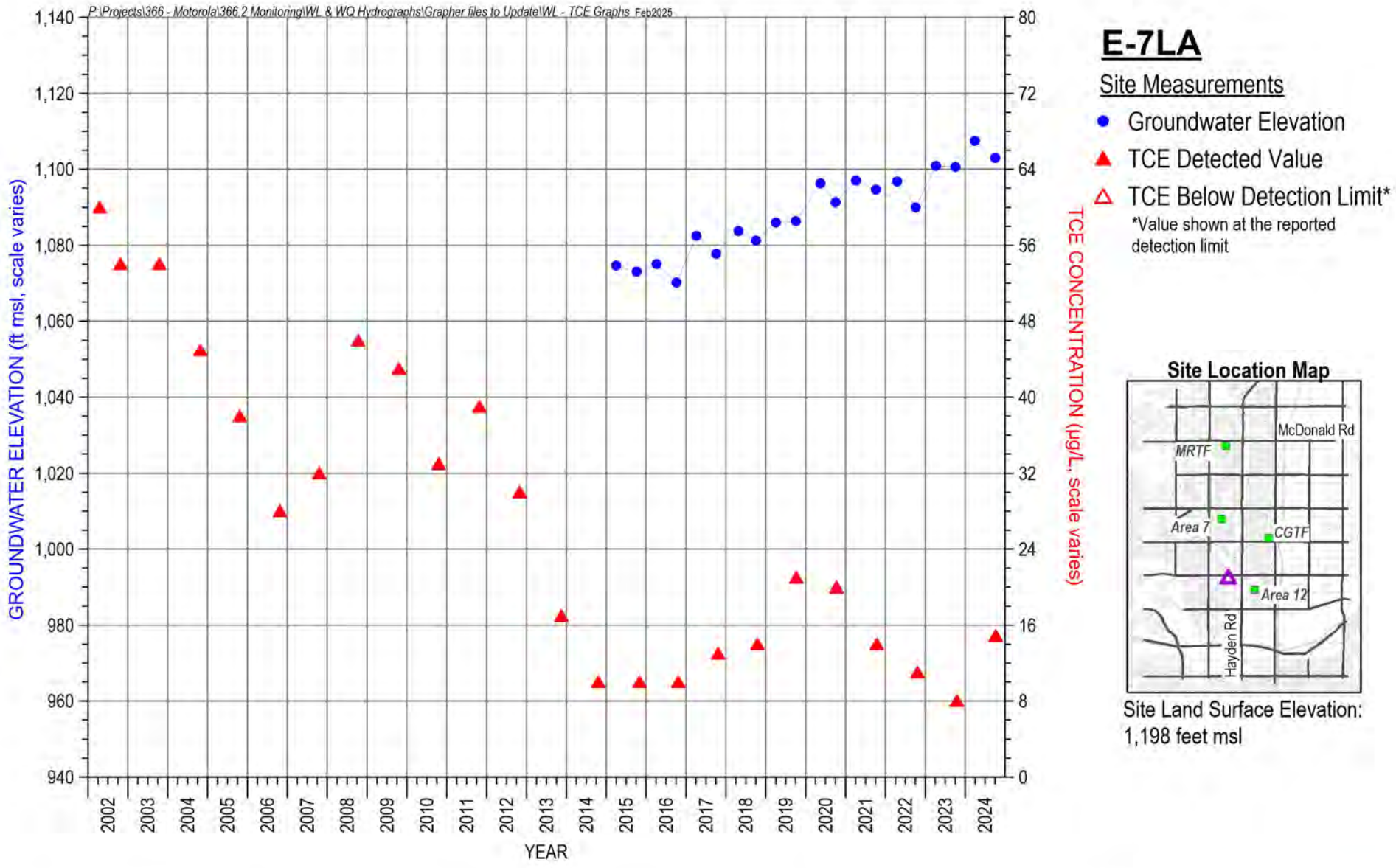


FIGURE D-027. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL E-7LA

North Indian Bend Wash Superfund Site

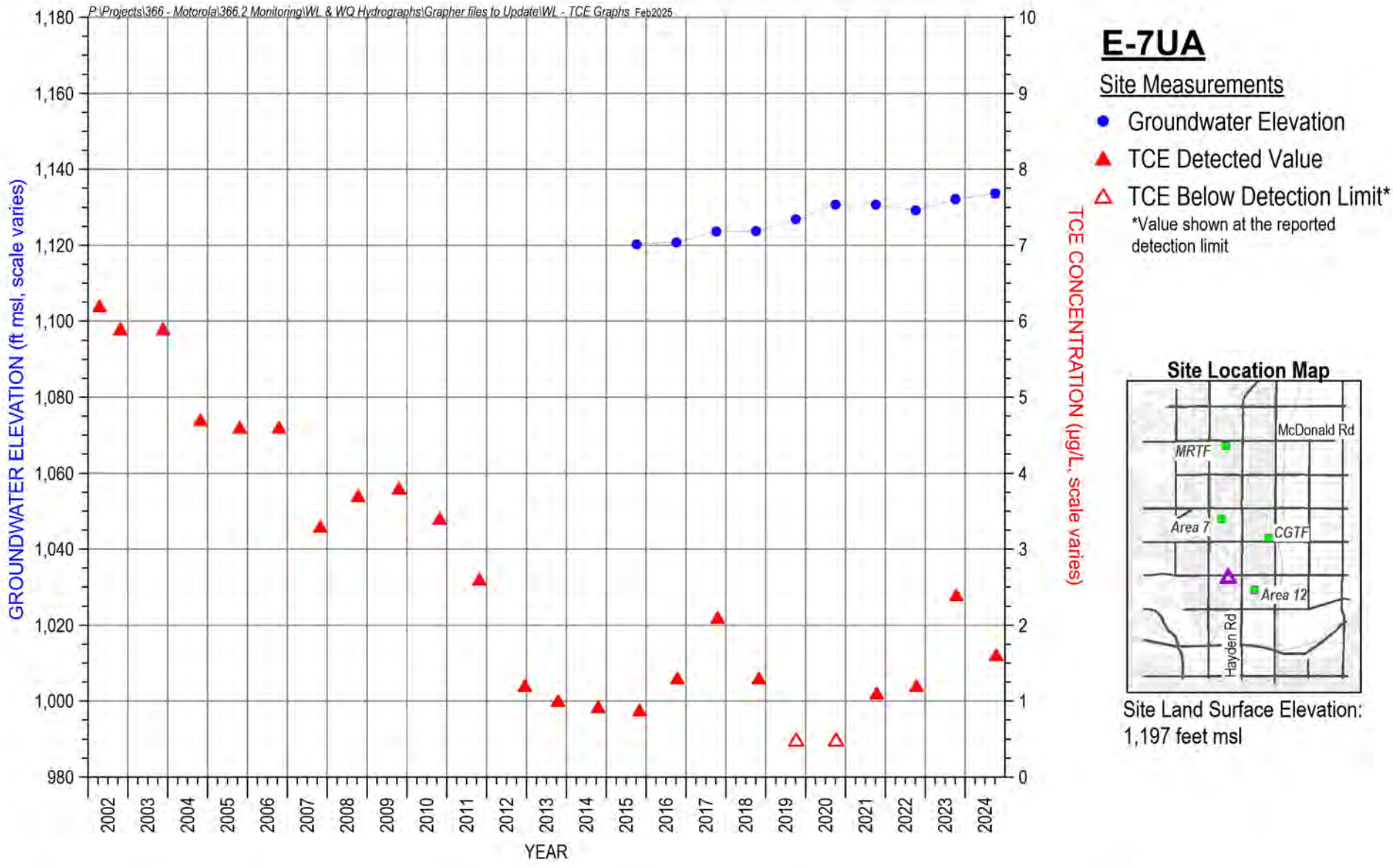


FIGURE D-028. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL E-7UA

North Indian Bend Wash Superfund Site

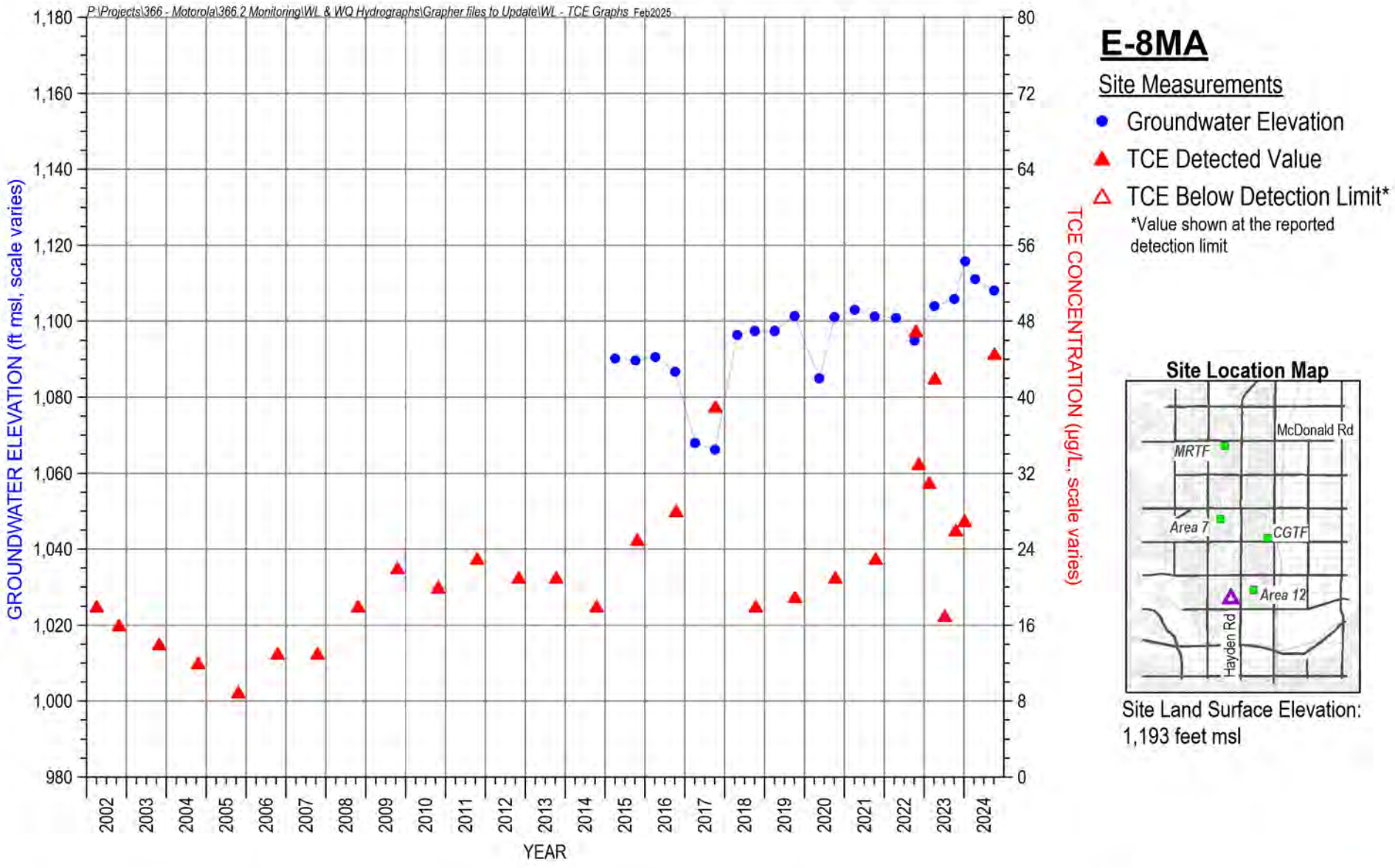


FIGURE D-029. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL E-8MA

North Indian Bend Wash Superfund Site

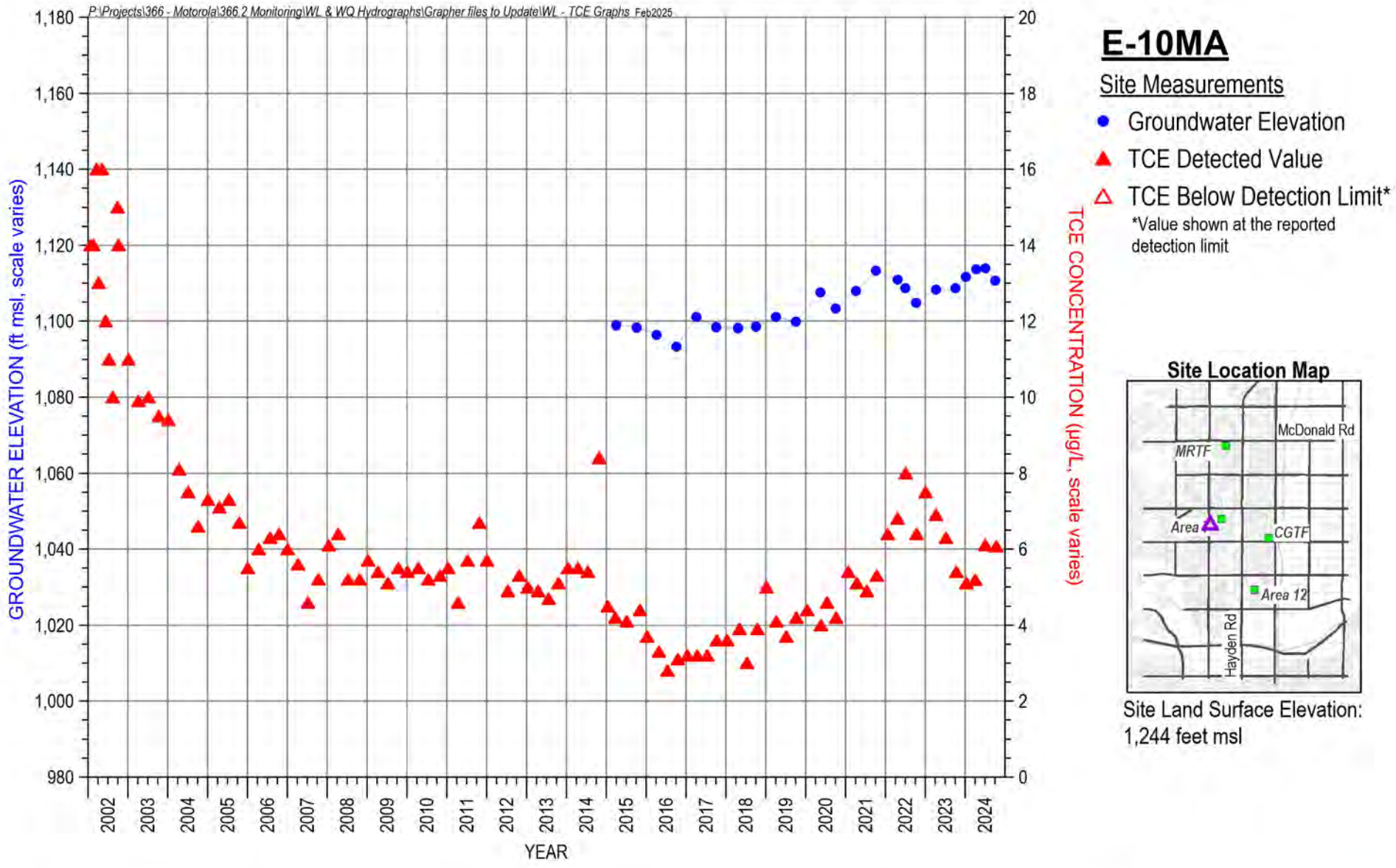


FIGURE D-030. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL E-10MA

North Indian Bend Wash Superfund Site

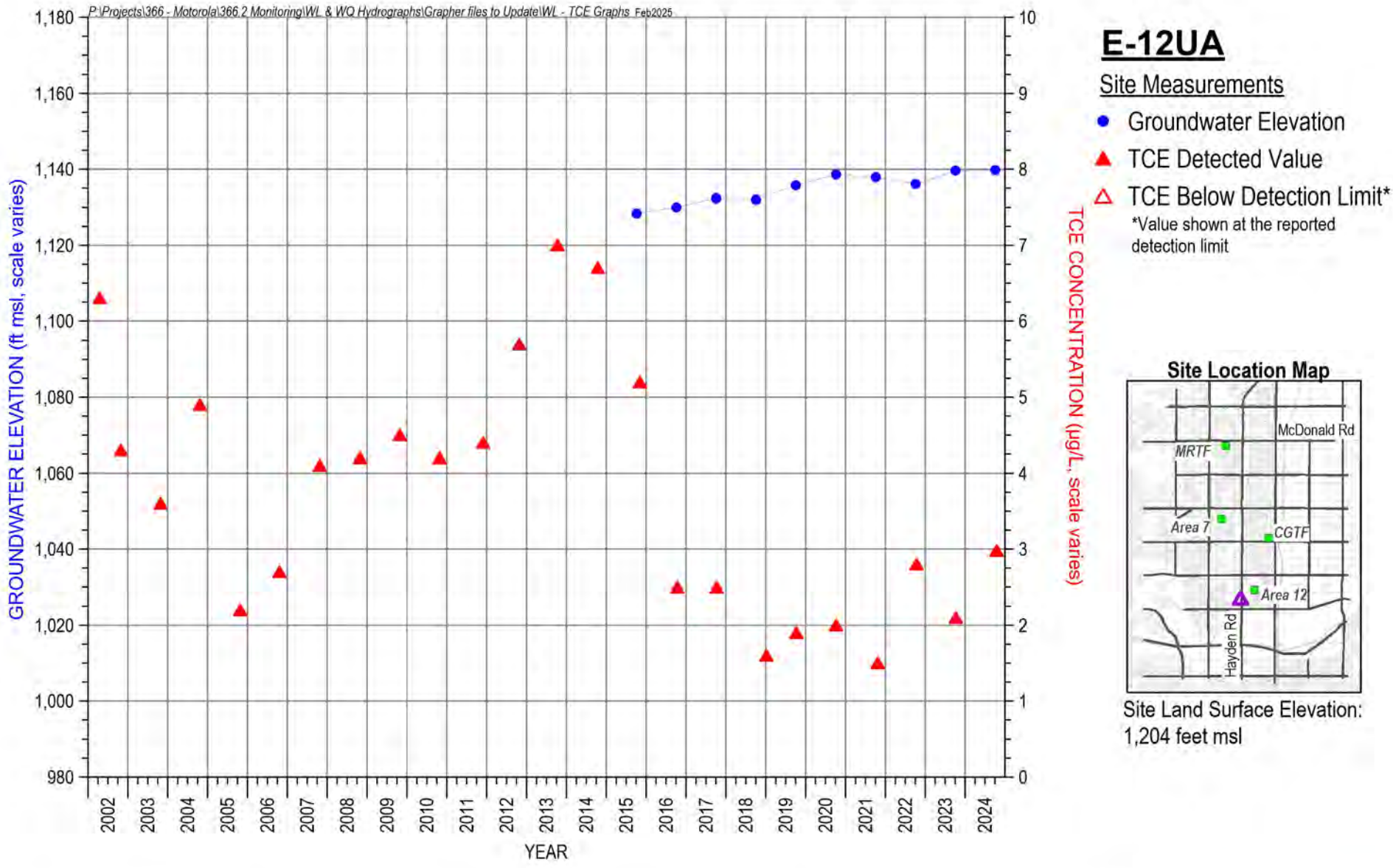
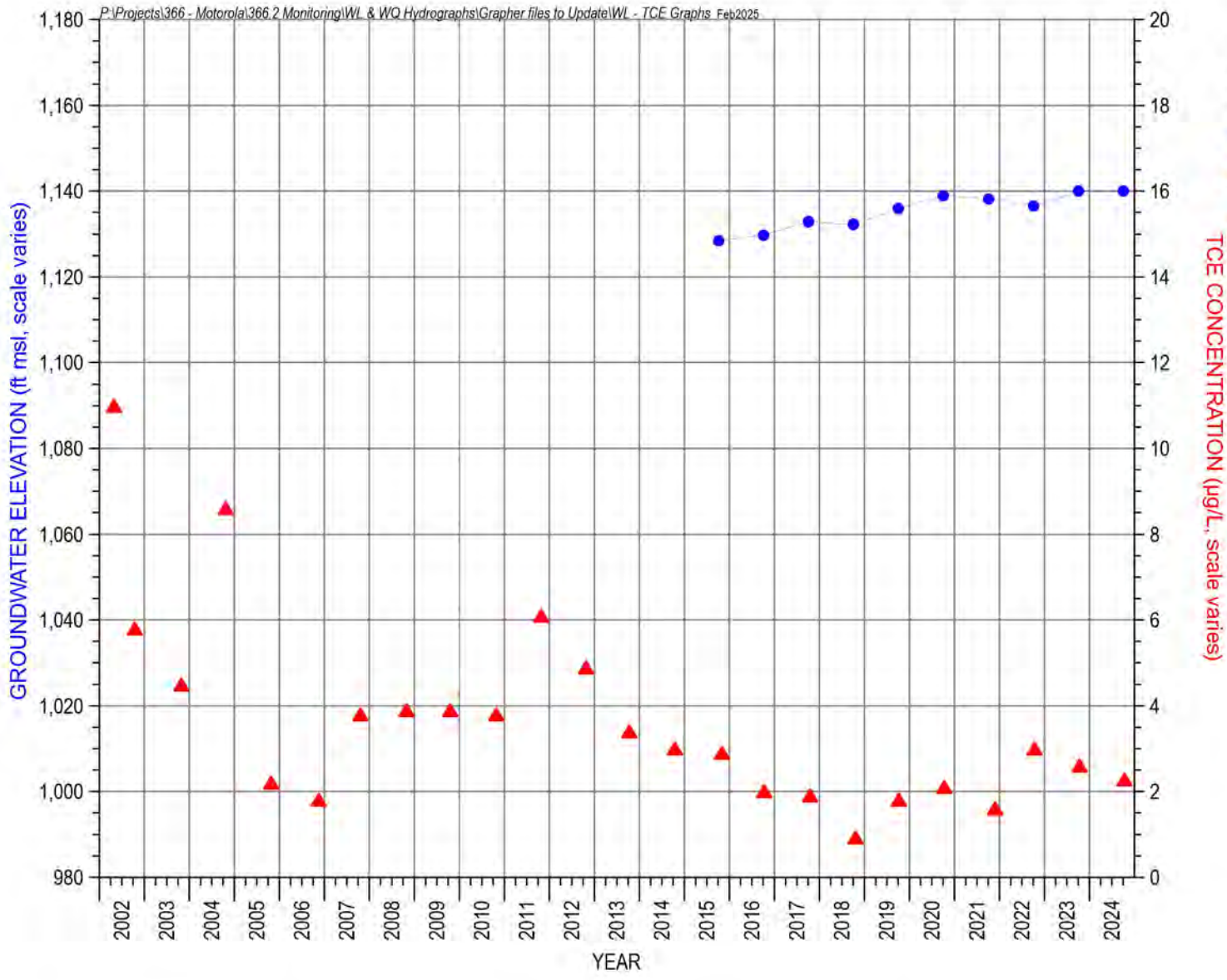


FIGURE D-031. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL E-12UA

North Indian Bend Wash Superfund Site



E-13UA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

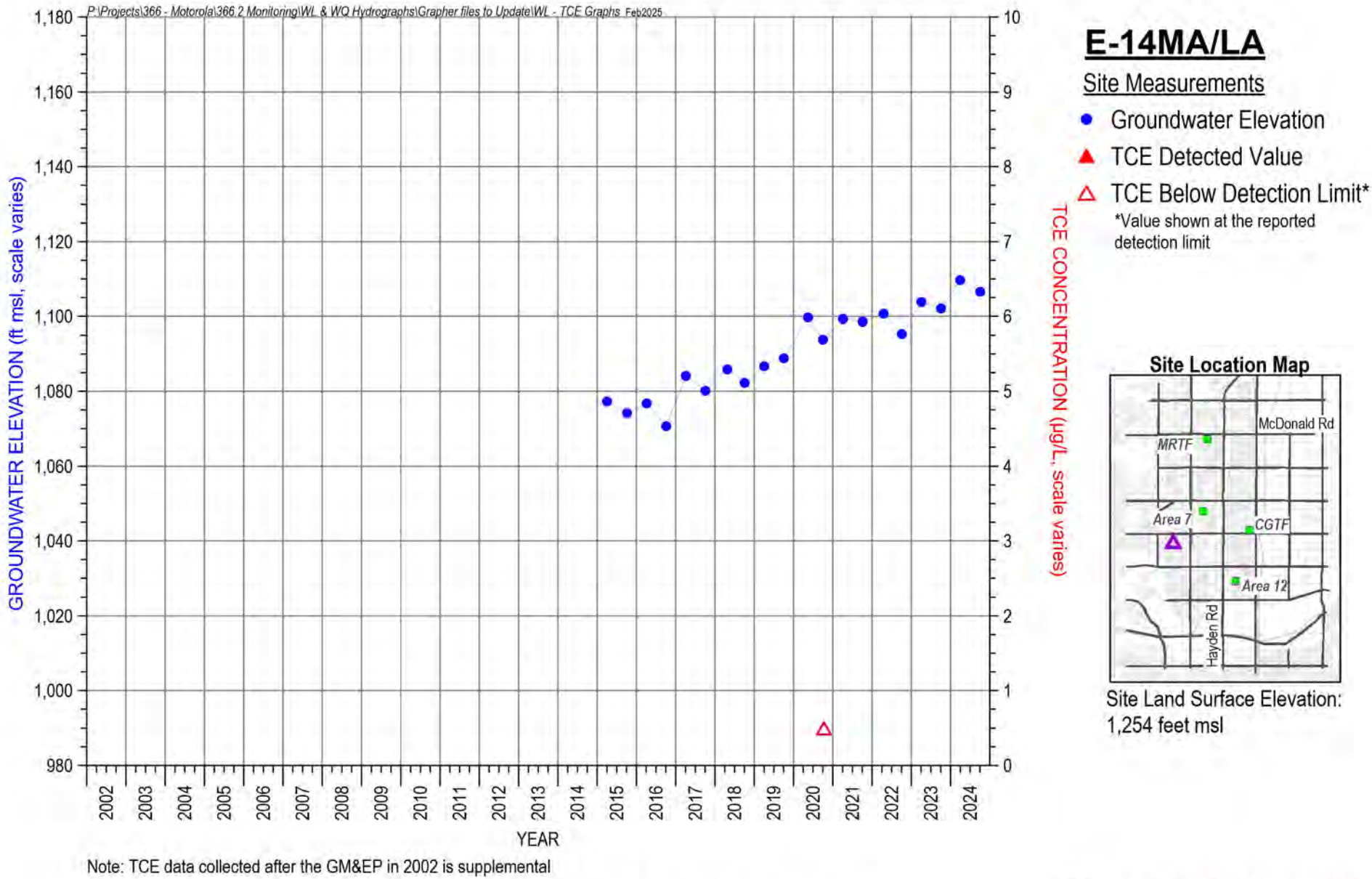
Site Location Map



Site Land Surface Elevation: 1,209 feet msl

FIGURE D-032. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL E-13UA

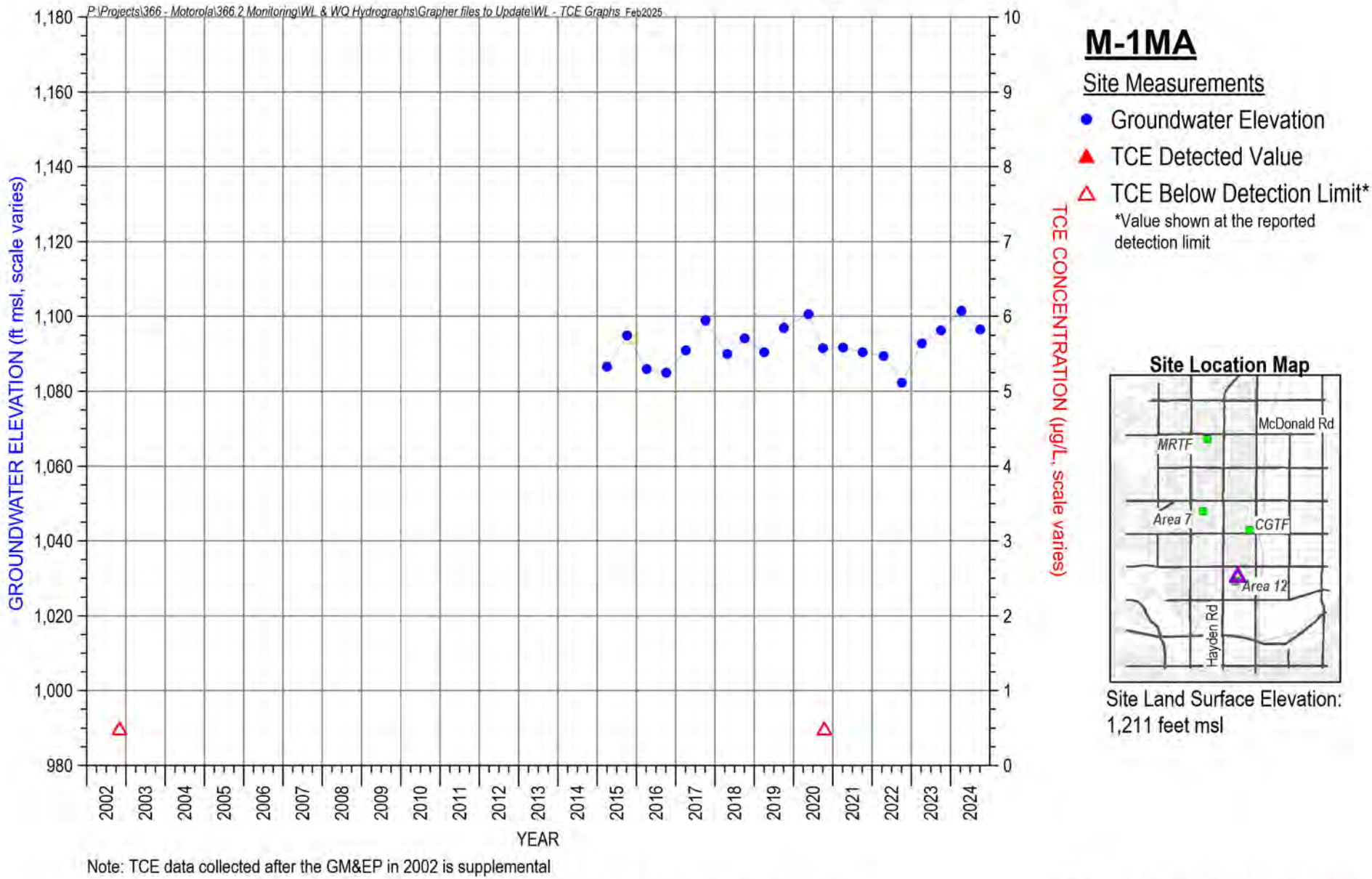
North Indian Bend Wash Superfund Site



Note: TCE data collected after the GM&EP in 2002 is supplemental

FIGURE D-033. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL E-14MA/LA

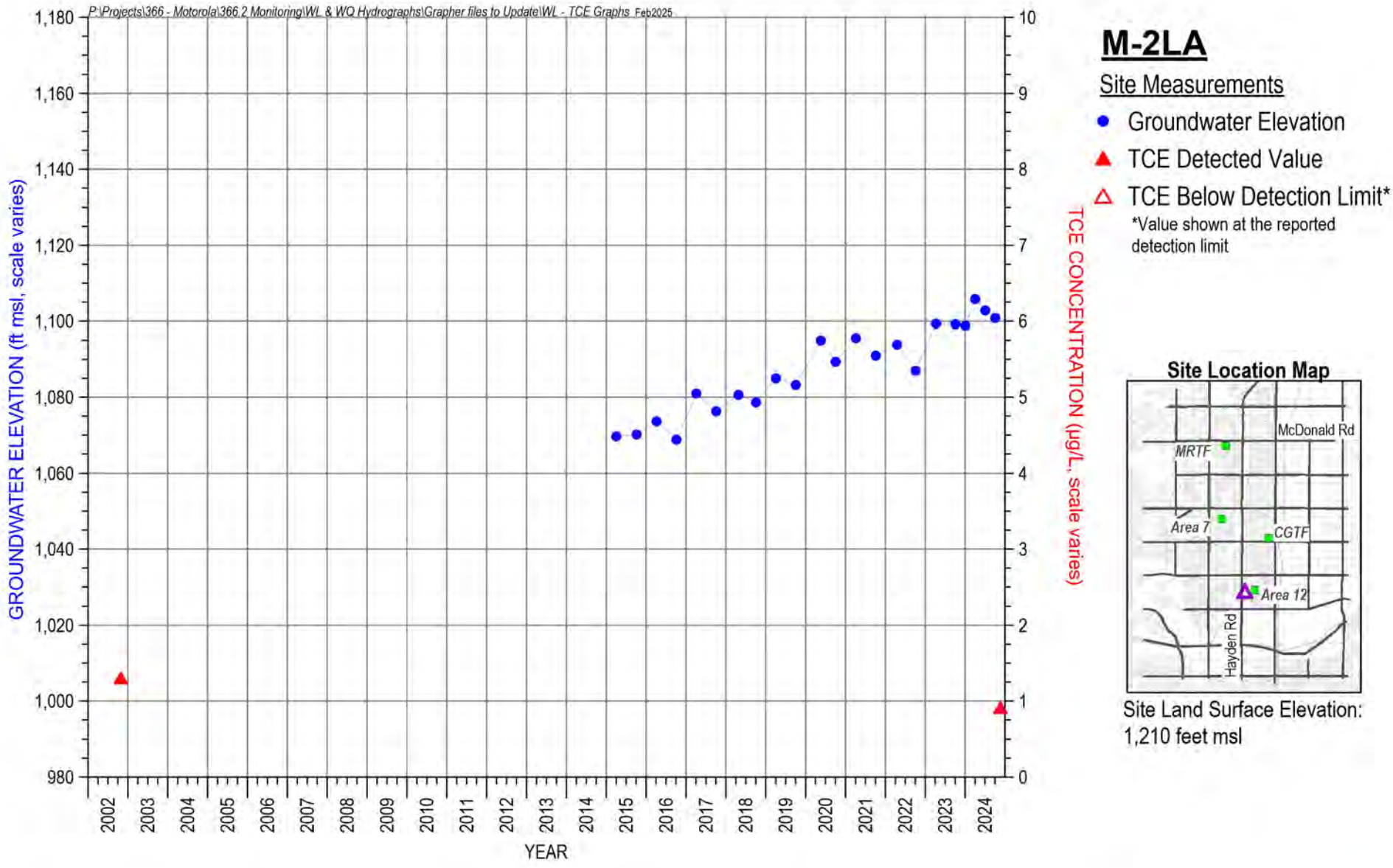
North Indian Bend Wash Superfund Site



Note: TCE data collected after the GM&EP in 2002 is supplemental

FIGURE D-034. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-1MA

North Indian Bend Wash Superfund Site



M-2LA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation: 1,210 feet msl

FIGURE D-035. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-2LA

North Indian Bend Wash Superfund Site

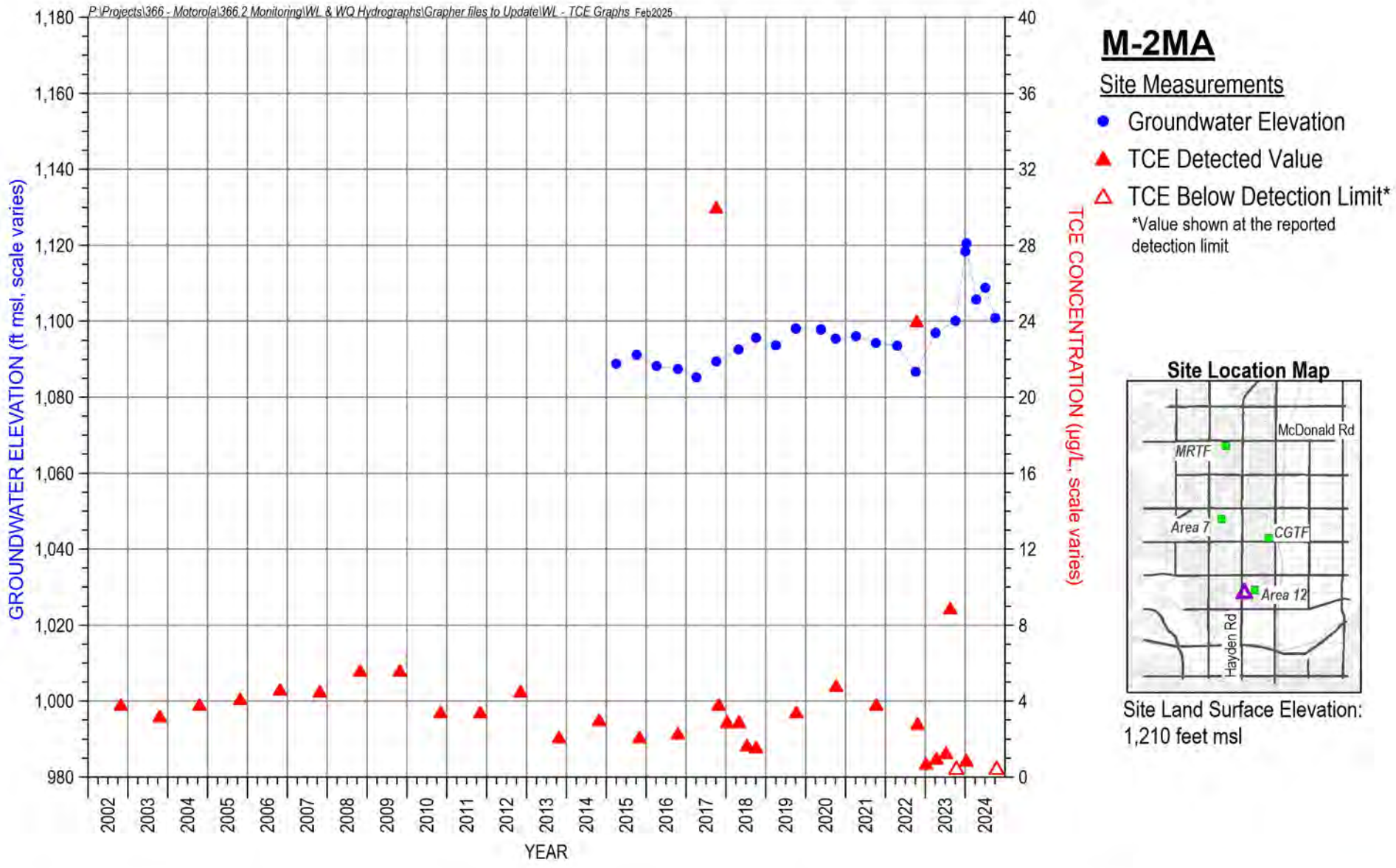


FIGURE D-036. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-2MA

North Indian Bend Wash Superfund Site

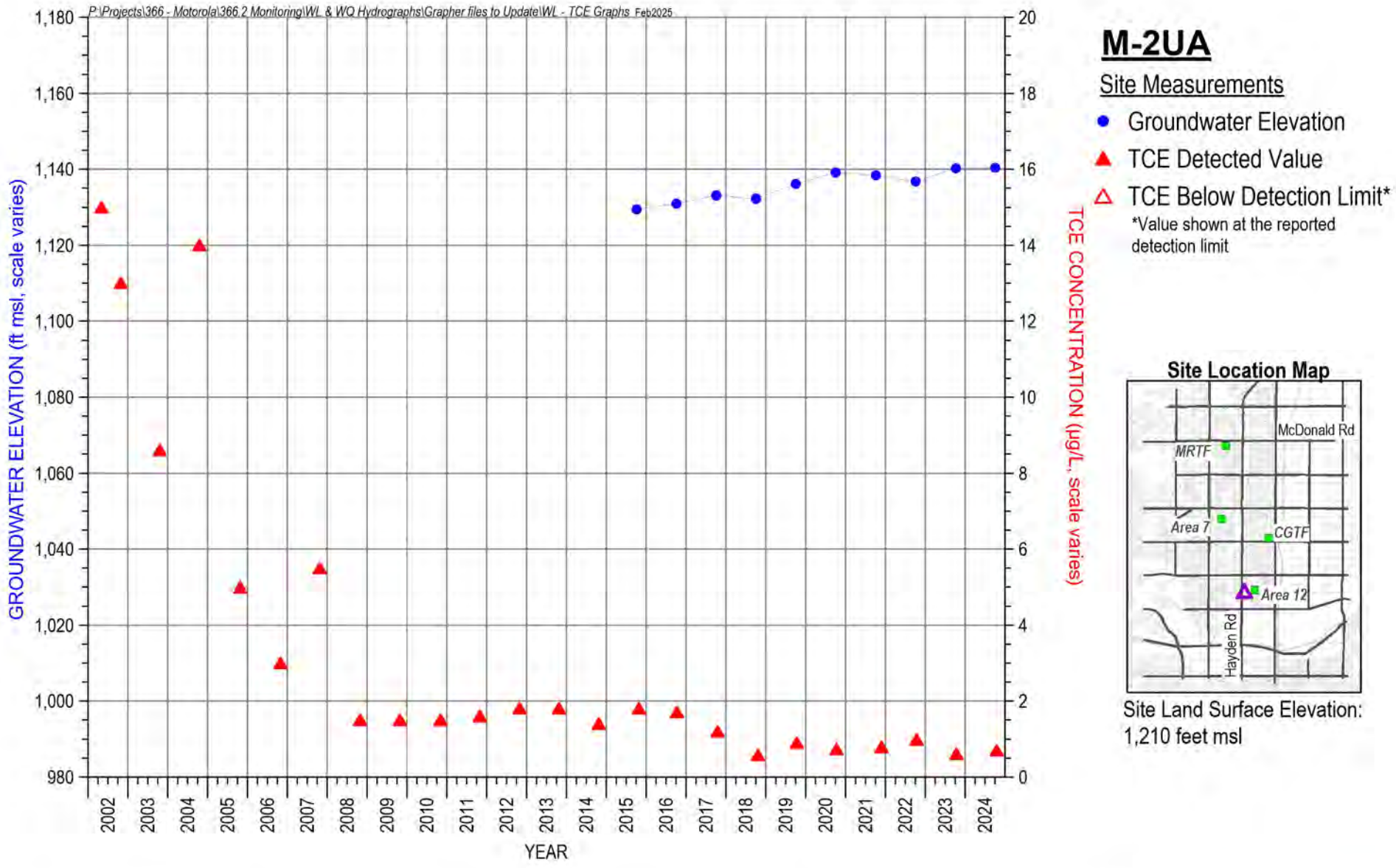


FIGURE D-037. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-2UA

North Indian Bend Wash Superfund Site

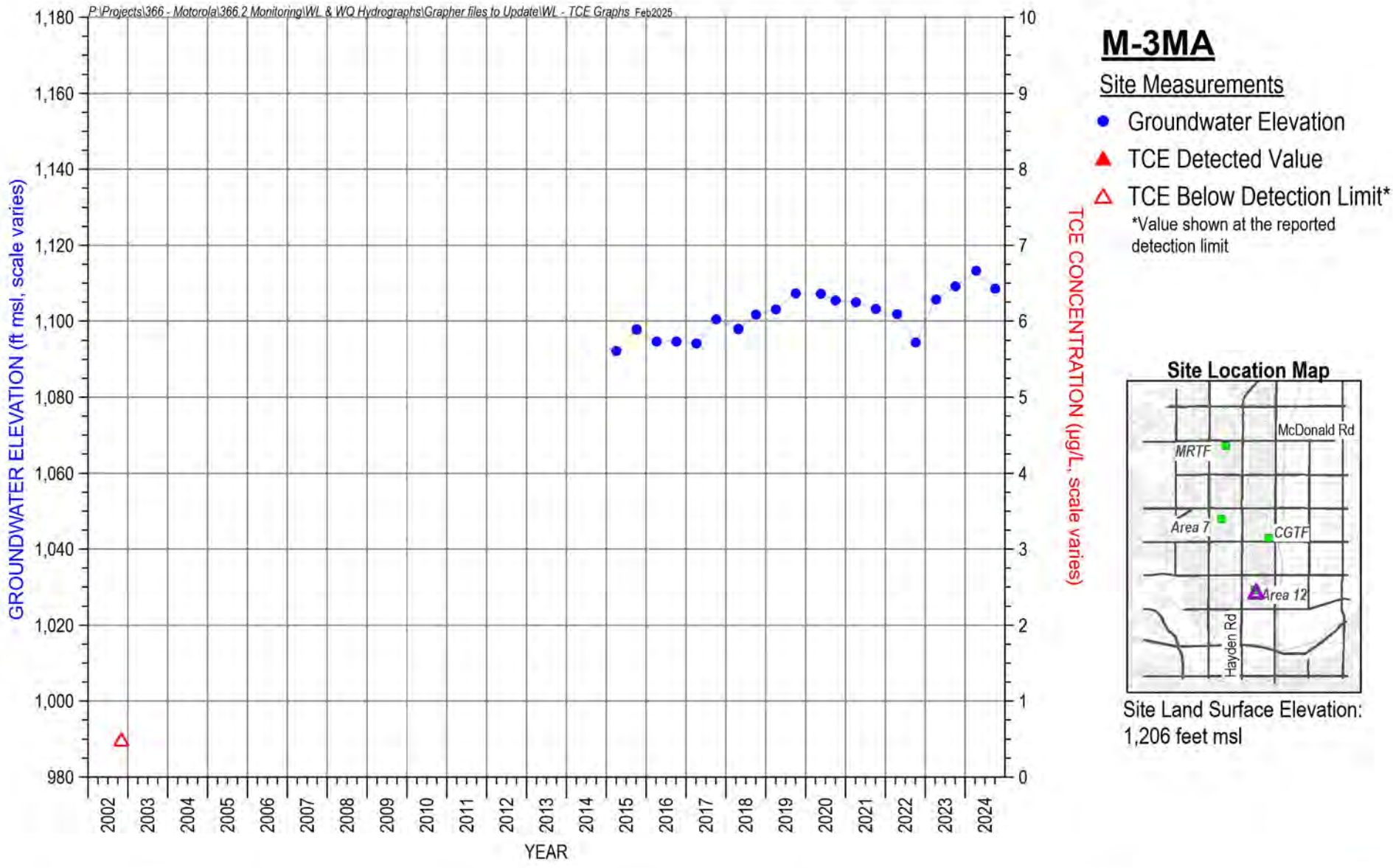


FIGURE D-038. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-3MA

North Indian Bend Wash Superfund Site

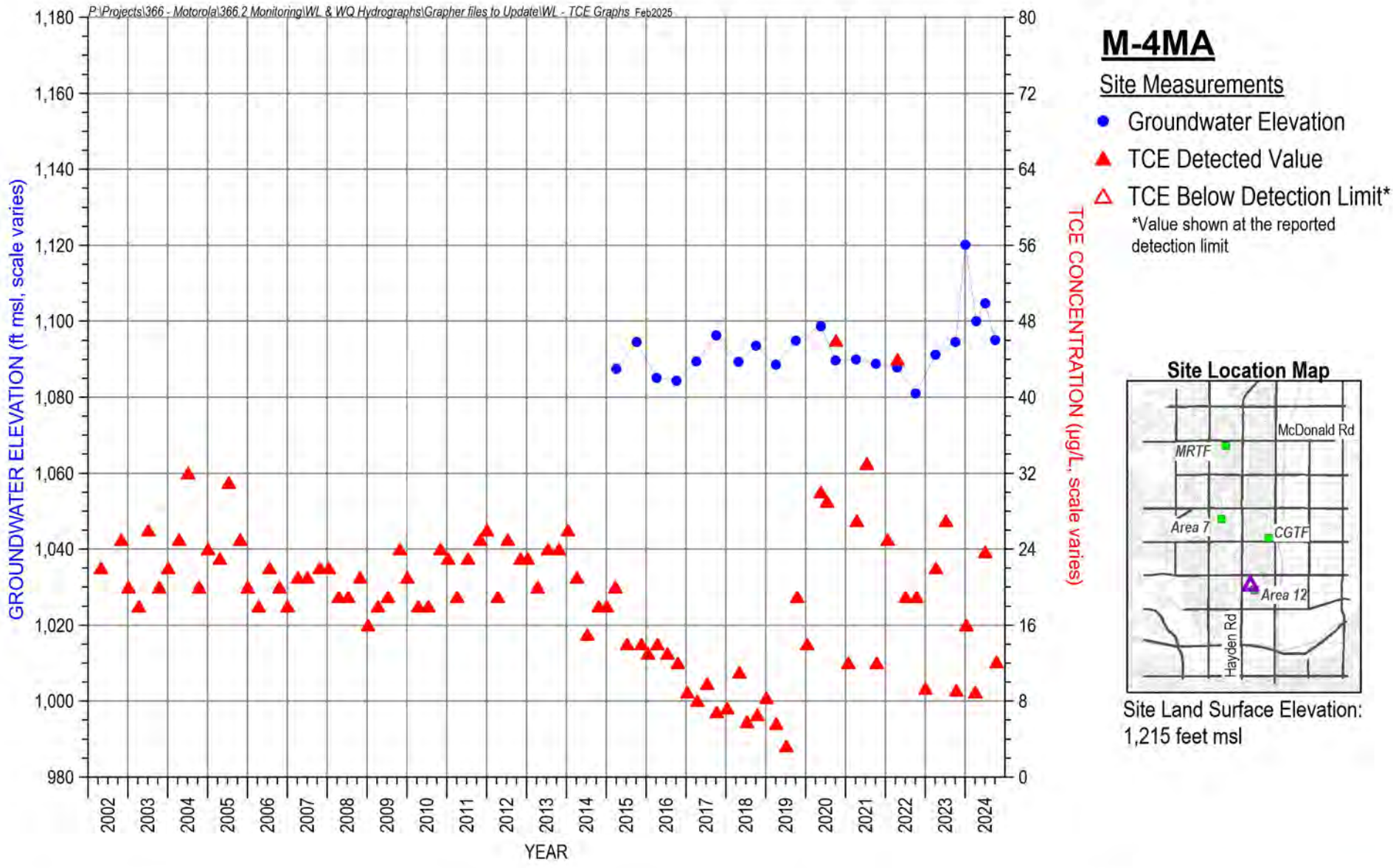


FIGURE D-039. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-4MA

North Indian Bend Wash Superfund Site

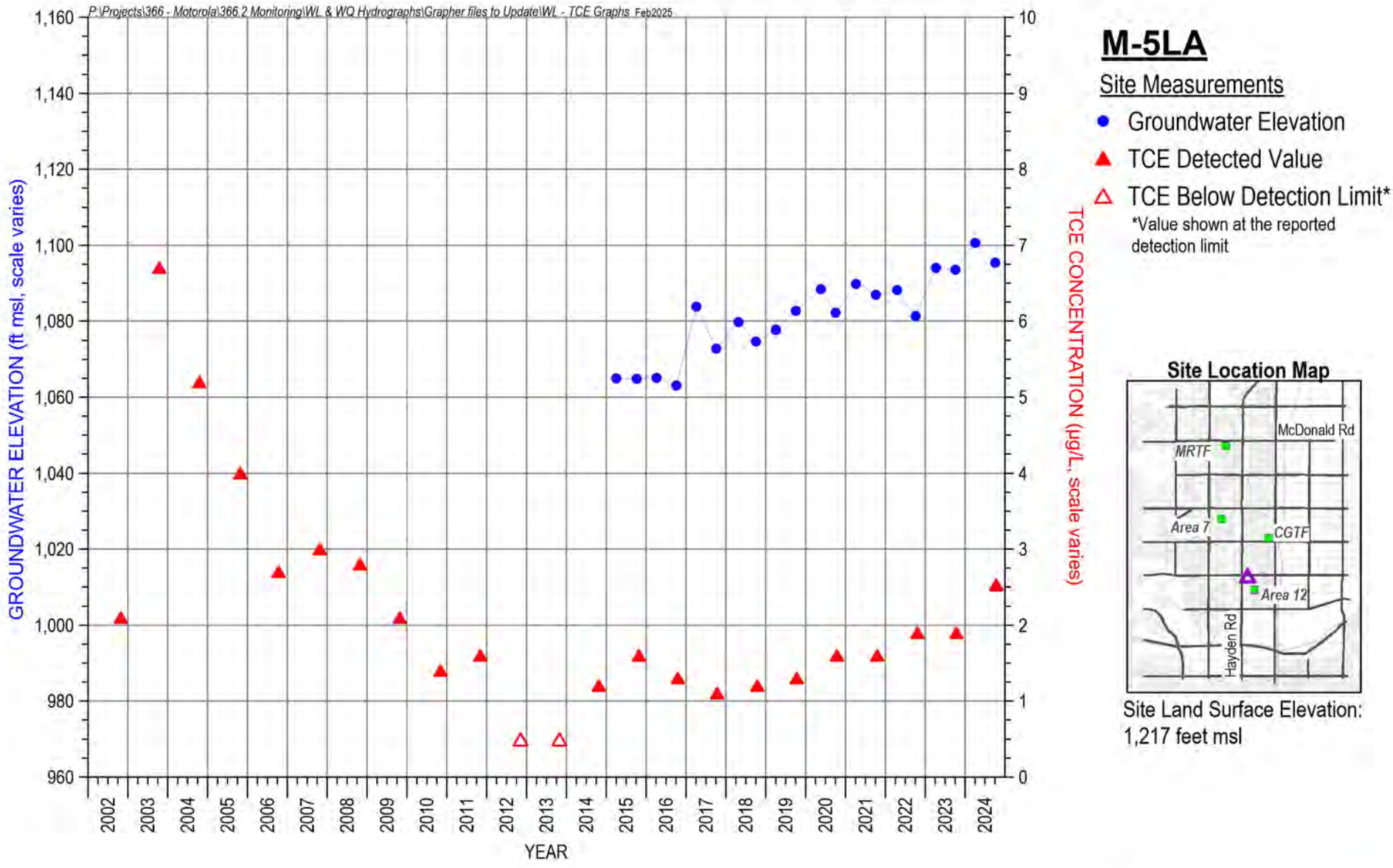


FIGURE D-040. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-5LA

North Indian Bend Wash Superfund Site

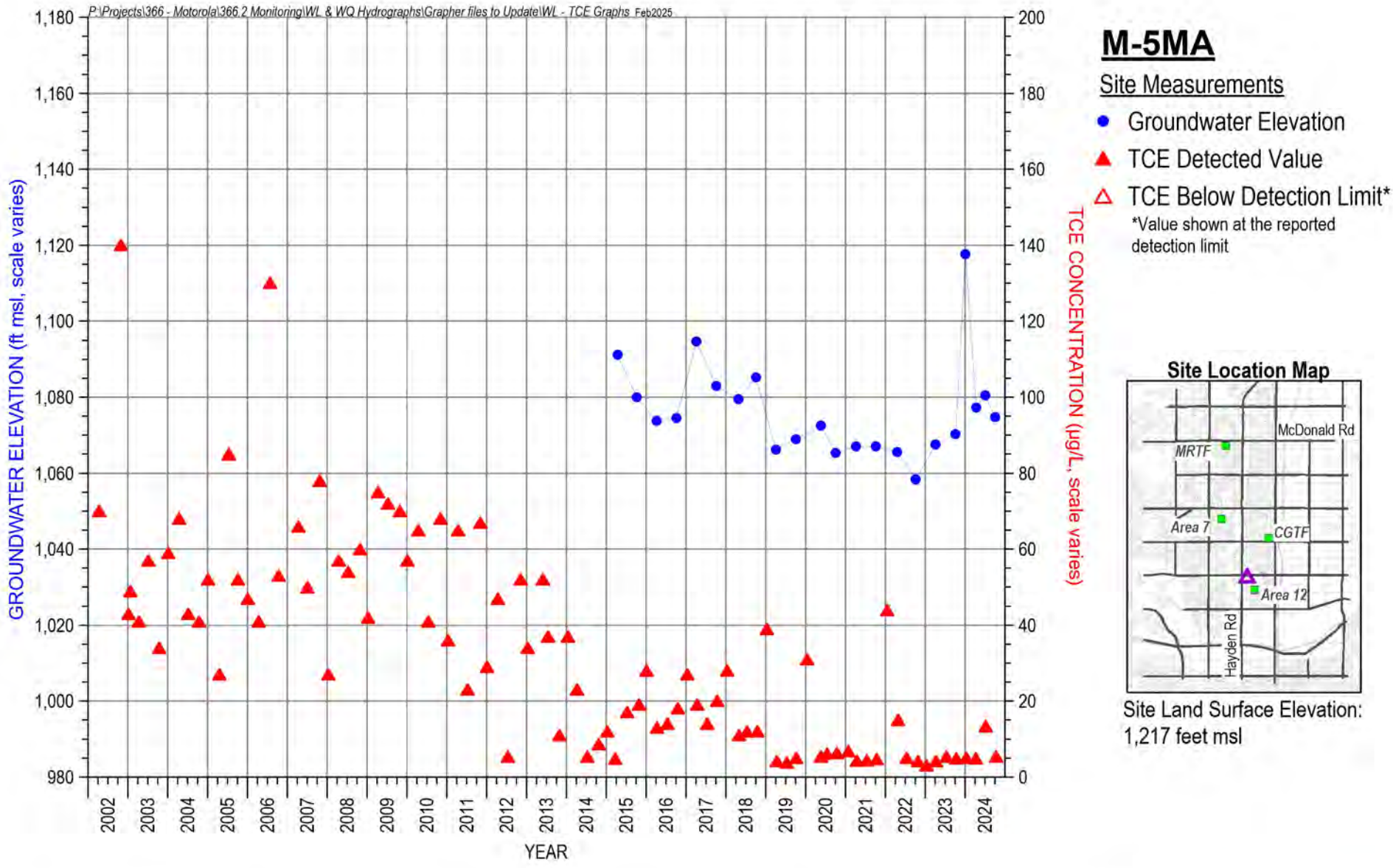


FIGURE D-041. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-5MA

North Indian Bend Wash Superfund Site

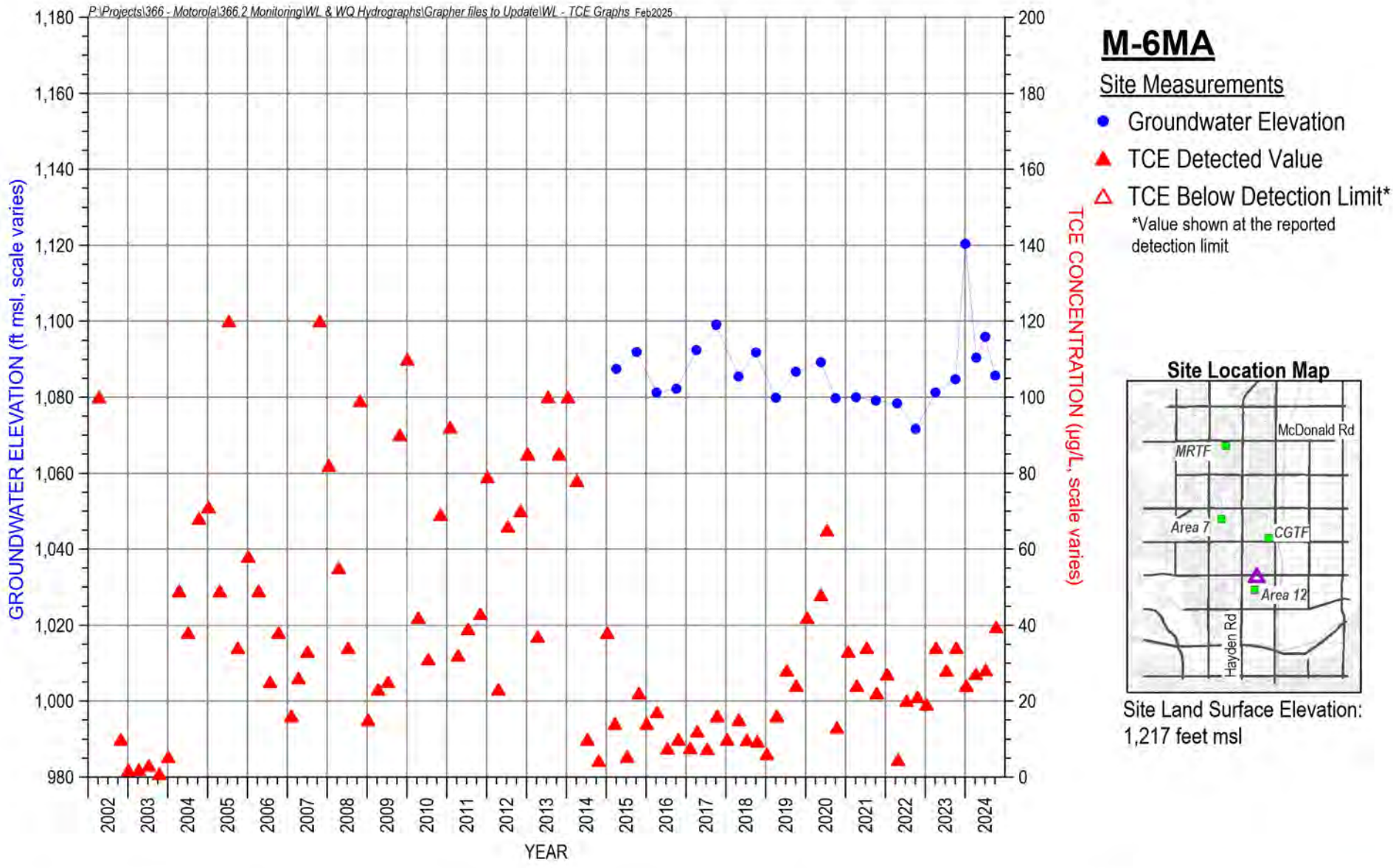


FIGURE D-042. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-6MA

North Indian Bend Wash Superfund Site

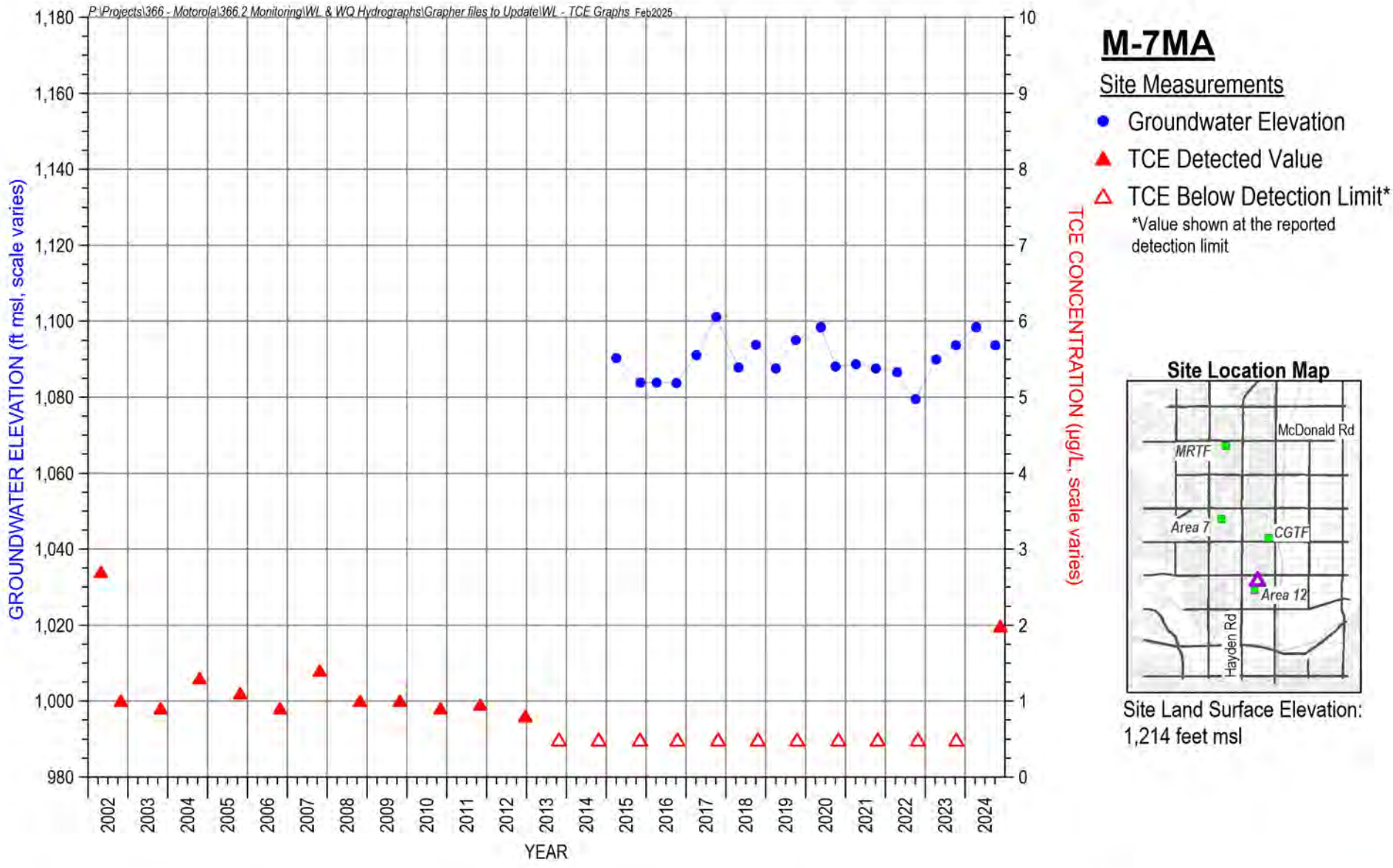
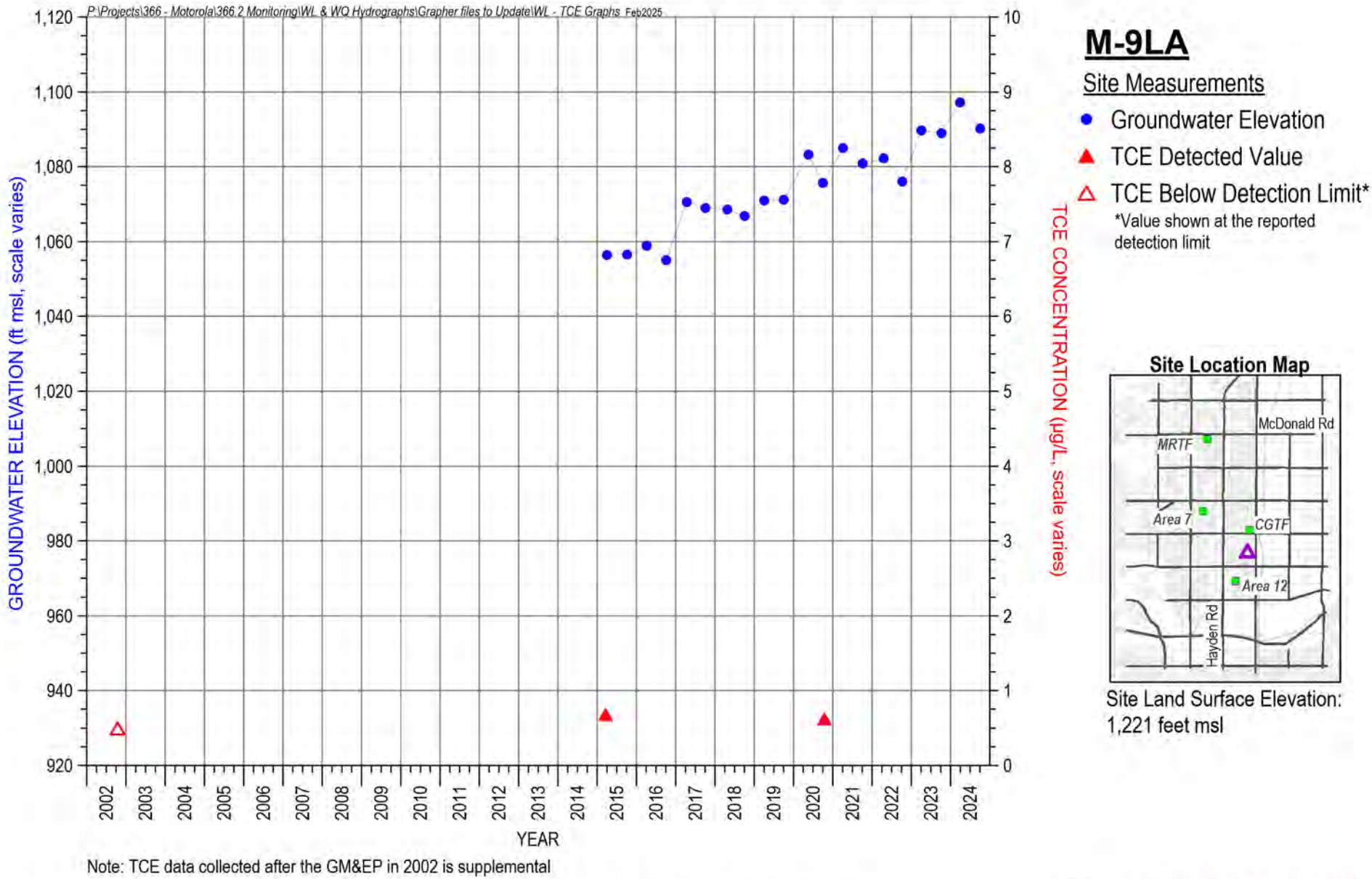


FIGURE D-043. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-7MA

North Indian Bend Wash Superfund Site



Note: TCE data collected after the GM&EP in 2002 is supplemental

FIGURE D-044. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-9LA

North Indian Bend Wash Superfund Site

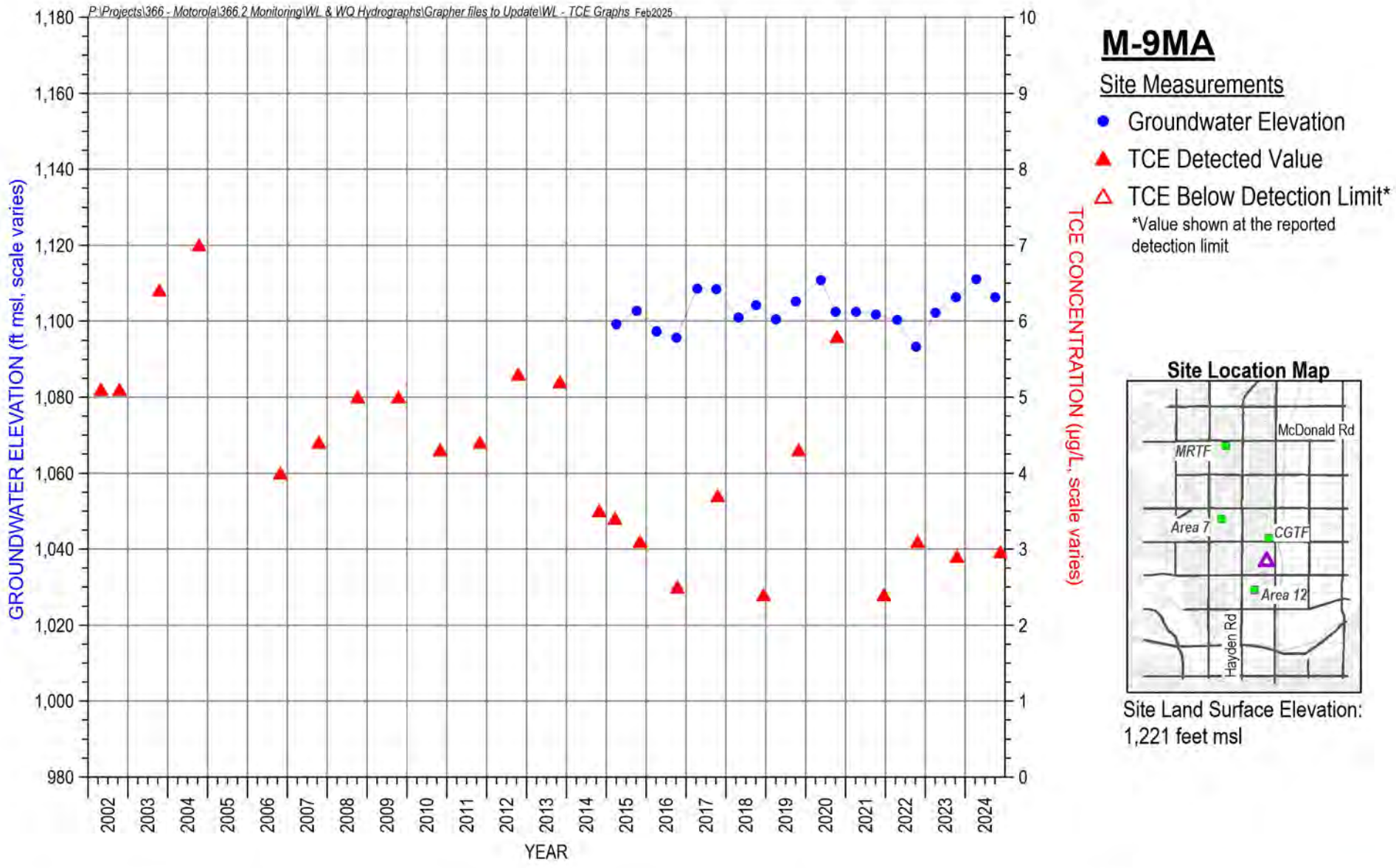
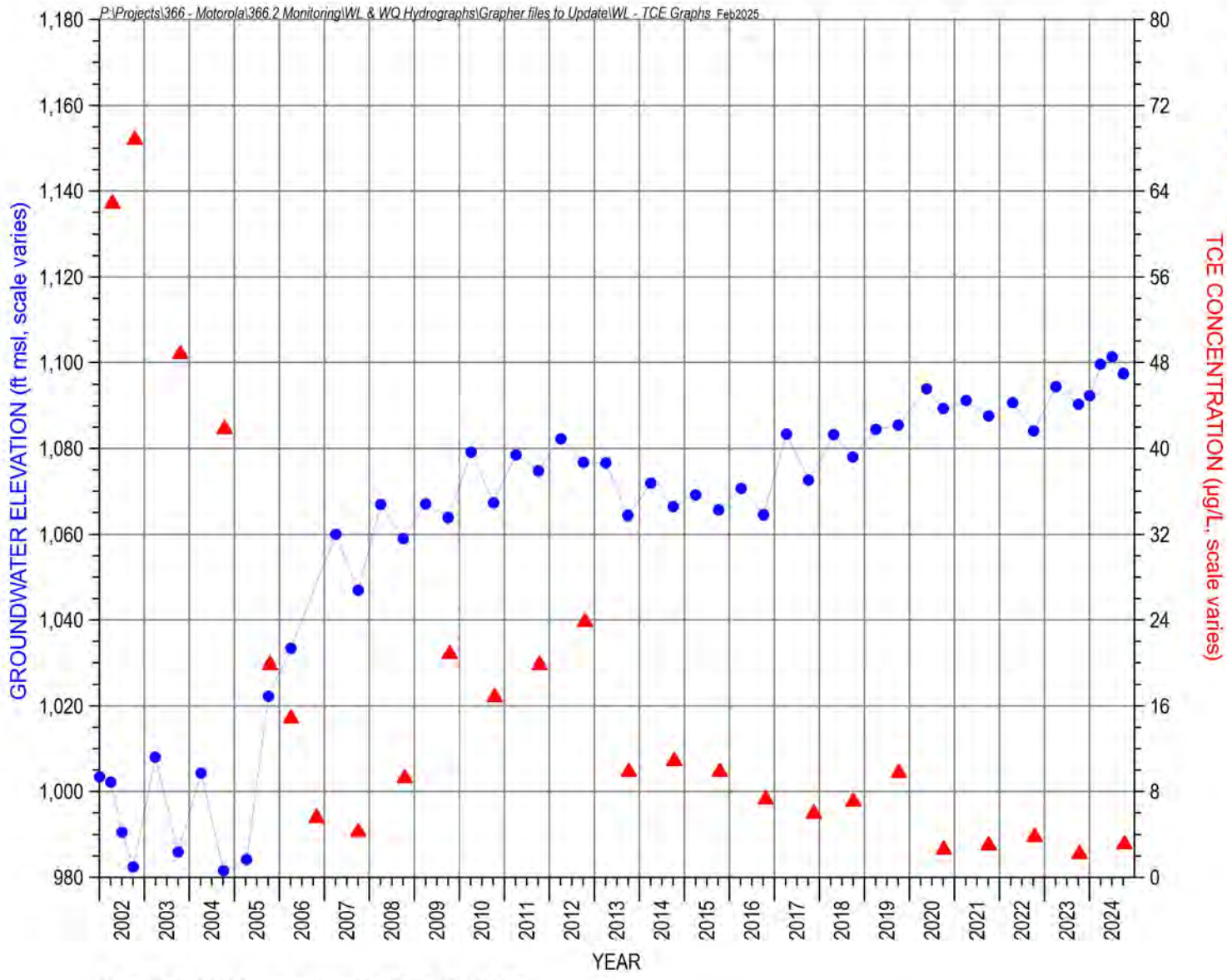


FIGURE D-045. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-9MA

North Indian Bend Wash Superfund Site



Note: Well M-10LA was replaced by M-10LA2 in 2007.

M-10LA/M-10LA2

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

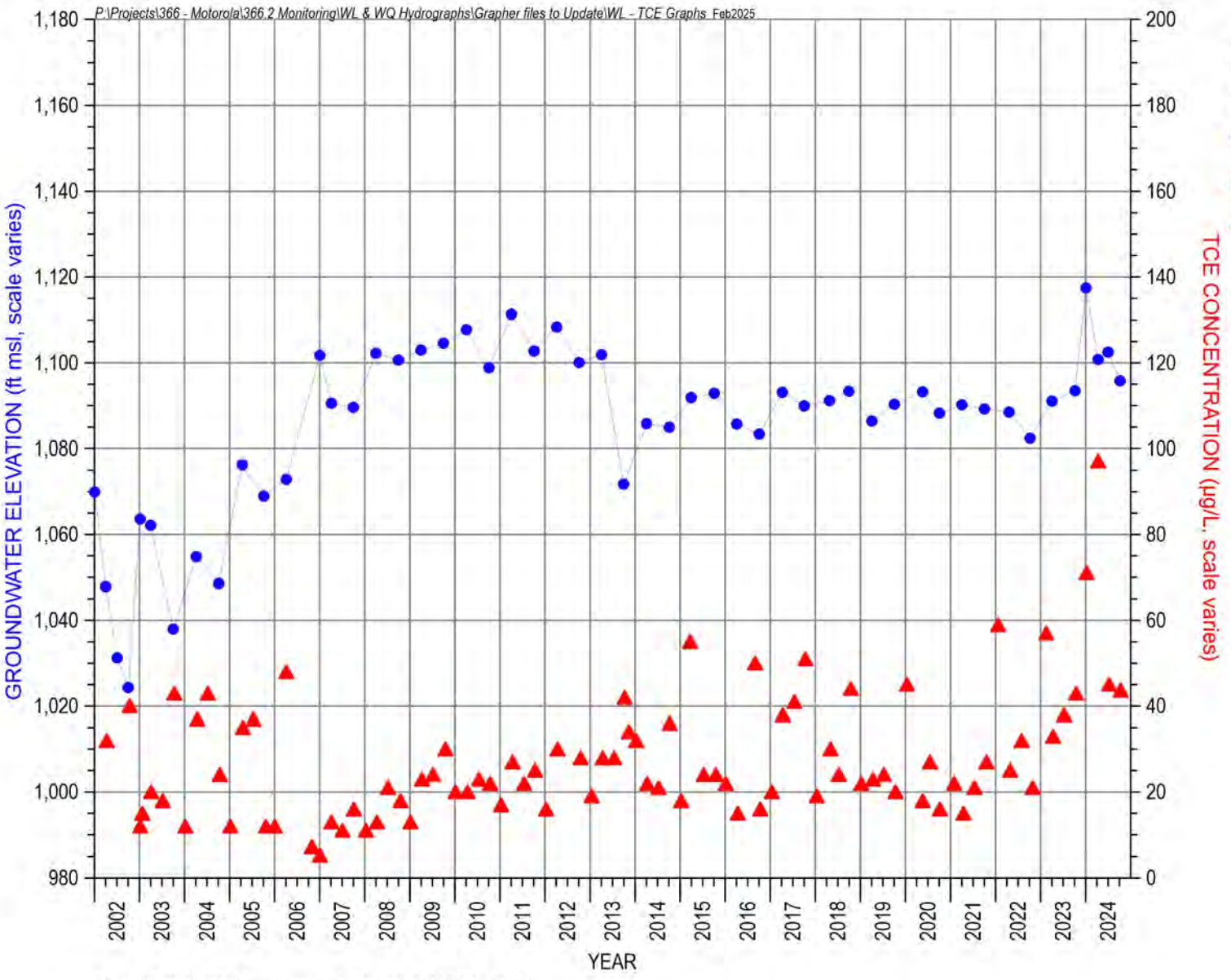
Site Location Map



Site Land Surface Elevation: 1,220 feet msl

FIGURE D-046. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-10LA/M-10LA2

North Indian Bend Wash Superfund Site



Note: Well M-10MA was replaced by M-10MA2 in 2007.

M-10MA/M-10MA2

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

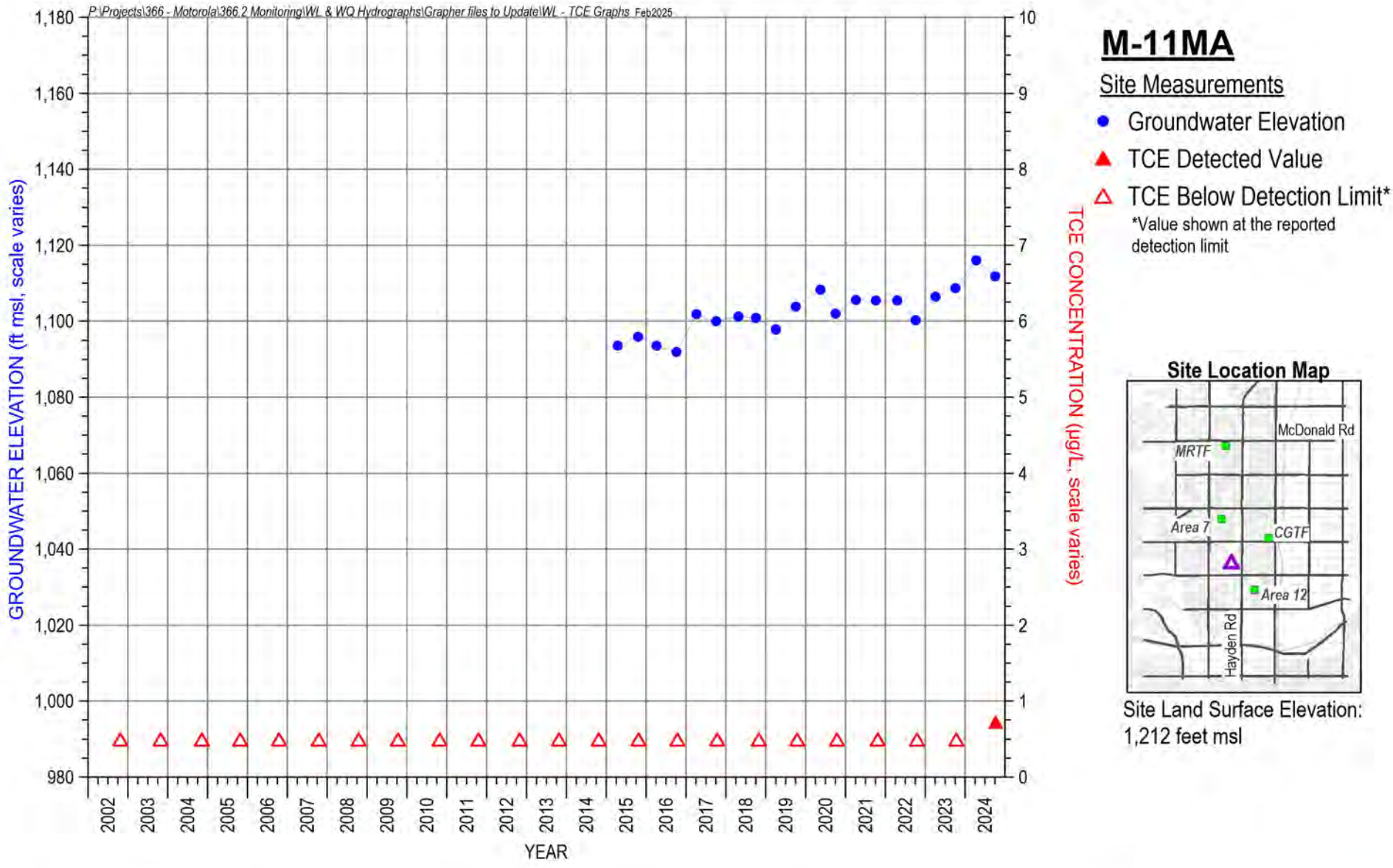
Site Location Map



Site Land Surface Elevation: 1,220 feet msl

FIGURE D-047. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-10MA/M-10MA2

North Indian Bend Wash Superfund Site



M-11MA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

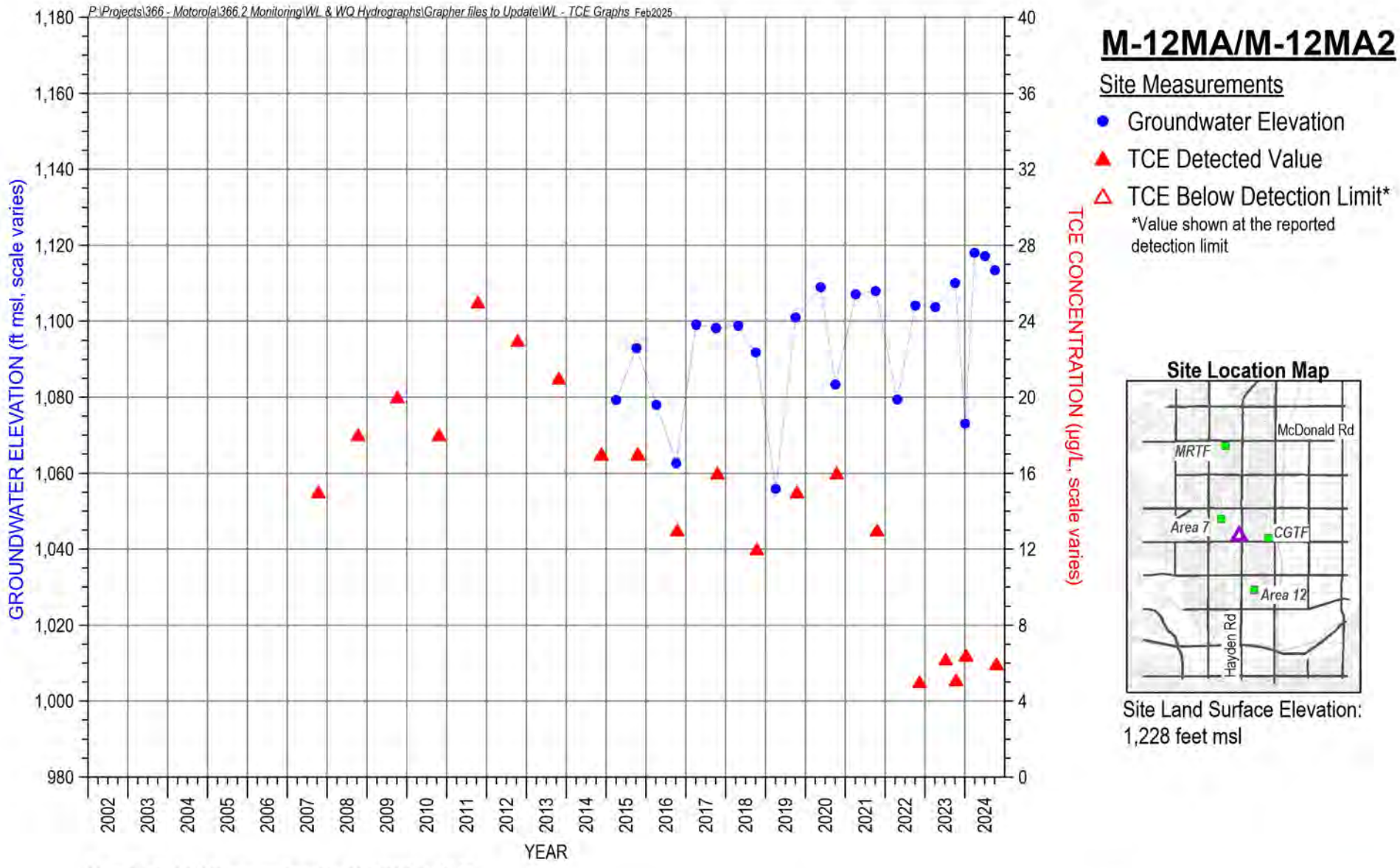
*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation: 1,212 feet msl

FIGURE D-048. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-11MA

North Indian Bend Wash Superfund Site



Note: Well M-12MA was replaced by M-12MA2 in 2007.

M-12MA/M-12MA2

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

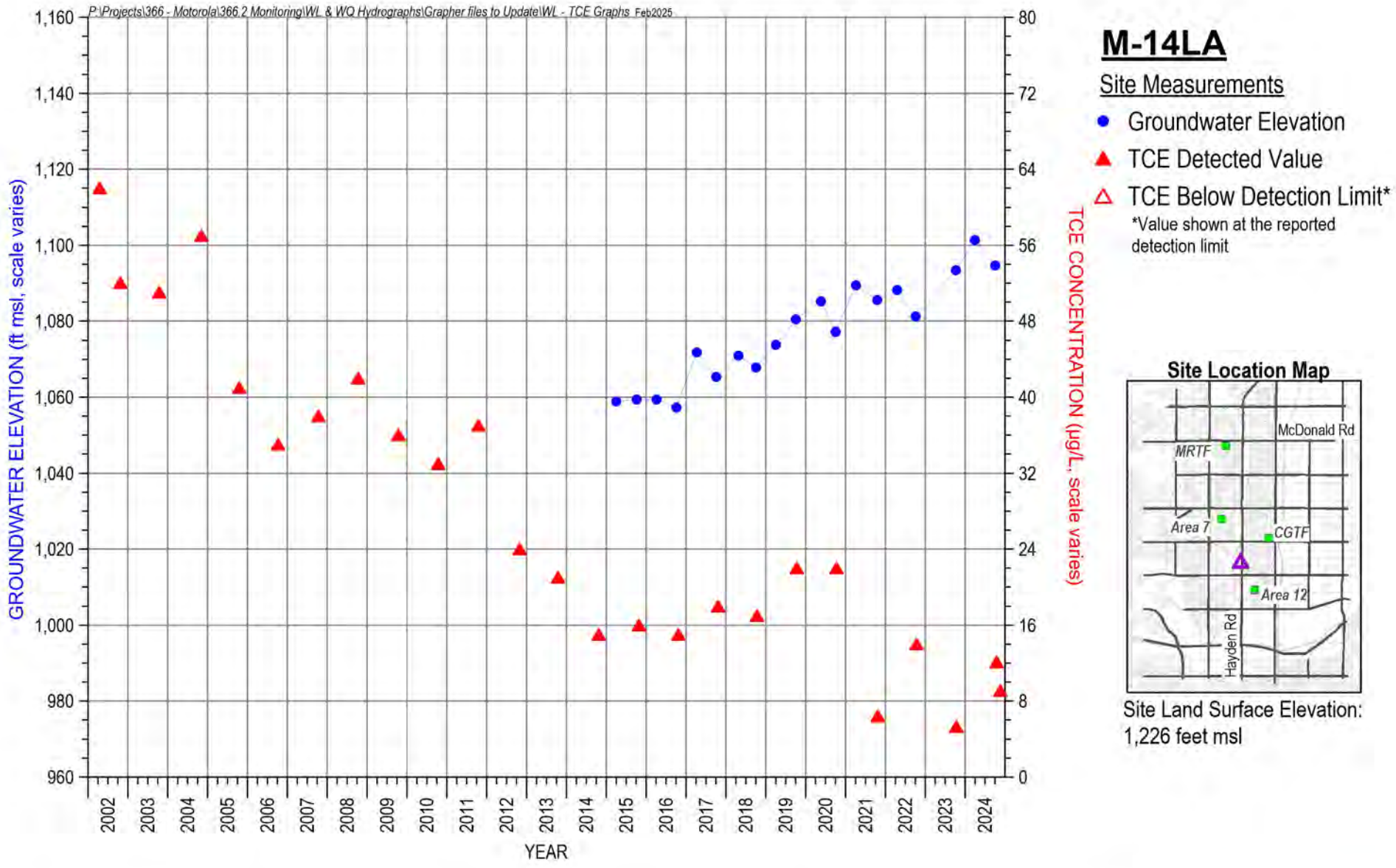
*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation: 1,228 feet msl

FIGURE D-049. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-12MA/M-12MA2

North Indian Bend Wash Superfund Site



M-14LA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

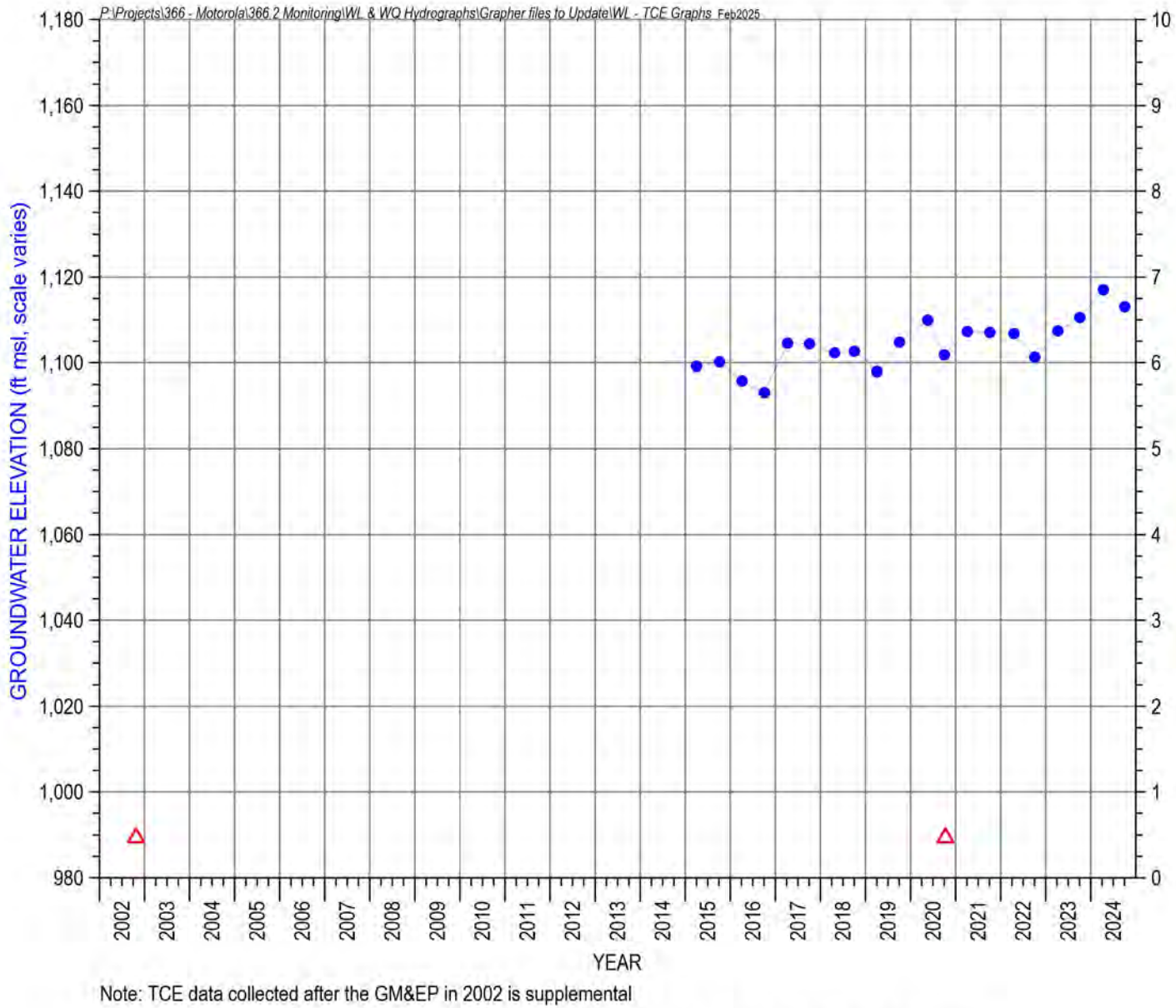
*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation: 1,226 feet msl

FIGURE D-050. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-14LA

North Indian Bend Wash Superfund Site



Note: TCE data collected after the GM&EP in 2002 is supplemental

M-14MA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

Site Location Map



Site Land Surface Elevation: 1,226 feet msl

FIGURE D-051. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-14MA

North Indian Bend Wash Superfund Site

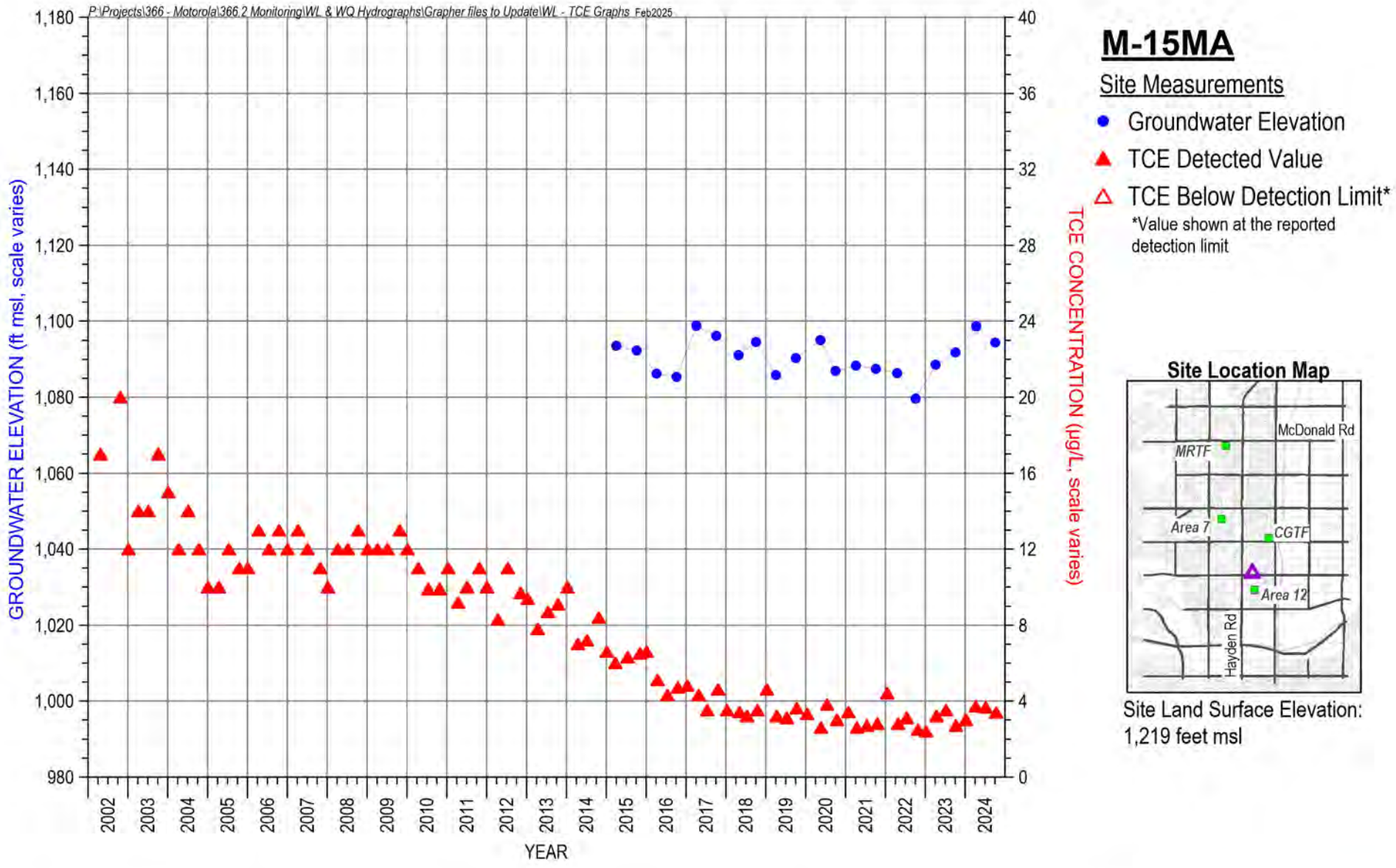


FIGURE D-052. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-15MA

North Indian Bend Wash Superfund Site

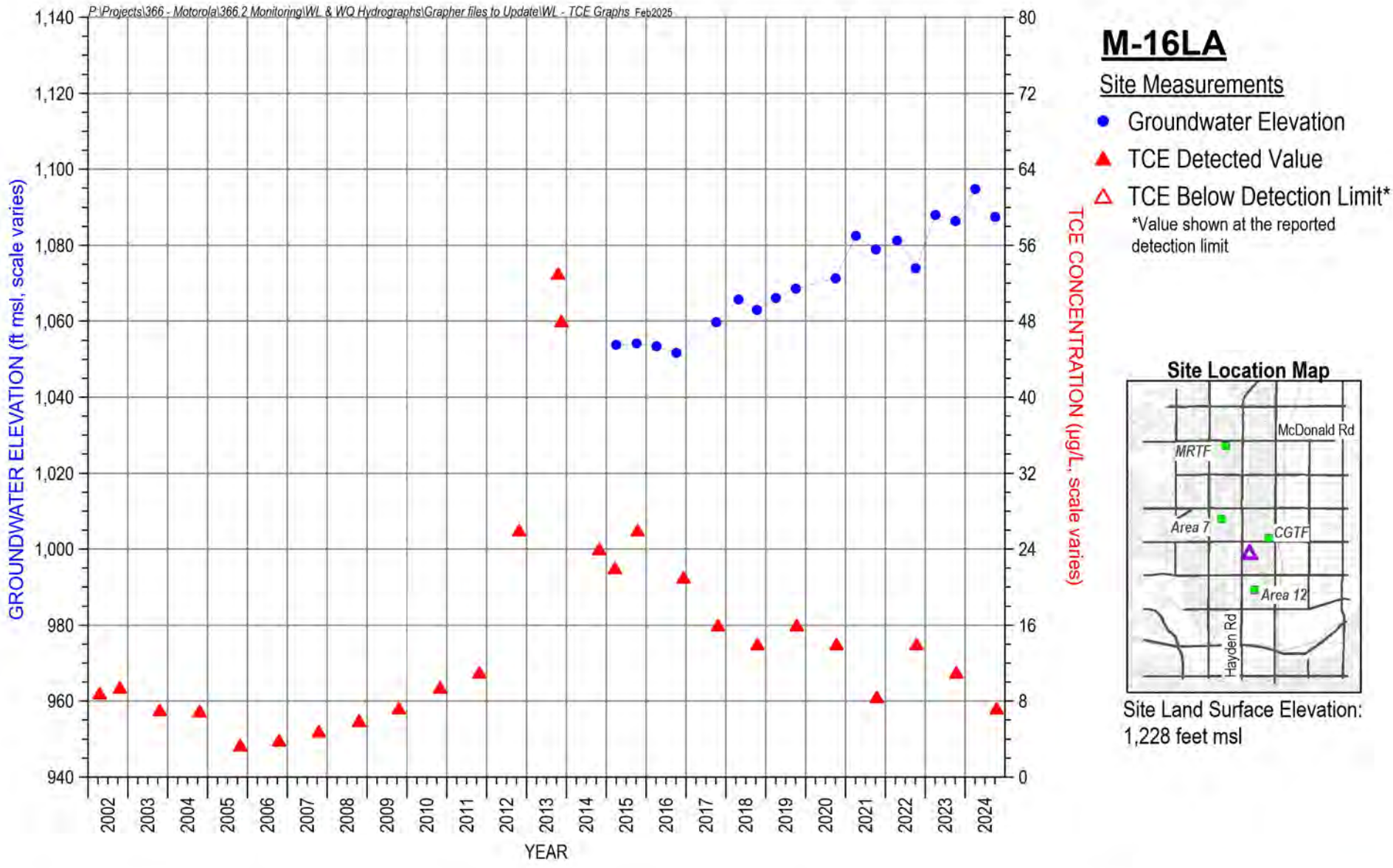


FIGURE D-053. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-16LA

North Indian Bend Wash Superfund Site

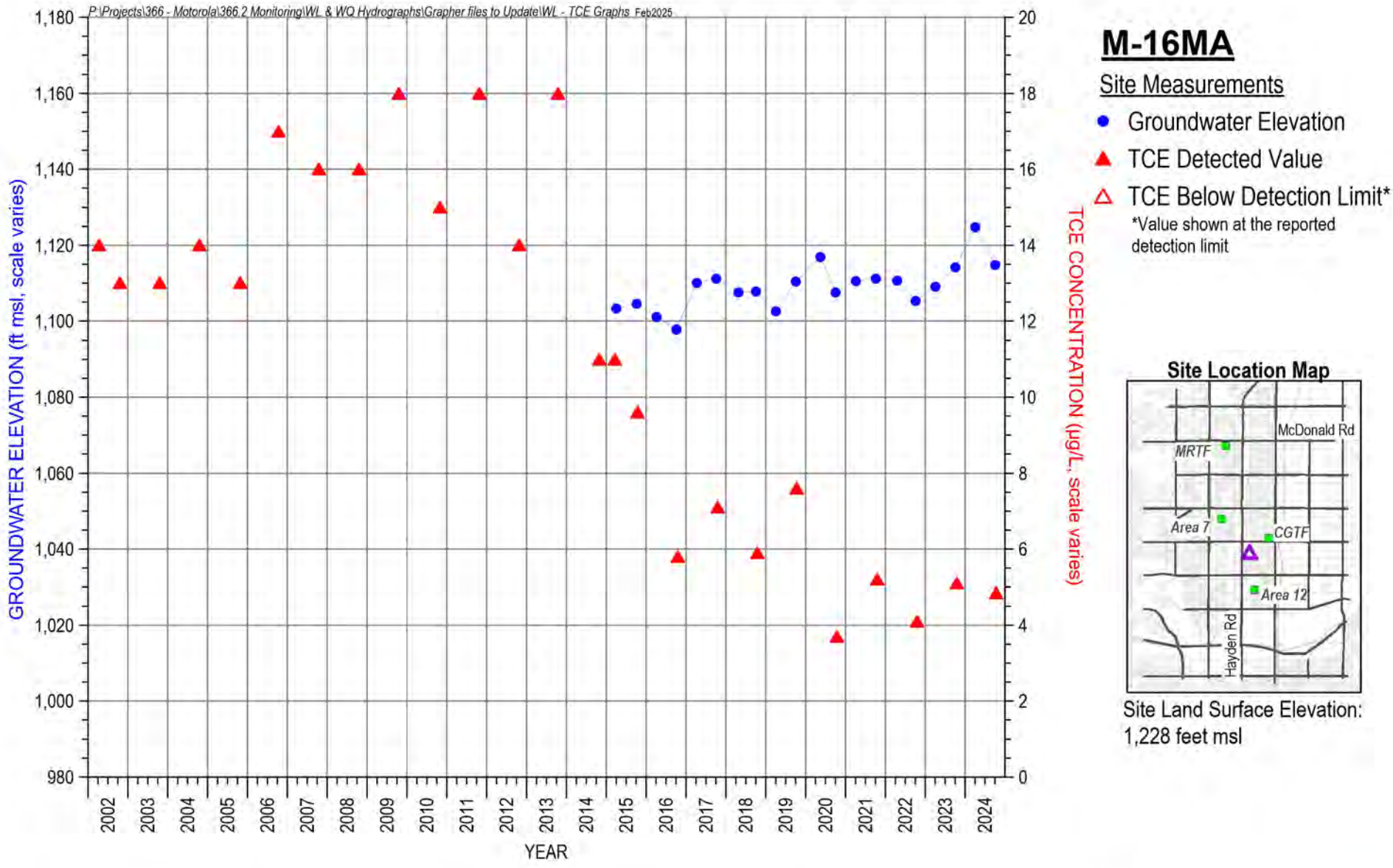
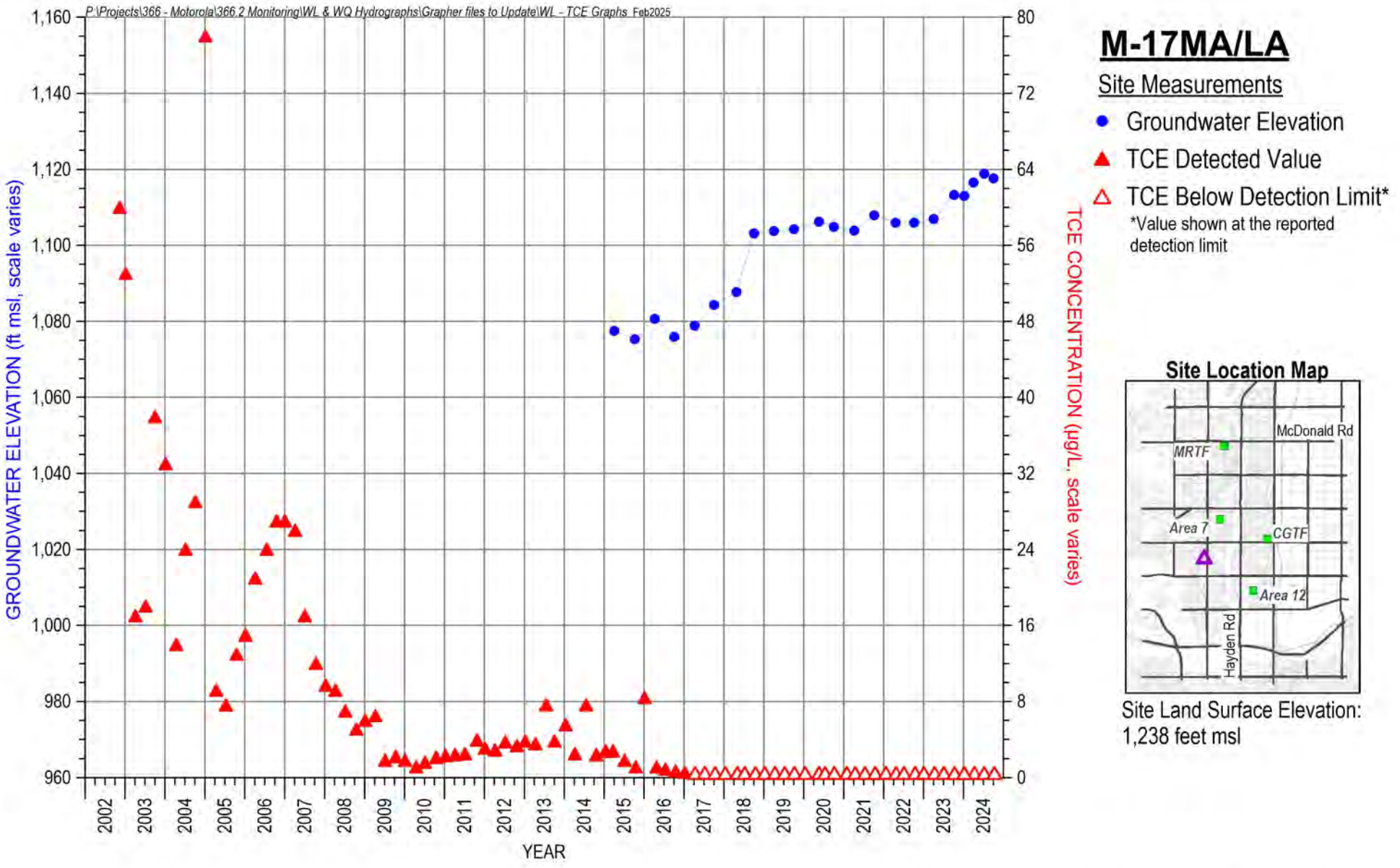


FIGURE D-054. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-16MA

North Indian Bend Wash Superfund Site



M-17MA/LA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation: 1,238 feet msl

FIGURE D-055. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL M-17MA/LA

North Indian Bend Wash Superfund Site

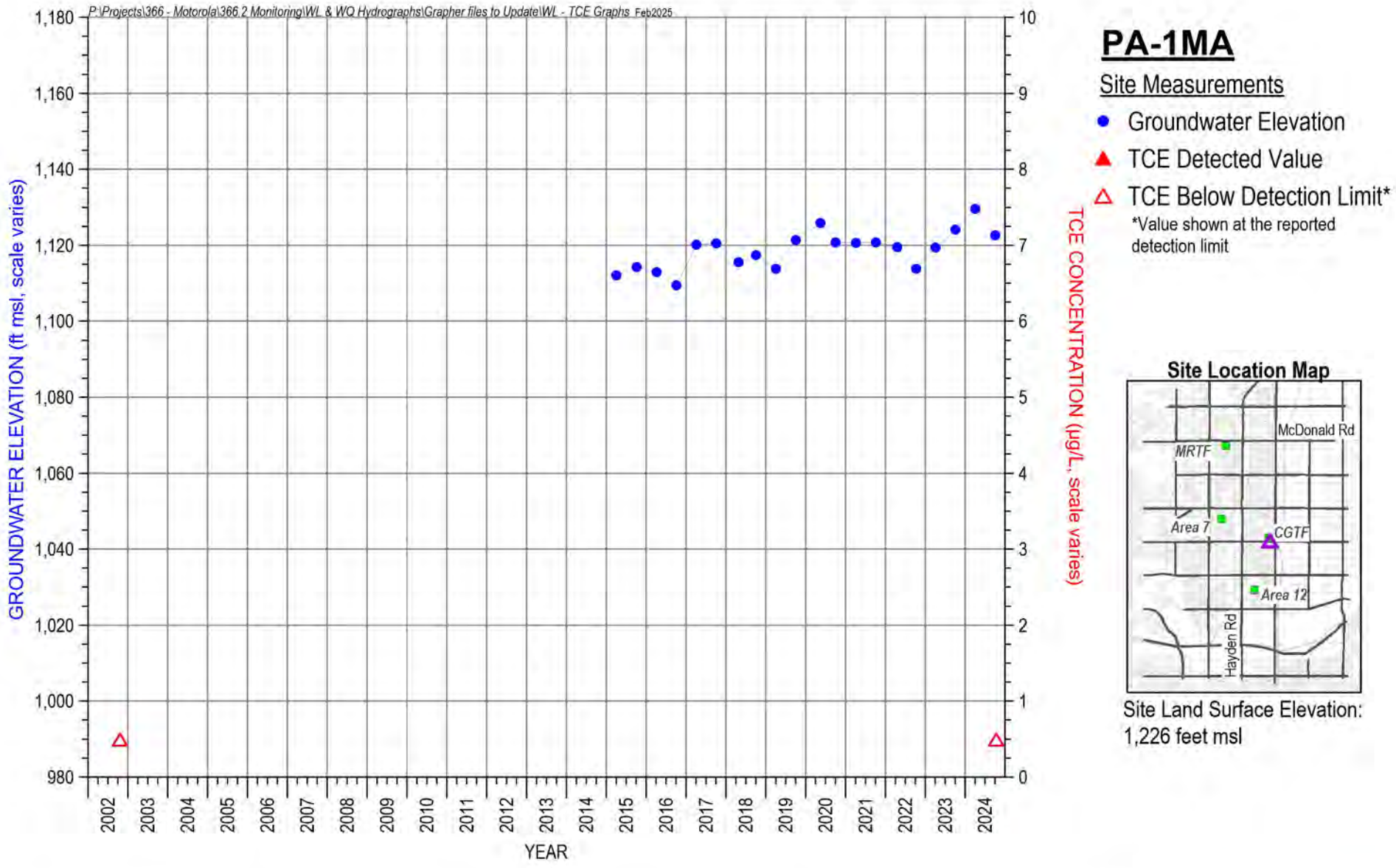


FIGURE D-056. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-1MA

North Indian Bend Wash Superfund Site

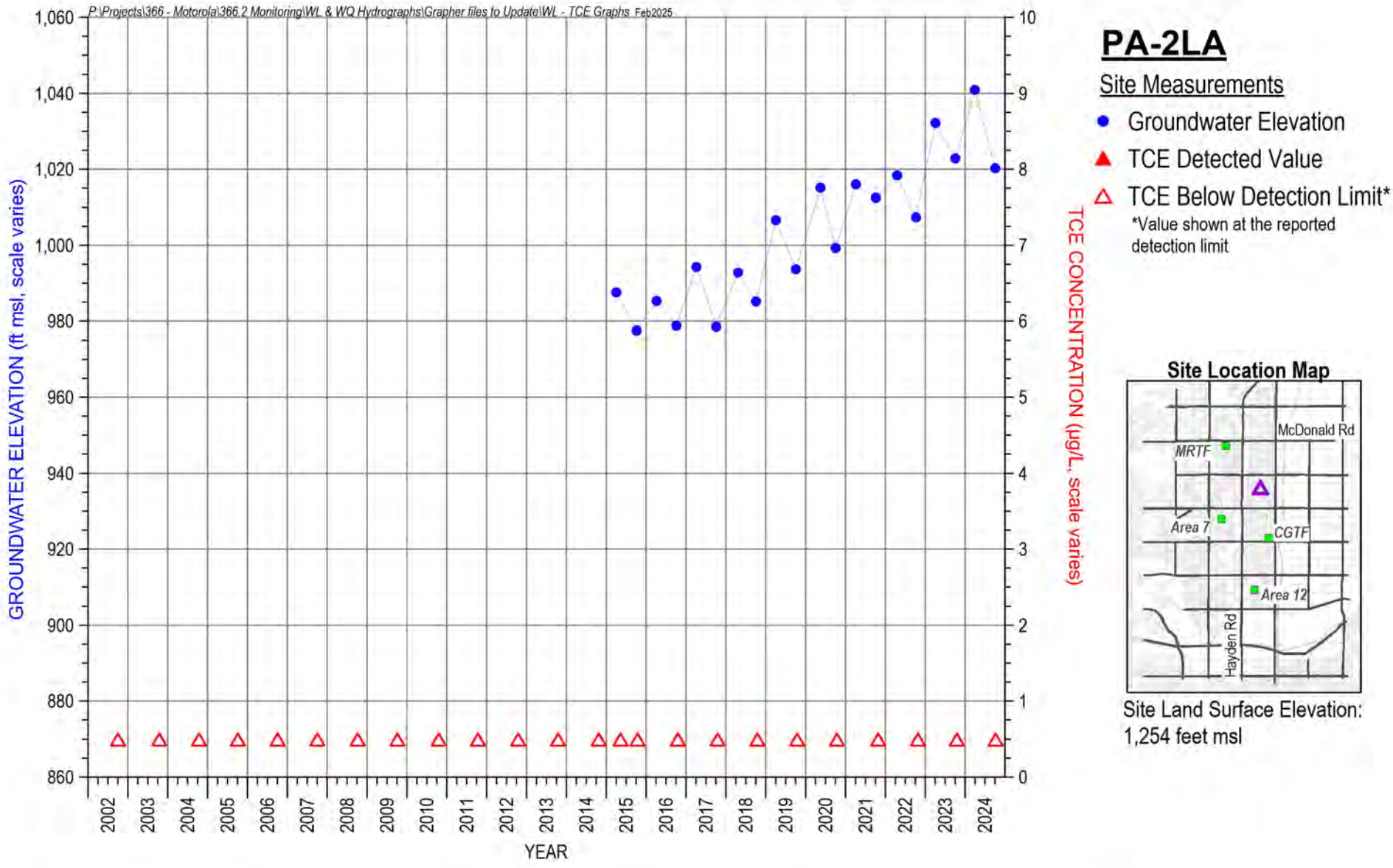


FIGURE D-057. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-2LA

North Indian Bend Wash Superfund Site

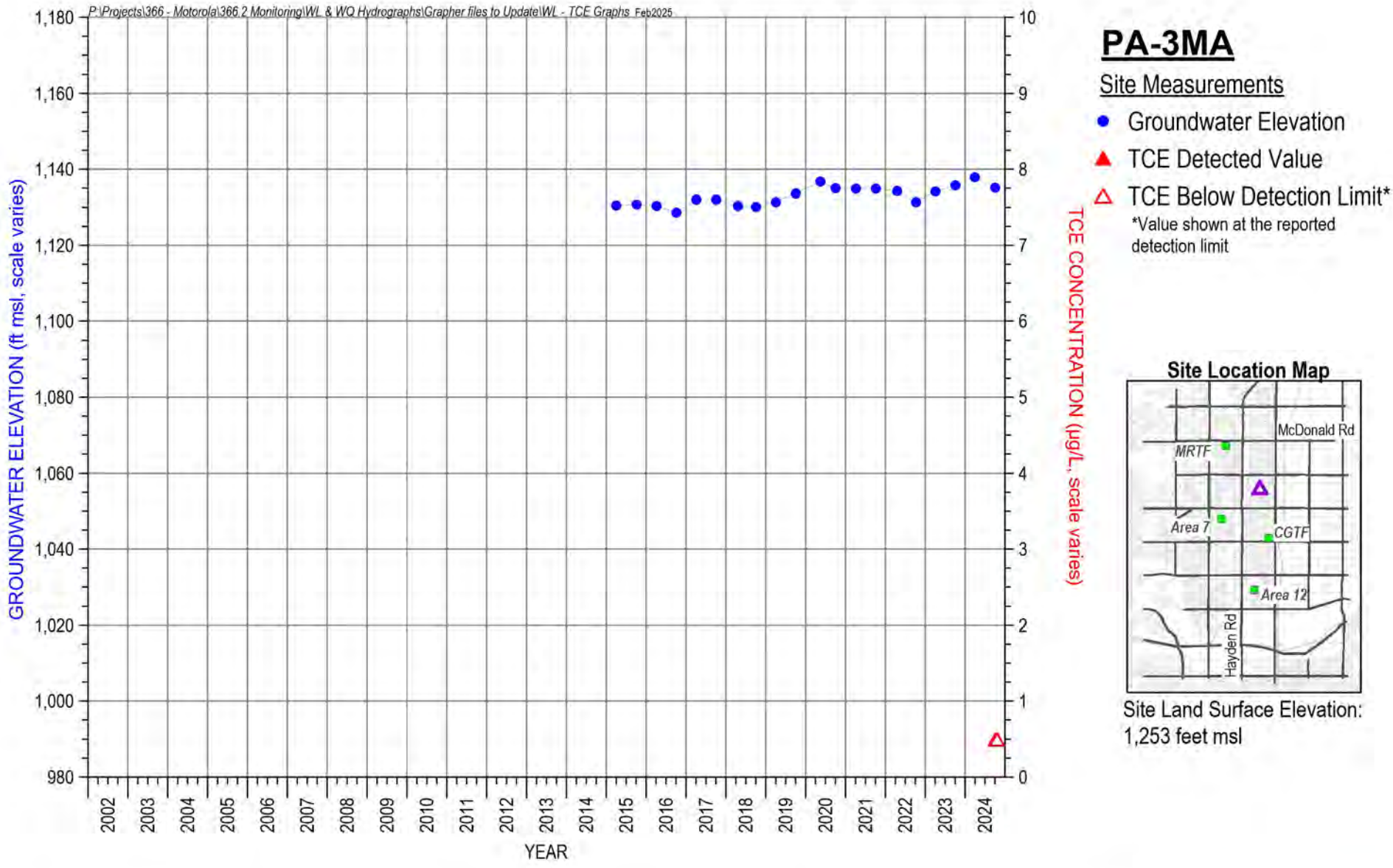


FIGURE D-058. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-3MA

North Indian Bend Wash Superfund Site

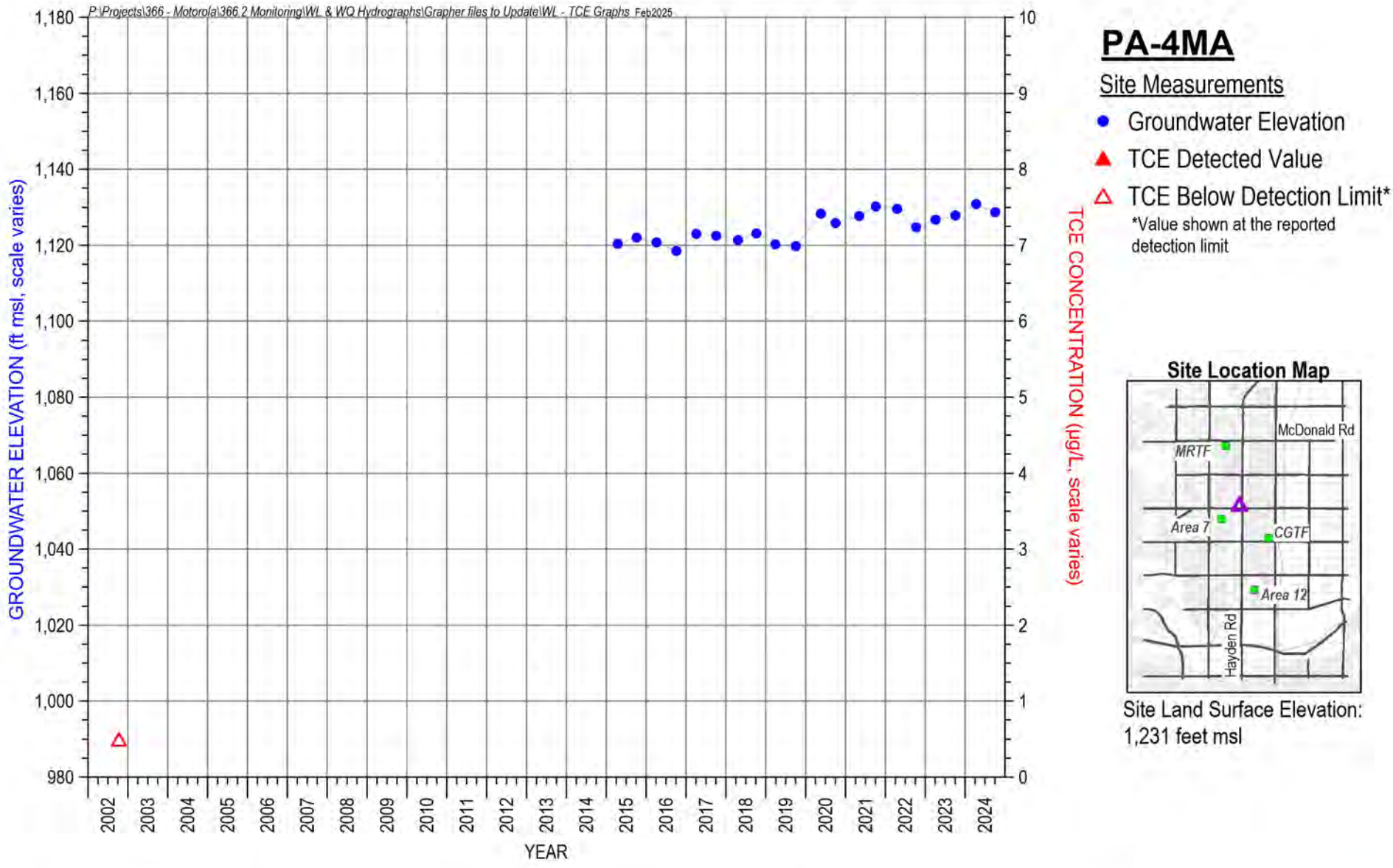


FIGURE D-059. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-4MA

North Indian Bend Wash Superfund Site

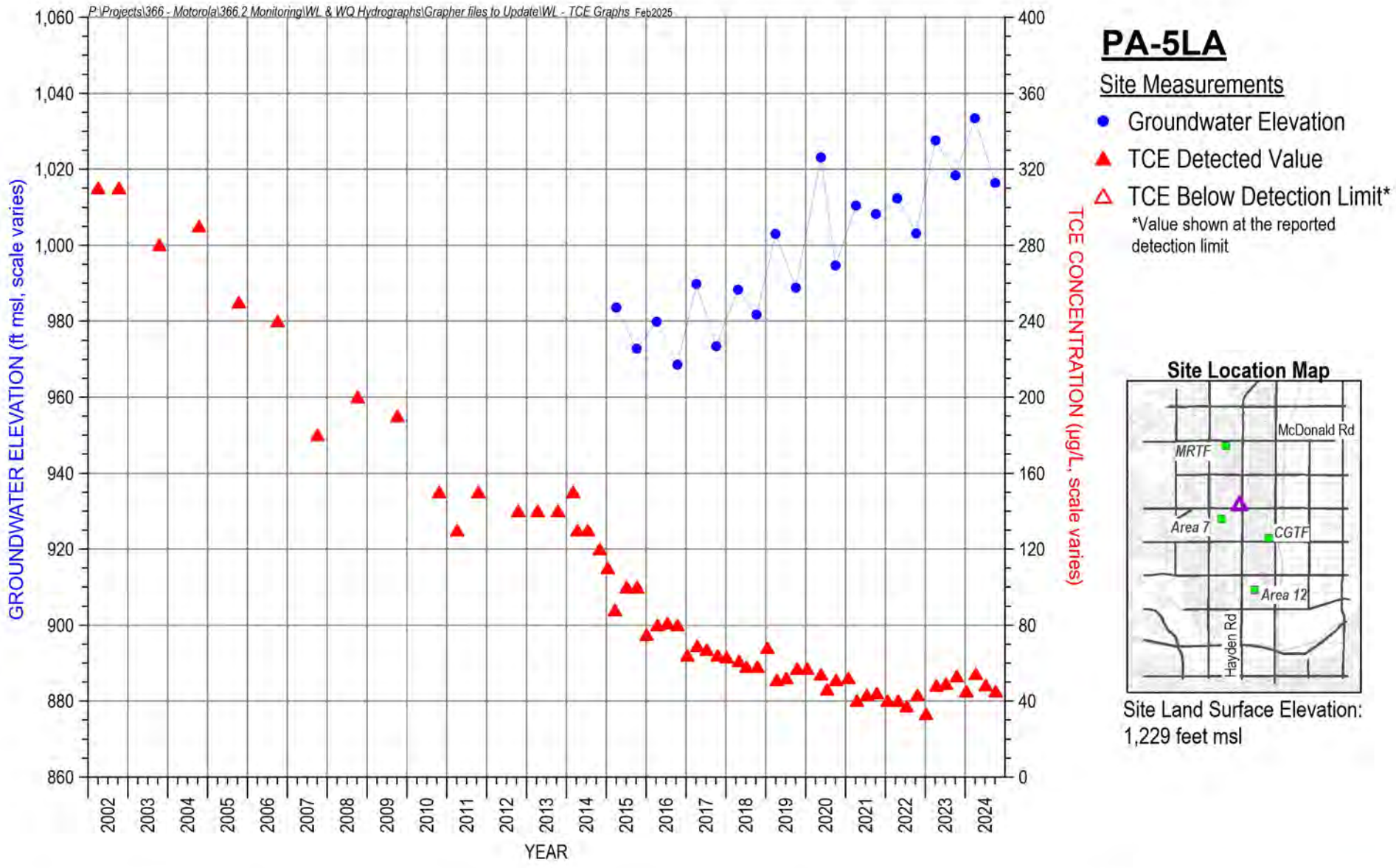


FIGURE D-060. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-5LA

North Indian Bend Wash Superfund Site

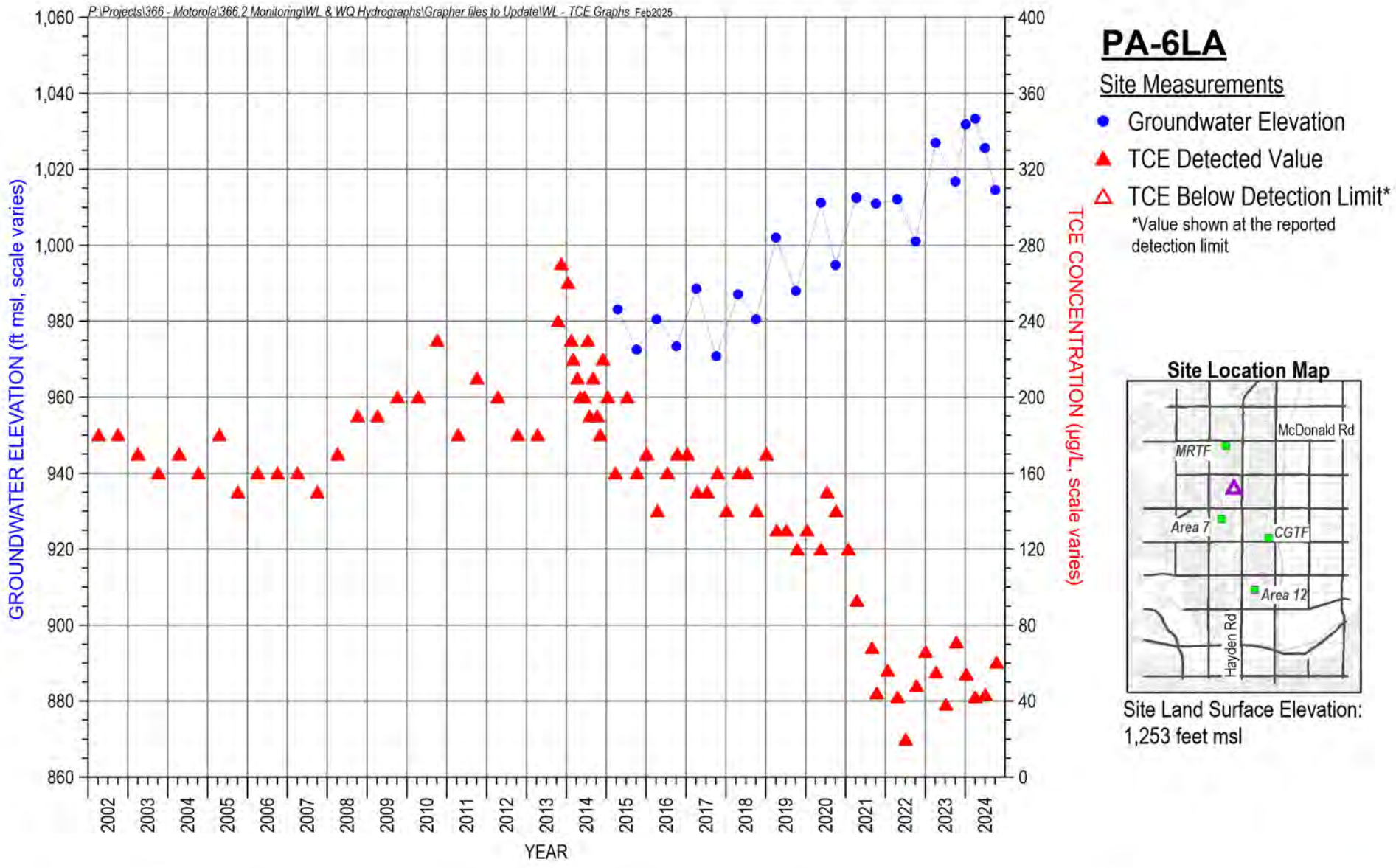


FIGURE D-061. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-6LA

North Indian Bend Wash Superfund Site

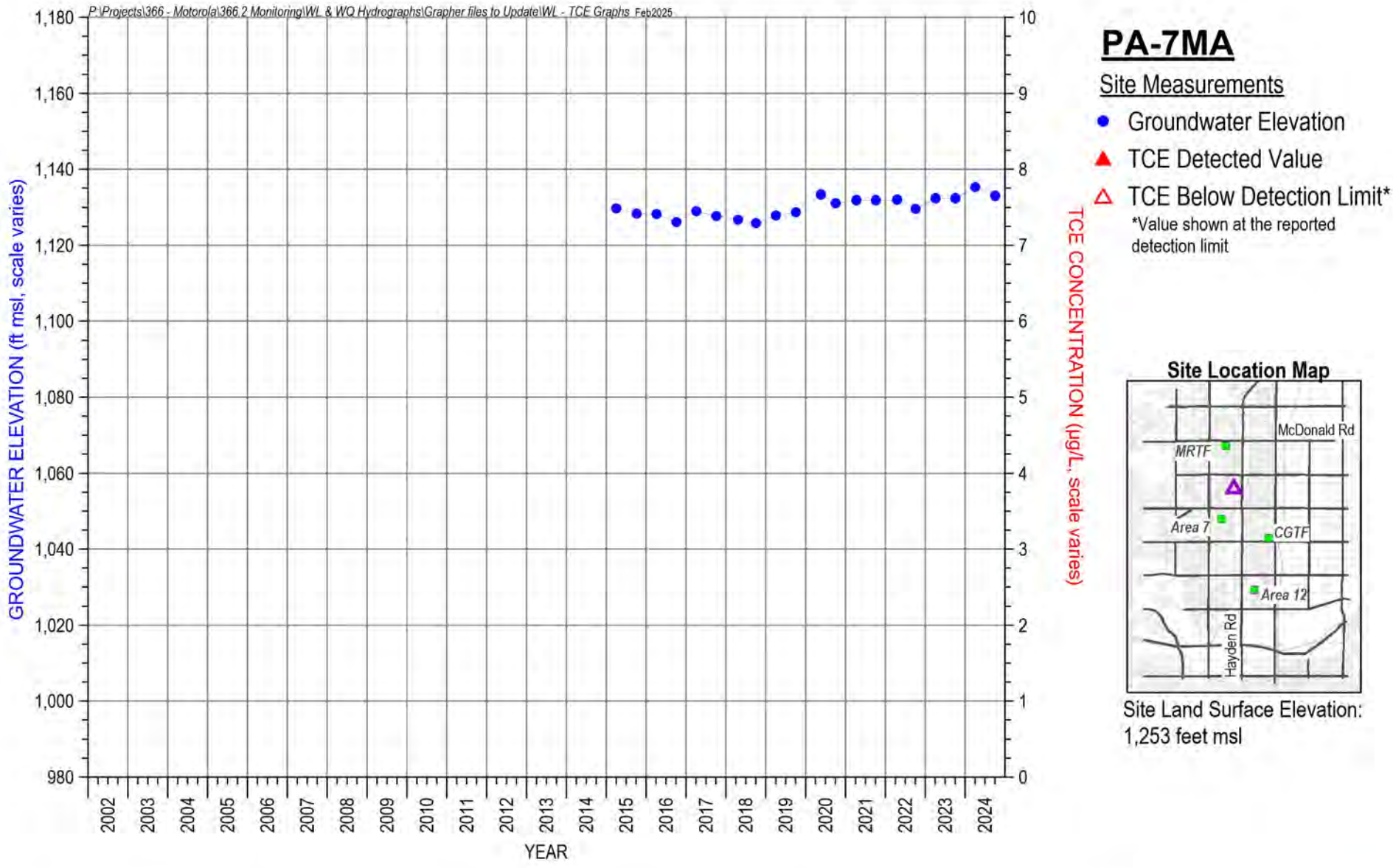
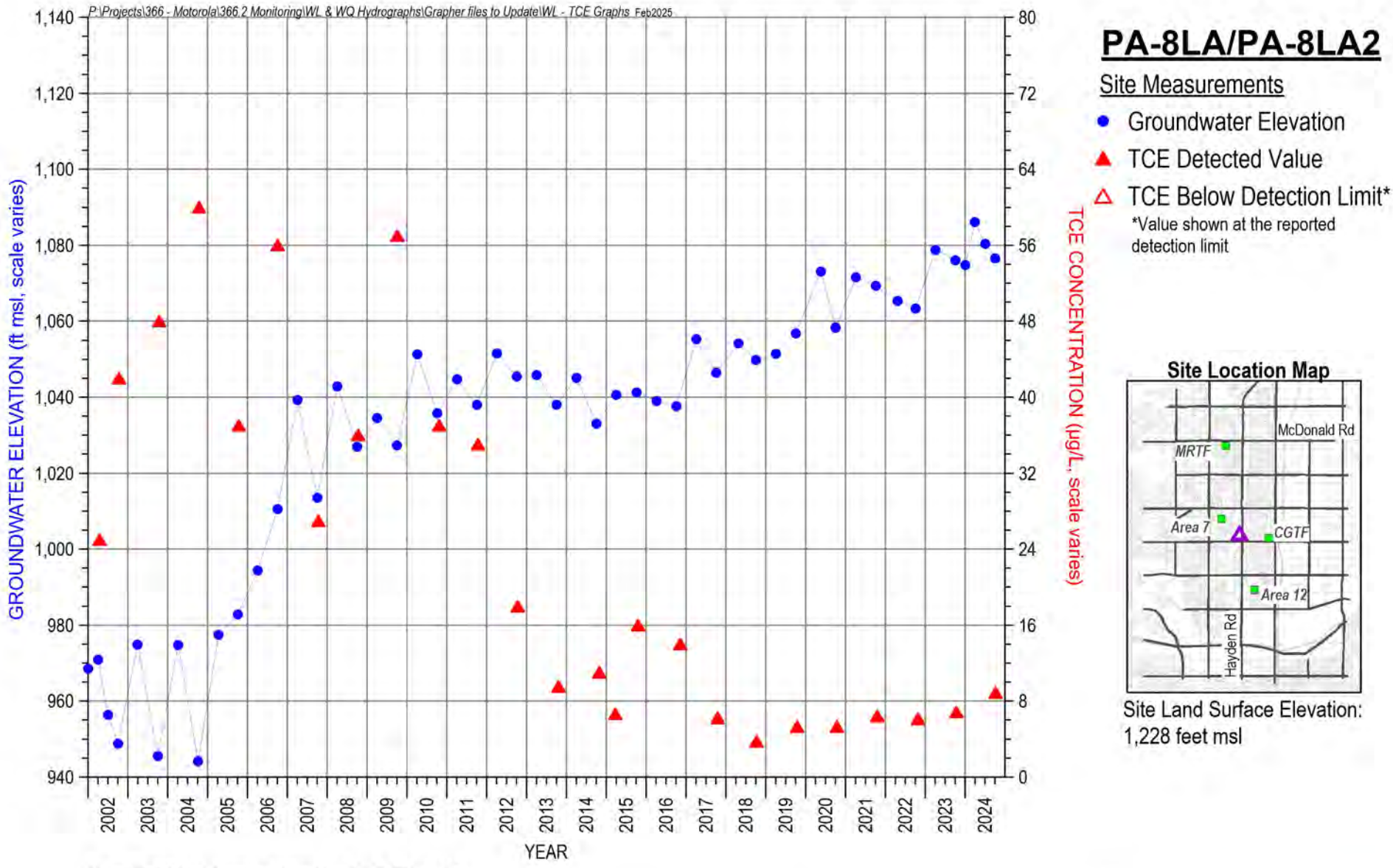


FIGURE D-062. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-7MA

North Indian Bend Wash Superfund Site



Note: Well PA-8LA was replaced by PA-8LA2 in 2007.

PA-8LA/PA-8LA2

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

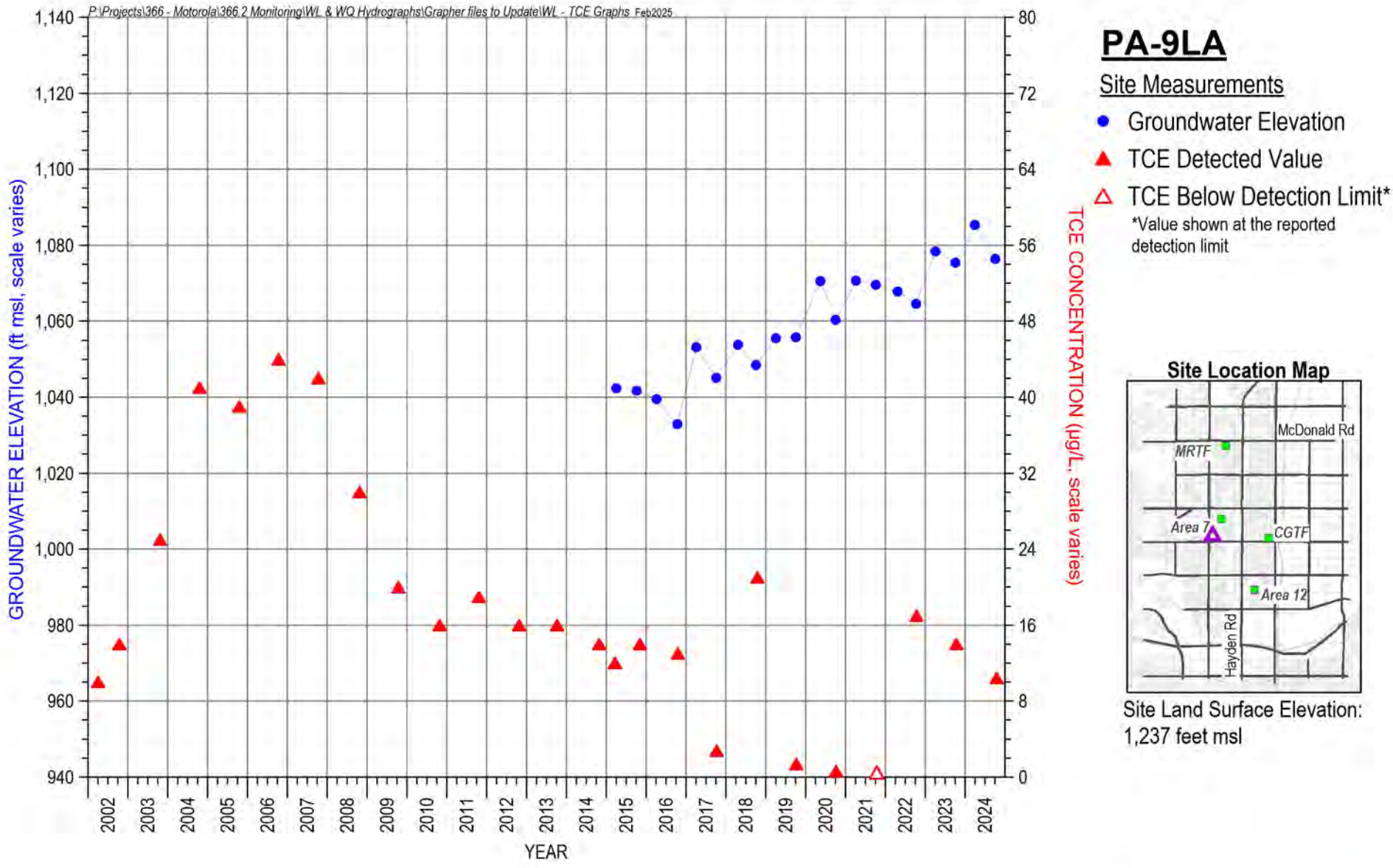
*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation: 1,228 feet msl

FIGURE D-063. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-8LA/PA-8LA2

North Indian Bend Wash Superfund Site



PA-9LA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

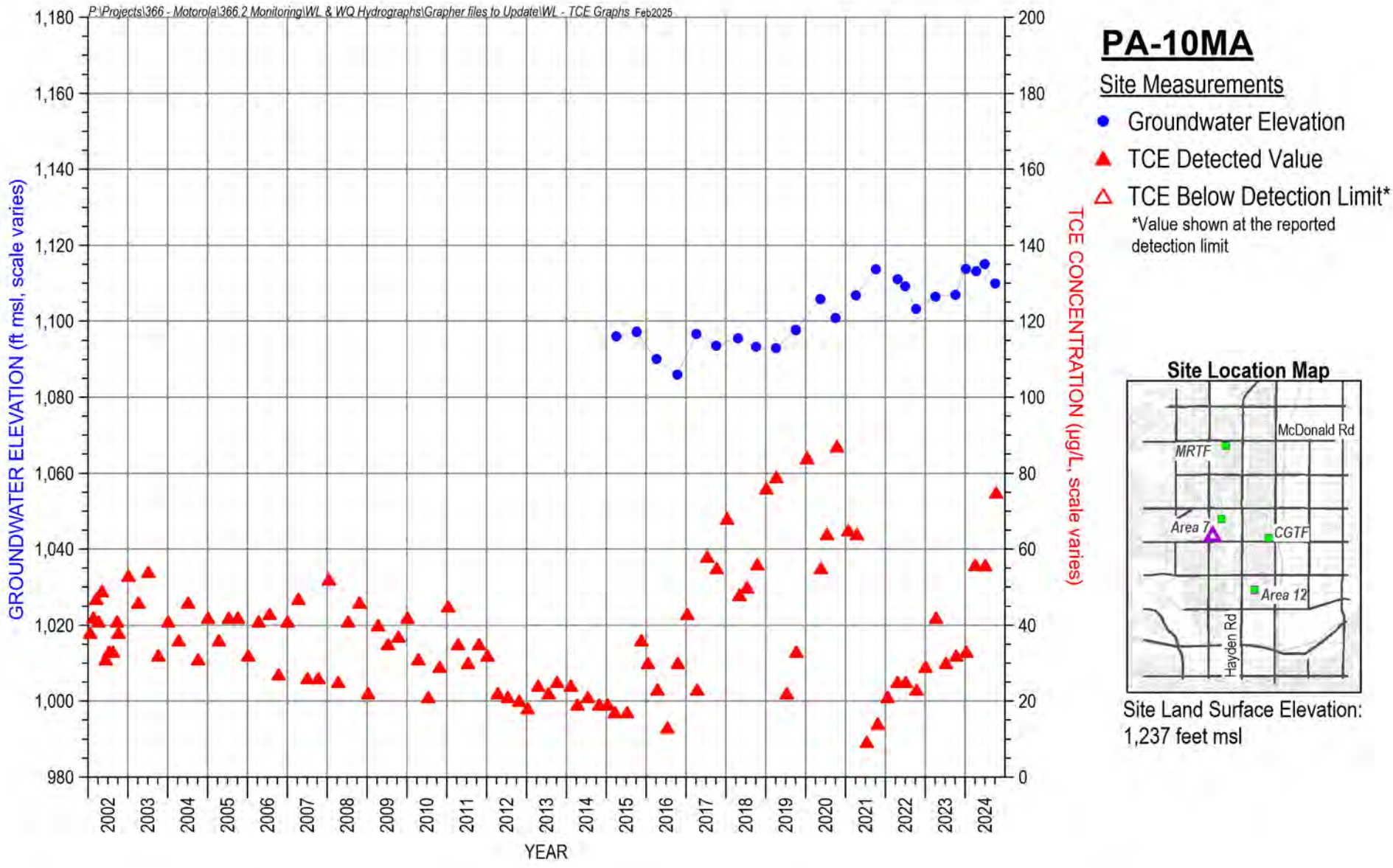
*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation: 1,237 feet msl

FIGURE D-064. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-9LA

North Indian Bend Wash Superfund Site



PA-10MA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

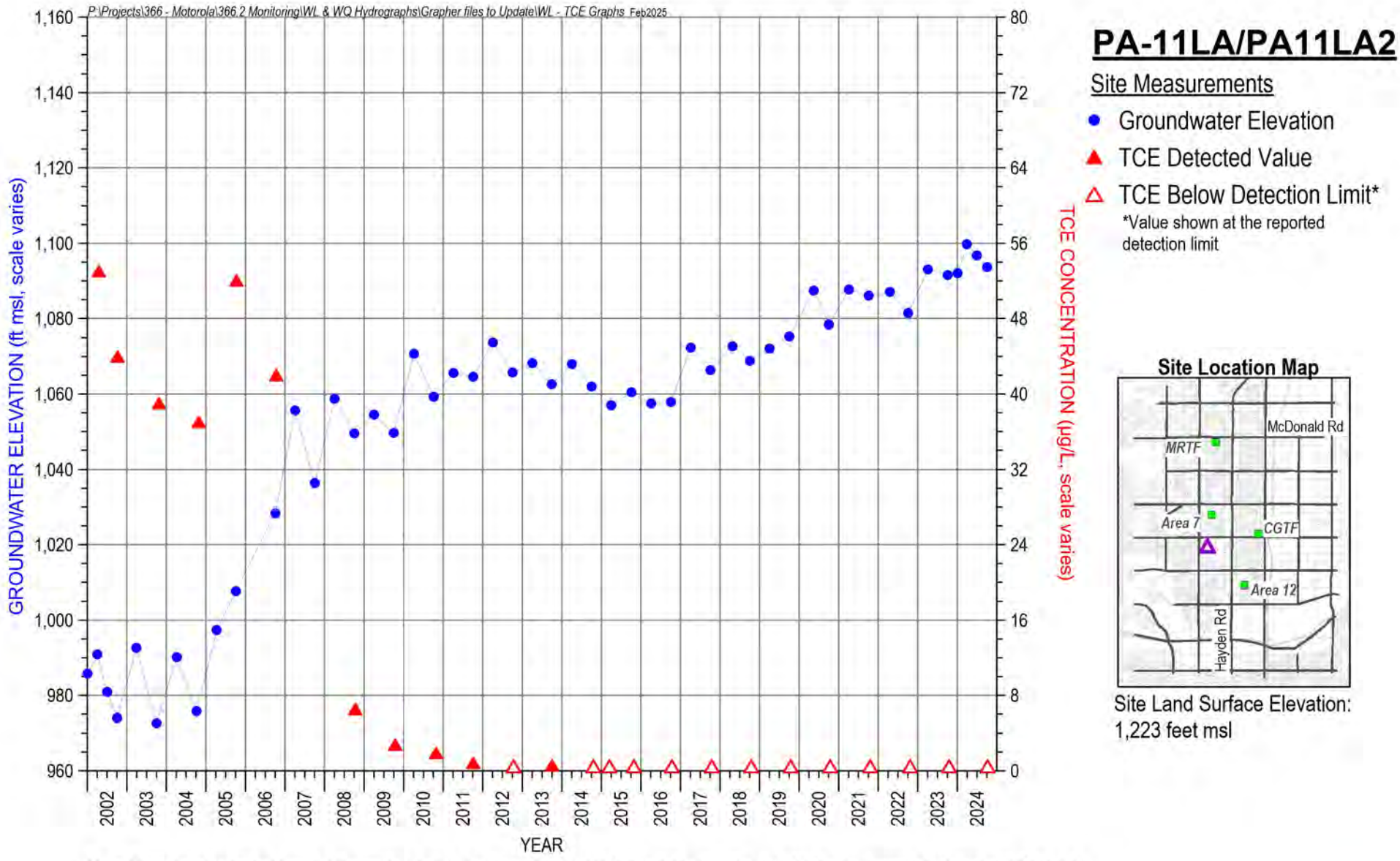
*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation:
1,237 feet msl

FIGURE D-065. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-10MA

North Indian Bend Wash Superfund Site



PA-11LA/PA11LA2

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

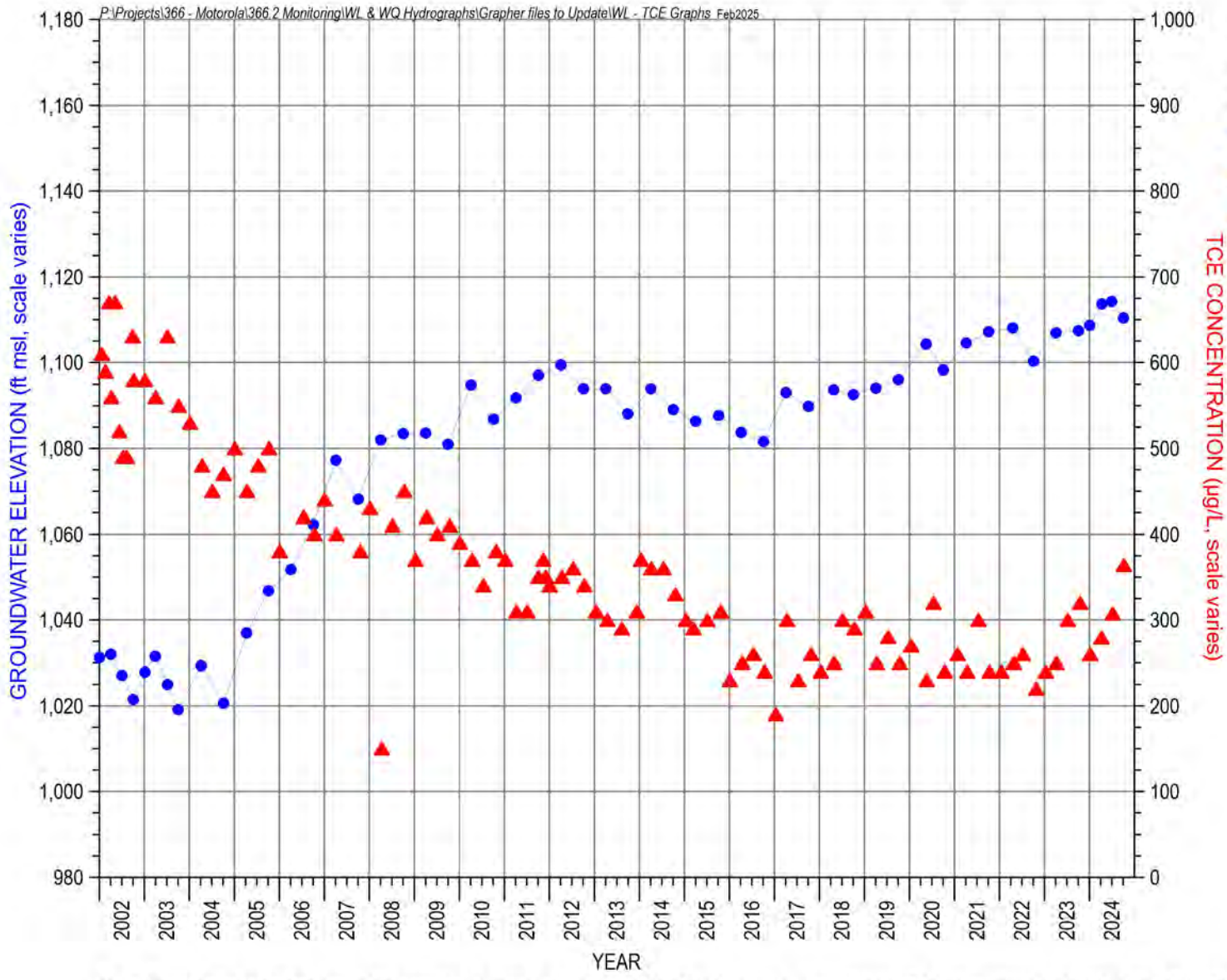
Site Location Map

Site Land Surface Elevation: 1,223 feet msl

Note: Water level collected from LAU completed well at piezometer PA-11LA2 located approximately 80 feet northwest of original well PA-11LA.

FIGURE D-066. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-11LA/PA11LA2

North Indian Bend Wash Superfund Site



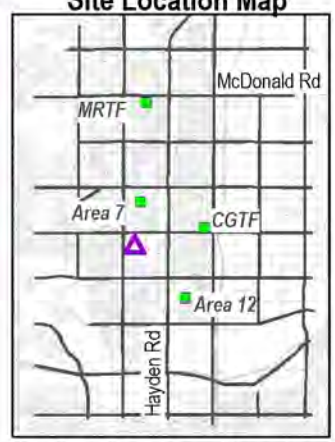
PA-12MA/PA-12MA2

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

Site Location Map



Site Land Surface Elevation: 1,223 feet msl

Note: Water level collected from MAU completed well at piezometer PA-12MA2 located approximately 70 feet northwest of original well PA-12MA.

FIGURE D-067. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-12MA/PA-12MA2

North Indian Bend Wash Superfund Site

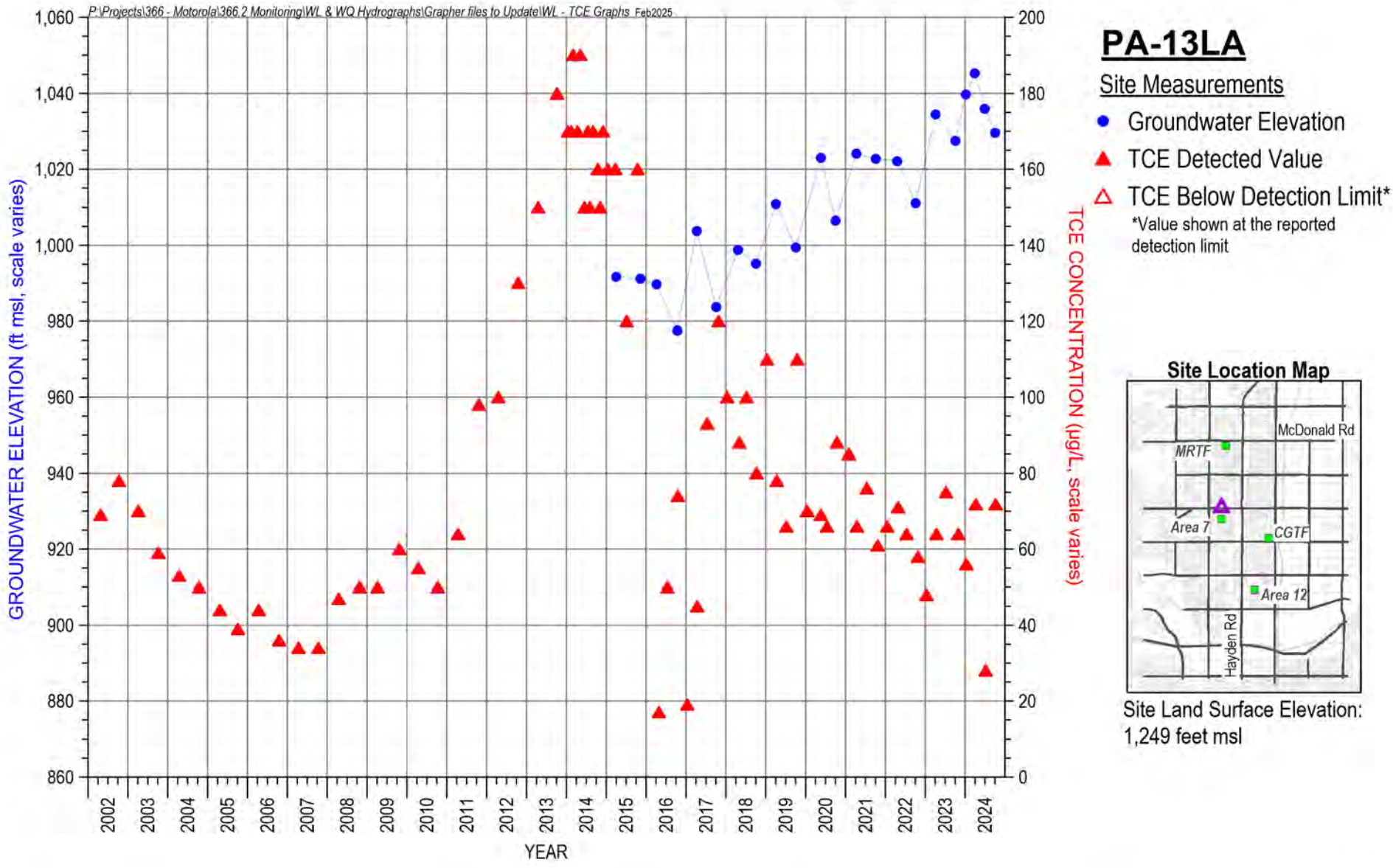
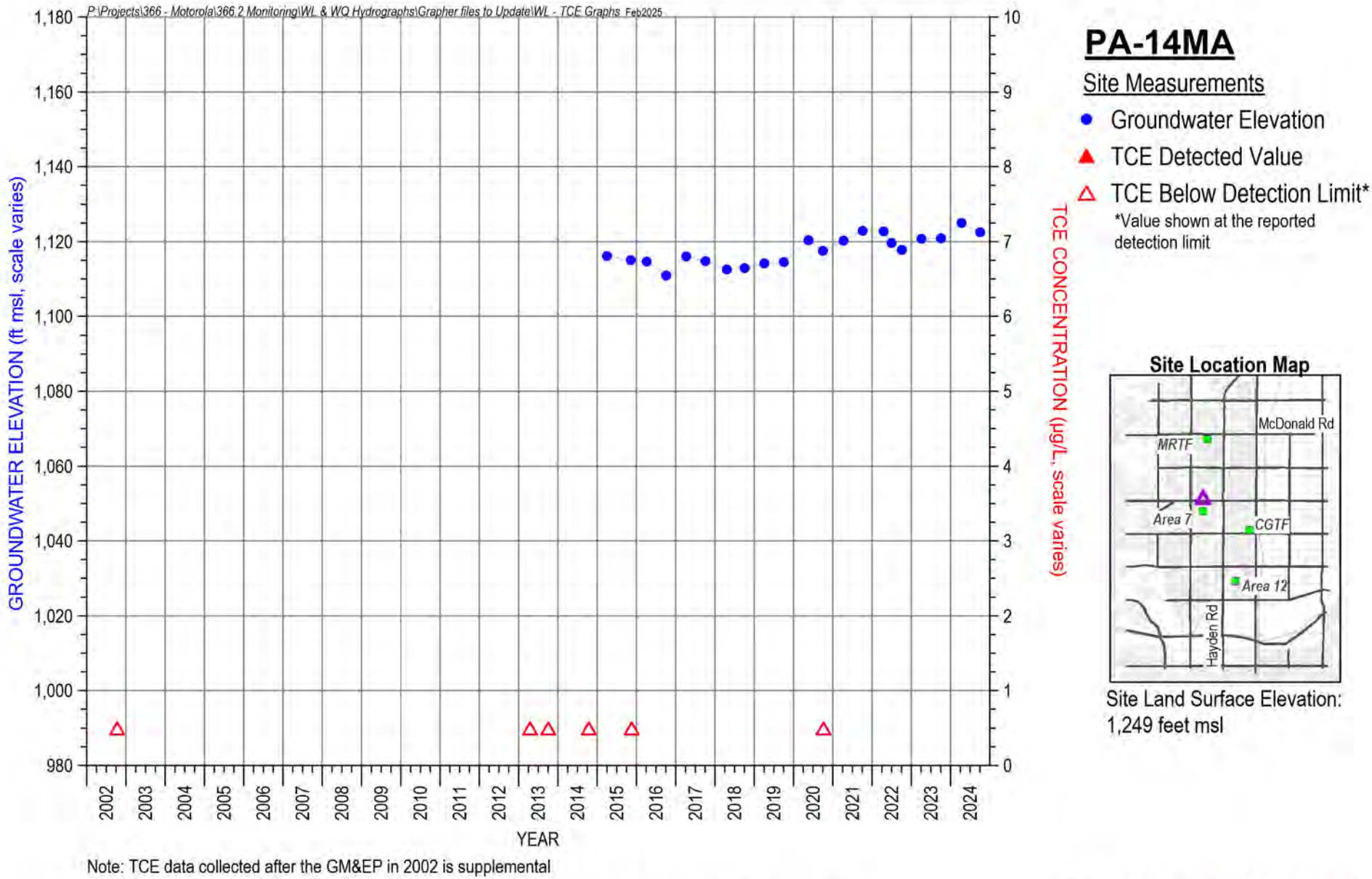


FIGURE D-068. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-13LA

North Indian Bend Wash Superfund Site



Note: TCE data collected after the GM&EP in 2002 is supplemental

FIGURE D-069. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-14MA

North Indian Bend Wash Superfund Site

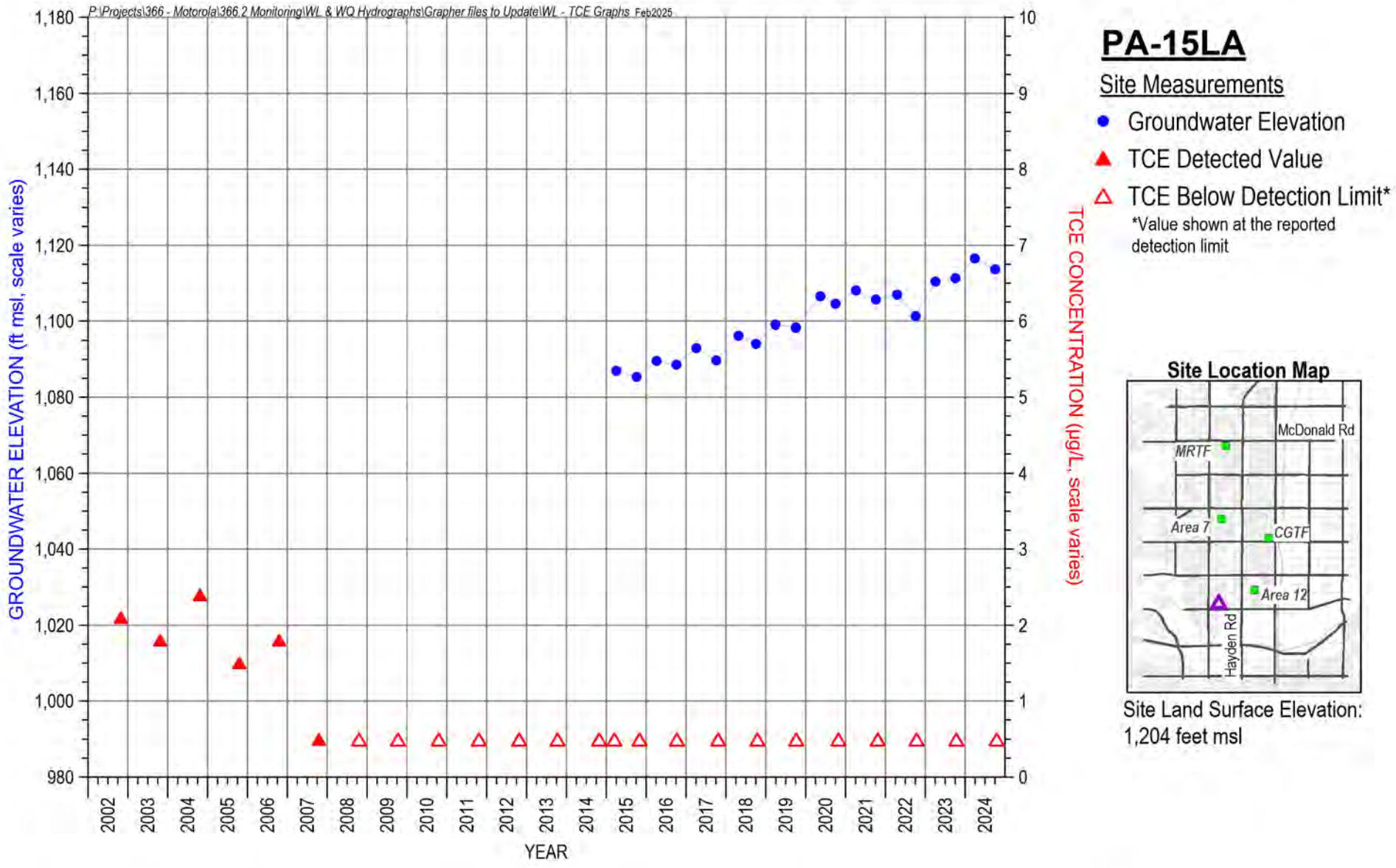


FIGURE D-070. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-15LA

North Indian Bend Wash Superfund Site

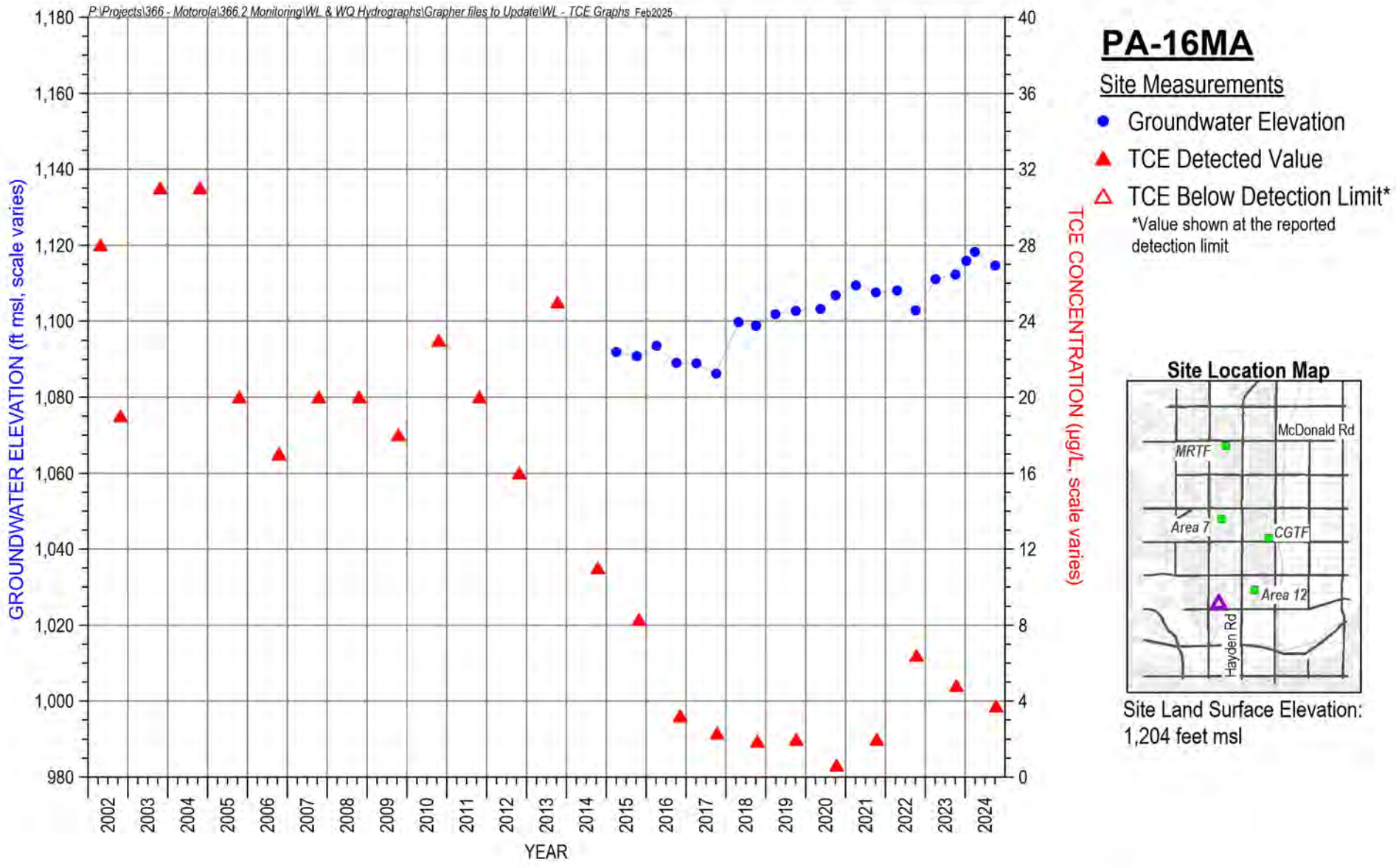
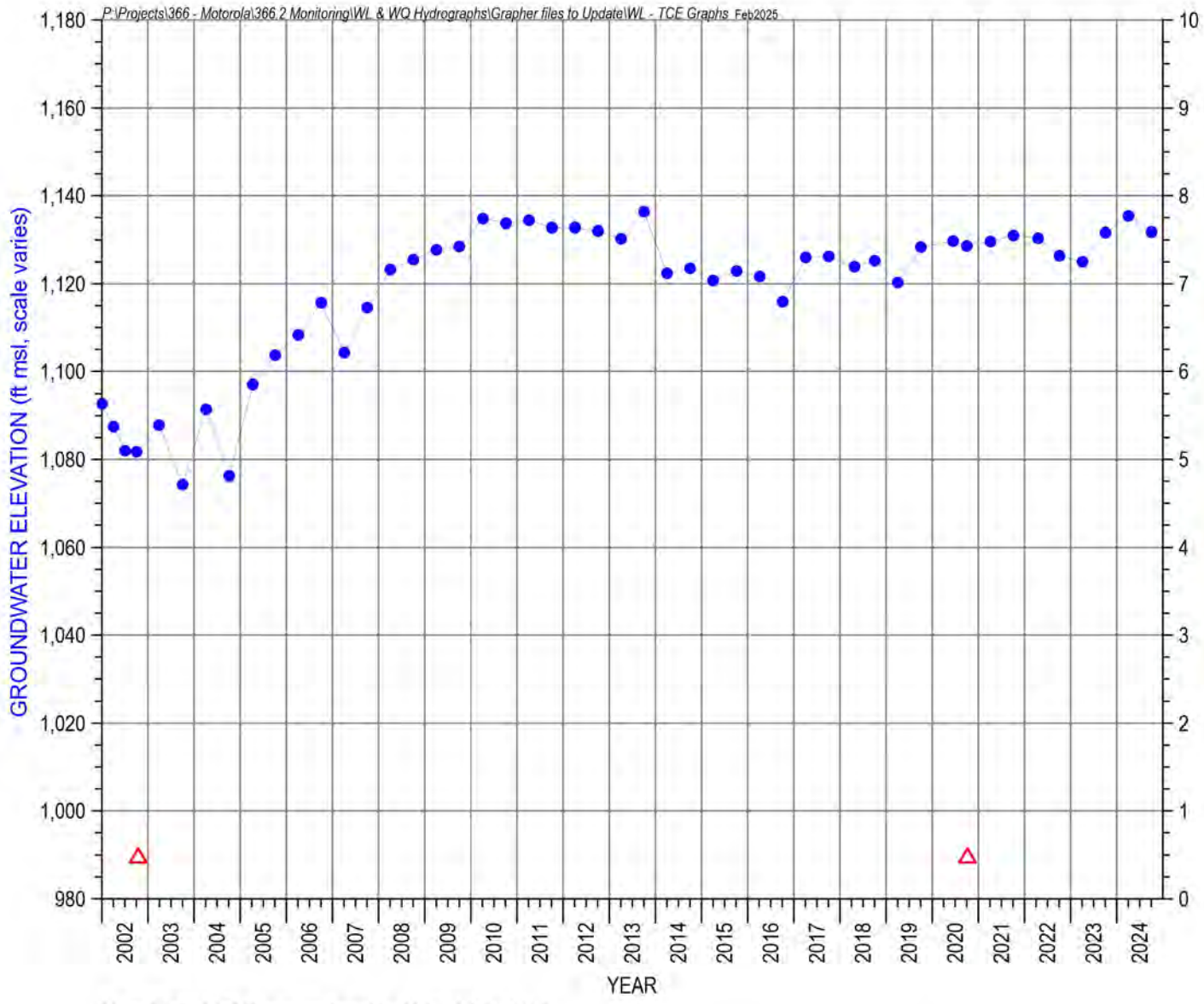


FIGURE D-071. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-16MA

North Indian Bend Wash Superfund Site



Note: Well M-17MA was replaced by M-17MA2 in 2014.

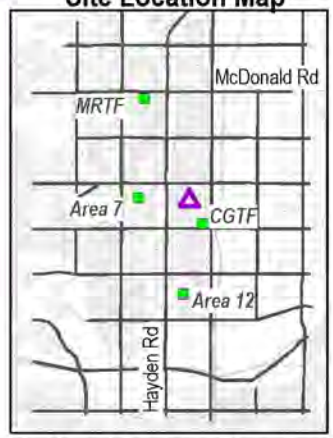
PA-17MA/PA-17MA2

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

Site Location Map



Site Land Surface Elevation: 1,239 feet msl

FIGURE D-072. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-17MA/PA-17MA2

North Indian Bend Wash Superfund Site

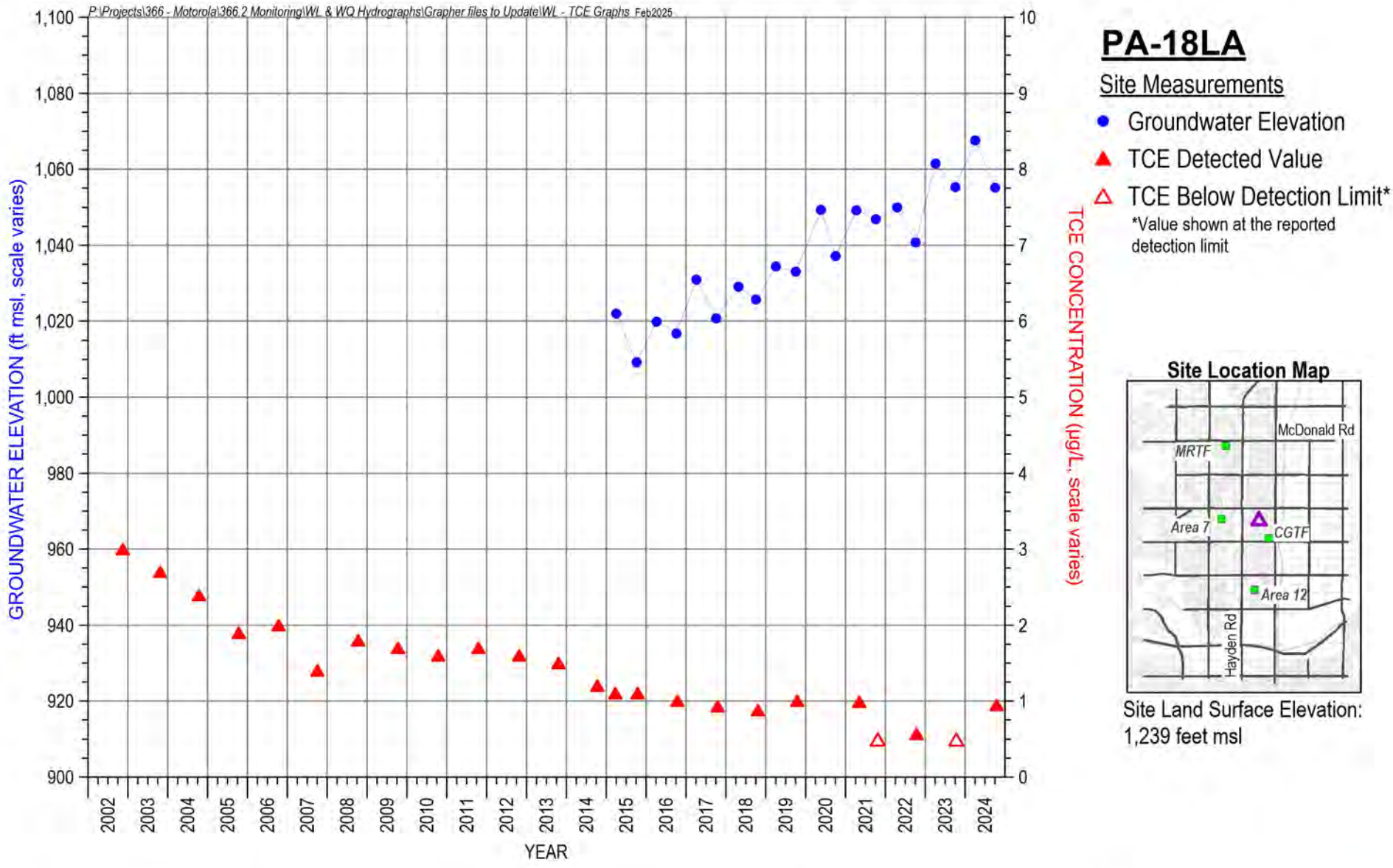


FIGURE D-073. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-18LA

North Indian Bend Wash Superfund Site

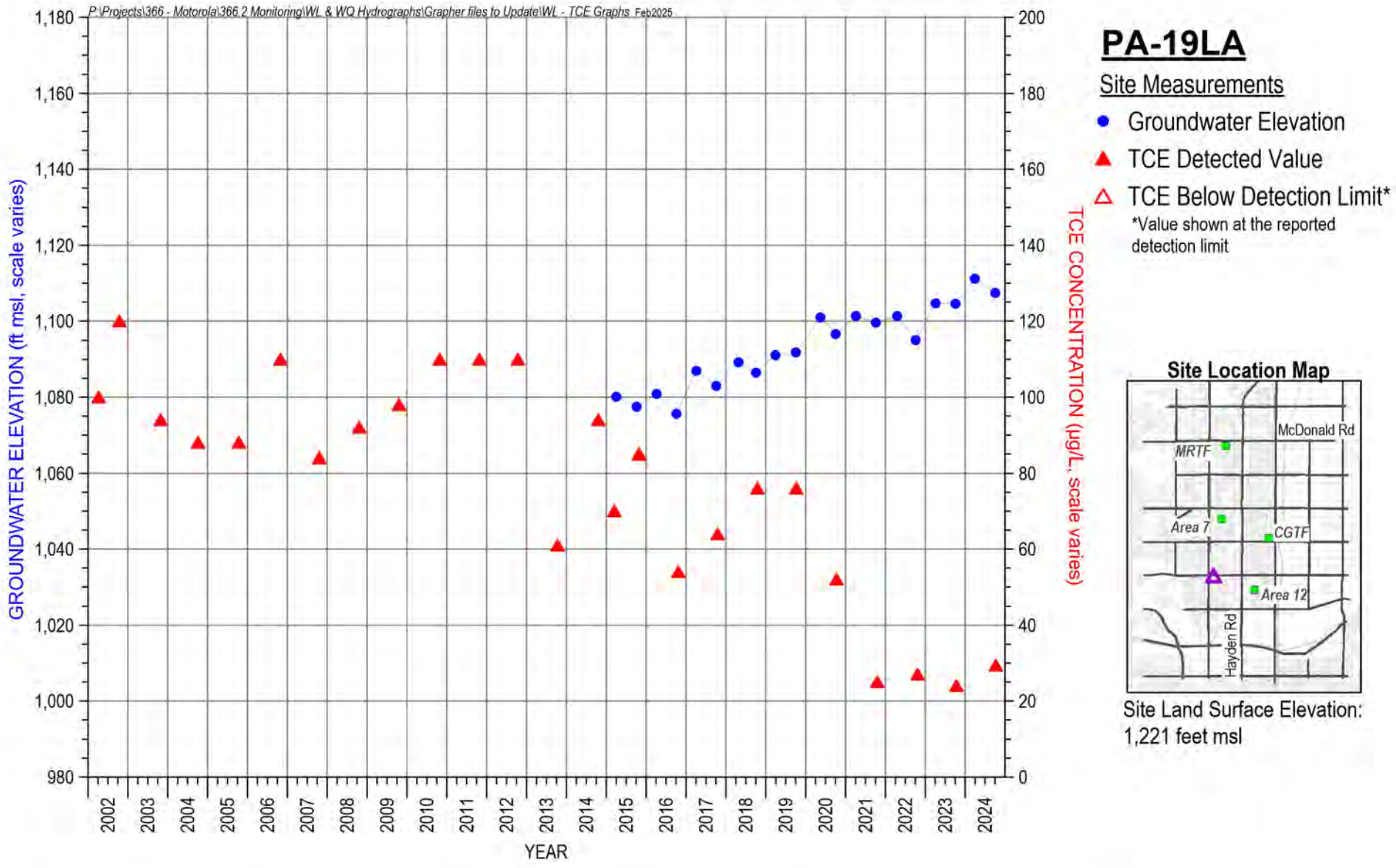
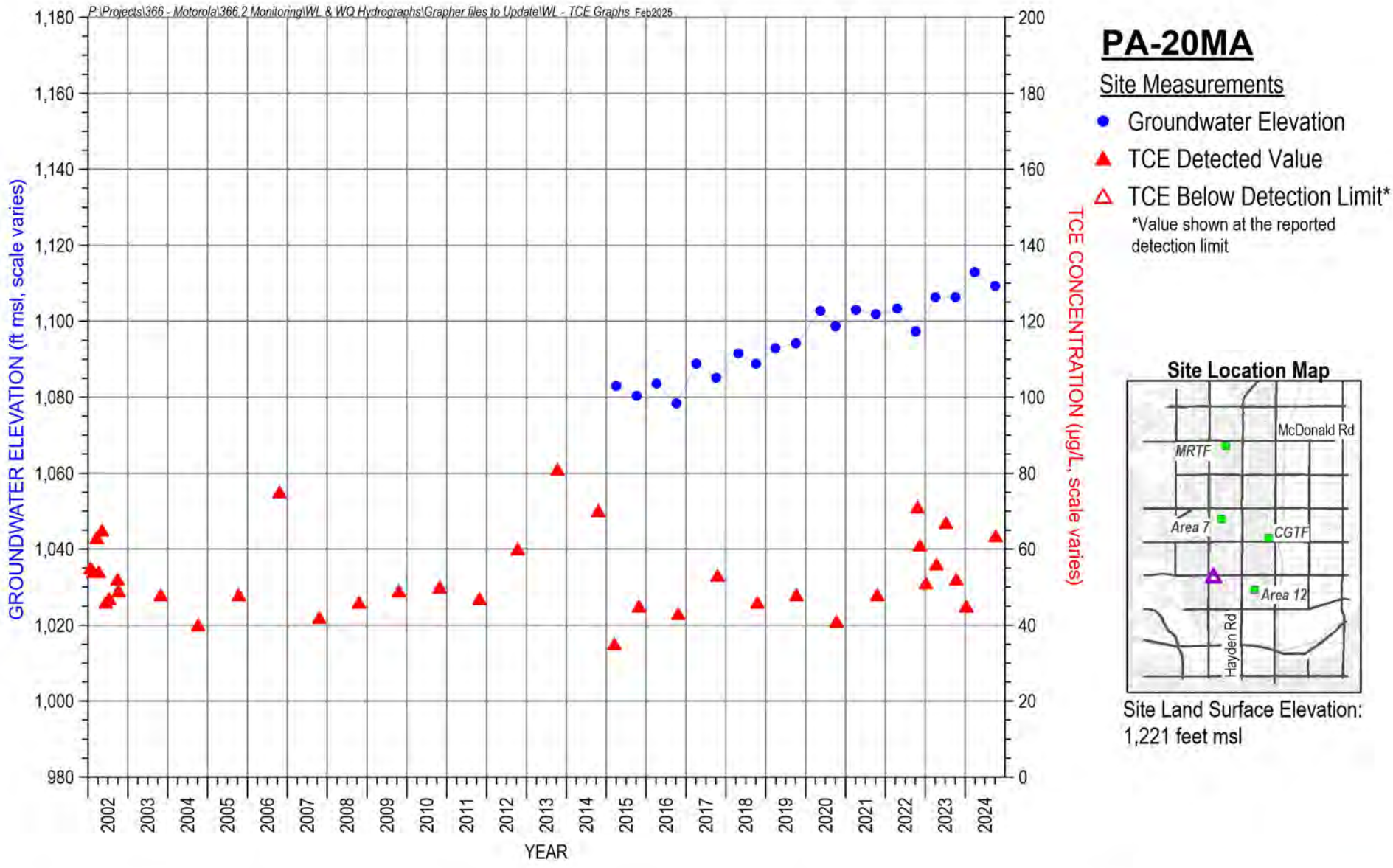


FIGURE D-074. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-19LA

North Indian Bend Wash Superfund Site



PA-20MA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

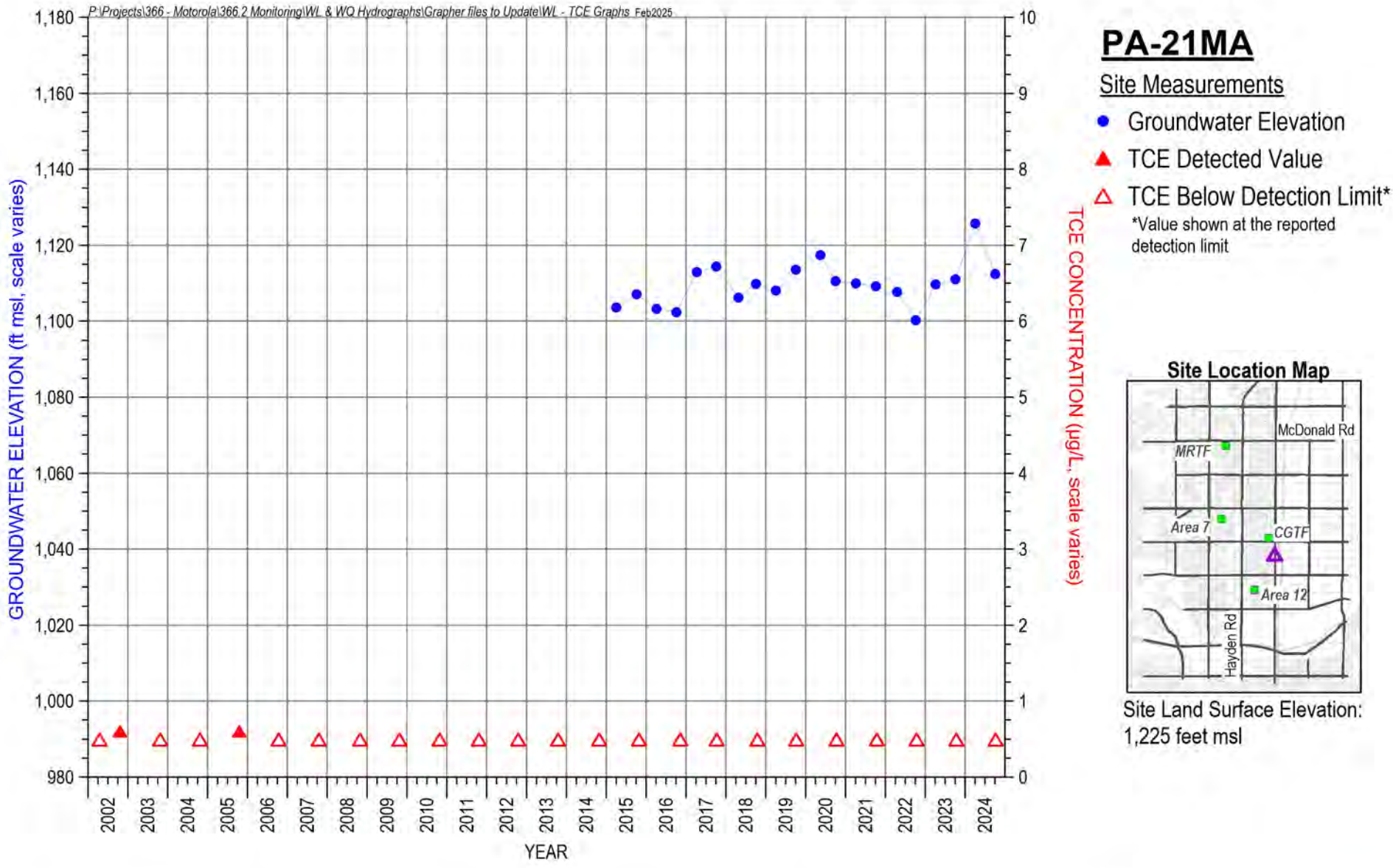
*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation: 1,221 feet msl

FIGURE D-075. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-20MA

North Indian Bend Wash Superfund Site



PA-21MA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

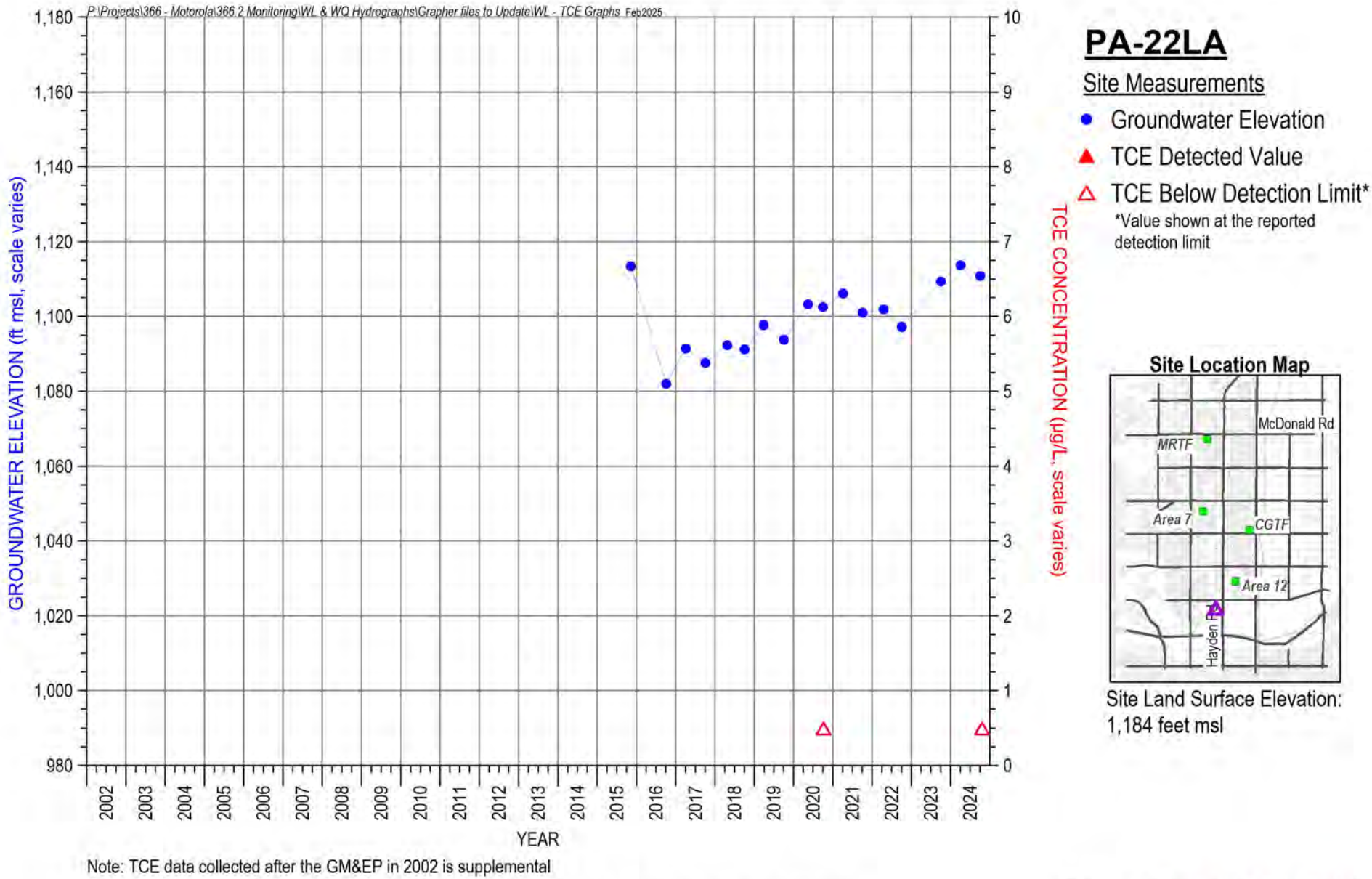
*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation: 1,225 feet msl

FIGURE D-076. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-21MA

North Indian Bend Wash Superfund Site



Note: TCE data collected after the GM&EP in 2002 is supplemental

FIGURE D-077. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-22LA

North Indian Bend Wash Superfund Site

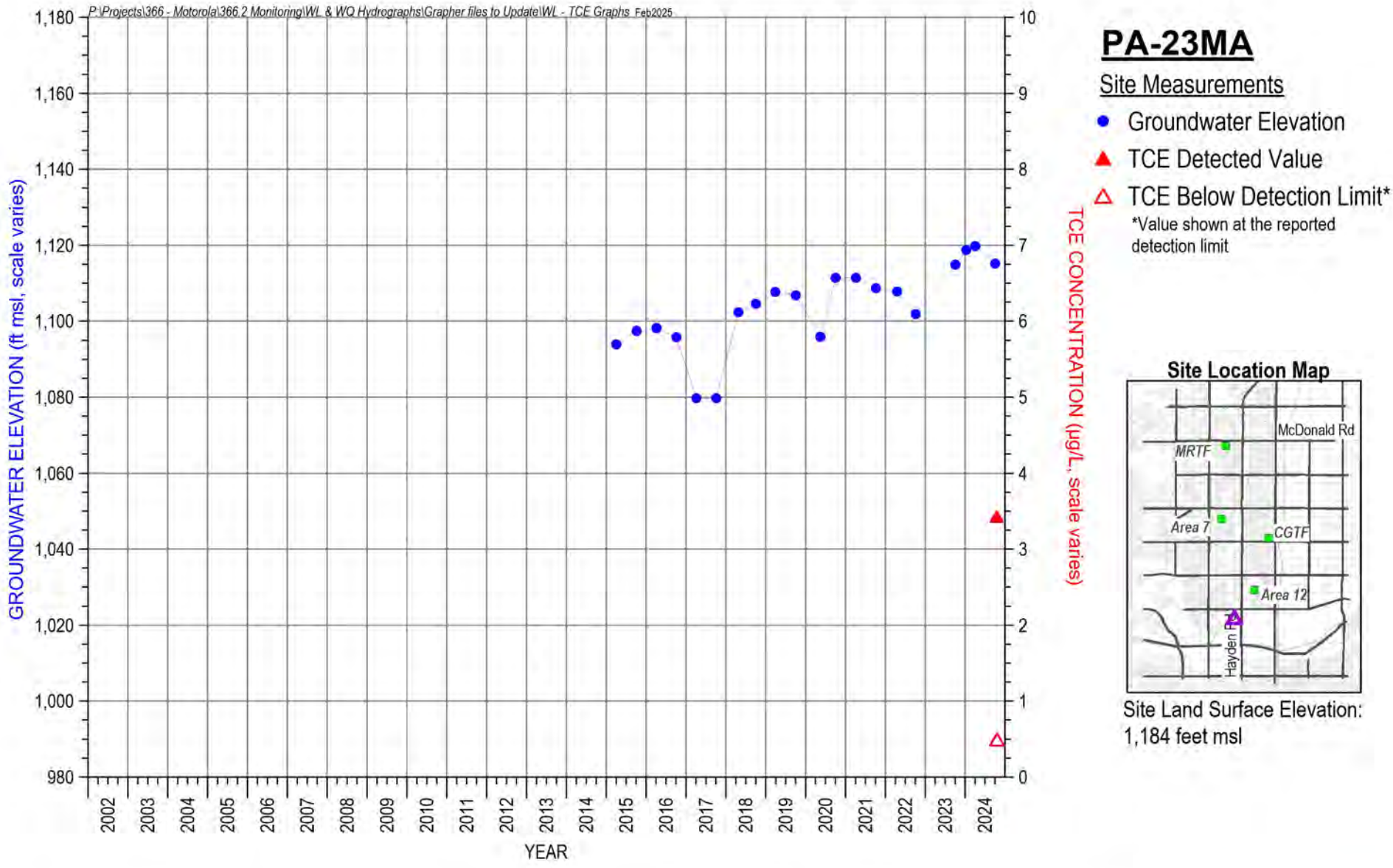


FIGURE D-078. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PA-23MA

North Indian Bend Wash Superfund Site

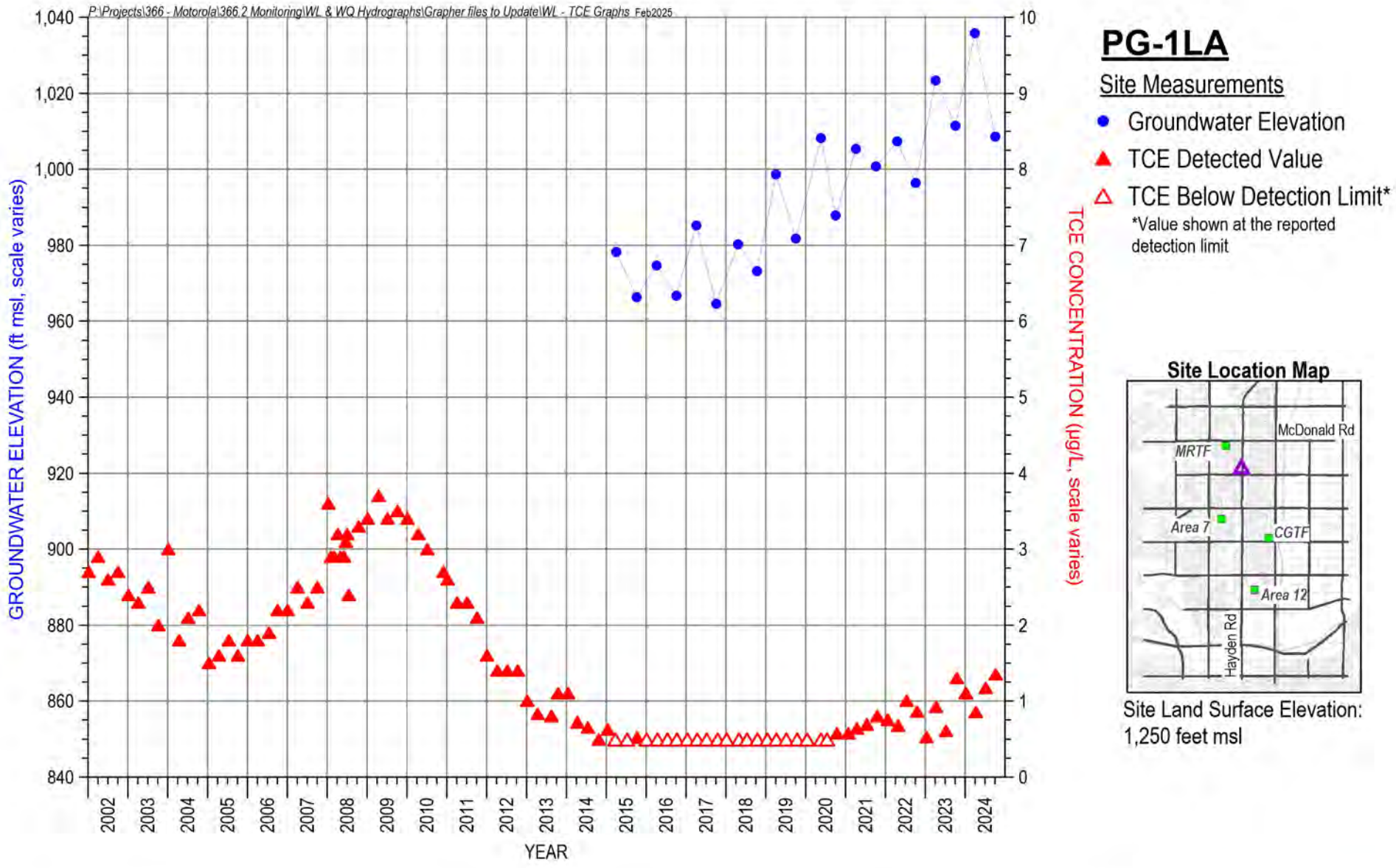
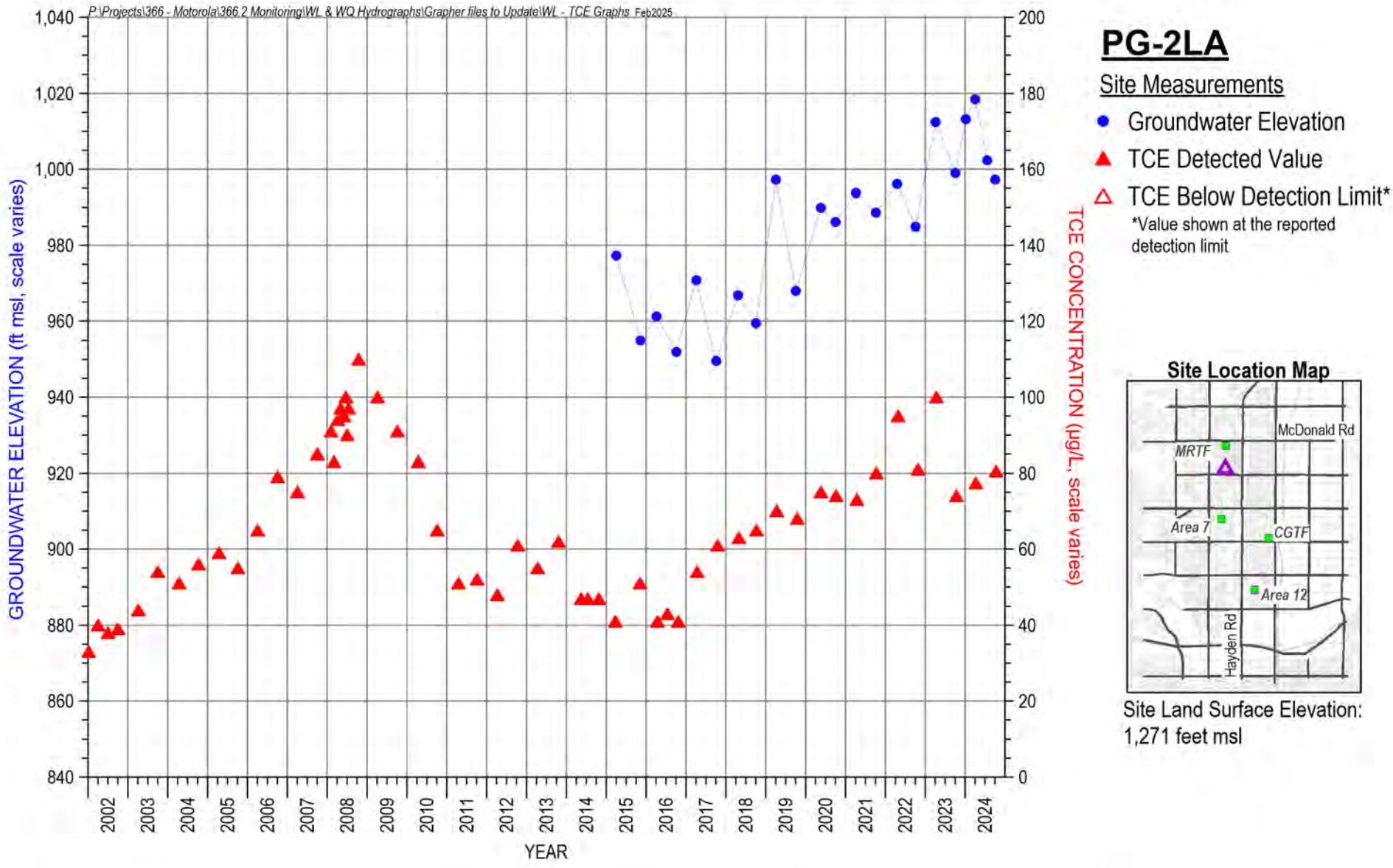


FIGURE D-079. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-1LA

North Indian Bend Wash Superfund Site



PG-2LA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation:
1,271 feet msl

FIGURE D-080. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-2LA

North Indian Bend Wash Superfund Site

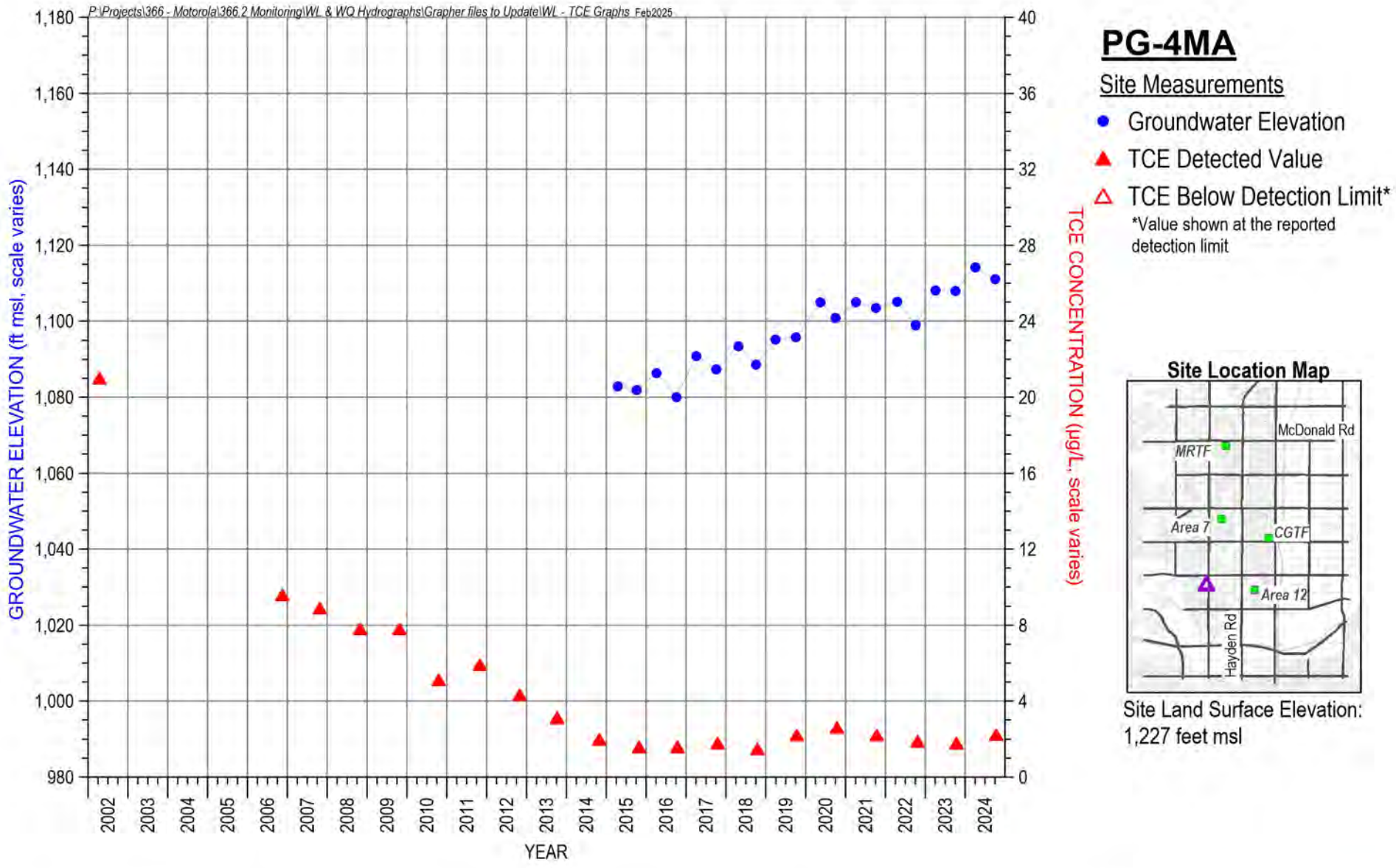
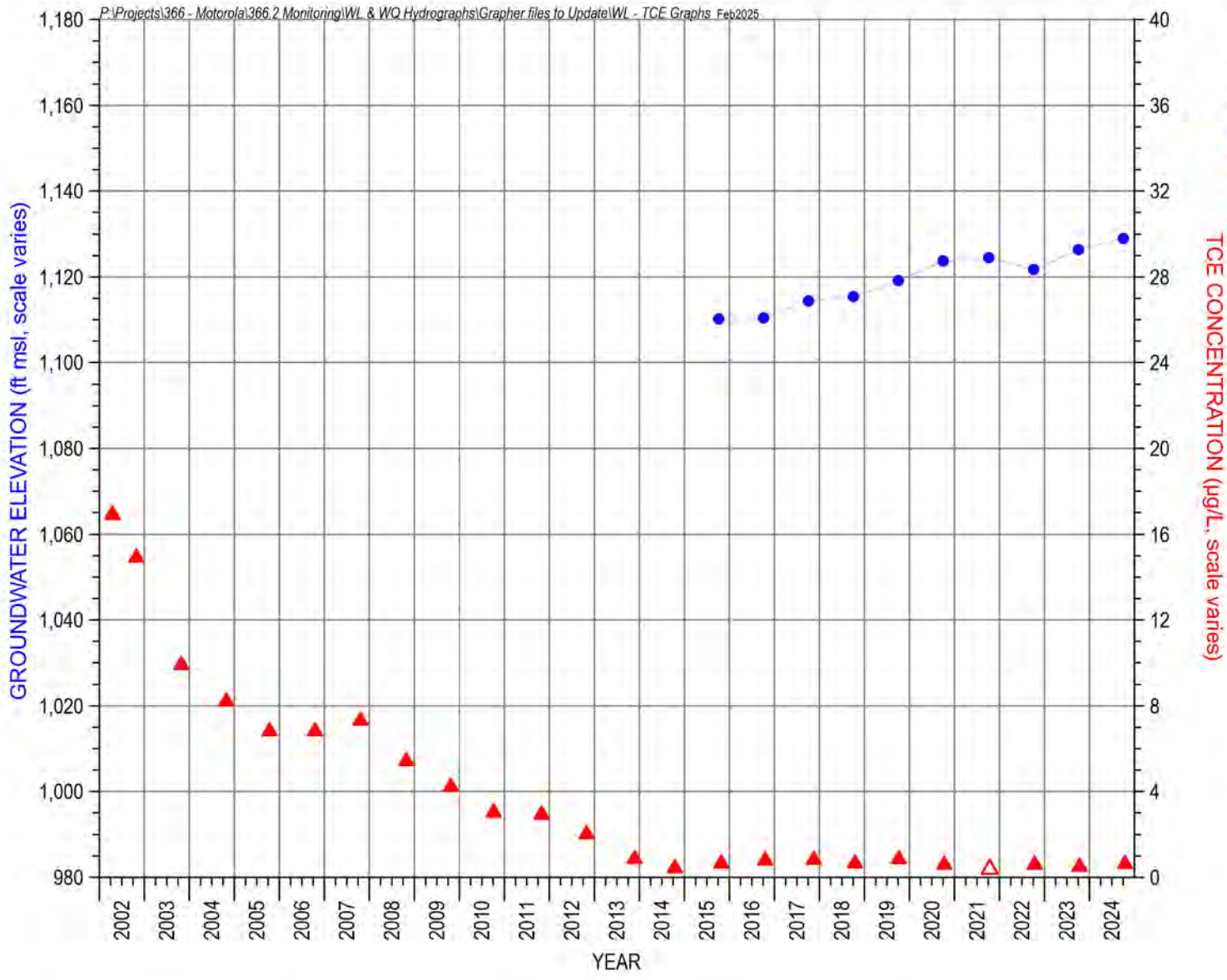


FIGURE D-081. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-4MA

North Indian Bend Wash Superfund Site



PG-4UA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

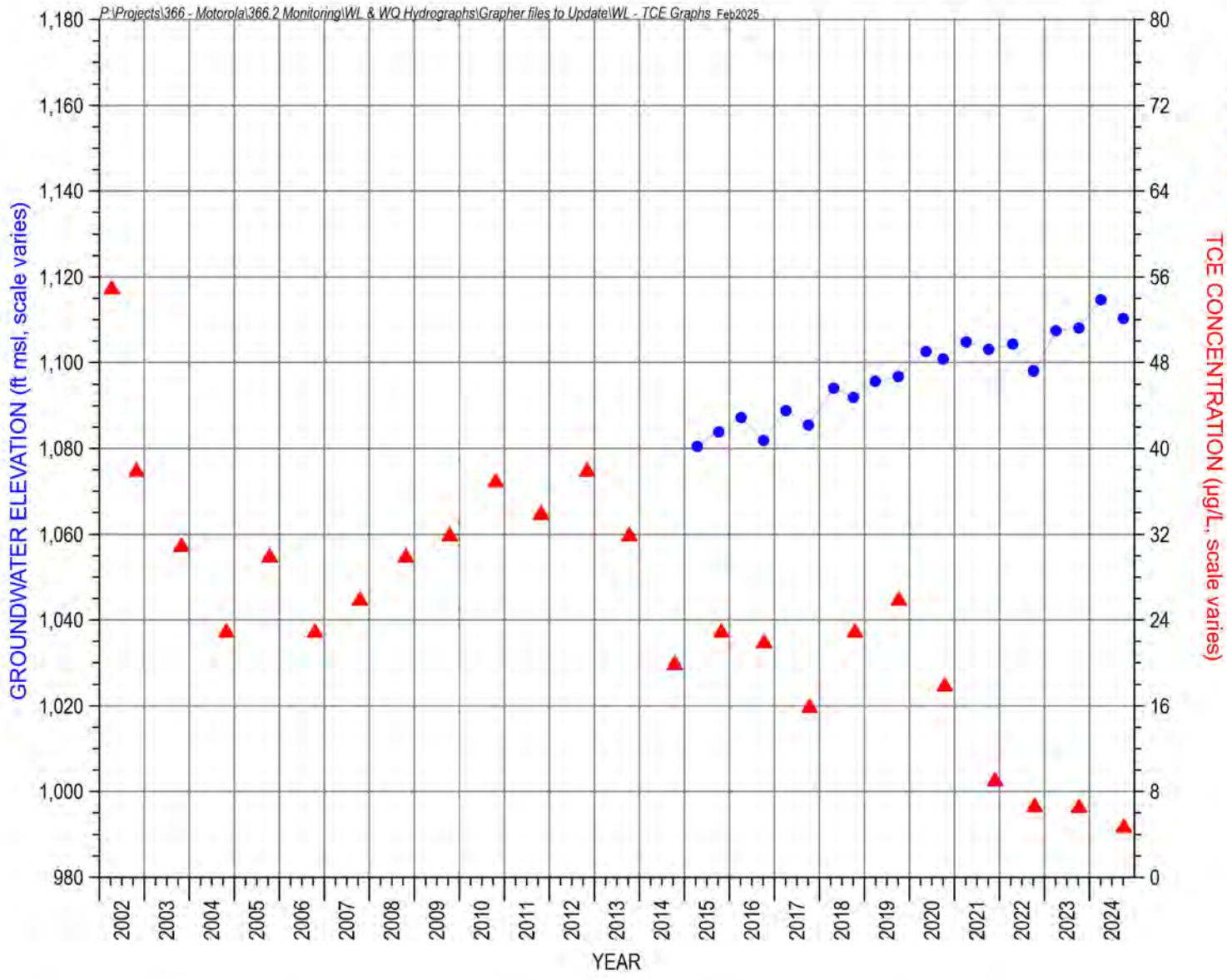
Site Location Map



Site Land Surface Elevation:
1,228 feet msl

FIGURE D-082. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-4UA

North Indian Bend Wash Superfund Site



PG-5MA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

Site Location Map



Site Land Surface Elevation:
1,214 feet msl

FIGURE D-083. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-5MA

North Indian Bend Wash Superfund Site

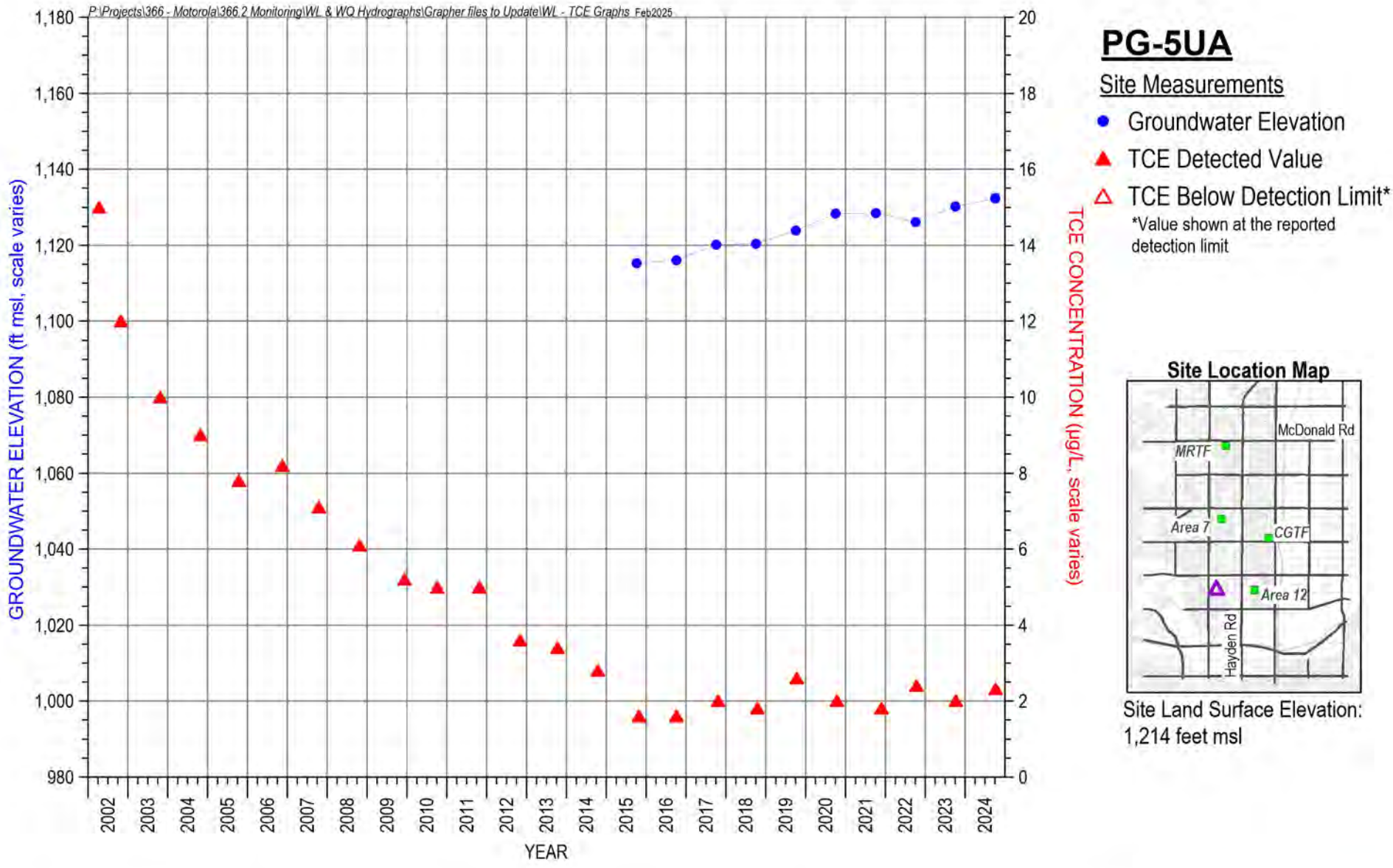
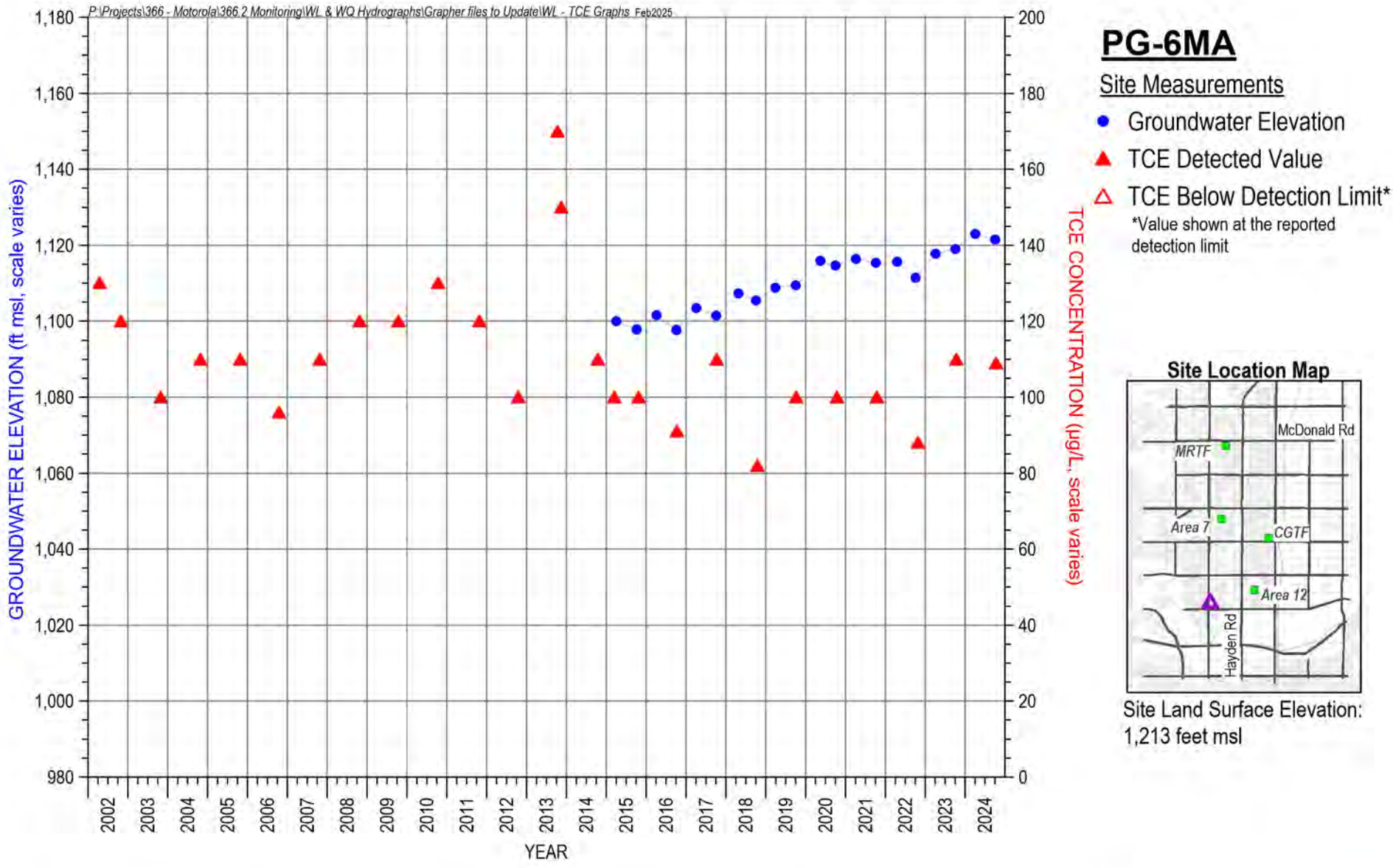


FIGURE D-084. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-5UA

North Indian Bend Wash Superfund Site



PG-6MA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation:
1,213 feet msl

FIGURE D-085. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-6MA

North Indian Bend Wash Superfund Site

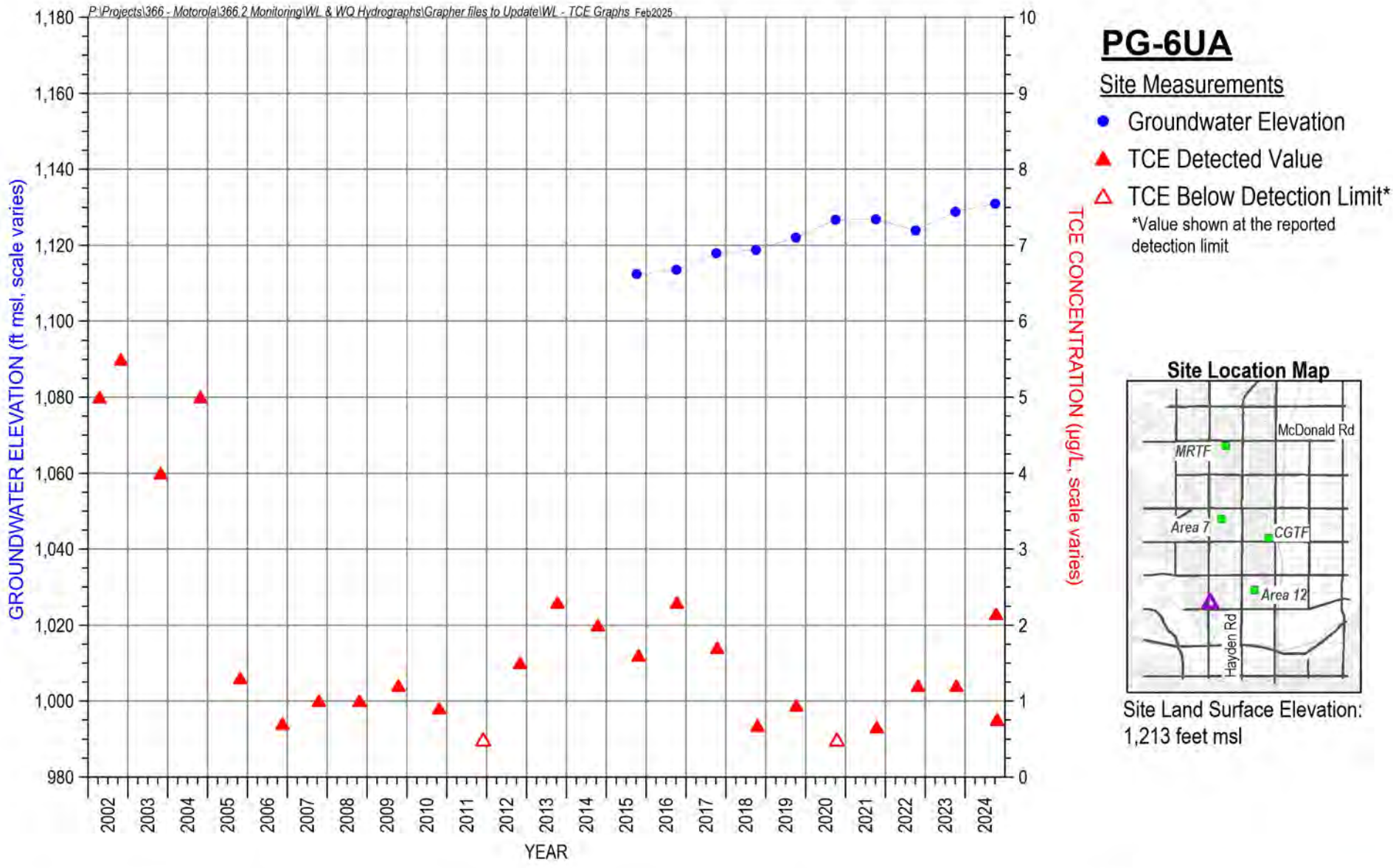


FIGURE D-086. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-6UA

North Indian Bend Wash Superfund Site

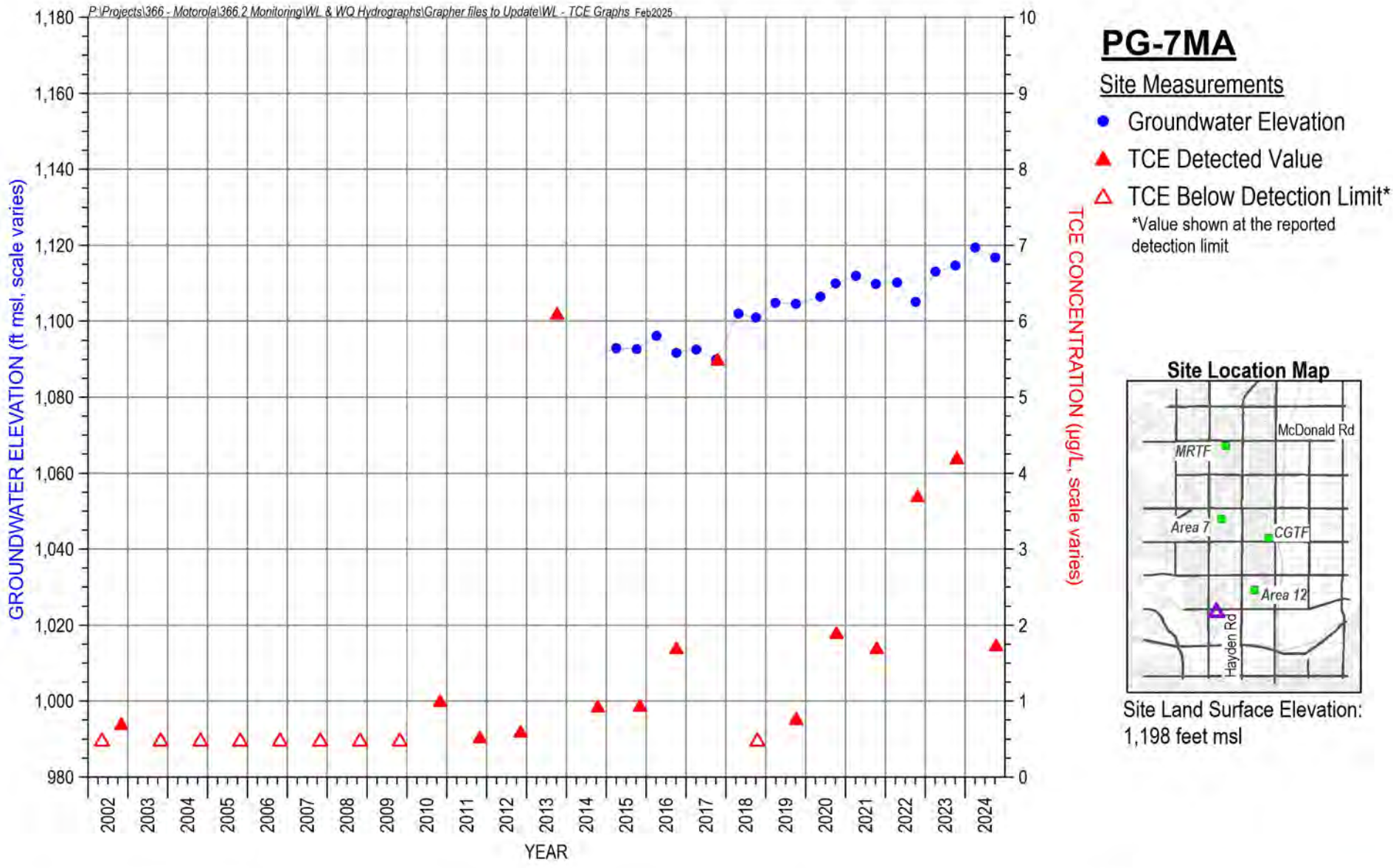


FIGURE D-087. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-7MA

North Indian Bend Wash Superfund Site

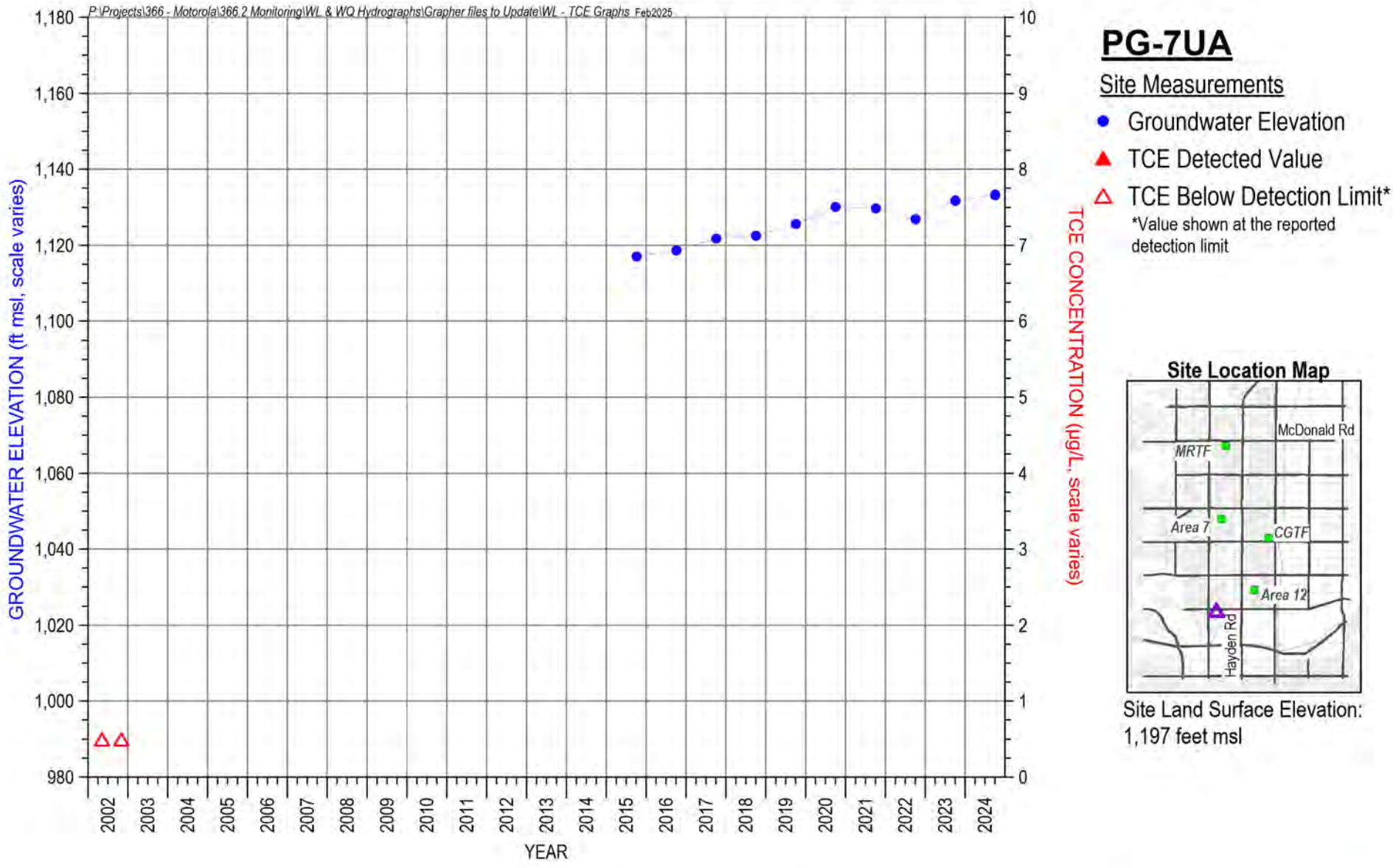


FIGURE D-088. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-7UA

North Indian Bend Wash Superfund Site

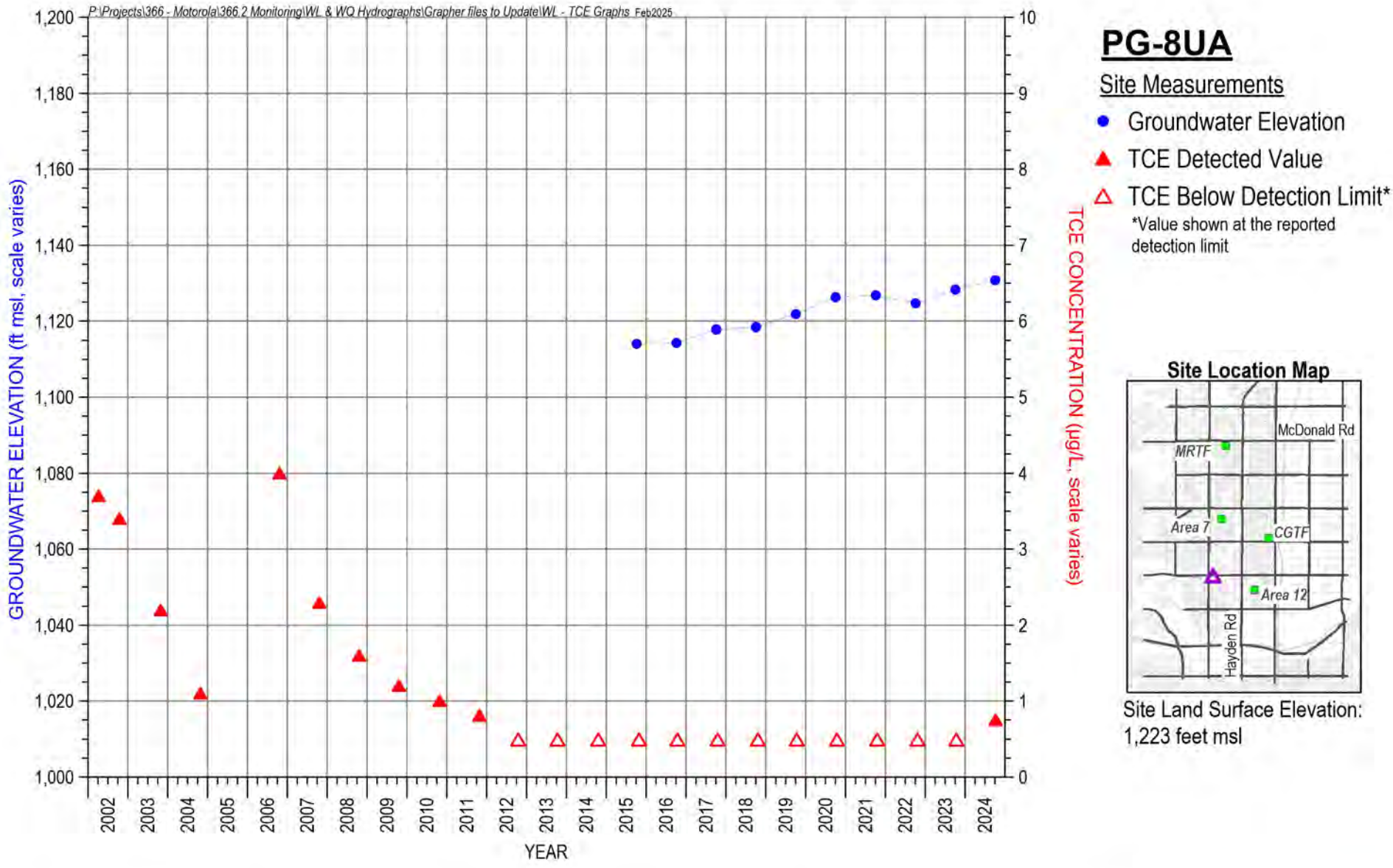


FIGURE D-089. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-8UA

North Indian Bend Wash Superfund Site

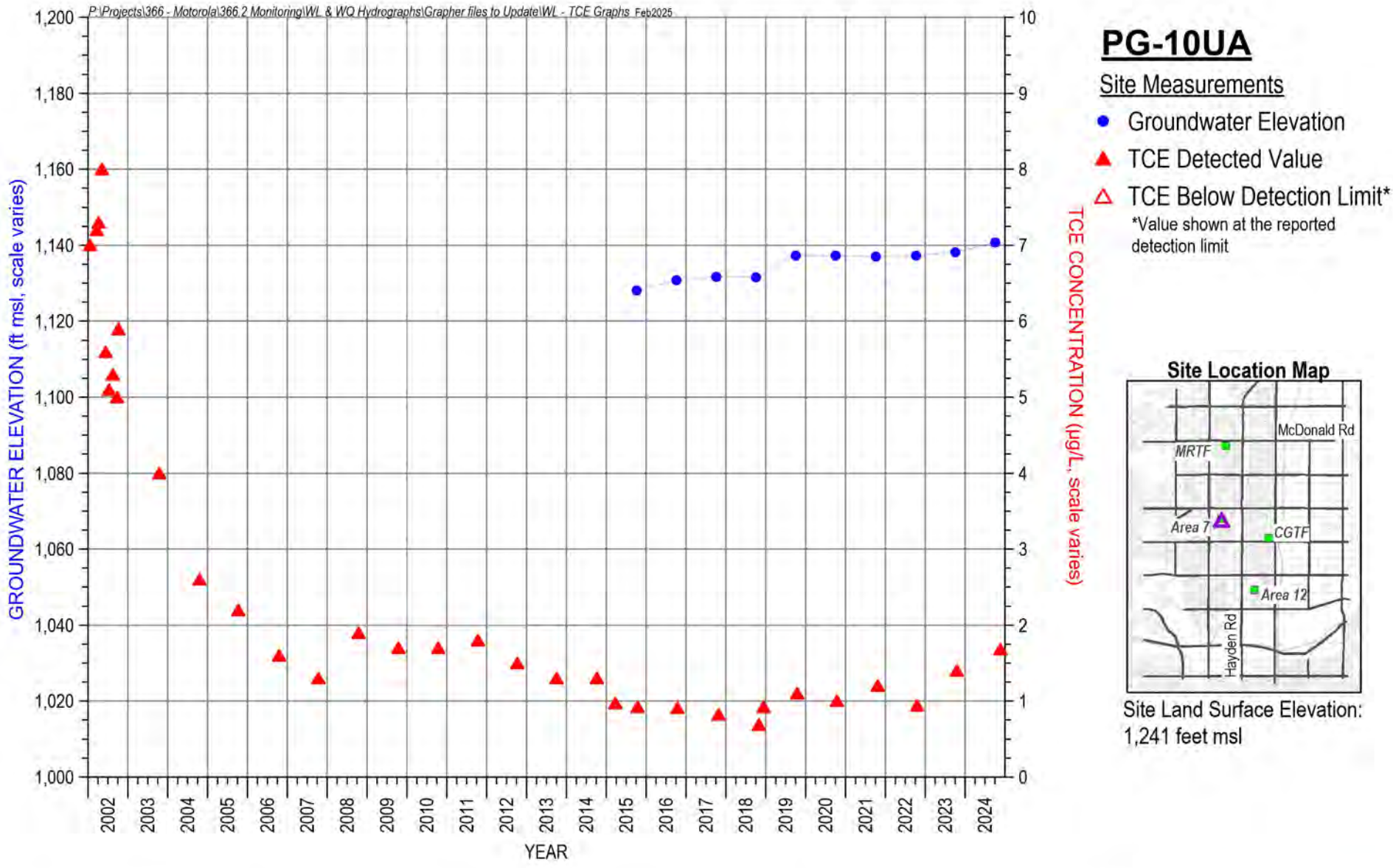
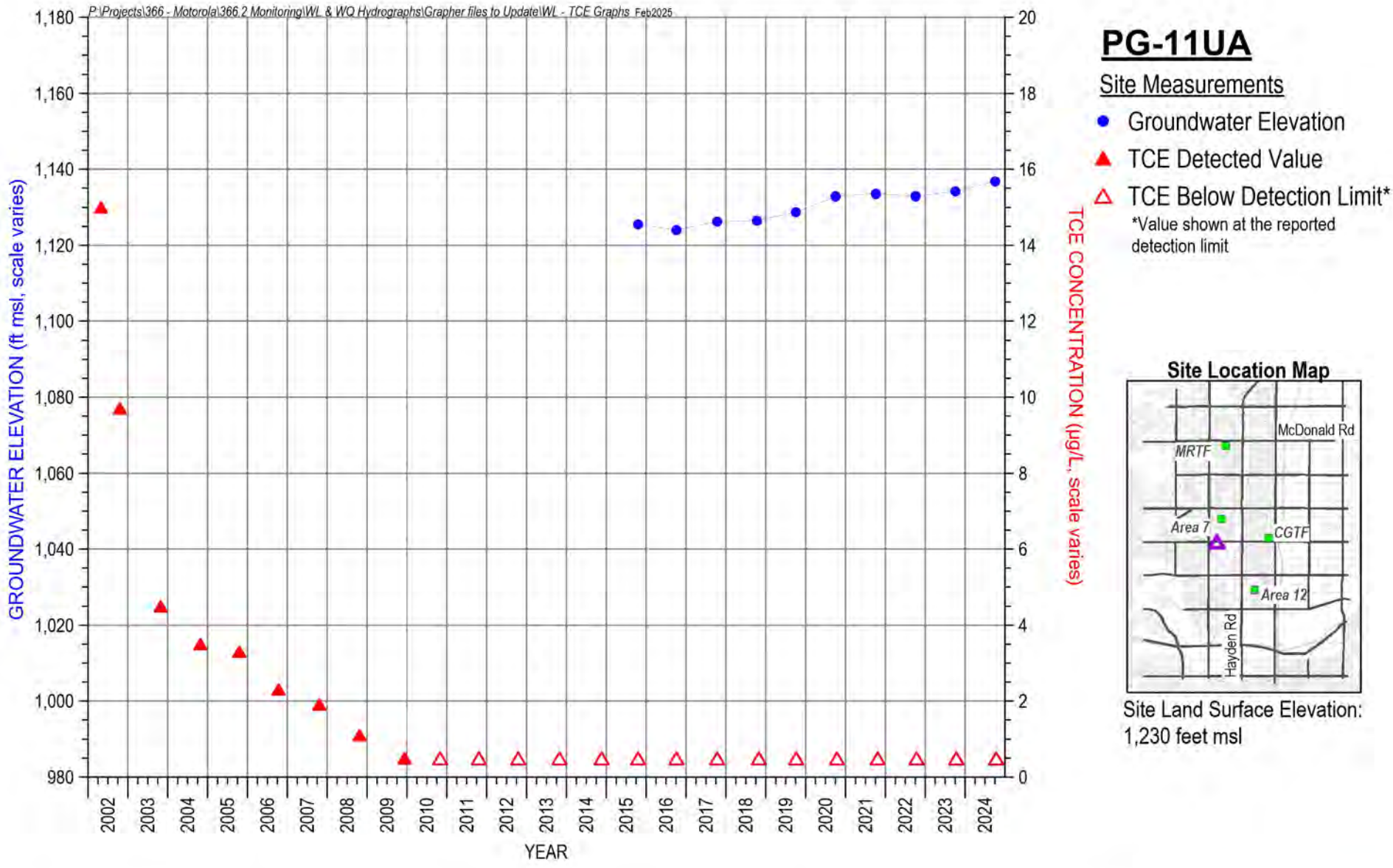


FIGURE D-090. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-10UA

North Indian Bend Wash Superfund Site



PG-11UA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation:
1,230 feet msl

FIGURE D-091. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-11UA

North Indian Bend Wash Superfund Site

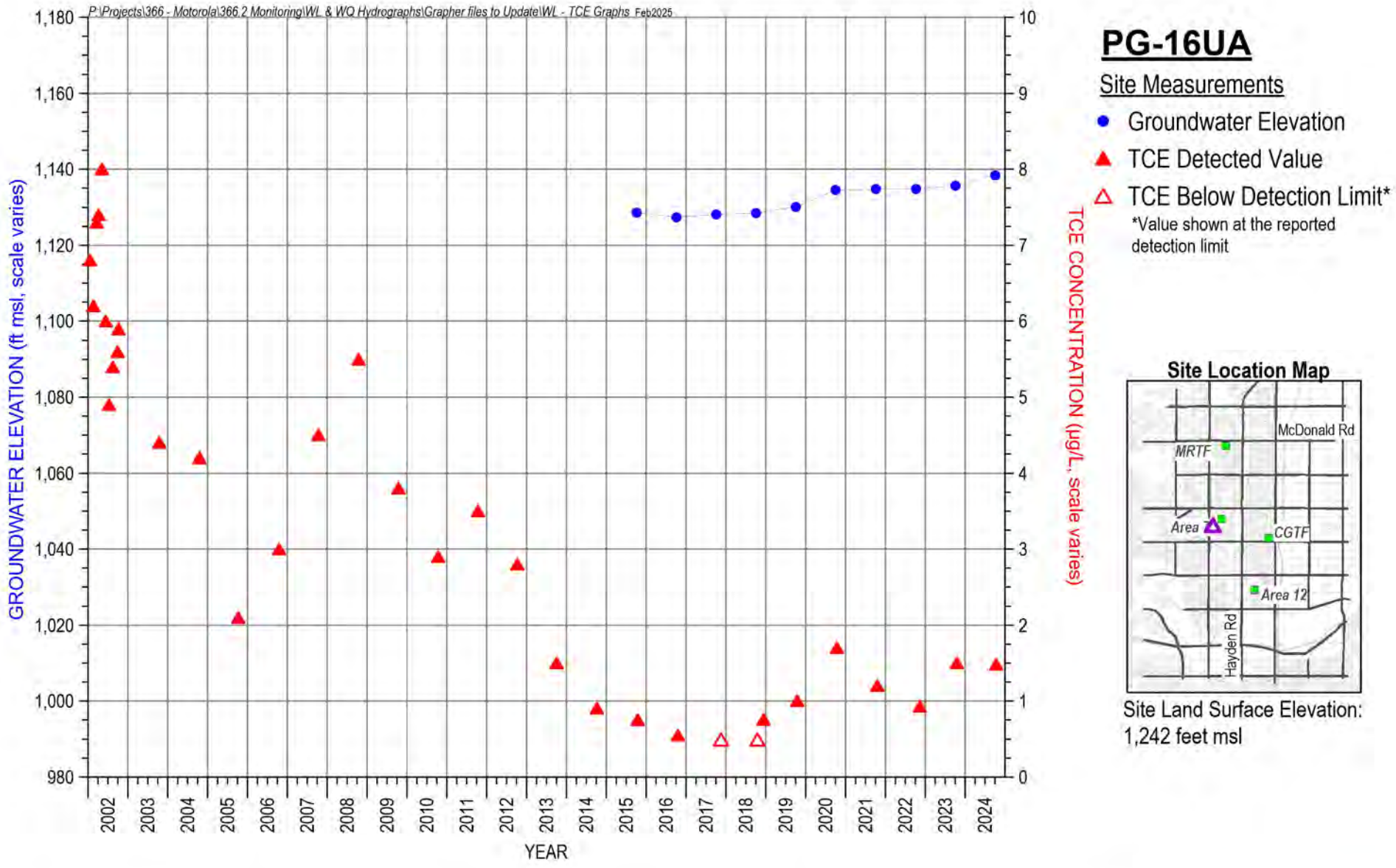
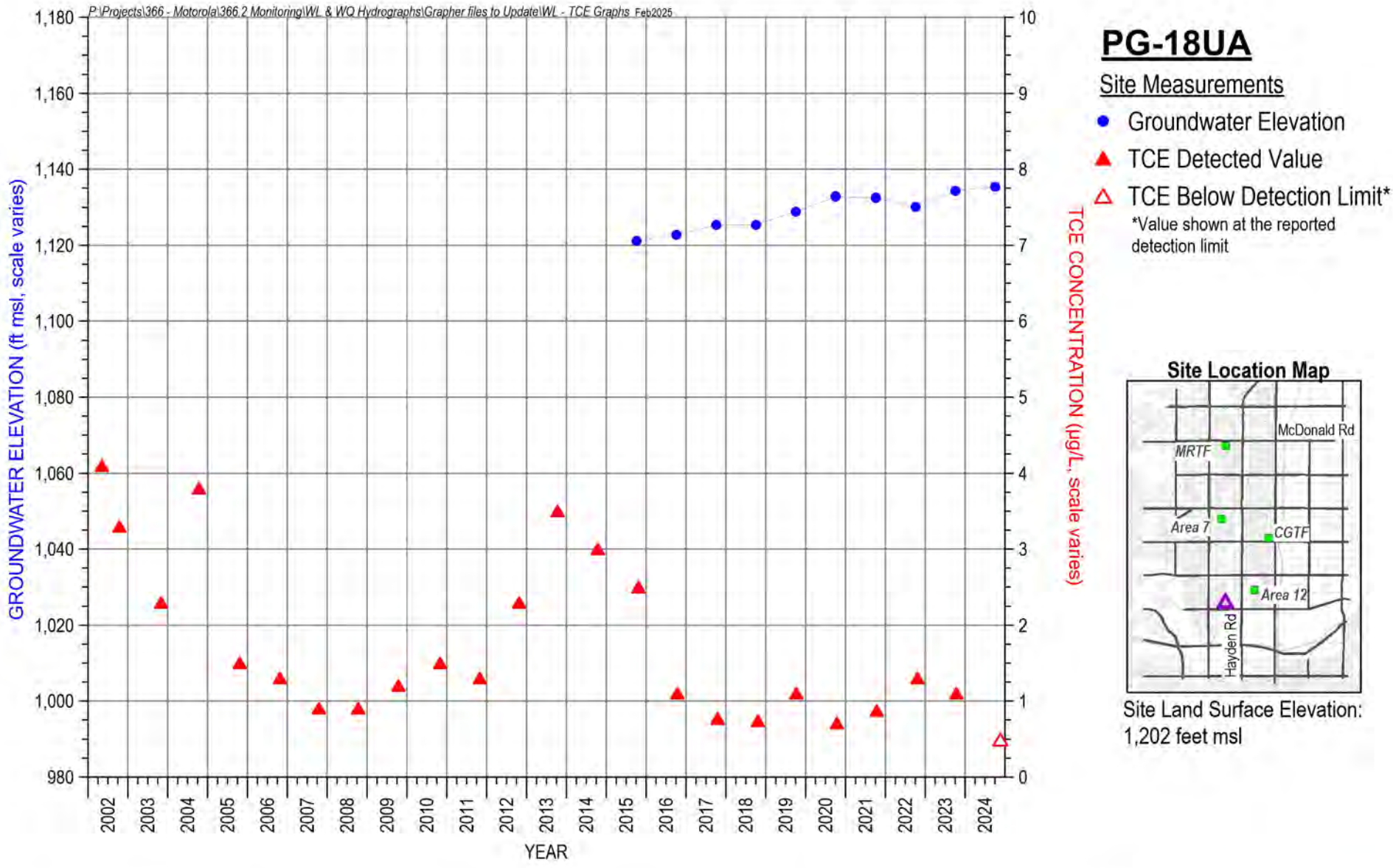


FIGURE D-092. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-16UA

North Indian Bend Wash Superfund Site



PG-18UA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation: 1,202 feet msl

FIGURE D-093. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-18UA

North Indian Bend Wash Superfund Site

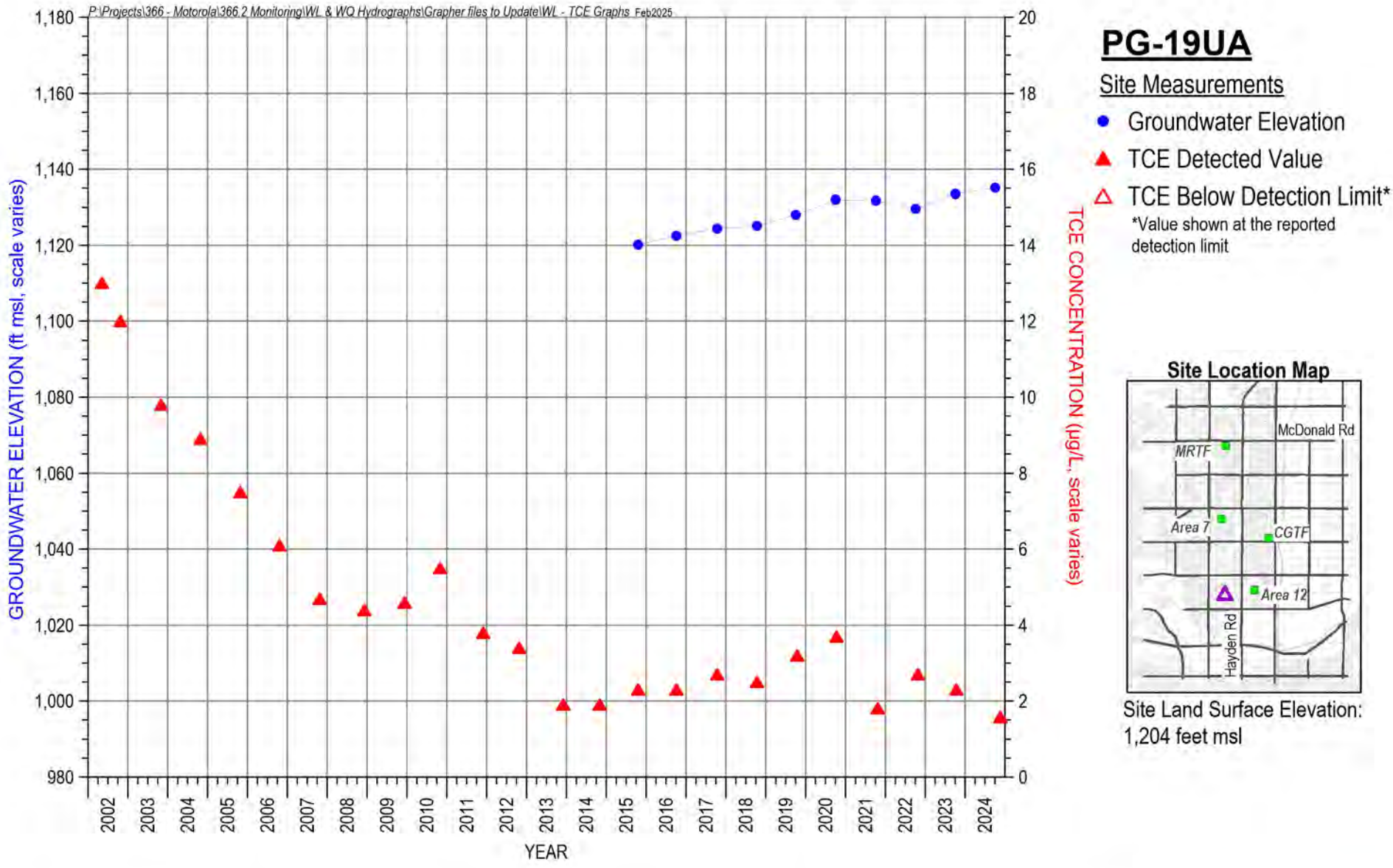


FIGURE D-094. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-19UA

North Indian Bend Wash Superfund Site

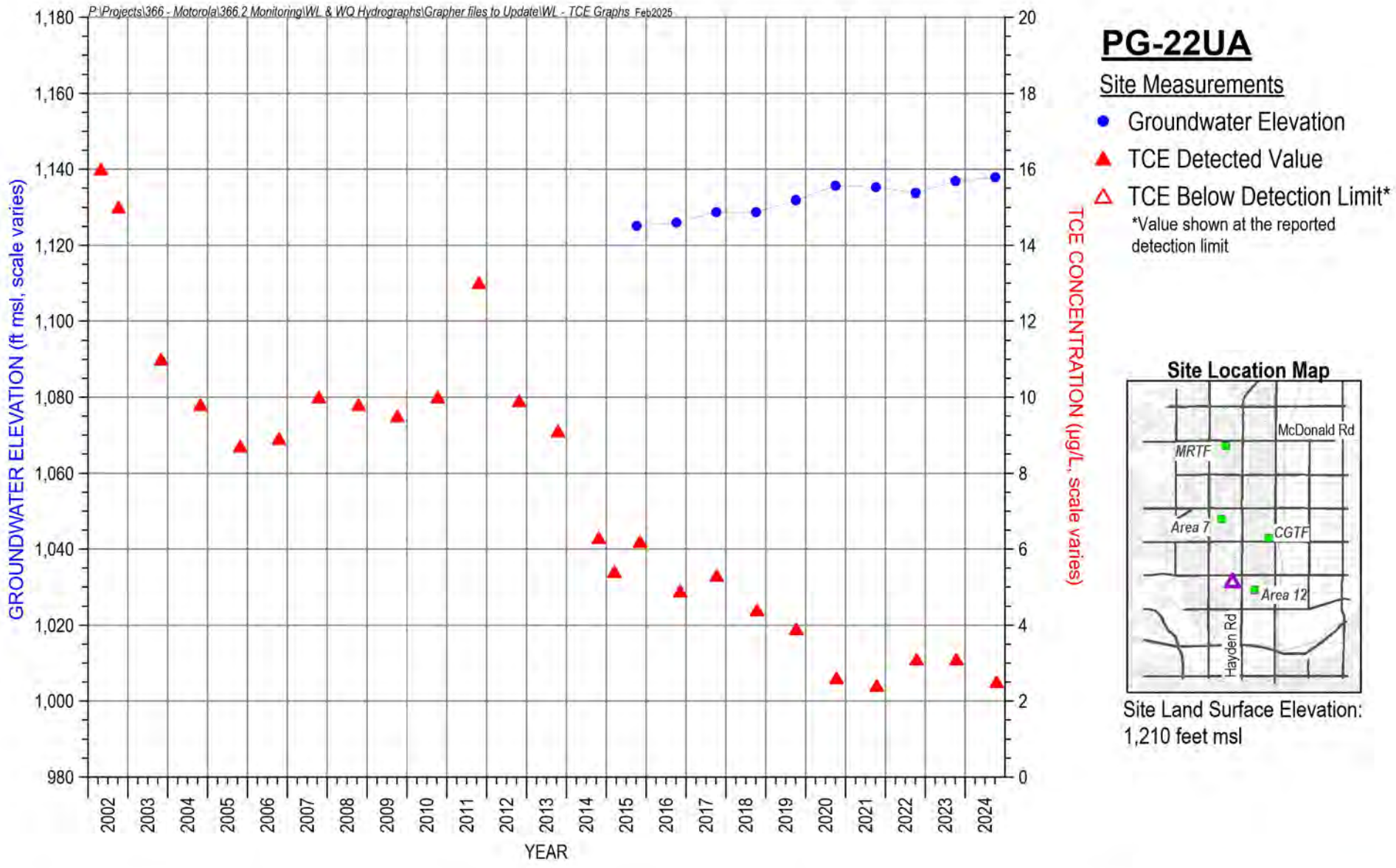
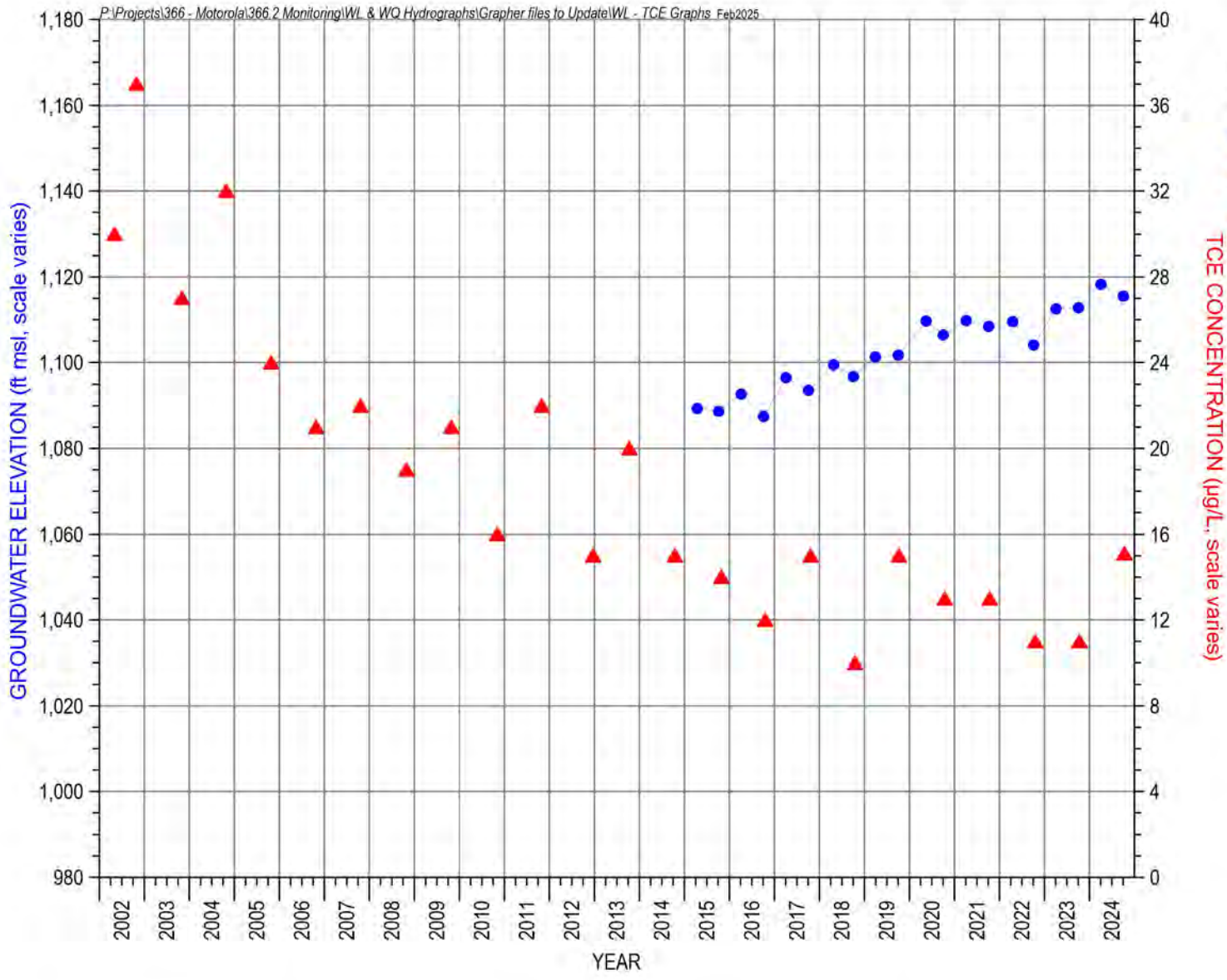


FIGURE D-095. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-22UA

North Indian Bend Wash Superfund Site



PG-23MA/LA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

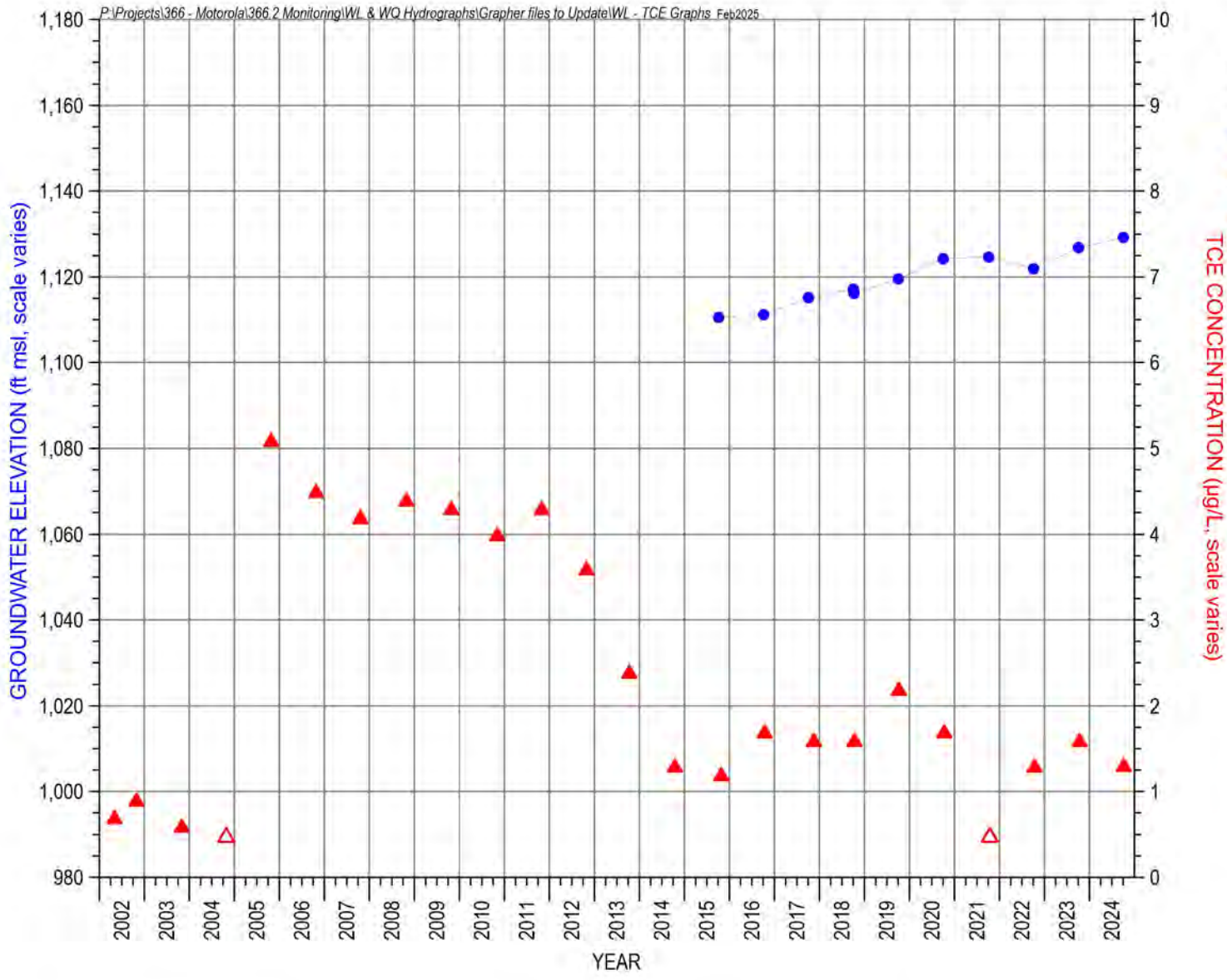
Site Location Map



Site Land Surface Elevation: 1,223 feet msl

FIGURE D-096. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-23MA/LA

North Indian Bend Wash Superfund Site



PG-23UA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

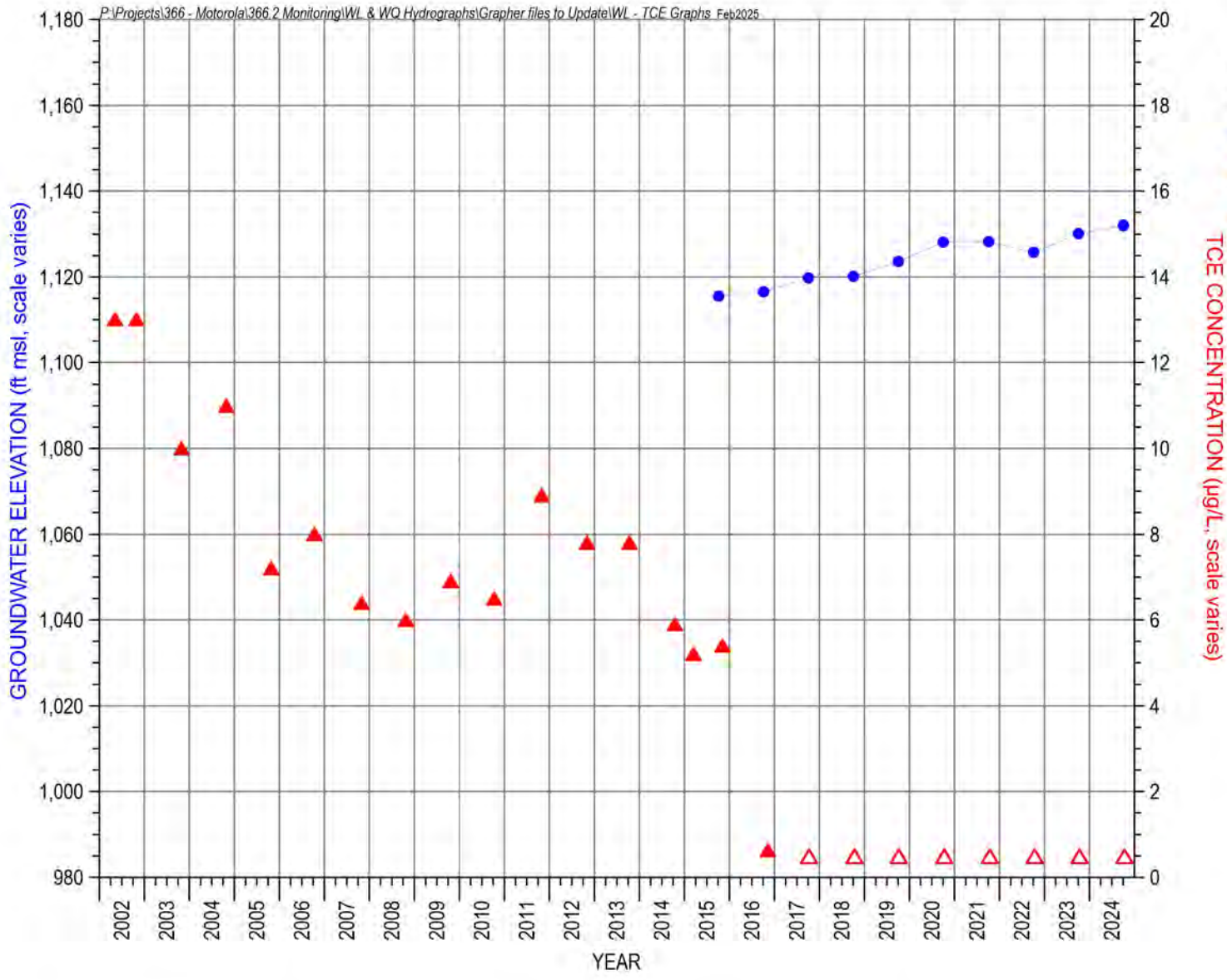
Site Location Map



Site Land Surface Elevation: 1,223 feet msl

FIGURE D-097. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-23UA

North Indian Bend Wash Superfund Site



PG-24UA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

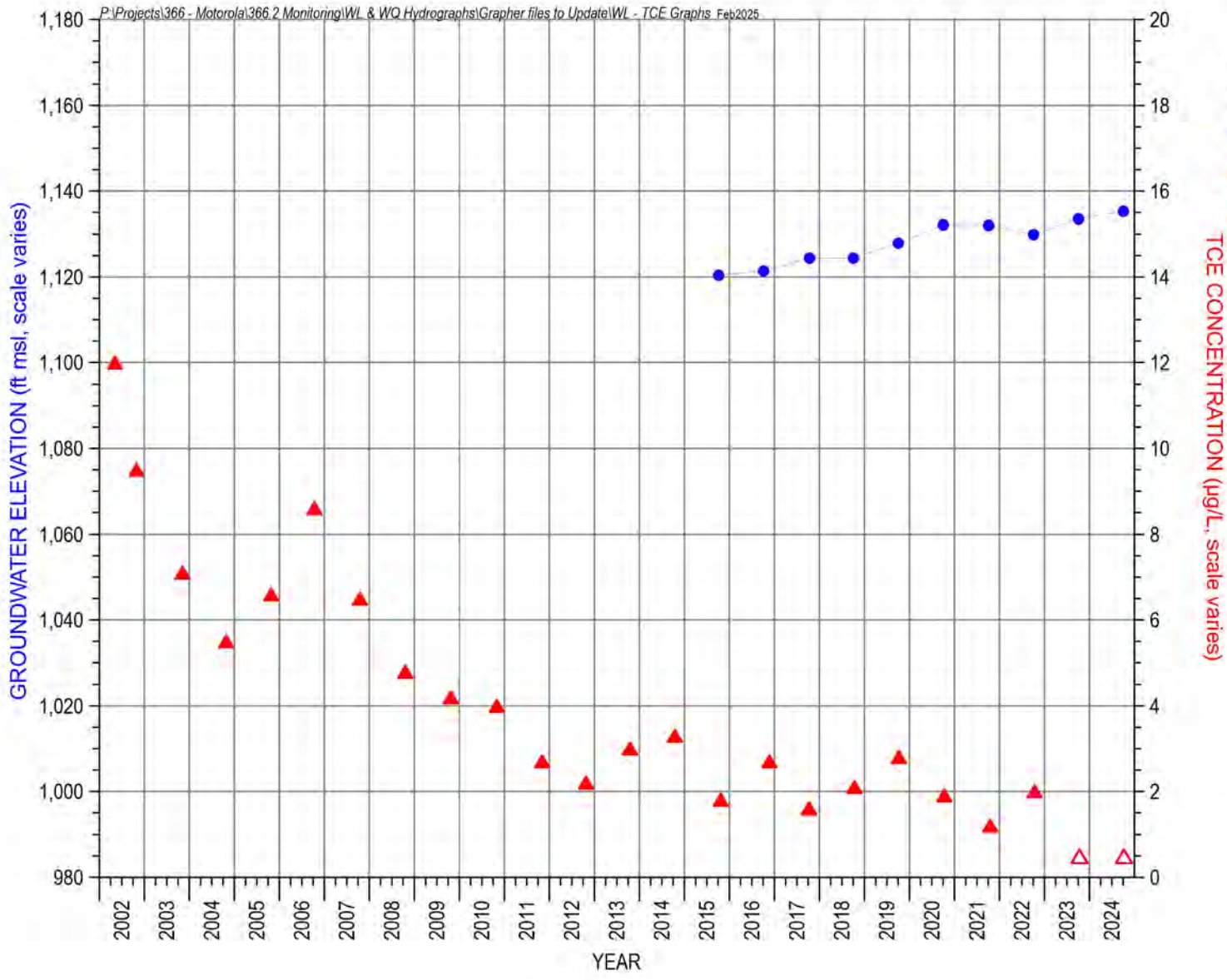
Site Location Map



Site Land Surface Elevation: 1,212 feet msl

FIGURE D-098. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-24UA

North Indian Bend Wash Superfund Site



PG-25UA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

Site Location Map



Site Land Surface Elevation: 1,206 feet msl

FIGURE D-099. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-25UA

North Indian Bend Wash Superfund Site

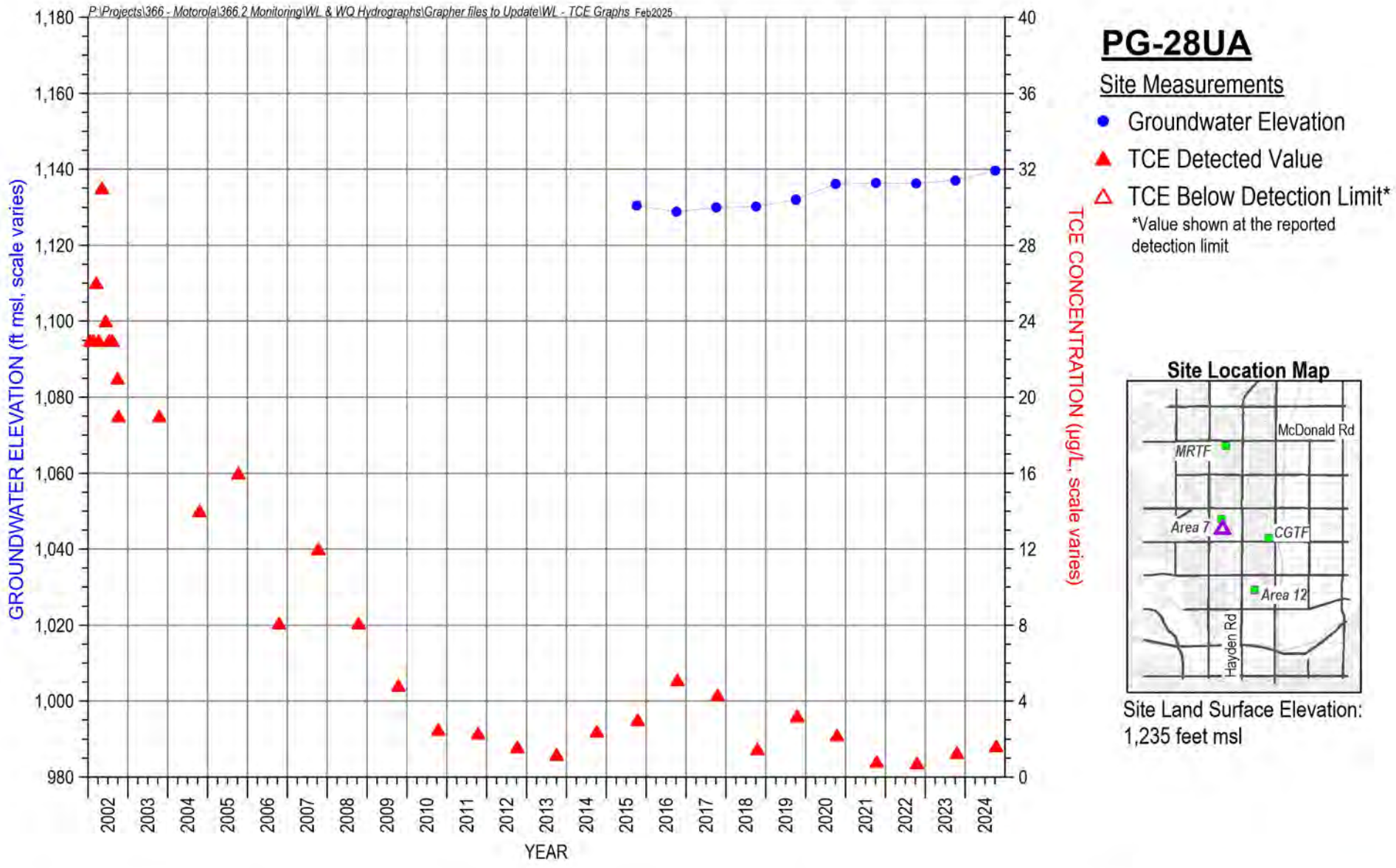
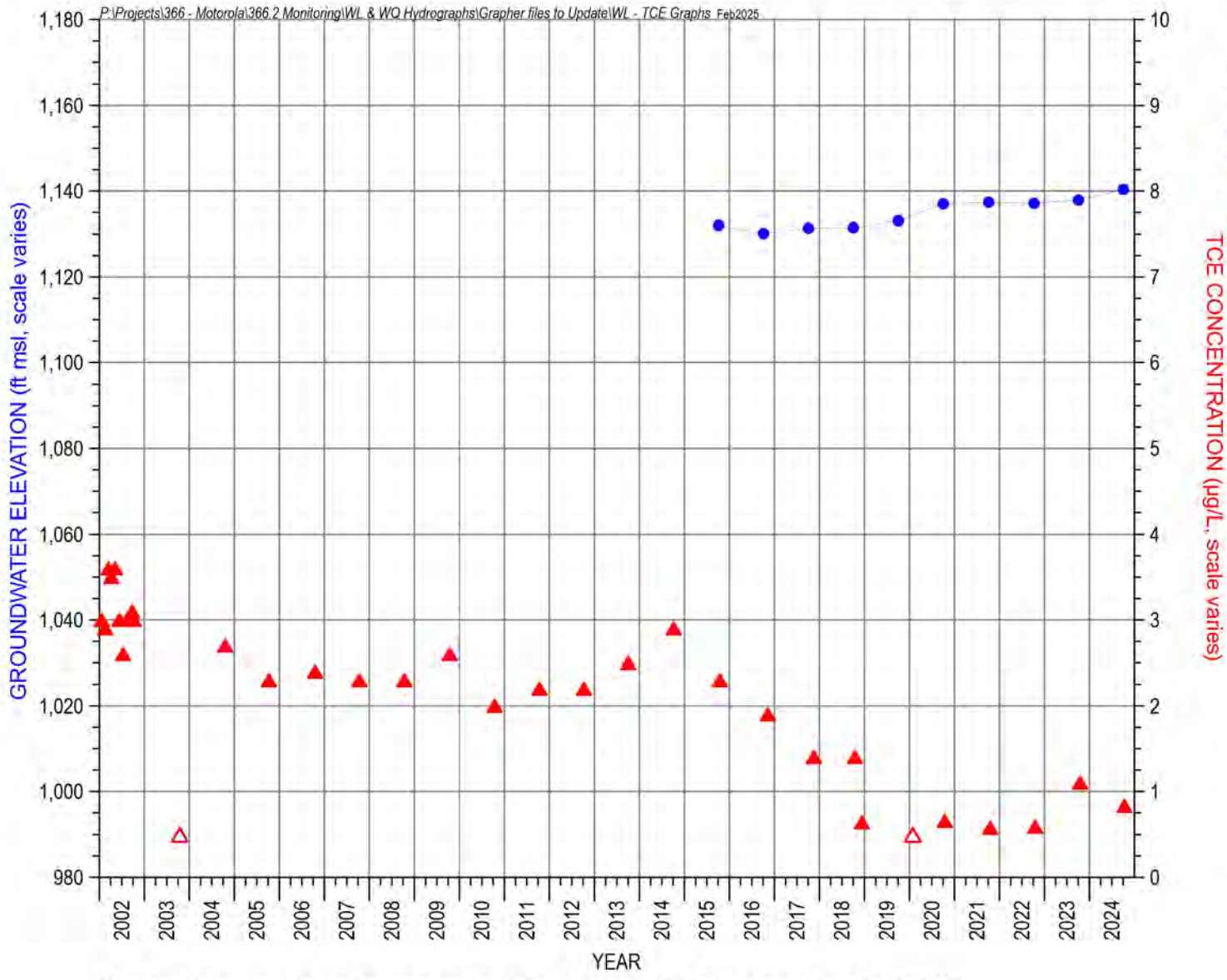


FIGURE D-100. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-28UA

North Indian Bend Wash Superfund Site



Note: Sampler was unable to collect water quality sample in October 2019. Sample was collected 01/27/2020.

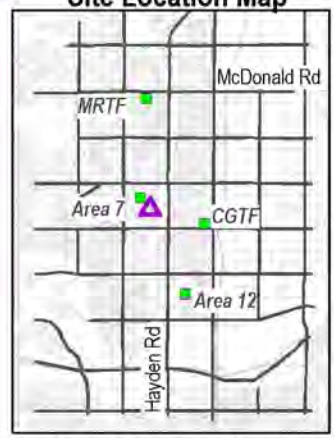
PG-29UA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

Site Location Map



Site Land Surface Elevation: 1,233 feet msl

FIGURE D-101. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-29UA

North Indian Bend Wash Superfund Site

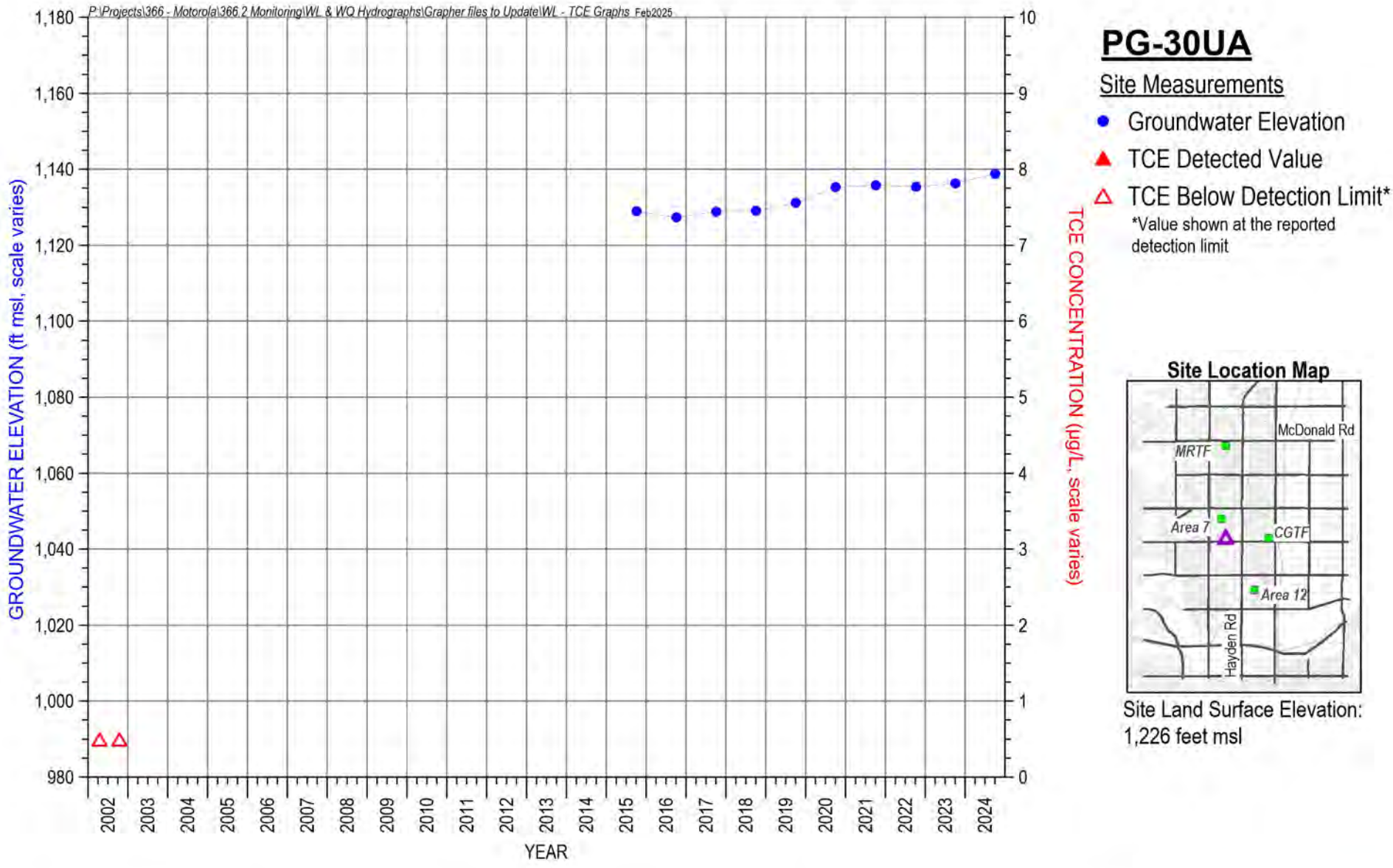


FIGURE D-102. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-30UA

North Indian Bend Wash Superfund Site

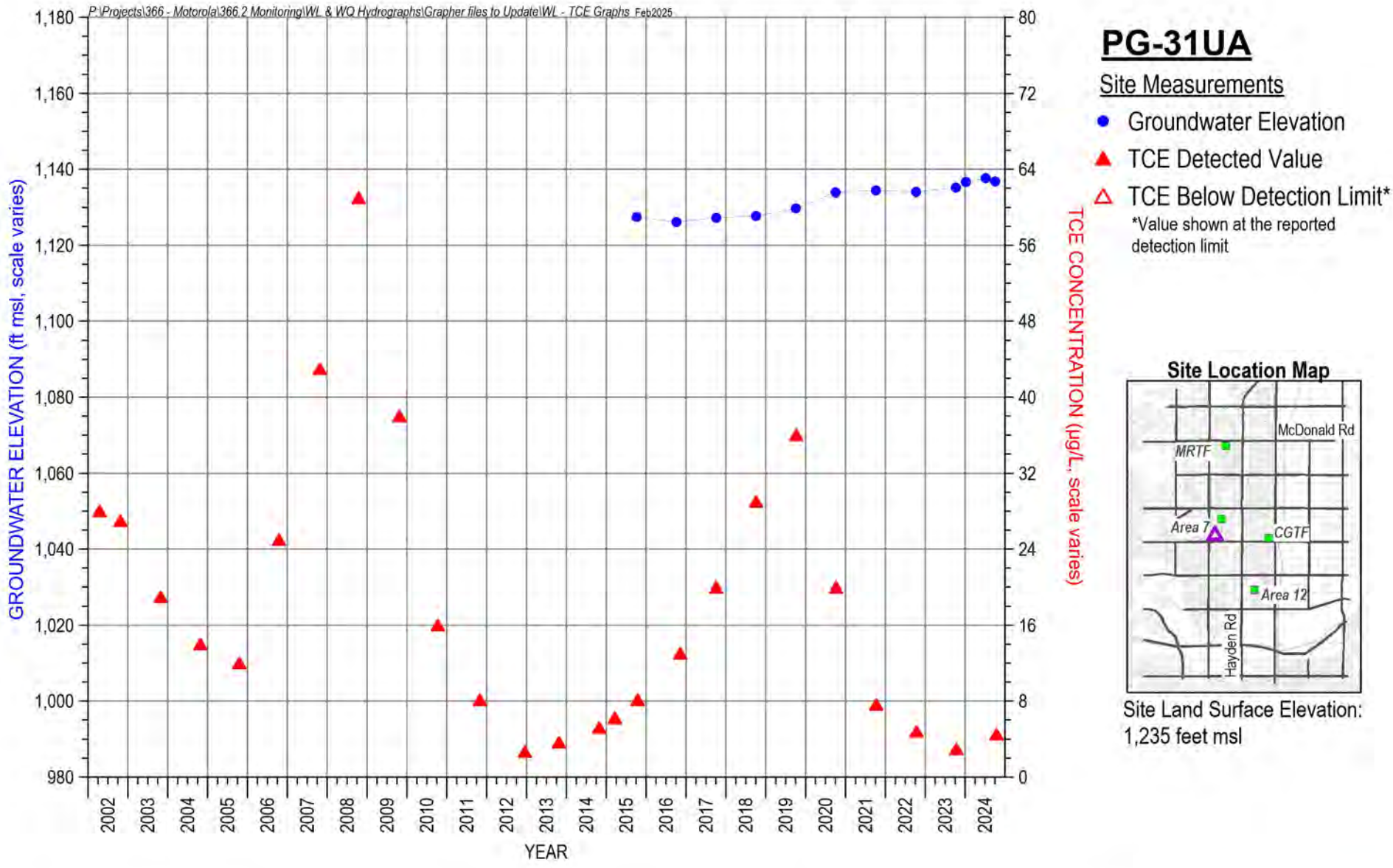


FIGURE D-103. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-31UA

North Indian Bend Wash Superfund Site

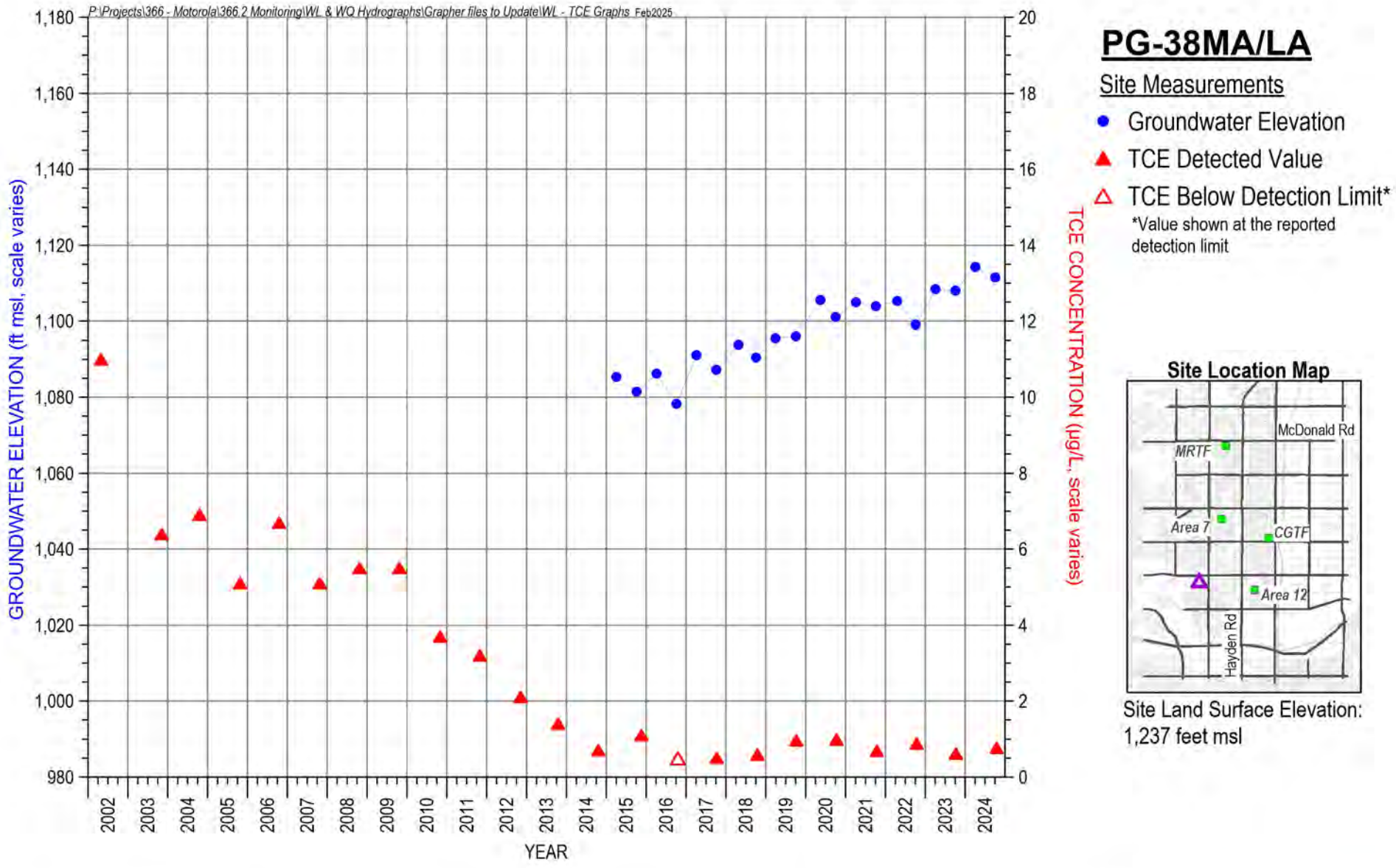


FIGURE D-104. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-38MA/LA

North Indian Bend Wash Superfund Site

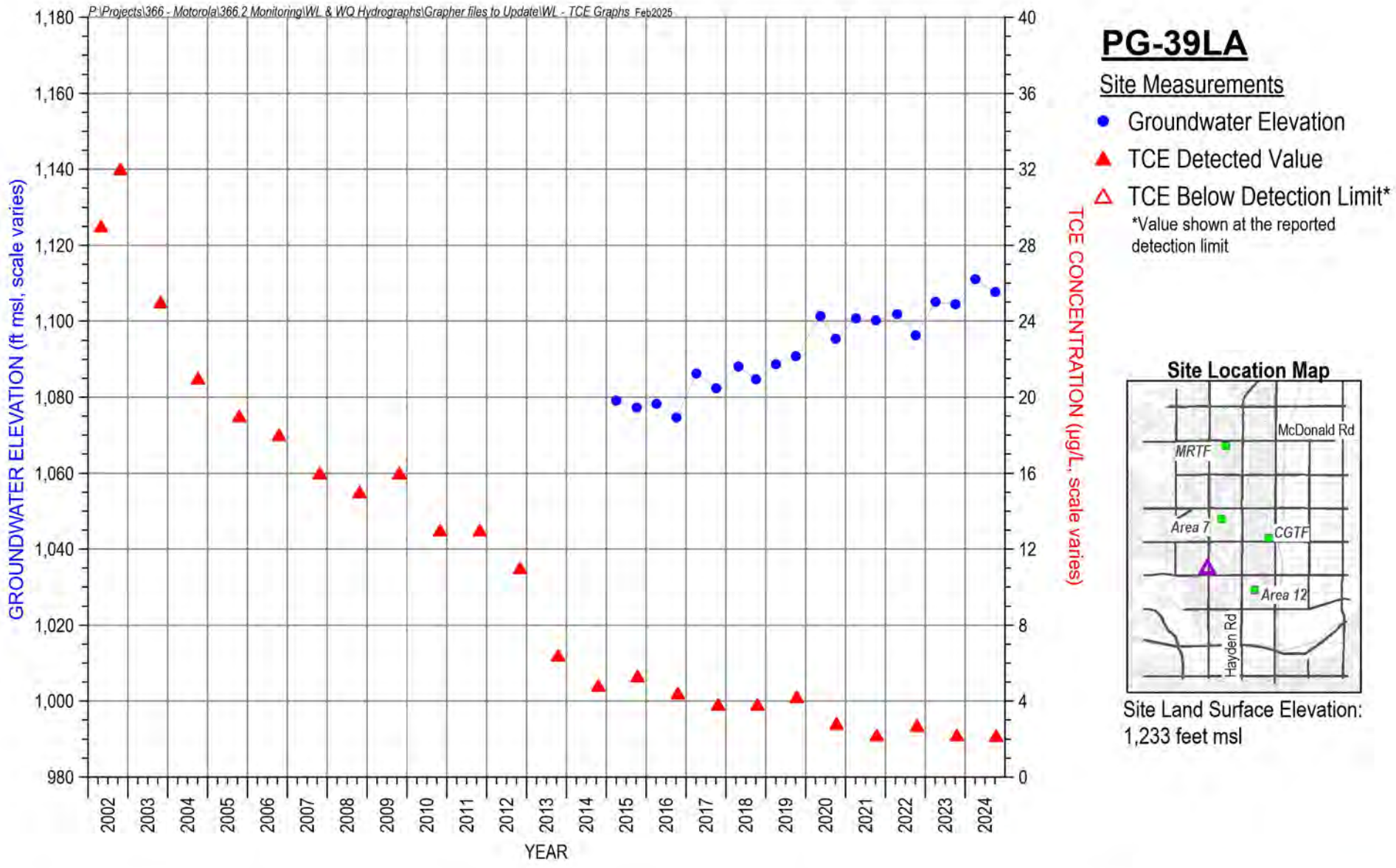


FIGURE D-105. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-39LA

North Indian Bend Wash Superfund Site

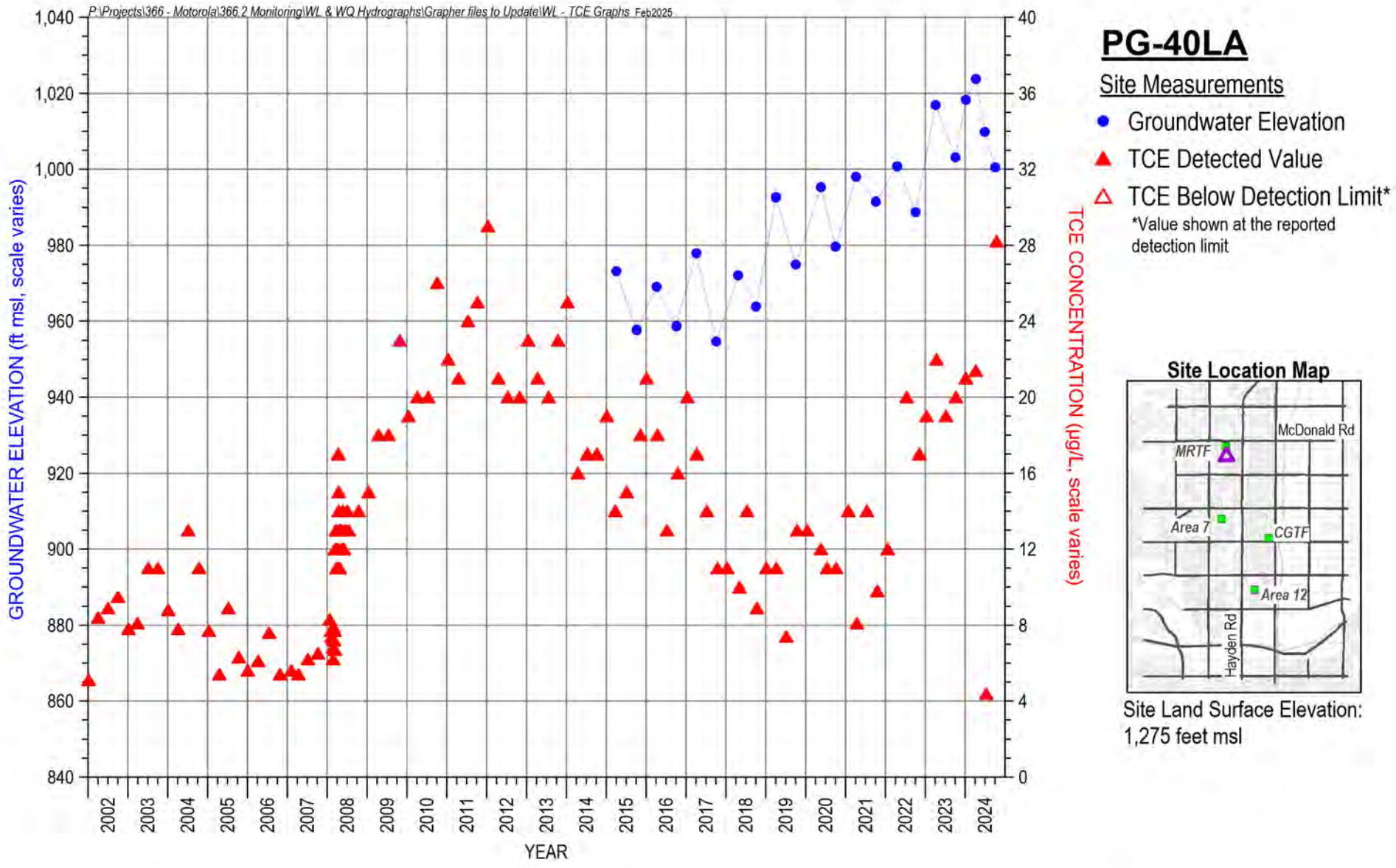
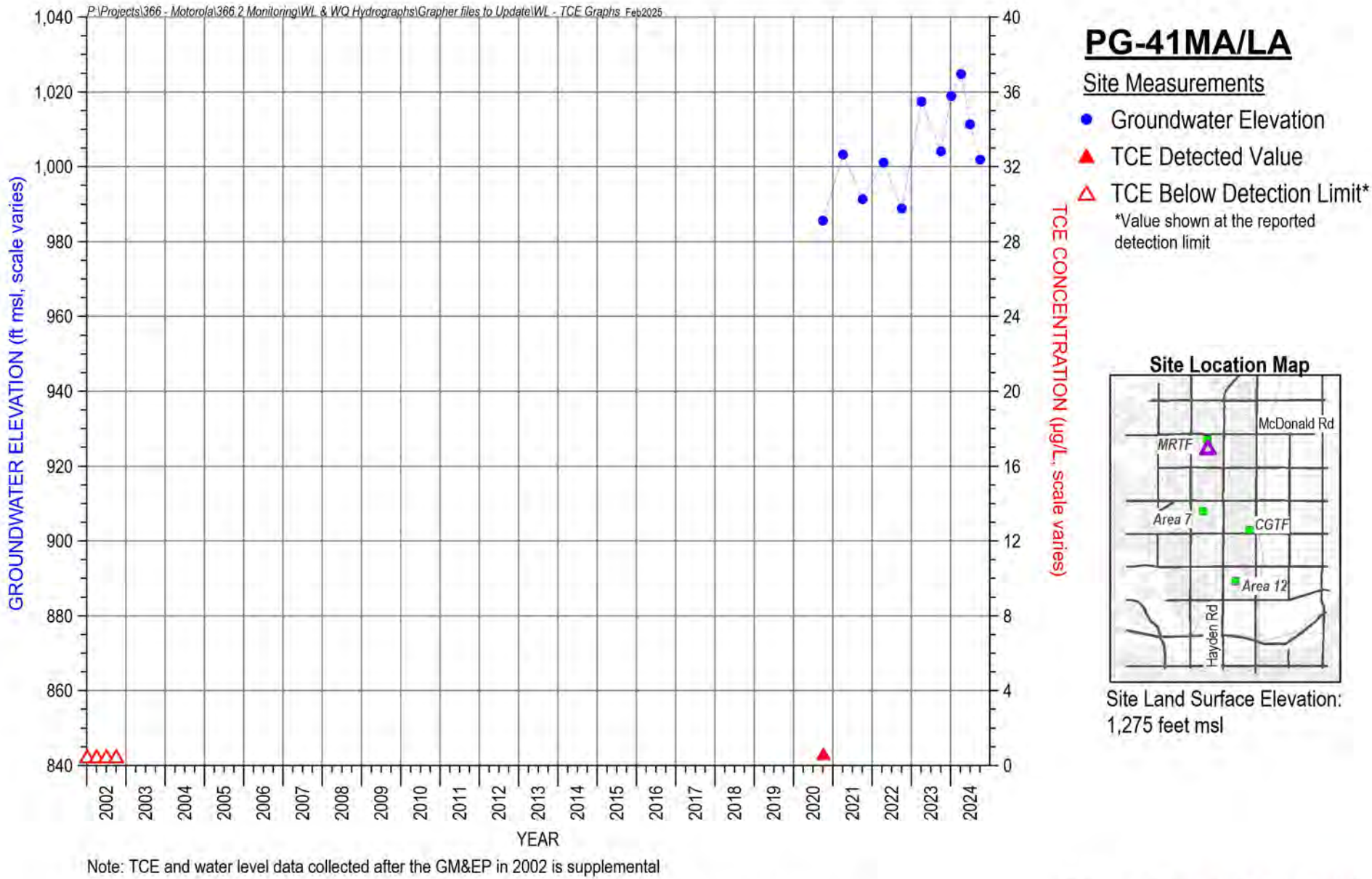


FIGURE D-106. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-40LA

North Indian Bend Wash Superfund Site



Note: TCE and water level data collected after the GM&EP in 2002 is supplemental

FIGURE D-107. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-41MA/LA

North Indian Bend Wash Superfund Site

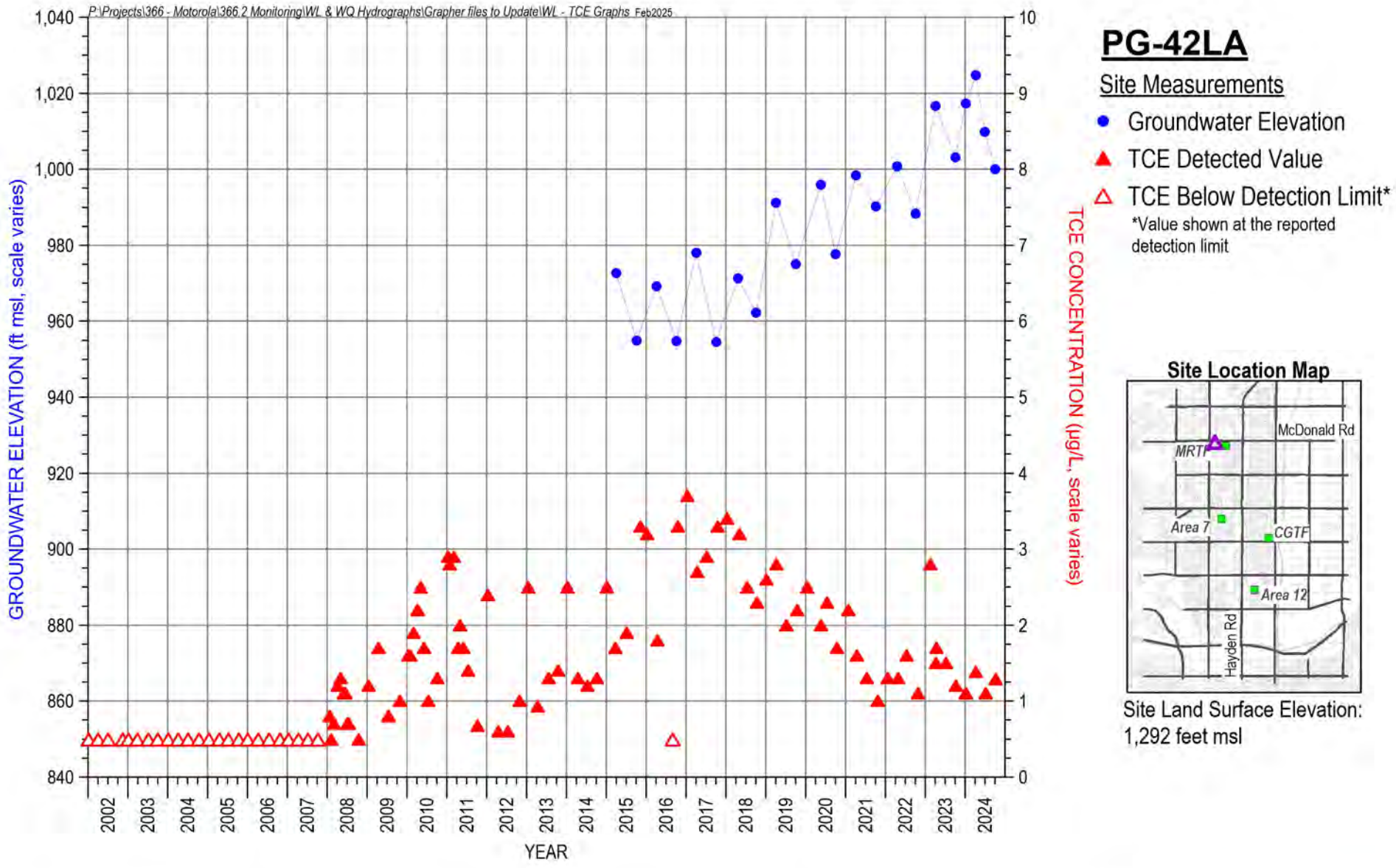


FIGURE D-108. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-42LA

North Indian Bend Wash Superfund Site

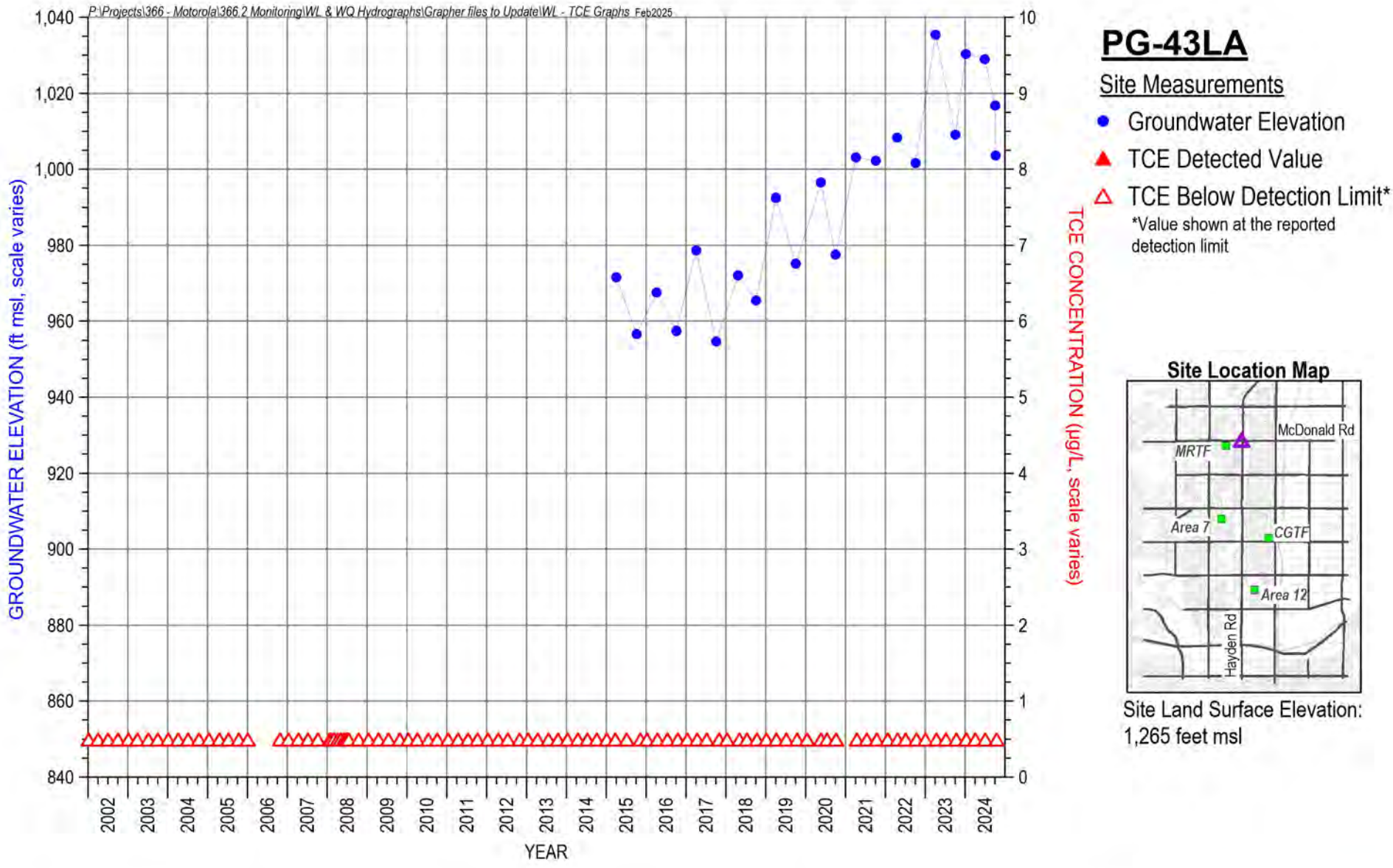


FIGURE D-109. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-43LA

North Indian Bend Wash Superfund Site

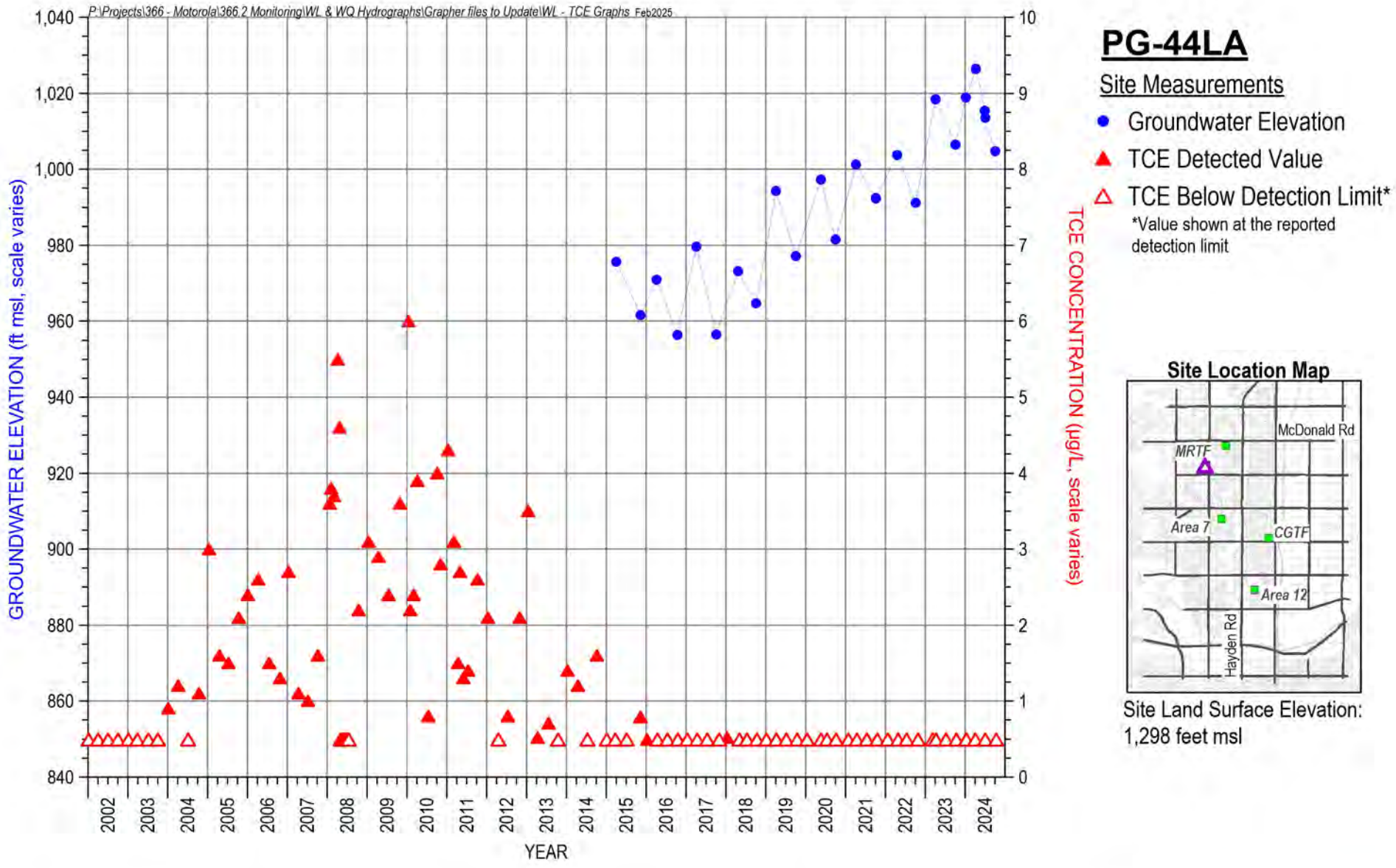
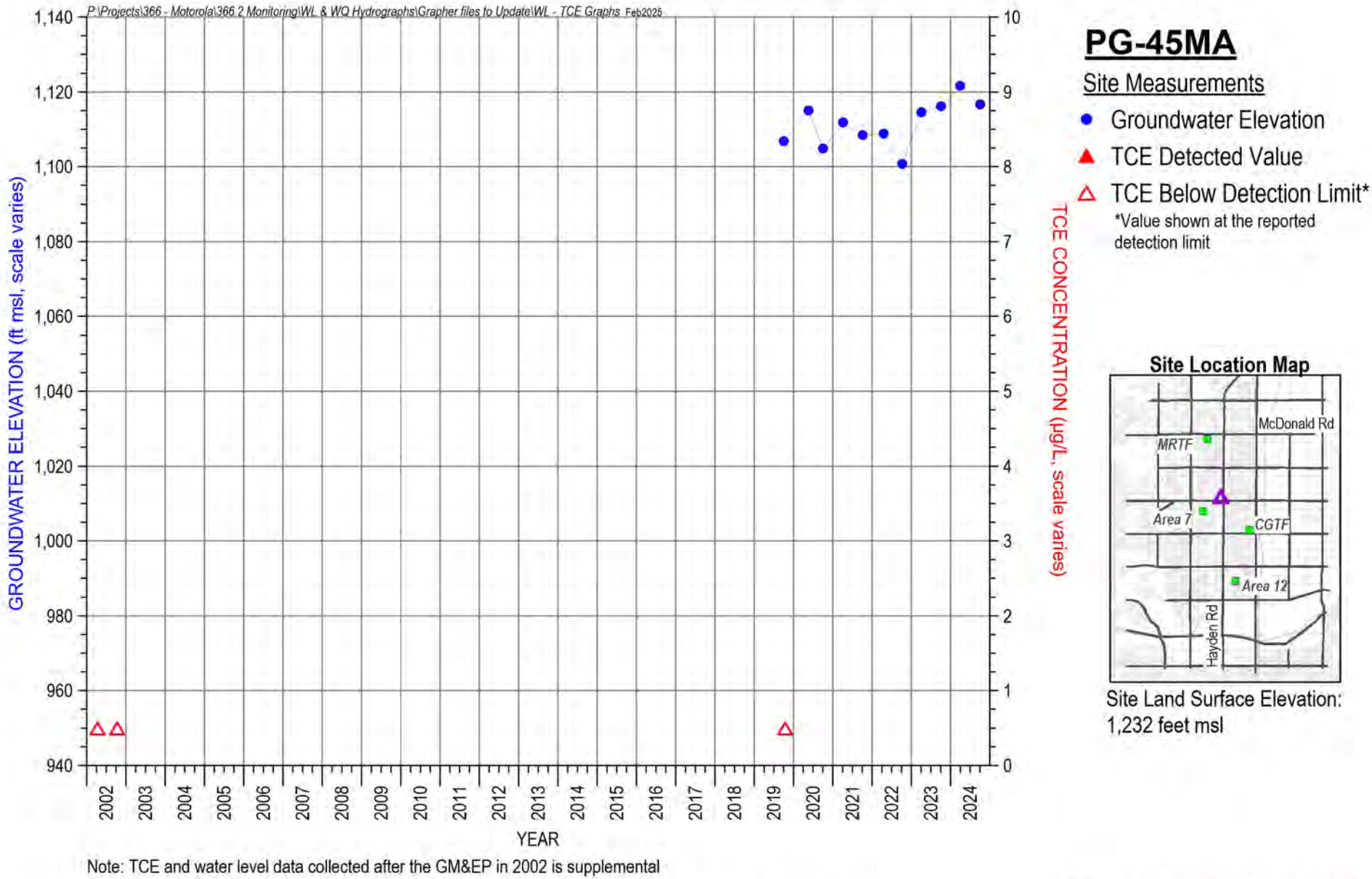


FIGURE D-110. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-44LA

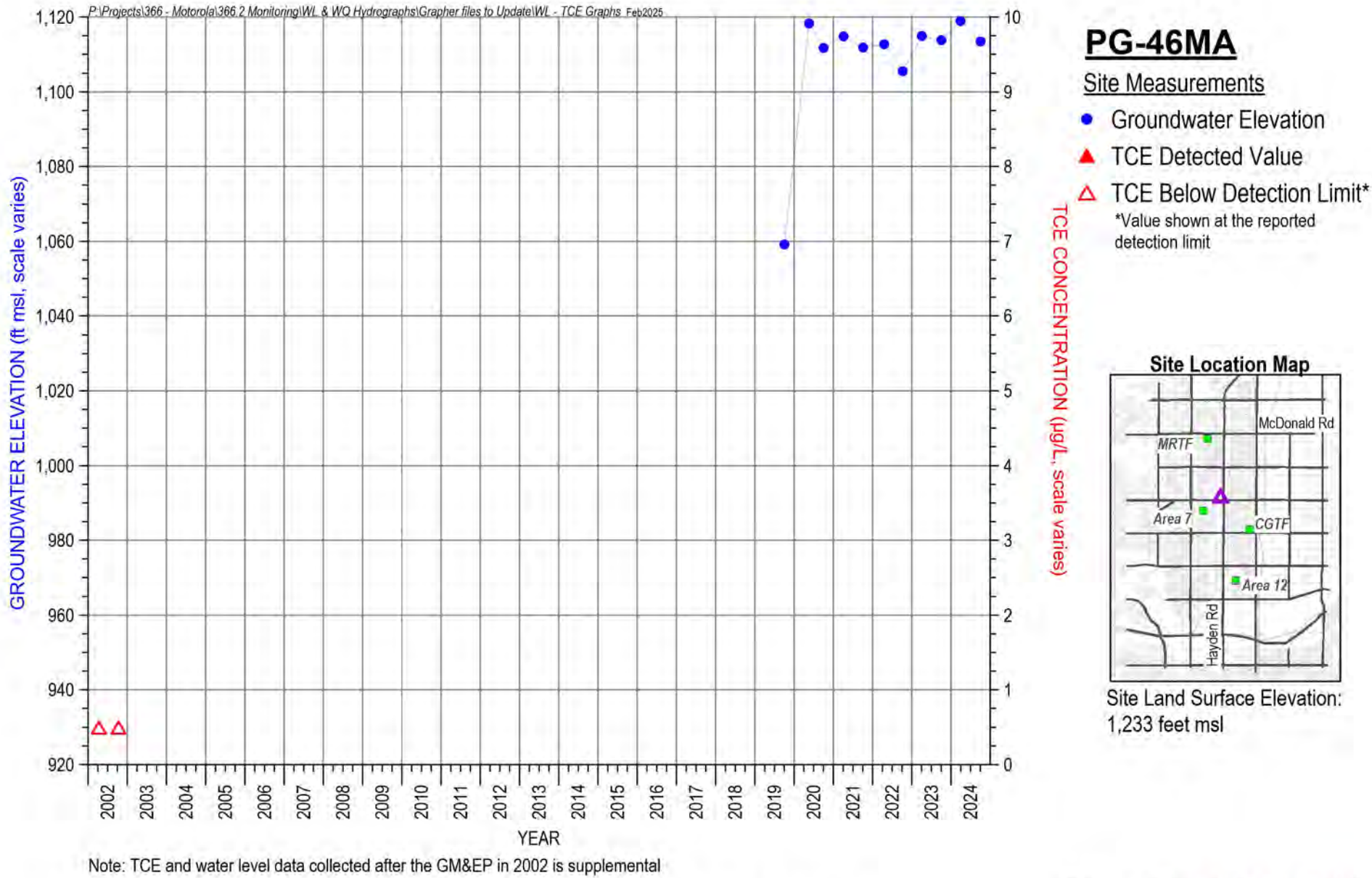
North Indian Bend Wash Superfund Site



Note: TCE and water level data collected after the GM&EP in 2002 is supplemental

FIGURE D-111. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-45MA

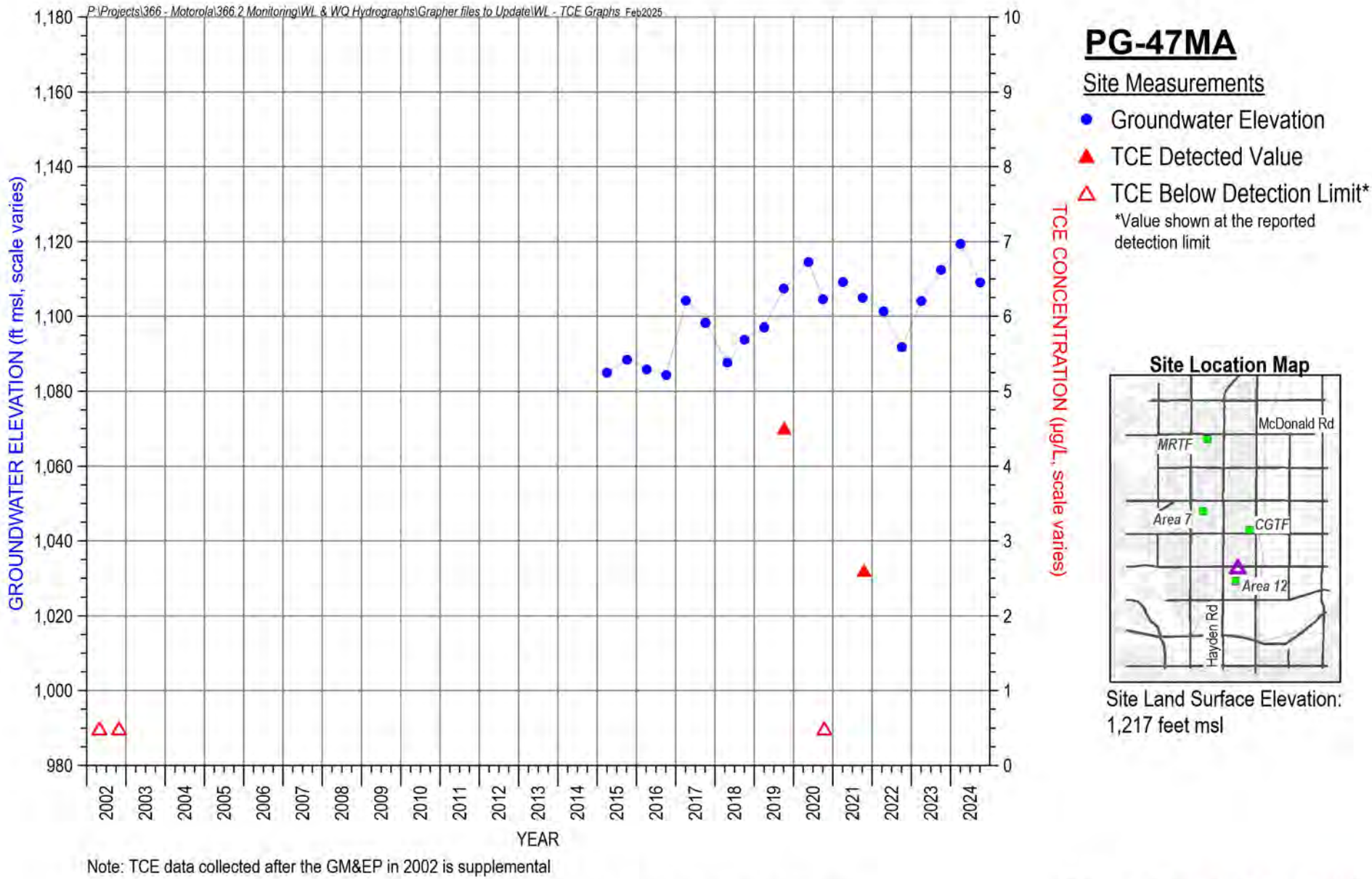
North Indian Bend Wash Superfund Site



Note: TCE and water level data collected after the GM&EP in 2002 is supplemental

FIGURE D-112. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-46MA

North Indian Bend Wash Superfund Site



Note: TCE data collected after the GM&EP in 2002 is supplemental

FIGURE D-113. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-47MA

North Indian Bend Wash Superfund Site

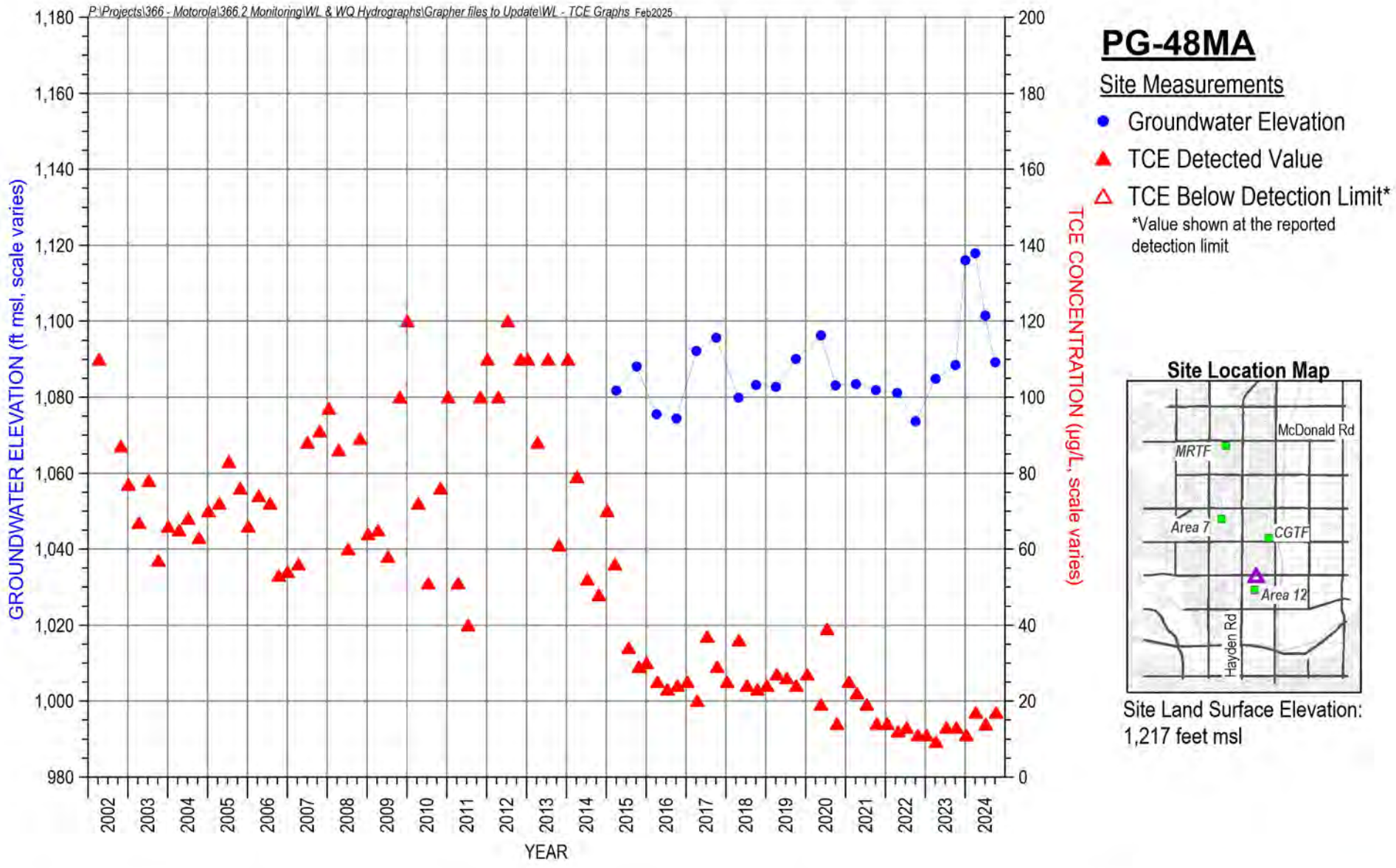


FIGURE D-114. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-48MA

North Indian Bend Wash Superfund Site

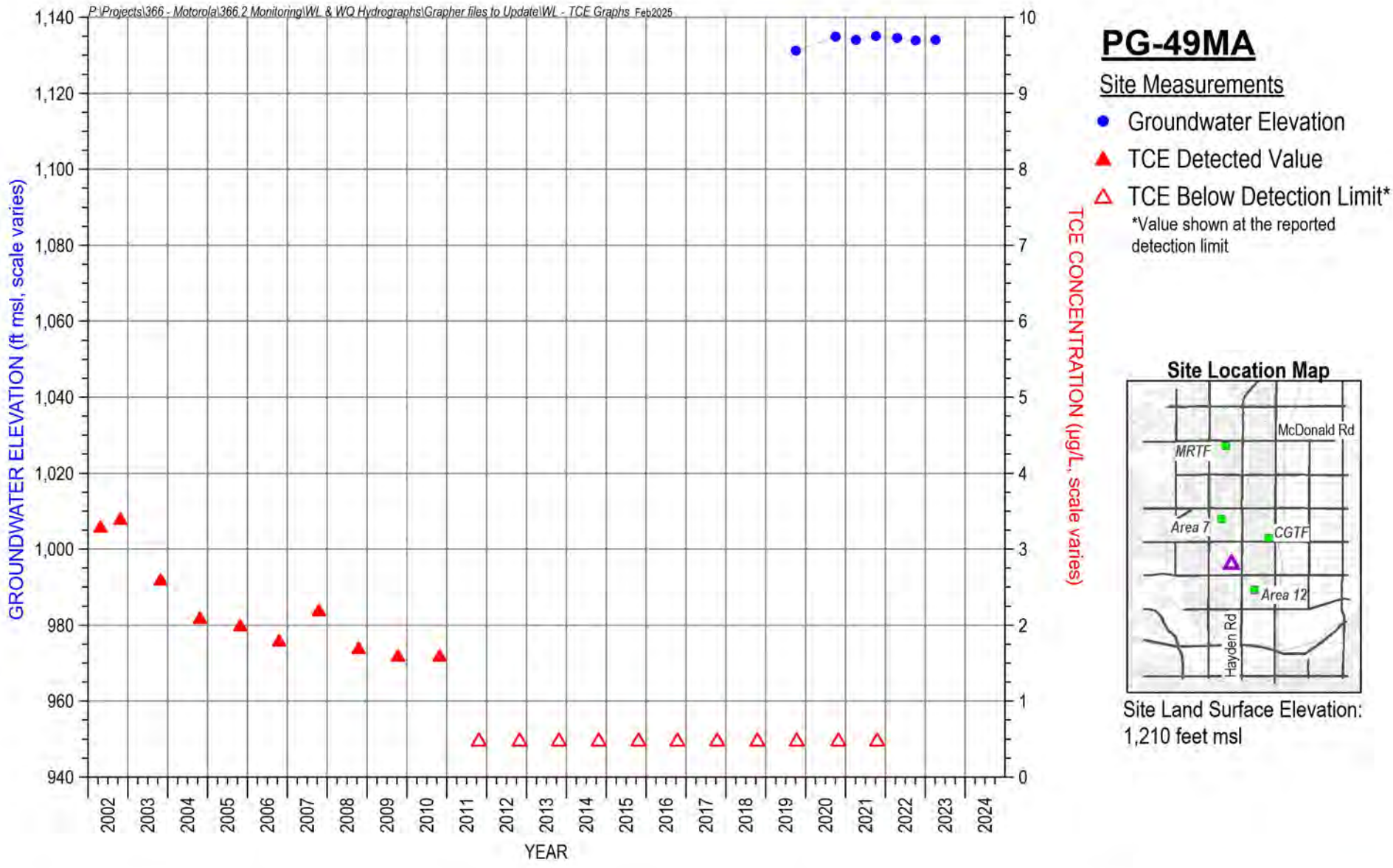


FIGURE D-115. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-49MA

North Indian Bend Wash Superfund Site

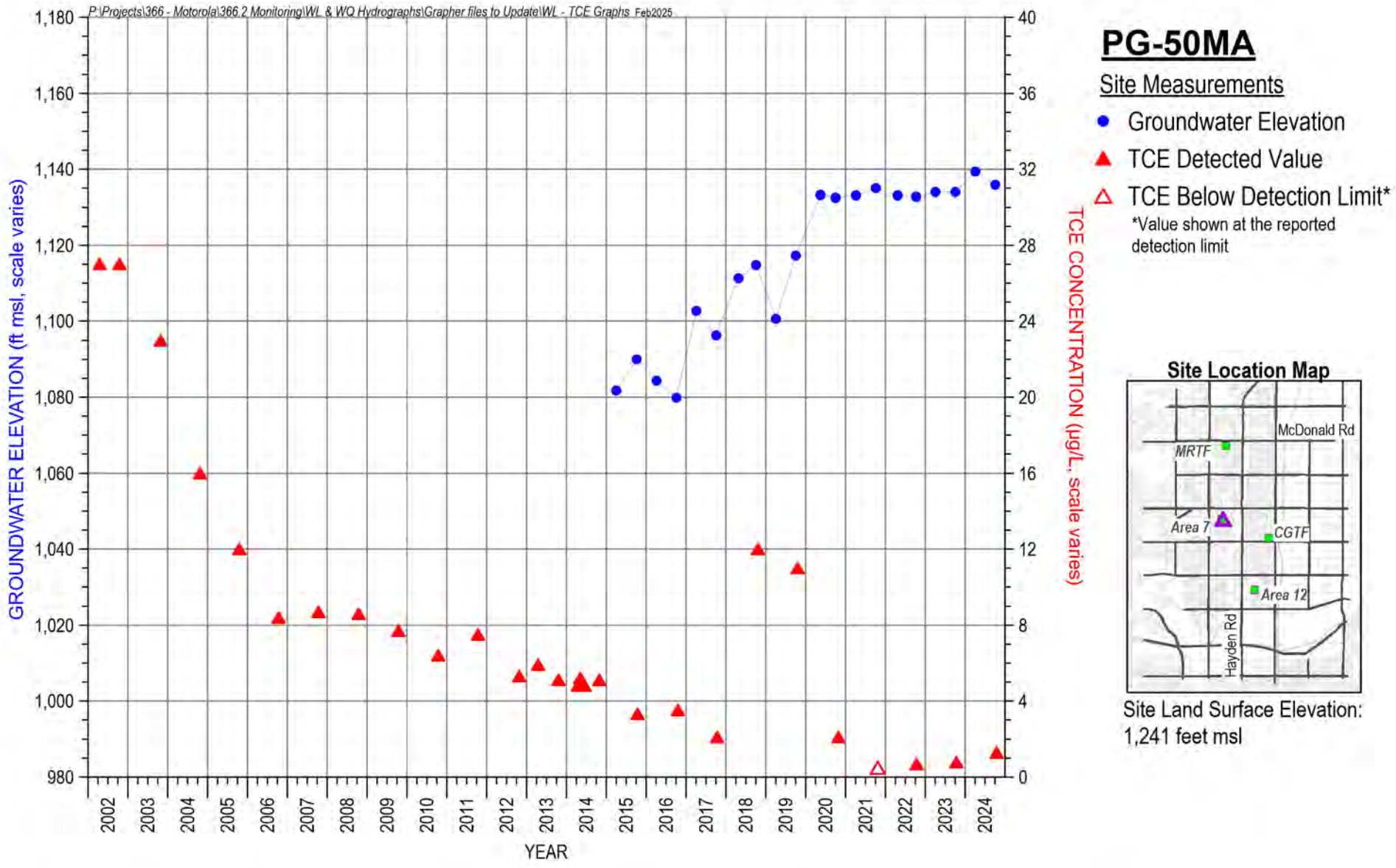
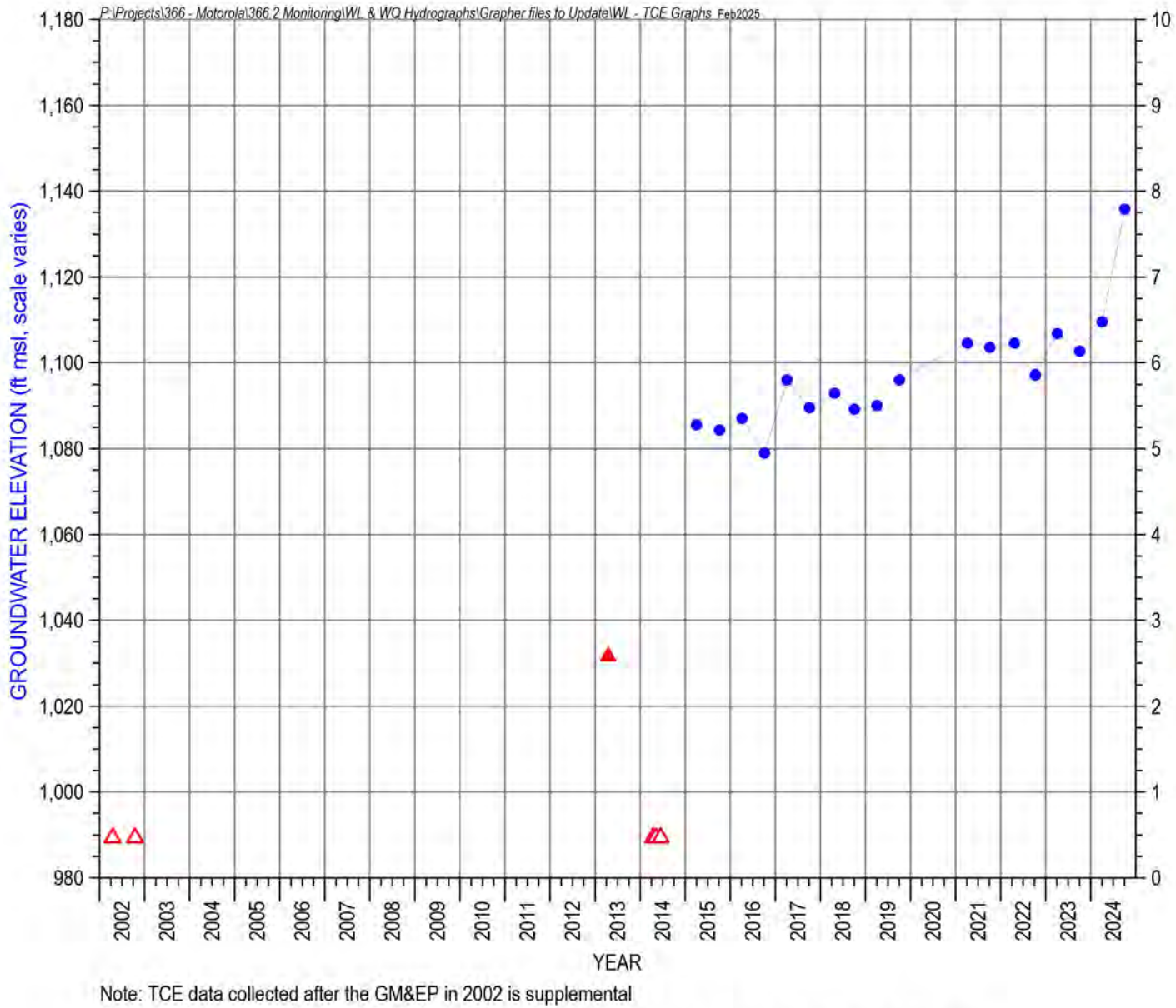


FIGURE D-116. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-50MA

North Indian Bend Wash Superfund Site



Note: TCE data collected after the GM&EP in 2002 is supplemental

PG-51MA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

*Value shown at the reported detection limit

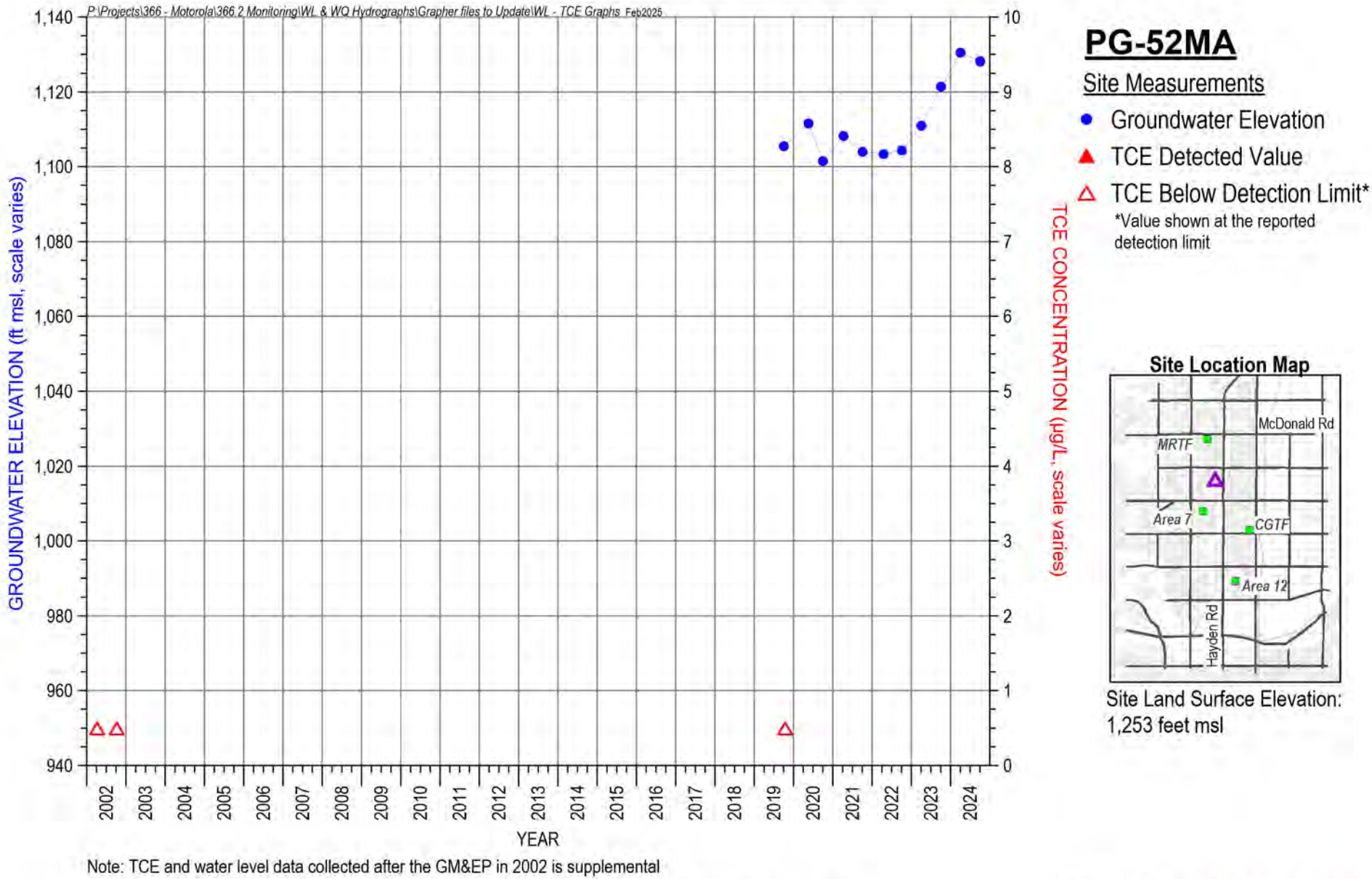
Site Location Map



Site Land Surface Elevation: 1,241 feet msl

FIGURE D-117. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-51MA

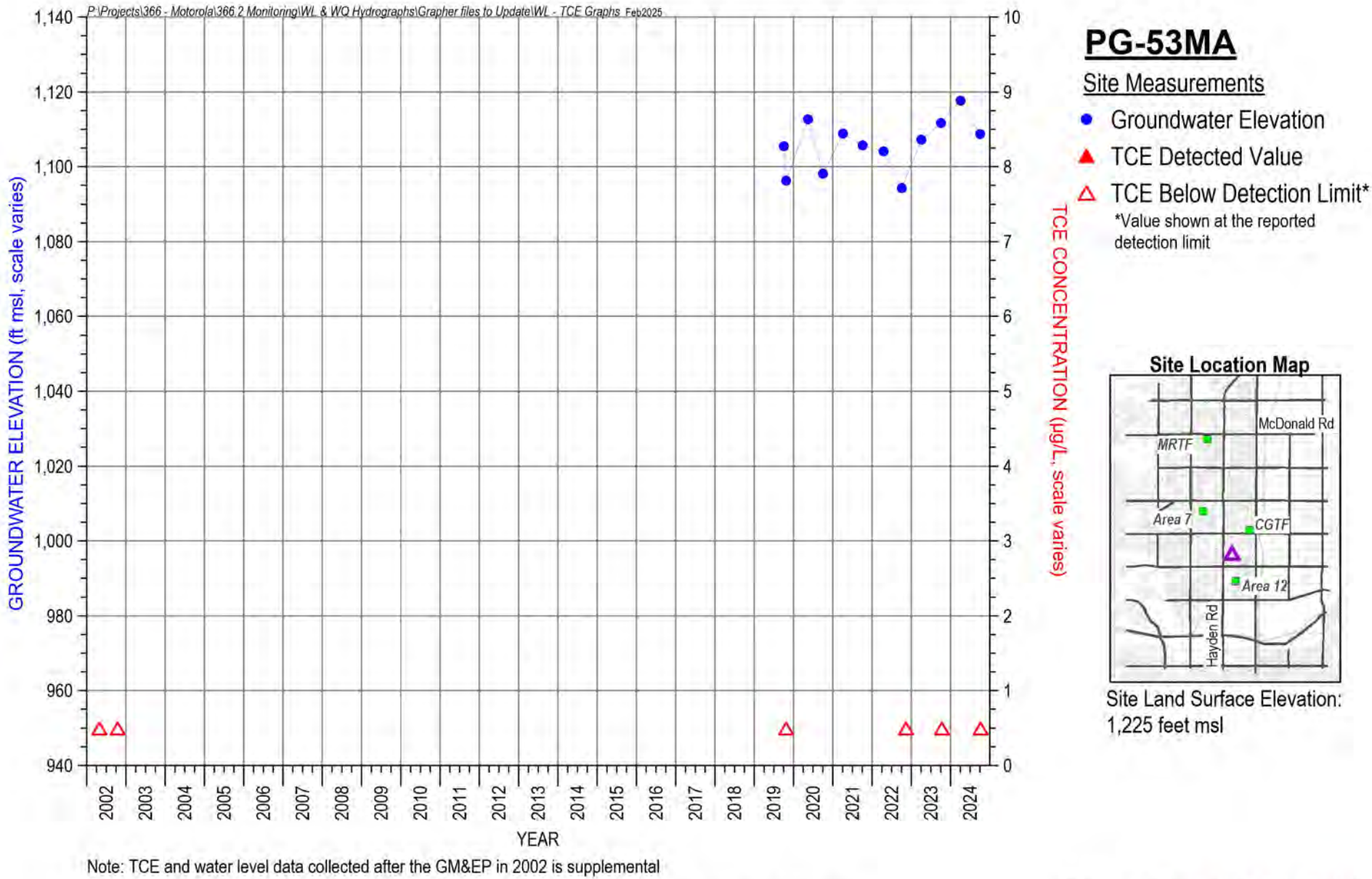
North Indian Bend Wash Superfund Site



Note: TCE and water level data collected after the GM&EP in 2002 is supplemental

FIGURE D-118. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-52MA

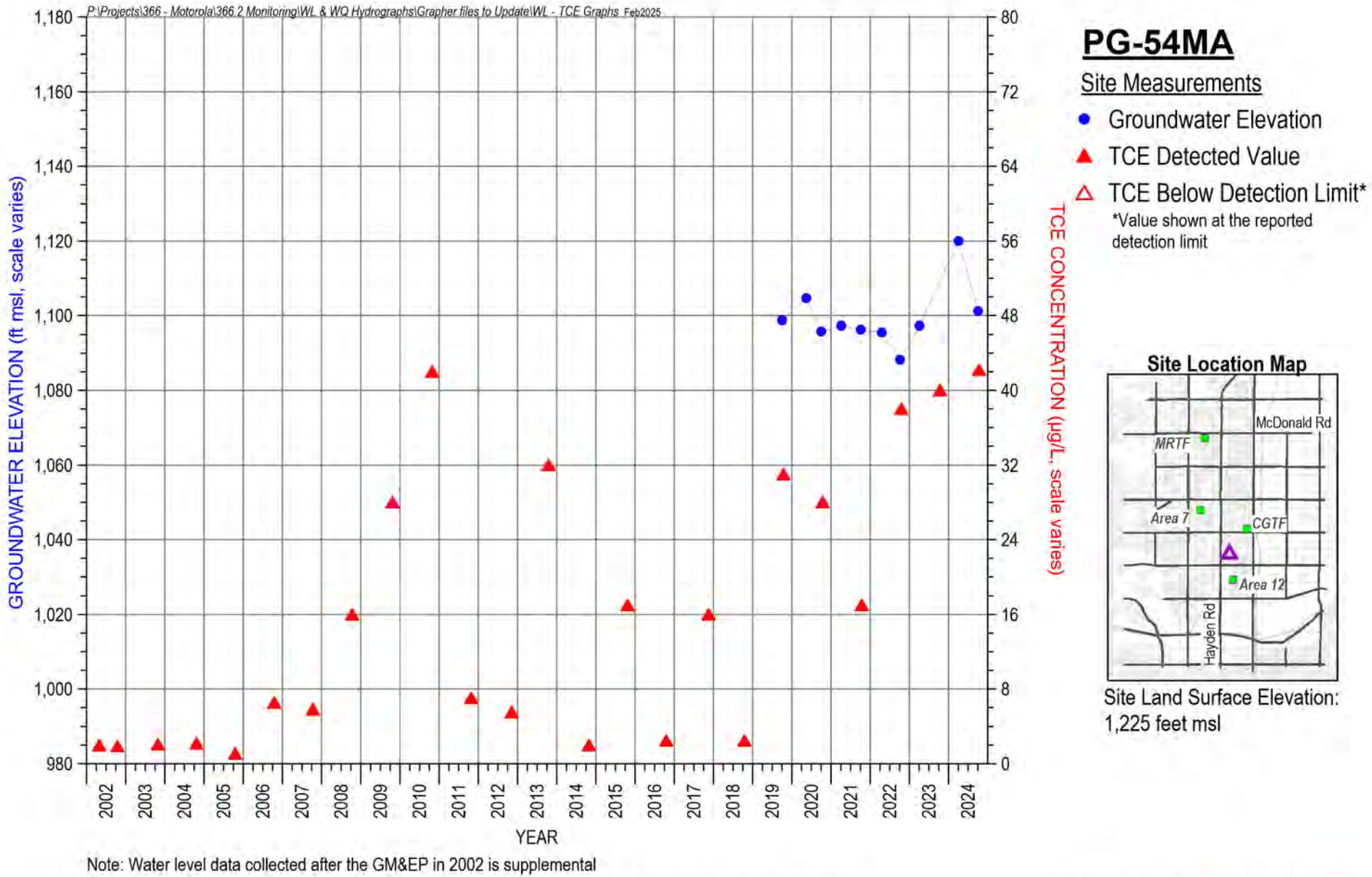
North Indian Bend Wash Superfund Site



Note: TCE and water level data collected after the GM&EP in 2002 is supplemental

FIGURE D-119. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-53MA

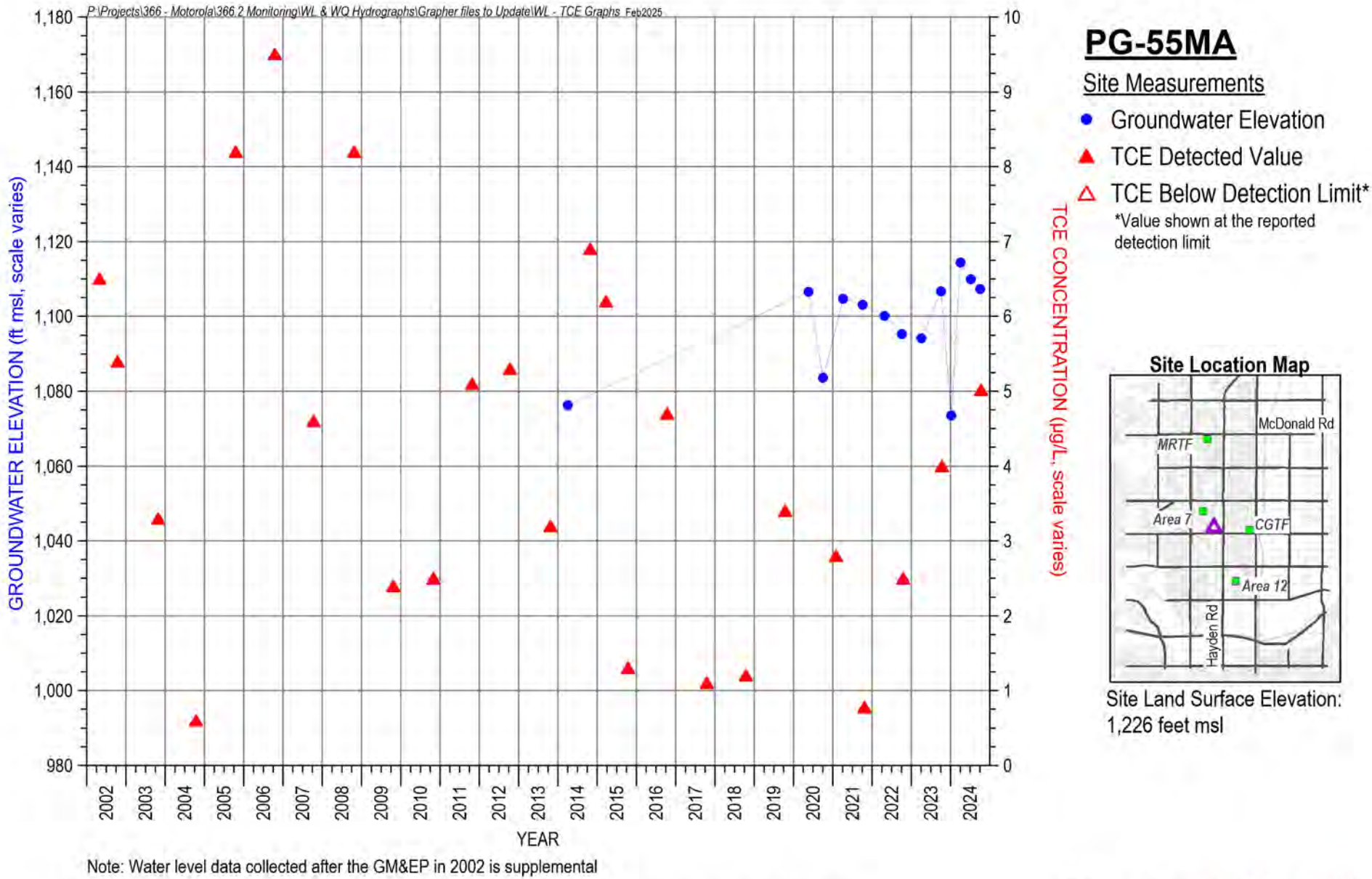
North Indian Bend Wash Superfund Site



Note: Water level data collected after the GM&EP in 2002 is supplemental

FIGURE D-120. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-54MA

North Indian Bend Wash Superfund Site



Note: Water level data collected after the GM&EP in 2002 is supplemental

PG-55MA

Site Measurements

- Groundwater Elevation
- TCE Detected Value
- TCE Below Detection Limit*

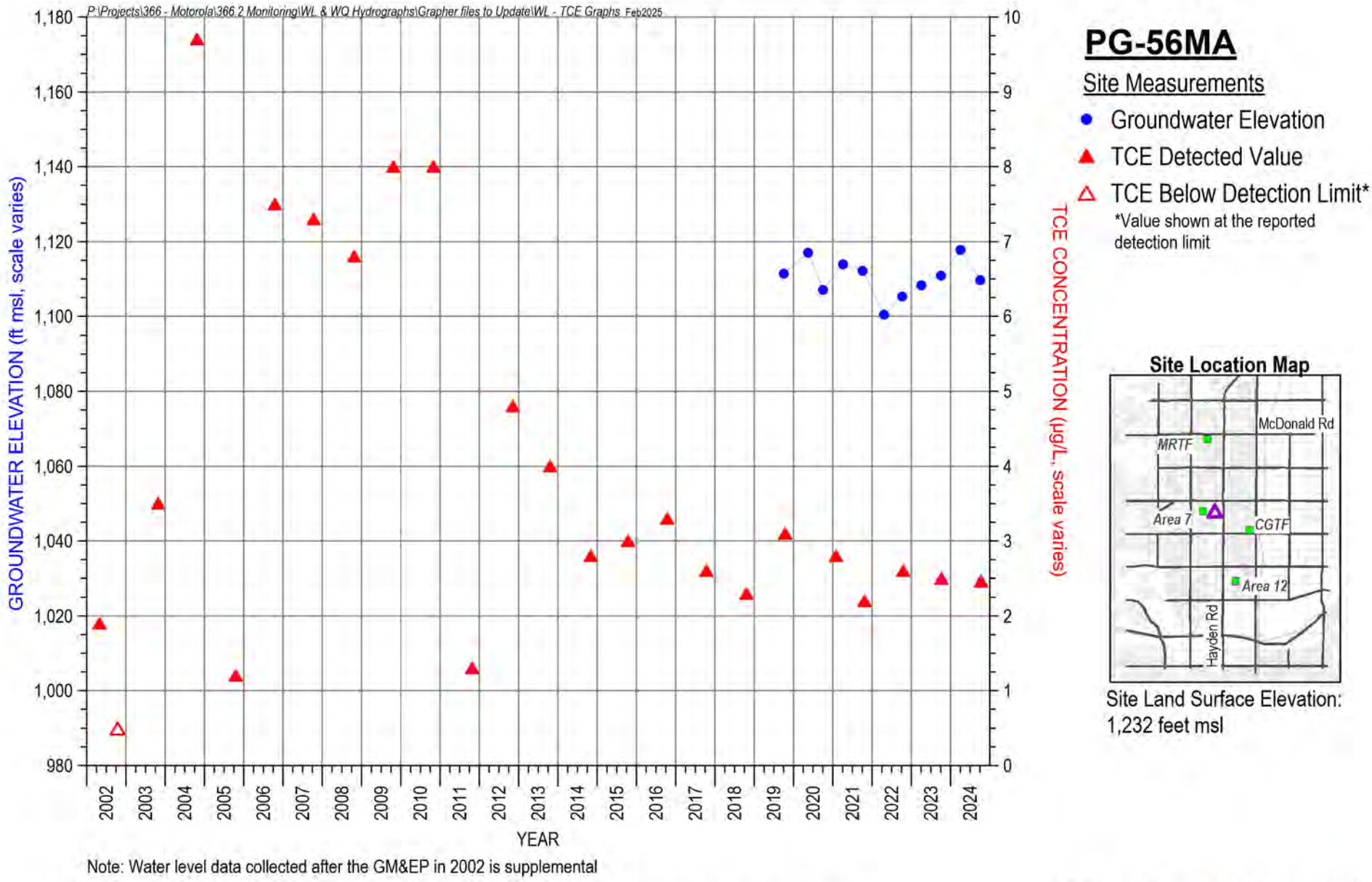
*Value shown at the reported detection limit

Site Location Map

Site Land Surface Elevation: 1,226 feet msl

FIGURE D-121. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-55MA

North Indian Bend Wash Superfund Site



Note: Water level data collected after the GM&EP in 2002 is supplemental

FIGURE D-122. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL PG-56MA

North Indian Bend Wash Superfund Site

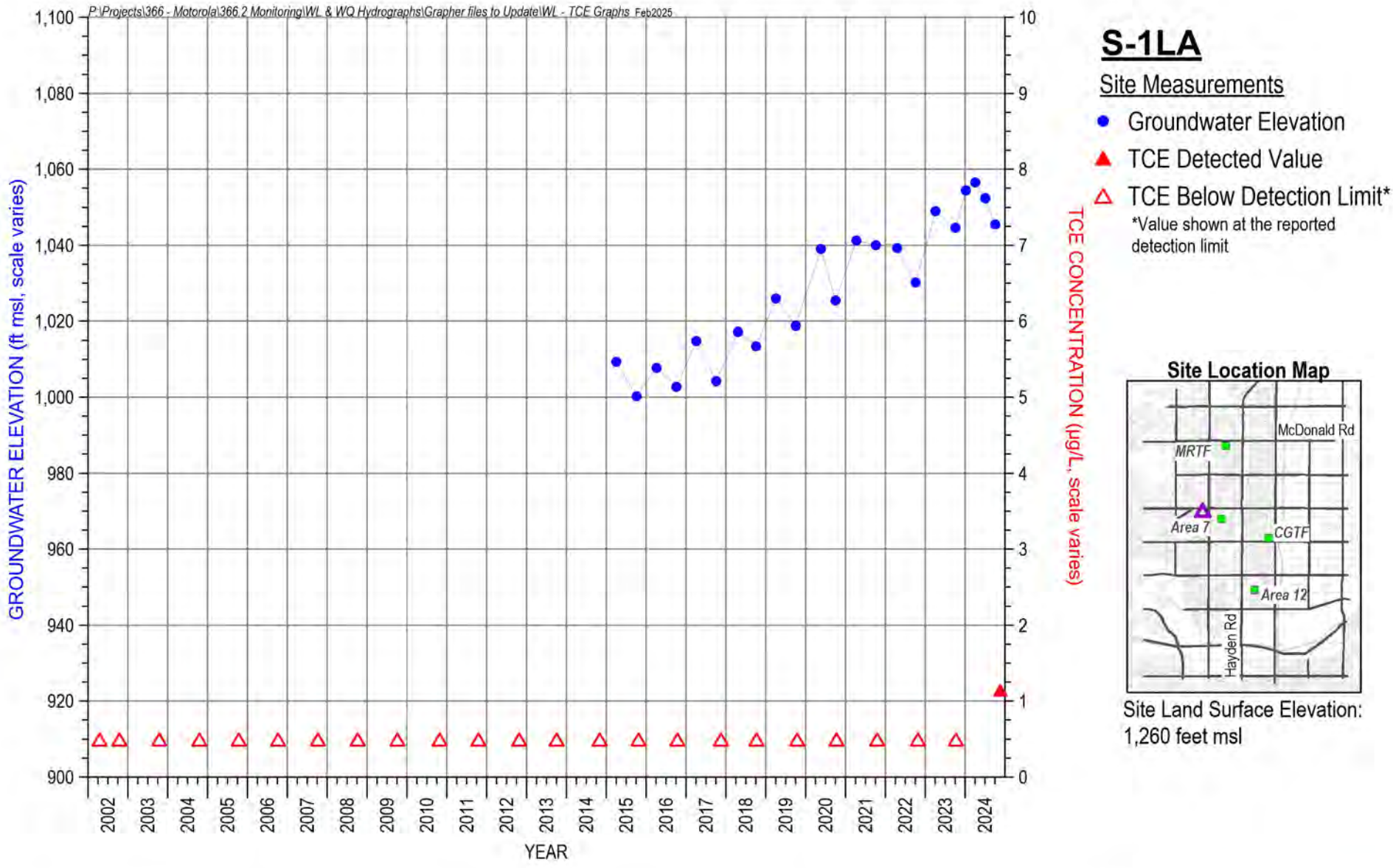


FIGURE D-123. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL S-1LA

North Indian Bend Wash Superfund Site

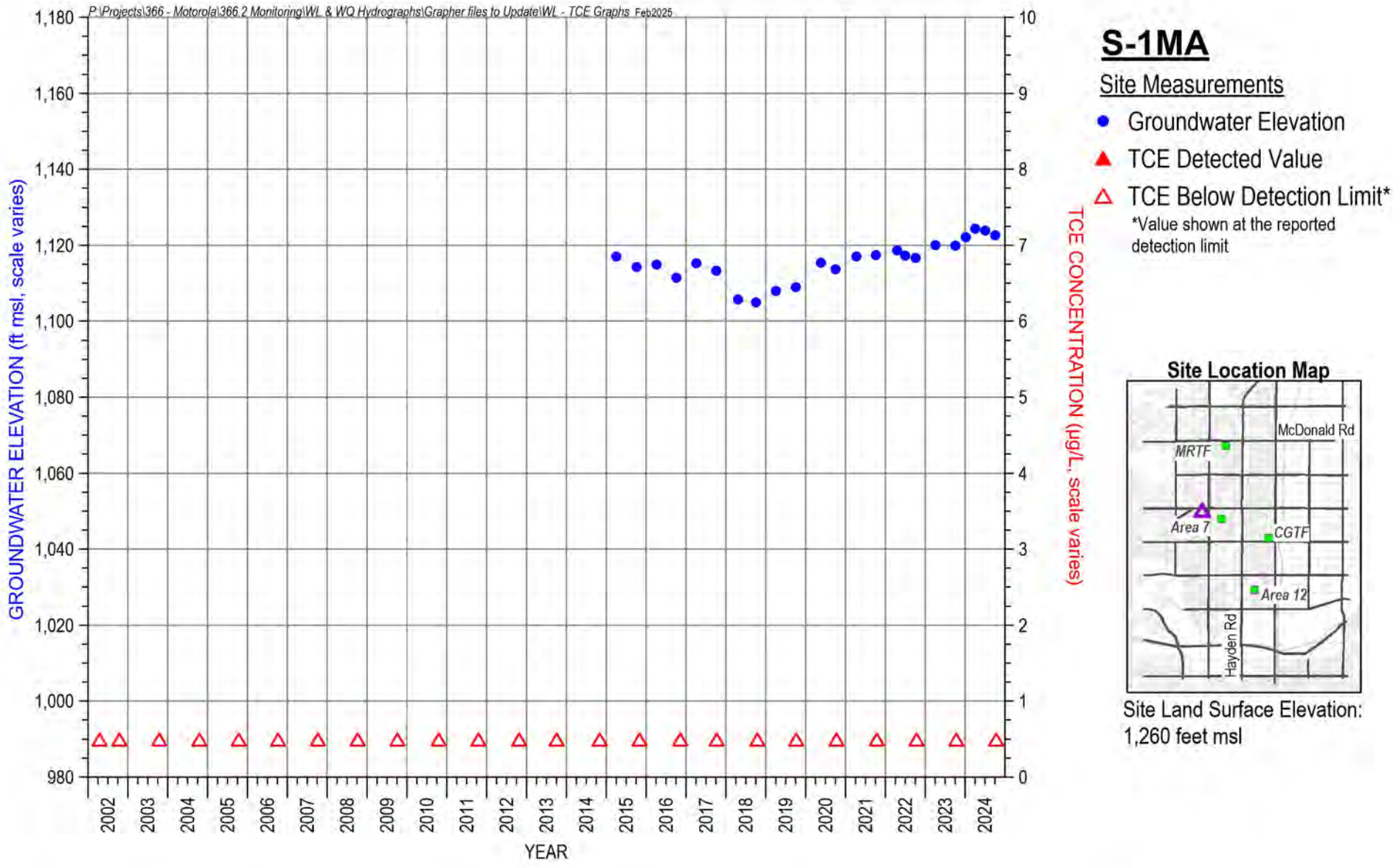


FIGURE D-124. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL S-1MA

North Indian Bend Wash Superfund Site

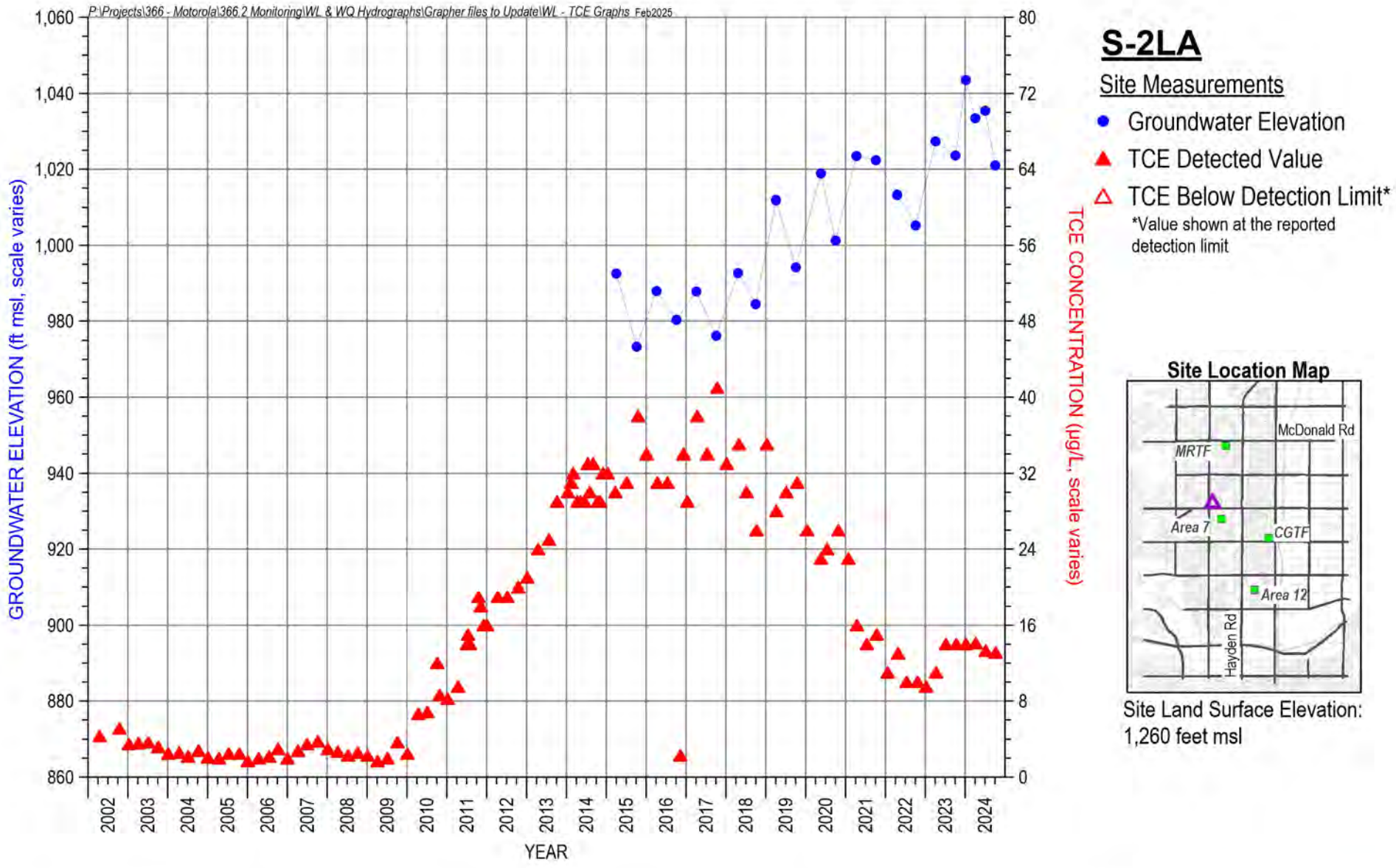


FIGURE D-125. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL S-2LA

North Indian Bend Wash Superfund Site

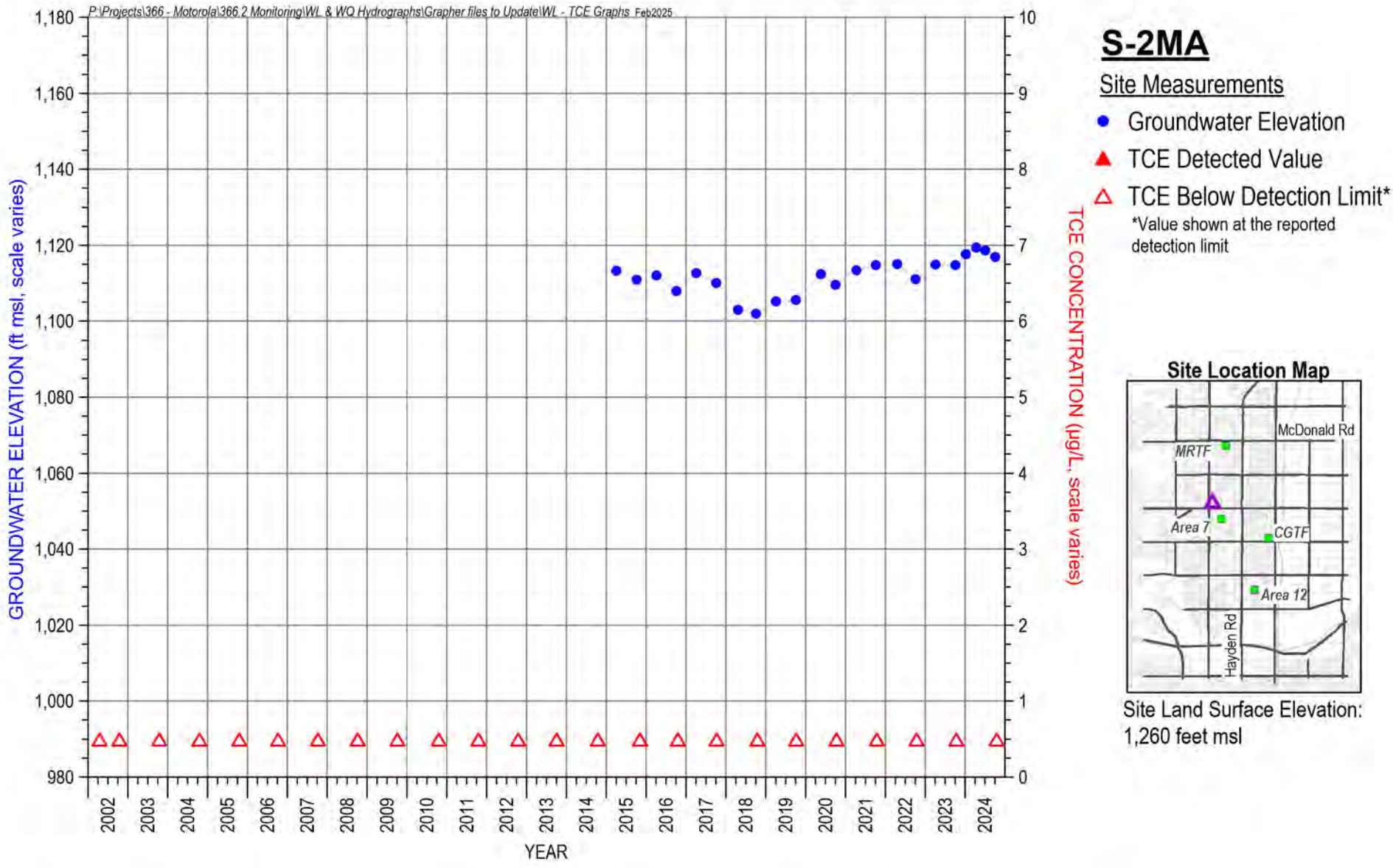


FIGURE D-126. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL S-2MA

North Indian Bend Wash Superfund Site

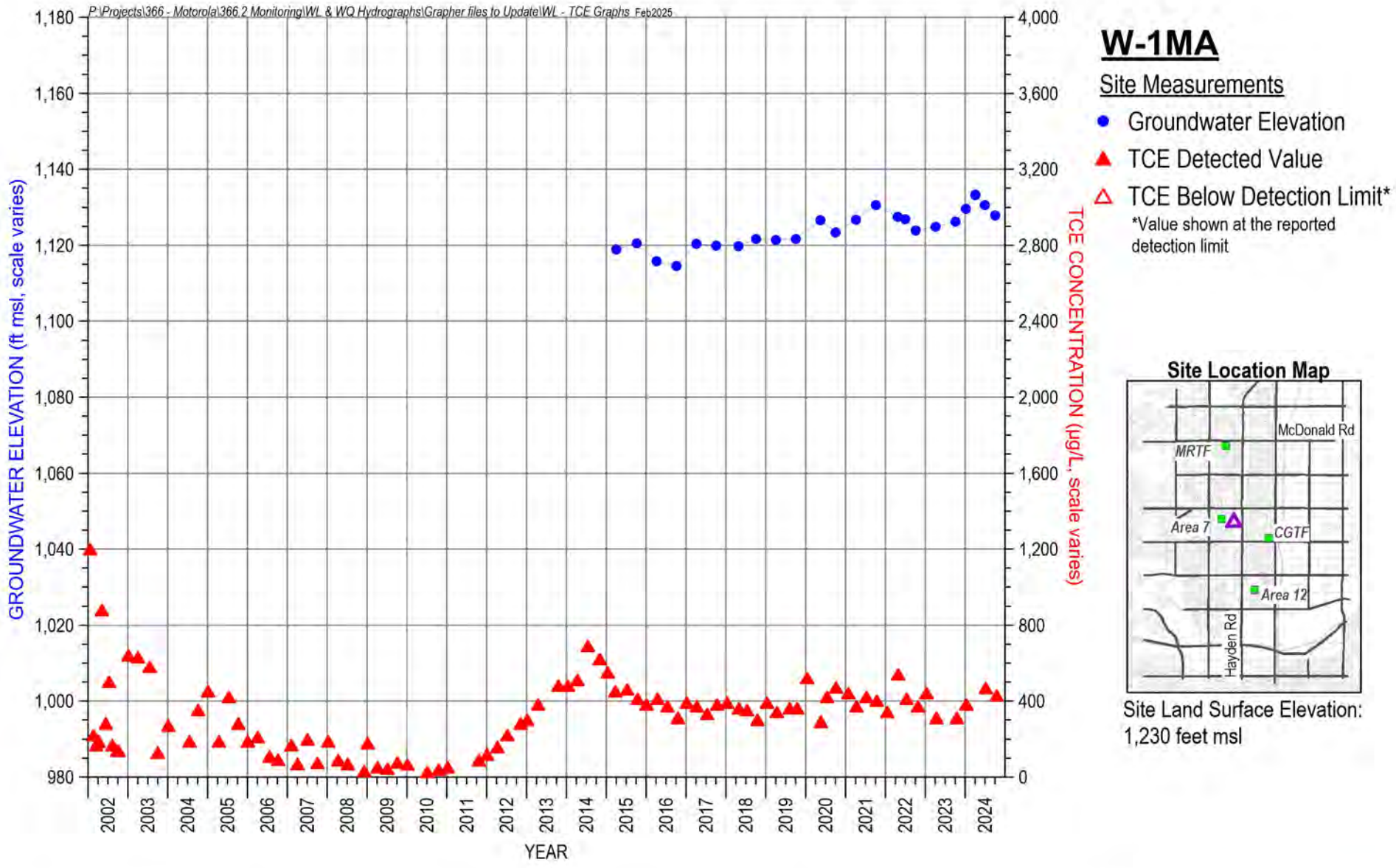


FIGURE D-127. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL W-1MA

North Indian Bend Wash Superfund Site

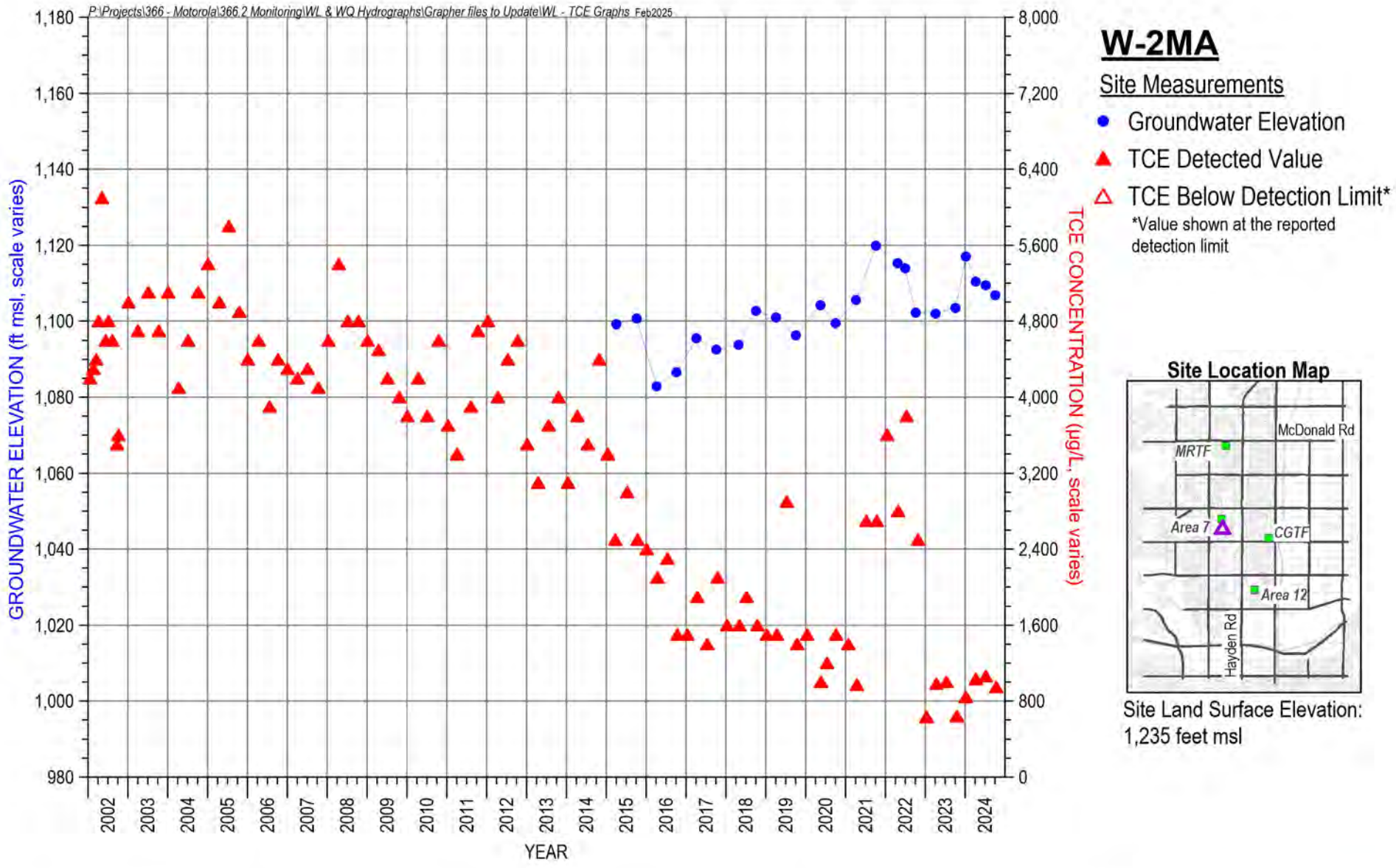


FIGURE D-128. GRAPH OF MEASURED GROUNDWATER LEVELS AND/OR TCE CONCENTRATIONS FOR MONITOR WELL W-2MA

North Indian Bend Wash Superfund Site

APPENDIX E
CALIBRATION AND FIELD SAMPLE DATA FORMS

APPENDIX E
EXTRACTION WELL CALIBRATION FORMS

CONDUCTIVITY

~~pH BENCH~~ SHEET NIBW

EnSolutions, Inc EPA Lab ID: AZ01073
pH SM 4500-HB

Analyst: Jorge Vivar

Area 12 AZPDES AZ0025933

Date: ~~12 01 2023~~ 1-4-24 JV

Standard/Sample	1-4-24 Date	Time	Analyst Initials	Reading (uM)	Temp Reading (°C)		Instrument/Comments
Cond 84 uMho/cm	~~10 50~~	10:50	JL	840	19.9 C		
Cond 1413 uMho/cm	1-4-24	|	JL	1413	19.9		
Cond 12,880 uMho/cm	1-4-24	V	JL	12880	20.0 C		
Sample Collected							
Sample Analyzed							

Cond 84 uMho/cm
Lot #: ~~M0721B~~ A0323D
Manufacturer: BIOPHARM
Expiration Date: ~~12/1/2022~~ 01/01/2024

Cond 1413 uMho/cm
Lot #: ~~M0121B~~ C1023B
Manufacturer: BIOPHARM
Expiration Date: 12/1/2022 03/01/25

Cond 12,880 uMho/cm
Lot #: ~~G1521D~~ K2622C
Manufacturer: BIOPHARM
Expiration Date: ~~12/1/2022~~ 10/26/2024

pH BENCH SHEET NIBW

EnSolutions. Inc EPA Lab ID: AZ01073
pH SM 4500-HB

Analyst: R L LYNCH

Date. JAN 4, 2024

CANAL SAMPLES

Meter:APERA SX 823-B
NGTF AZPDES AZ0026123

Standard/Sample	Date	Time	Analyst Initials	Reading (S.U.)	Temp Reading (°C)	Instrument/Comments
Calibration: pH Buffer 4	1-4-24	10:45		4.24	20.5	
Calibration: pH Buffer 7	1-4-24	↓		6.96	20.8	
Calibration: pH Buffer 10	1-4-24			10.15	20.8	
Second Source Buffer pH 8.00	1-4-24	↓		8.05	21.1	
McDonald pH Sample Analyzed		13:20		7.70	13.2	
Head Cross Cut Sample Analyzed		14:30		8.20	13.8	

Every **tenth** calibration run a 7.0 buffer as a check. Result must be ± 1.0 S.U. of the true value
Instrument - Hach SensION+ pH 31

pH 4 Buffer:	pH 7 Buffer:	pH 10 Buffer:	pH 8 Secondary Buffer:
Lot #: 2023-PV-0339	Lot #: 2023-PV-0340	Lot #: 2023-PV-0341	Lot #: 2022-PV-0299
Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH
Expiration Date: 10/31/27	Expiration Date 10/31/25	Expiration Date: 9/30/2024	Expiration Date: 7/31/2026

Feb 1, 2024
Josus Lynch

84 uS

8:30

	840	21.1°C
1413 uS		
	1113	21.0°C
12.88	12.88	21.1°C

CONDUCTIVITY CALIBRATION

pH BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID: AZ01073
pH SM 4500-HB

Analyst: J. LYNCH

Date: 2/1/24

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (S.U.)	Temp Reading (°C)	Instrument/Comments
Calibration: pH Buffer 4	2/1/24	08:12	JL	4.00	22.4	
Calibration: pH Buffer 7	↓	08:12	JL	7.00	22.2	
Calibration: pH Buffer 10		08:13	JL	10.01	22.3	
Second Source Buffer pH 8.00		08:13	JL	8.08	22.3	
pH Sample Analyzed						
Temperature (Deg C)						NIST Thermometer
Conductivity (uOhm/Cm^2)						
DO (mg/L)						MW 600

Every tenth calibration run a 7.0 buffer as a check. Result must be ± 1.0 S.U. of the true value
Instrument - Hach SensION+ pH 31

pH 4 Buffer:	pH 7 Buffer:	pH 10 Buffer:	pH 8 Secondary Buffer:
Lot #: 2023-PV-0339	Lot #: 2023-PV-0340	Lot #: 2023-PV-0341	Lot #: 2022-PV-0299
Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH
Expiration Date: 10/31/27	Expiration Date: 10/31/25	Expiration Date: 9/30/2024	Expiration Date: 7/31/2026

DO. 10:05 100% on Air.
100% Cal.

Conductivity:

8:06	84°	84
8:07	1413	1413
8:09	12.88.	12,88.

pH BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID: AZ01073
pH SM 4500-HB

Analyst: Jorge Vivar.

Date: 03-07-24

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (S.U.)	Temp Reading (°C)	Instrument/Comments
Calibration: pH Buffer 4	03-07-24	7:50	JV	4.0	22.4	
Calibration: pH Buffer 7	03-07-24	7:52	JV	7.04	22.4	
Calibration: pH Buffer 10	03-07-24	7:54	JV	10.11	22.3	
Second Source Buffer pH 8.00	03-07-24	7:59	JV	8.14	22.4	
pH Sample Analyzed	03-07-24	12:15	JV	8.37	24.8	
Temperature (Deg C)	03-07-24	12:15	JV	24.8 C	24.8 C	NIST Thermometer
Conductivity (uOhm/Cm^2)	~~03-07-24~~	~~9:54~~	~~JV~~	~~5566~~	2	
	03-07-24	12:15	JV	1340	24.8	
DO (mg/L)	03-07-24	12:15	JV	7.3	24.8	MW 600

Every **tenth** calibration run a 7.0 buffer as a check. Result must be ± 1.0 S.U. of the true value
Instrument - Hach SensION+ pH 31

pH 4 Buffer:	pH 7 Buffer:	pH 10 Buffer:	pH 8 Secondary Buffer:
Lot #: 2023-PV-0339	Lot #: 2023-PV-0340	Lot #: 2023-PV-0341	Lot #: 2022-PV-0299
Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH
Expiration Date: 10/31/27	Expiration Date: 10/31/25	Expiration Date: 9/30/2024	Expiration Date: 7/31/2026

Test Equipment Calibration Log

Equipment Requiring Routine Calibration

Equipment Type	Manufacturer	Model #	SN#	Property #	Department	Calibration Frequency
Myron L Ultrameter	Myron L	6PFCE	6297871	M+A		Daily
Turbidity	Hach	2100Q	23060D000240	M+A		Daily

Equipment Calibration Log

Equipment Type	Manufacturer	Model #	Serial #	Calibration Due Date	Notes
Ultrameter	Myron L	6PFCE	6297871	4/5/24	pH 7.10→7, 3.97→4.00, 9.86→10. Cond 1418→1413 ORP 240 : 243
Hach Turbidity	Hach	2100Q	23060D000240	4/5/24	19.8, 97.9, 792, 10.1

Signature: Erica Boyle
Date: 4/5/24

Project: NBW - PFAS Sampling
Project No.: 3606.35

CONDUCTIVITY BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID: AZ01073
Specific Conductance SM 2510B

Analyst: Jorge Vivar

Date: 04-10-24

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (uMho/cm)	Temp Reading (°C)	Instrument/Comments
Cond 84 uMho/cm	04-10-24	8:00	JV	84	24.2	
Cond 1413 uMho/cm	04-10-24	8:05	JV	1440	23.9	
Cond 12,880 uMho/cm	04-10-24	8:07	JV	12.869	24.1	
					-	
Temperature (Deg C)	04-10-24	16:02	JV	25.2°C	25.2°C	NIST Thermometer
	04-10-24	16:05	JV	1422 uS	25.2°C	
Conductivity (uOhm/Cm^2)						
D.O.	04-10-24	16:08	JV	7.7	25.2°C	

Cond 84 uMho/cm
Lot #: Ao53D
Manufacturer: BIOPHARM
Expiration Date: 10/26/24

Cond 1413 uMho/cm
Lot #: C1023B
Manufacturer: BIOPHARM
Expiration Date: 3/1/25

Cond 12,880 uMho/cm
Lot #: K2622C
Manufacturer: BIOPHARM
Expiration Date: 10/26/24

pH BENCH SHEET NIBW

EnSolutions Inc EPA Lab ID: AZ01073
pH SM 4500-HB

Analyst: Jorge Vivar

Date: 04-10-24

~~CANAL SAMPLES~~

Meter:APERA SX 823-B

~~NOTE~~ AZPDES AZ0026123

Area 12

Standard/Sample	Date	Time	Analyst Initials	Reading (S.U.)	Temp Reading (°C)	Instrument/Comments
Calibration: pH Buffer 4	04.10.24	7:36	JV	4.09	23.4	
Calibration: pH Buffer 7	04.10.24	7:32	JV	7.01	23.3°C	
Calibration: pH Buffer 10	04.10.24	7:38	JV	9.97	23.4°C	
Second Source Buffer pH 8.00	04.10.24	7:50	JV	8.12	23.2	
~~McDonald pH Sample Analyzed~~						
~~Head Cross Cut Sample Analyzed~~						
Area 12 > WSP-2	04-10-24	16:01	JV	8.23	25.2°C	
PH						

Every **tenth** calibration run a 7.0 buffer as a check. Result must be ± 1.0 S.U. of the true value
Instrument - Hach SensION+ pH 31

pH 4 Buffer:	pH 7 Buffer:	pH 10 Buffer:	pH 8 Secondary Buffer:
Lot #: 2023-PV-0339	Lot #: 2023-PV-0340	Lot #: 2023-PV-0341	Lot #: 2022-PV-0299
Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH
Expiration Date: 10/31/27	Expiration Date: 10/31/25	Expiration Date: 9/30/2024	Expiration Date: 7/31/2026

CONDUCTIVITY BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID: AZ01073
Specific Conductance SM 2510B

Analyst: ~~05~~ Jorge Vivar.

Date: 05-01-24

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (uMho/cm)	Temp Reading (°C)	Instrument/Comments
Cond 84 uMho/cm	05-01-24	8:24	JV	84	24.0	
Cond 1413 uMho/cm	05-01-24	8:20	JV	~~1413~~ 1413	24.2	
Cond 12,880 uMho/cm	05-01-24	8:18	JV	12.88	24.0	
Temperature (Deg C)	05-01-24	11:28	JV	25.6°C	25.6°C	NIST Thermometer
Conductivity (uOhm/Cm^2)	05-01-24	11:28	JV	1340	25.6°C	

Cond 84 uMho/cm	Cond 1413 uMho/cm	Cond 12,880 uMho/cm
Lot #: Ao53D	Lot #: C1023B	Lot #: K2622C
Manufacturer: BIOPHARM	Manufacturer: BIOPHARM	Manufacturer: BIOPHARM
Expiration Date: 10/26/24	Expiration Date: 3/1/25	Expiration Date: 10/26/24

pH BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID: AZ01073
pH SM 4500-HB

Analyst: Jorge Vivar

Date: 05-01-24

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (S.U.)	Temp Reading (°C)	Instrument/Comments
Calibration: pH Buffer 4	05-01-24	8:06	JV	4.08	23.6	
Calibration: pH Buffer 7	05-01-24	8:04	JV	7.01	23.0	
Calibration: pH Buffer 10	05-01-24	8:10	JV	10.03	23.6	
Second Source Buffer pH 8.00	05-01-24	8:13	JV	8.01	23.0	
pH Sample Analyzed	05-01-24	11:28	JV	8.21	25.6 °C	
Temperature (Deg C)	05-01-24	11:28	JV	25.6 °C	25.6 °C	NIST Thermometer
Conductivity (uOhm/Cm^2)	05-01-24	11:28	JV	1340	25.6 °C	
DO (mg/L)	05-01-24	11:28	JV	7.2	25.6 °C	MW 600

Every **tenth** calibration run a 7.0 buffer as a check. Result must be ± 1.0 S.U. of the true value
Instrument - Hach SensION+ pH 31

pH 4 Buffer:	pH 7 Buffer:	pH 10 Buffer:	pH 8 Secondary Buffer:
Lot #: 2023-PV-0339	Lot #: 2023-PV-0340	Lot #: 2023-PV-0341	Lot #: 2022-PV-0299
Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH
Expiration Date: 10/31/27	Expiration Date: 10/31/25	Expiration Date: 9/30/2024	Expiration Date: 7/31/2026

CONDUCTIVITY BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID: AZ01073
Specific Conductance SM 2510B

Analyst: Jorge Vivar

Date: 07 03-24

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (uMho/cm)	Temp Reading (°C)	Instrument/Comments
Cond 84 uMho/cm	07.03.24	9:10	JV	84.	24.2	
Cond 1413 uMho/cm	07.03.24	9:13	JV	1444	24.2	
Cond 12,880 uMho/cm	07.03.24	9:15	JV	12,812	24.6	
Temperature (Deg C)	07.03.24	10:52	JV	~~1366~~	25.1	NIST Thermometer
Conductivity (uOhm/Cm^2)	07.03.24	10:52	JV	1366	25.1	

Cond 84 uMho/cm
Lot #: ~~A053D~~ C1124A
Manufacturer: BIOPHARM
Expiration Date: ~~10/26/24~~ 03.01.25

Cond 1413 uMho/cm
Lot #: ~~C1023B~~ C1124F
Manufacturer: BIOPHARM
Expiration Date: ~~3/1/25~~ 03.01.25 4-1-26

Cond 12,880 uMho/cm
Lot #: ~~K2622C~~ C2824C
Manufacturer: BIOPHARM
Expiration Date: ~~10/26/24~~ 03.01.26

pH BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID: AZ01073
pH SM 4500-HB

Analyst: Jorge Vivar-

Date: 06·03·24

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (S.U.)	Temp Reading (°C)	Instrument/Comments
Calibration: pH Buffer 4	06·03·24	9:17	JV	4·3	34.6	
Calibration: pH Buffer 7	06·03·24	9:20	JV	7.10	35.1	
Calibration: pH Buffer 10	06·03·24	9:25	JV	10·02	34.6	
Second Source Buffer pH 8.00	06·03·24	9:27	JV	8·03	34.7	
pH Sample Analyzed	06·03·24	10:48	JV	8.12	25.1	
Temperature (Deg C)	06·03·24	10:49	JV	25.1	25·1	NIST Thermometer
					25.4	
Conductivity (uOhm/Cm^2)	06·03·24	10:52	JV	1366	25.1	
DO (mg/L)	06-03-24	10:55	JV	7.8	—	MW 600

Every **tenth** calibration run a 7.0 buffer as a check. Result must be ± 1.0 S.U. of the true value
Instrument - Hach SensION+ pH 31

pH 4 Buffer:	pH 7 Buffer:	pH 10 Buffer:	pH 8 Secondary Buffer:
Lot #: 2023-PV-0339	Lot #: 2023-PV-0340	Lot #: 2023-PV-0341	Lot #: 2022-PV-0299
Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH
Expiration Date: 10/31/27	Expiration Date: 10/31/25	Expiration Date: 9/30/2024	Expiration Date: 7/31/2026

CONDUCTIVITY BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID AZ01073
Specific Conductance SM 2510B

Analyst: Jorge Vivar.

Date 07.02.24.

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (uMho/cm)	Temp Reading (°C)	Instrument/Comments
Cond 84 uMho/cm	07.02.24	7:35	JV	840	23.3	
Cond 1413 uMho/cm	07.02.24	7:38	JV	1415	23.4	
Cond 12,880 uMho/cm	07.02.24	7:39	JV	12880	23.3	
Temperature (Deg C)	07.02.24					NIST Thermometer
Conductivity (uOhm/Cm^2)	07.02.24					

Cond 84 uMho/cm	Cond 1413 uMho/cm	Cond 12,880 uMho/cm
Lot #: 1124	Lot #: Do124F	Lot #: C2824C
Manufacturer: BIOPHARM	Manufacturer: BIOPHARM	Manufacturer: BIOPHARM
Expiration Date: 3/1/25	Expiration Date: 4/1/26	Expiration Date: 1/1/26

pH BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID: AZ01073
pH SM 4500-HB

Analyst: Jorge Vivar

Date: 07-02-24

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (S.U.)	Temp Reading (°C)	Instrument/Comments
Calibration: pH Buffer 4	07-02-24	9:30	JV	4.0	23.3	
Calibration: pH Buffer 7	07-02-24	7:34	JV	7.01	23.3	
Calibration: pH Buffer 10	07-02-24	7:36	JV	10.02	23.3	
Second Source Buffer pH 8.00	07-02-24	7:42	JV	8.01	23.4	
				7.57		
pH Sample Analyzed	07-02-24	10:00	JV	~~75.7~~ JV		
Temperature (Deg C)	07-02-24	10:00	JV	27.0	27.0	NIST Thermometer
Conductivity (uOhm/Cm^2)	07-02-24	10:02	JV	1352	27.0	
DO (mg/L)	07-02-24	7:41	JV	103% Avr		MW 600
	07-02-24	7:25	JV	100 %		
	07-02-24	10:05	JV	7.7		

Every **tenth** calibration run a 7.0 buffer as a check. Result must be ± 1.0 S.U. of the true value
Instrument - Hach SensION+ pH 31

pH 4 Buffer:	pH 7 Buffer:	pH 10 Buffer:	pH 8 Secondary Buffer:
Lot #: 2023-PV-0339	Lot #: 2023-PV-0340	Lot #: 2023-PV-0341	Lot #: 2022-PV-0299
Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH
Expiration Date: 10/31/27	Expiration Date: 10/31/25	Expiration Date: 9/30/2024	Expiration Date: 7/31/2026

CONDUCTIVITY BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID AZ01073
Specific Conductance SM 2510B

Analyst: Jorge Vivar

Date 8-01-24

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (uMho/cm)	Temp Reading (C)	Instrument/Comments
Cond 84 uMho/cm	08-01-24	6:54	JV	842	22.3	
Cond 1413 uMho/cm	08.01.24	6.52	JV	1465	22.3	
Cond 12,880 uMho/cm	08.01.24	6.57	JV	12,910	22.7	
Temperature (Deg C)						NIST Thermometer
Conductivity (uOhm/Cm^2)						

Cond 84 uMho/cm
Lot #: 1124
Manufacturer: BIOPHARM
Expiration Date: 3/1/25

Cond 1413 uMho/cm
Lot #: Do124F
Manufacturer: BIOPHARM
Expiration Date: 4/1/26

Cond 12,880 uMho/cm
Lot #: C2824C
Manufacturer: BIOPHARM
Expiration Date: 1/1/26

pH BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID: AZ01073
pH SM 4500-HB

Analyst: Jorge Vivas

Date: 08-01-24

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (S.U.)	Temp Reading (°C)	Instrument/Comments
Calibration: pH Buffer 4	08-01-24	6:47	JV	4.14	22.7	
Calibration: pH Buffer 7	08-01-24	6:46	JV	7.04	22.7	
Calibration: pH Buffer 10	08-01-24	6:50	JV	9.92	22.5	
Second Source Buffer pH 8.00	08-01-24	6:52	JV	8.0	22.5	
pH Sample Analyzed	08-01-24	9:40	JV	7.59	26.3	
Temperature (Deg C)	08-01-24	9:40	JV	26.3	26.3	NIST Thermometer
Conductivity (uOhm/Cm^2)	08-01-24	9:40	JV	1315	26.4	
DO (mg/L)	08-01-24	9:40	JV	7.8	26.4	MW 600

Every tenth calibration run a 7.0 buffer as a check. Result must be ± 1.0 S.U. of the true value
Instrument - Hach SensION+ pH 31

pH 4 Buffer:	pH 7 Buffer:	pH 10 Buffer:	pH 8 Secondary Buffer:
Lot #: 2023-PV-0339	Lot #: 2023-PV-0340	Lot #: 2023-PV-0341	Lot #: 2022-PV-0299
Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH
Expiration Date: 10/31/27	Expiration Date: 10/31/25	Expiration Date: 9/30/2024	Expiration Date: 7/31/2026

CONDUCTIVITY BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID: AZ01073
Specific Conductance SM 2510B

Analyst: Jorge Vivar

Date: 09·04·24

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (uMho/cm)	Temp Reading (°C)	Instrument/Comments
Cond 84 uMho/cm	09·04·24	6:40	JV	84	24.2	
Cond 1413 uMho/cm	09·04·24	6:43	JV	1416	24.2	
Cond 12,880 uMho/cm	09·04·24	6:45	JV	12,877	24.2	
Temperature (Deg C)	09·04·24	10:15	JV	26.8	26.8	NIST Thermometer
Conductivity (uOhm/Cm^2)	09·04·24	10:15	JV	7243	26.8	

Cond 84 uMho/cm
Lot #: 1124
Manufacturer: BIOPHARM
Expiration Date: 3/1/25

Cond 1413 uMho/cm
Lot #: Do124F
Manufacturer: BIOPHARM
Expiration Date: 4/1/26

Cond 12,880 uMho/cm
Lot #: C2824C
Manufacturer: BIOPHARM
Expiration Date: 1/1/26

pH BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID: AZ01073
pH SM 4500-HB

Analyst: Jorge Vivar -

Date: 09-04-2024

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (S.U.)	Temp Reading (°C)	Instrument/Comments
Calibration: pH Buffer 4	09-04-24	6:27	JV	7.03	23.9	
Calibration: pH Buffer 7	09-04-24	6:25	JV	4.12	24.1	
Calibration: pH Buffer 10	09-04-24	6:29	JV	9.98	24.2	
Second Source Buffer pH 8.00	09-04-24	6:33	JV	8.01	24.2	
pH Sample Analyzed	09-04-24		JV	8.17	26.7	
Temperature (Deg C)	09-04-24		JV	26.7	26.7	NIST Thermometer
Conductivity (uOhm/Cm^2)	09-04-24		JV	1289	26.7	
DO (mg/L)	09-04-24		JV	8.7	26.7	MW 600

Every tenth calibration run a 7.0 buffer as a check. Result must be ± 1.0 S.U. of the true value
Instrument - Hach SensION+ pH 31

pH 4 Buffer:	pH 7 Buffer:	pH 10 Buffer:	pH 8 Secondary Buffer:
Lot #: 2023-PV-0339	Lot #: 2023-PV-0340	Lot #: 2023-PV-0341	Lot #: 2022-PV-0299
Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH
Expiration Date: 10/31/27	Expiration Date: 10/31/25	Expiration Date: 9/30/2024	Expiration Date: 7/31/2026

CONDUCTIVITY BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID AZ01073
Specific Conductance SM 2510B

Analyst: J. LYNCH

Date 9-30-24

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (uMho/cm)	Temp Reading (°C)	Instrument/Comments
Cond 84 uMho/cm	9-30-24	18:30	JL	84	24.7	
Cond 1413 uMho/cm		18:30	JL	1410	24.3	
Cond 12,880 uMho/cm		18:30	JL	12,880	24.1	
Temperature (Deg C)						NIST Thermometer
Conductivity (uOhm/Cm^2)						

Cond 84 uMho/cm
Lot #: 1124
Manufacturer: BIOPHARM
Expiration Date: 3/1/25

Cond 1413 uMho/cm
Lot #: Do124F
Manufacturer: BIOPHARM
Expiration Date: 4/1/26

Cond 12,880 uMho/cm
Lot #: C2824C
Manufacturer: BIOPHARM
Expiration Date: 1/1/26

pH BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID: AZ01073
pH SM 4500-HB

Analyst: J LYNCH

Date: 9-30-24

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (S.U.)	Temp Reading (°C)	Instrument/Comments
Calibration: pH Buffer 4	9-30-24	18:45	JL	4.02	15.6	
Calibration: pH Buffer 7			JL	7.01	15.5	
Calibration: pH Buffer 10			JL	10.01	15.6	
Second Source Buffer pH 8.00			JL	8.00	15.6	
pH Sample Analyzed	10-1-24	11:05		7.89	27.3	
Temperature (Deg C)				27.3	27.3	NIST Thermometer
Conductivity (uOhm/Cm^2)	10-1-24	11:05		1273		
DO (mg/L)	10-1-24	11:05		8.4	27.3	MW 600

Every tenth calibration run a 7.0 buffer as a check. Result must be ± 1.0 S.U. of the true value
Instrument - Hach SensION+ pH 31

pH 4 Buffer:	pH 7 Buffer:	pH 10 Buffer:	pH 8 Secondary Buffer:
Lot #: 2023-PV-0339	Lot #: 2023-PV-0340	Lot #: 2023-PV-0341	Lot #: 2022-PV-0299
Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH
Expiration Date: 10/31/27	Expiration Date: 10/31/25	Expiration Date: 9/30/2024	Expiration Date: 7/31/2026

CONDUCTIVITY BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID: AZ01073
Specific Conductance SM 2510B

Analyst: Jorge Vivar

Date: 11/04/2024

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (uMho/cm)	Temp Reading (°C)	Instrument/Comments
Cond 84 uMho/cm	11.04.24	7:20	JV	78	23.5 C	
Cond 1413 uMho/cm	11.04.24	7:25	JV	1411	23.5 C	
Cond 12,880 uMho/cm	11.04.24	7:27	JV	12,877	23.1 C	
Temperature (Deg C)	11.04.24		JV			NIST Thermometer
	11.04.24		JV			
Conductivity (uOhm/Cm^2)	11.04.24					

Cond 84 uMho/cm
Lot #: Ao53D
Manufacturer: BIOPHARM
Expiration Date: ~~10/26/24~~ 03.01.25

Cond 1413 uMho/cm
Lot #: C1023B
Manufacturer: BIOPHARM
Expiration Date: ~~3/1/25~~ 03.01.25

Cond 12,880 uMho/cm
Lot #: K2622C
Manufacturer: BIOPHARM
Expiration Date: ~~10/26/24~~ 03.01.25

pH BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID: AZ01073
pH SM 4500-HB

Analyst: Jorge Vivar
Date: 11/04/2024

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (S.U.)	Temp Reading (°C)	Instrument/Comments
Calibration: pH Buffer 4	11.04.24	7:05	JV	4.02	23.7 C	
Calibration: pH Buffer 7	11.04.24	7:07	JV	6.75	23.7 C	
Calibration: pH Buffer 10	11.04.24	7:09	JV	9.77	24.0 C	
Second Source Buffer pH 8.00	11.04.24	7:13	JV	7.92	23.7 C	
pH Sample Analyzed	11.04.24		JV	7.0	24.7	
Temperature (Deg C)	11.04.24		JV	24.9	24.9	NIST Thermometer
Conductivity (uOhm/Cm^2)	11.04.24		JV	1234	24.9	
DO (mg/L)	11.04.24		JV	8.9	24.9	MW 600

Every tenth calibration run a 7.0 buffer as a check. Result must be ± 1.0 S.U. of the true value
Instrument - Hach SensION+ pH 31

pH 4 Buffer:	pH 7 Buffer:	pH 10 Buffer:	pH 8 Secondary Buffer:
Lot #: 2023-PV-0339	Lot #: 2023-PV-0340	Lot #: ~~2023-PV-0341~~ A42233	Lot #: 2022-PV-0299
Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH
Expiration Date: 10/31/27	Expiration Date: 10/31/25	Expiration Date: ~~9/30/2024~~ 8-31-2025	Expiration Date: 7/31/2026

CONDUCTIVITY BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID AZ01073
Specific Conductance SM 2510B

Analyst: Jorge Vivav.

Date 12.02.2024

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (uMho/cm)	Temp Reading (°C)	Instrument/Comments
Cond 84 uMho/cm	12.02.24	7:15	JV	842	22.4	
Cond 1413 uMho/cm	12.02.24	7:17	JV	1441	22.4	
Cond 12,880 uMho/cm	12.02.24	7:20	JV	12.893	22.6	
Temperature (Deg C)	12.02.24	)	JV			NIST Thermometer
Conductivity (uOhm/Cm^2)	12.02.24		JV			
				on Air		
D0.	12.02.24		JV	100%		
	12.02.24		JV	100%		

Cond 84 uMho/cm
Lot #: 1124
Manufacturer: BIOPHARM
Expiration Date: 3/1/25

Cond 1413 uMho/cm
Lot #: Do124F
Manufacturer: BIOPHARM
Expiration Date: 4/1/26

Cond 12,880 uMho/cm
Lot #: C2824C
Manufacturer: BIOPHARM
Expiration Date: 1/1/26

pH BENCH SHEET NIBW

EnSolutions, Inc EPA Lab ID: AZ01073
pH SM 4500-HB

Analyst: Jorge Vivas

Date: 12.02.2024

Meter:APERA SX 823-B
A12 AZPDES AZ0025933

Standard/Sample	Date	Time	Analyst Initials	Reading (S.U.)	Temp Reading (°C)	Instrument/Comments
Calibration: pH Buffer 4	12.02.24	7:03	JV	4.3	22.4	
Calibration: pH Buffer 7	12.02.24	7:06	JV	7.4	22.3	
Calibration: pH Buffer 10	12.02.24	7:08	JV	10.02	22.9	
Second Source Buffer pH 8.00	12.02.24	7:12	JV			
pH Sample Analyzed	12.02.24		JV	7.5		
Temperature (Deg C)	12.02.24		JV	25.6		NIST Thermometer
Conductivity (uOhm/Cm^2)	12.02.24		JV	1230		
	12					
DO (mg/L)	12.02.24		JV	7.4		MW 600

Every tenth calibration run a 7.0 buffer as a check. Result must be ± 1.0 S.U. of the true value
Instrument - Hach SensION+ pH 31

pH 4 Buffer:	pH 7 Buffer:	pH 10 Buffer:	pH 8 Secondary Buffer:
Lot #: 2023-PV-0339	Lot #: 2023-PV-0340	Lot #: ~~2023-PV-0341~~ A4233	Lot #: 2022-PV-0299
Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH	Manufacturer: HACH
Expiration Date: 10/31/27	Expiration Date: 10/31/25	Expiration Date: ~~9/30/2024~~ 8-31-2025	Expiration Date: 7/31/2026

APPENDIX E
EXTRACTION WELL FIELD SAMPL**E** DATA FORMS

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # COS-31

Date: January 4, 2024

Sample Time: _____

Sample ID: _____

Flow Rate (Q)	2550.8
Flow Totalizer	2019500
Elec Cond (u Ohms)	1485
Temp (Deg C)	26.4c
pH	8.34
DO (mg/L)	7.5
Pressure (PSI)	21.0

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # COS-72

Date: January 4, 2024

Sample Time: 12:10

Sample ID:

Flow Rate (Q)	1470.8
Flow Totalizer	9698698
Elec Cond (u Ohms)	1668
Temp (Deg C)	26.3
pH	8.32
DO (mg/L)	7.8
Pressure (PSI)	26.3

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Mo nitoring Field Data Report
Production ' Vell

Well # PCX-1

Date: 1-4-24 ~~09/05/2023~~

Sam le Time: 1330

S: nple ID: PCX-1

Flow Rate (Q)	2125	
Flow Totalizer	7365988	
Elec Cond (u Ohms)	1442	
Temp (Deg C)	32.5	
pH	8.34	
DO (mg/L)	6.6	
Pressure (PSI)	39	

Additional Comments:

Sampled by: JESUS LYNCH
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-14

Date: January 4, 2024

Sample Time: 11:20

Sample ID: PV-14

Flow Rate (Q)	2108.18
Flow Totalizer	N/A
Elec Cond (u Ohms)	1150
Temp (Deg C)	30.8
pH	8.45
DO (mg/L)	7.5
Pressure (PSI)	N/A

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-15

Date: January 4, 2024

Sample Time: 11:15

Sample ID: PV-15

Flow Rate (Q)	2115.47
Flow Totalizer	N/A
Elec Cond (u Ohms)	1072
Temp (Deg C)	32.7°
pH	8.28
DO (mg/L)	7.6
Pressure (PSI)	38

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # 7EX-3aMA

Date: January 15, 2024

Sample Time: 14:55

Sample ID: 7EX-3aMA

Flow Rate (Q)	151
Flow Totalizer	83374536
Elec Cond (u Ohms)	1650
Temp (Deg C)	24.8
pH	6.83
DO (mg/L)	7.5
Pressure (PSI)	6

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # 7EX-6MA

Date: January 15, 2024

Sample Time: 15:00

Sample ID: 7EX-6MA

Flow Rate (Q)	239
Flow Totalizer	111522632
Elec Cond (u Ohms)	1625
Temp (Deg C)	25.8
pH	7.01
DO (mg/L)	7.4
Pressure (PSI)	10

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # COS-31

Date: February 1, 2024

Sample Time: 11:16

Sample ID: Jorge Vivar.

Flow Rate (Q)	2551.9
Flow Totalizer	28002364
Elec Cond (u Ohms)	1607
Temp (Deg C)	27.8
pH	7.56
DO (mg/L)	7.7
Pressure (PSI)	22.2 PSI

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PCX-1

Date: 2/1/2024

Sample Time: 09:31

Sample ID: PCX-1

Flow Rate (Q)	2121.2
Flow Totalizer	822.0086
Elec Cond (u Ohms)	4056
Temp (Deg C)	33.1 C
pH	7.58
DO (mg/L)	7.8
Pressure (PSI)	[redacted] 37

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-14

Date: 2-1-24

Sample Time: 08:55

Sample ID: PV-14

Flow Rate (Q)	2135.73
Flow Totalizer	N/A
Elec Cond (u Ohms)	905
Temp (Deg C)	32.5C
pH	7.7
DO (mg/L)	6.9
Pressure (PSI)	N/A

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-15

Date: 2-1-24

Sample Time: 09:00

Sample ID: PV-15

Flow Rate (Q)	2129.74
Flow Totalizer	N/A
Elec Cond (u Ohms)	1062
Temp (Deg C)	33.0°
pH	7.81
DO (mg/L)	7.0
Pressure (PSI)	34

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # GR-1

Date: February 12, 2024

Sample Time: 11:25

Sample ID: GR-1-1A-02122024

Flow Rate (Q)	885
Flow Totalizer	29988881
Elec Cond (u Ohms)	1348
Temp (Deg C)	25.2
pH	6.53
DO (mg/L)	7.5
Pressure (PSI)	29.2

Additional Comments:

Sampled by: Robert Larry Lynch
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # COS-31

Date: 3/7/2024

Sample Time: 11:38

Sample ID: COS-31

Flow Rate (Q)	2539.2
Flow Totalizer	3300359
Elec Cond (u Ohms)	1643
Temp (Deg C)	27.1c
pH	7.57
DO (mg/L)	7.1
Pressure (PSI)	22.5

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # GR-1

Date: March 7, 2024

Sample Time: 11:55

Sample ID: GR-1-1A-03072024

Flow Rate (Q)	789
Flow Totalizer	3055496
Elec Cond (u Ohms)	1383
Temp (Deg C)	25.8°
pH	7.8
DO (mg/L)	7.2
Pressure (PSI)	29.2

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PCX-1

Date: 3/7/2024

Sample Time: 09:34

Sample ID: PCX-1

Flow Rate (Q)	2127.3
Flow Totalizer	930.8366
Elec Cond (u Ohms)	1566
Temp (Deg C)	32.7
pH	7.40
DO (mg/L)	7.9
Pressure (PSI)	37

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-14

Date: 3/7/2024

Sample Time: 9:07

Sample ID: PV-14

Flow Rate (Q)	2121.90
Flow Totalizer	N/A
Elec Cond (u Ohms)	954
Temp (Deg C)	31.4c
pH	7.8
DO (mg/L)	7.5
Pressure (PSI)	N/A

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-15

Date: 3/7/2024

Sample Time: 9:02

Sample ID: PV-15

Flow Rate (Q)	2169.86
Flow Totalizer	N/A
Elec Cond (u Ohms)	1101
Temp (Deg C)	32.1 C
pH	7.83
DO (mg/L)	6.8
Pressure (PSI)	38

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # COS-31

Date: April 5 2024

Sample Time: 11:20

Sample ID: COS-31

Flow Rate (Q)	2697.4
Flow Totalizer	9437248.
Elec Cond (u Ohms)	1449
Temp (Deg C)	N/A
pH	7.42
DO (mg/L)	N/A
Pressure (PSI)	22.8
ORP	167
Turb	0.67

Additional Comments:

PFAS SAMPLING

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # COS-75a

Date: April 5 2024

Sample Time: 08:08

Sample ID: COS-75a

Flow Rate (Q)	2027.2
Flow Totalizer	2164402
Elec Cond (u Ohms)	~~23.7~~ 1615
Temp (Deg C)	81.1
pH	7.02
DO (mg/L)	N/A
Pressure (PSI)	23.7
Turb	2.25 NTU

Additional Comments:

PFAS SAMPLING

Sampled by: ~~Jesus~~ Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # 7EX-3aMA

Date: 04-10-24

Sample Time: 14:44

Sample ID: 7EX-3aMA

Flow Rate (Q)	~~205~~ 175 Gal/min.
Flow Totalizer	100788544
Elec Cond (u Ohms)	1616
Temp (Deg C)	25.1
pH	7.66
DO (mg/L)	7.4
Pressure (PSI)	5 psi

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # 7EX-6MA

Date: 4/10/24

Sample Time: 13:42

Sample ID: 7EX-6MA

Flow Rate (Q)	209
Flow Totalizer	133286424
Elec Cond (u Ohms)	1733
Temp (Deg C)	25.1C
pH	7.6
DO (mg/L)	7.7
Pressure (PSI)	10

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # GR-1

Date: 04-10-24

Sample Time: 15:~~49~~47

Sample ID: GR-1

Flow Rate (Q)	786
Flow Totalizer	3061322
Elec Cond (u Ohms)	1295
Temp (Deg C)	26.0
pH	7.74
DO (mg/L)	7.2
Pressure (PSI)	29.9 PSI

Additional Comments:

Sampled by: Jorge Vidal
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # MEX-1MA

Date: 04-10-24

Sample Time: 15:43

Sample ID: MEX-1MA

Flow Rate (Q)	NOT MEASURED
Flow Totalizer	N/A
Elec Cond (u Ohms)	1521
Temp (Deg C)	27.1
pH	8.55
DO (mg/L)	7.9
Pressure (PSI)	N/A

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-14

Date: 04-10-2024

Sample Time: 13:25

Sample ID: PV-14

Flow Rate (Q)	2143.28
Flow Totalizer	N/A
Elec Cond (u Ohms)	928
Temp (Deg C)	32.4 °C
pH	7.84
DO (mg/L)	9.4
Pressure (PSI)	N/A

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-15

Date: 04-10-24

Sample Time: 13:20

Sample ID: PV-15

Flow Rate (Q)	2146.11
Flow Totalizer	N/A
Elec Cond (u Ohms)	1109
Temp (Deg C)	32.4 °C
pH	7.75
DO (mg/L)	7.2
Pressure (PSI)	42 psi

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # 7EX-3aMA

Date: 4/12/24

Sample Time: 11:20

Sample ID: 7EX-3aMA

Flow Rate (Q)	175
Flow Totalizer	101258256
Elec Cond (u Ohms)	1630
Temp (Deg C)	26.1 C
pH	7.59
DO (mg/L)	7.6
Pressure (PSI)	4

Additional Comments:

PFAS Sampling

Sampled by: Jesus Lynch

Printed

Jesus Lynch

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # 7EX-6MA

Date: 4-12-24

Sample Time: 11:25

Sample ID: 7EX-6MA

Flow Rate (Q)	217
Flow Totalizer	1337650888
Elec Cond (u Ohms)	1688
Temp (Deg C)	25.6°
pH	7.78
DO (mg/L)	8.5
Pressure (PSI)	9

Additional Comments:

PFAS Sampling

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # GR-1

Date: 4/12/24

Sample Time: 10:07

Sample ID: GR-1

Flow Rate (Q)	779
Flow Totalizer	3063388
Elec Cond (u Ohms)	1298
Temp (Deg C)	25.1°
pH	7.7
DO (mg/L)	8.9
Pressure (PSI)	29.6

Additional Comments:

PFAS Sampling

Sampled by: Jesse Lynch
Printed

Jesse Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # MEX-1MA

Date: 4/12/24

Sample Time: 10:52

Sample ID: MEX-1MA

Flow Rate (Q)	1445
Flow Totalizer	N/A 899
Elec Cond (u Ohms)	1210
Temp (Deg C)	26.7°
pH	7.5
DO (mg/L)	6.7
Pressure (PSI)	N/A

Additional Comments:

PFAS sampling

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PCX-1

Date: 04/12/2024

Sample Time: 13:00

Sample ID: PCX-1

Flow Rate (Q)	2144.4
Flow Totalizer	1034.993
Elec Cond (u Ohms)	1432
Temp (Deg C)	32.4°
pH	7.5
DO (mg/L)	7.2
Pressure (PSI)	37

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-14

Date: 4/12/24

Sample Time: 09:36

Sample ID: PV-14

Flow Rate (Q)	2139
Flow Totalizer	N/A
Elec Cond (u Ohms)	890
Temp (Deg C)	32.1 C
pH	7.06
DO (mg/L)	7.5
Pressure (PSI)	N/A

Additional Comments:

PFAS Sampling

Sampled by: Jesus Zynda

Printed

Jesus Zynda

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-15

Date: 4/12/24

Sample Time: 09:20

Sample ID: PV-15

Flow Rate (Q)	2145.73
Flow Totalizer	N/A
Elec Cond (u Ohms)	1075
Temp (Deg C)	31.7°
pH	7.73
DO (mg/L)	7.5
Pressure (PSI)	41

Additional Comments:

PFAS Sampling

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # COS-71a

Date: 4/17/2024

Sample Time: 09:55

Sample ID: COS-71a

Flow Rate (Q)	513.90
Flow Totalizer	665097.5
Elec Cond (u Ohms)	1884
Temp (Deg C)	77.8F
pH	7.22
DO (mg/L)	7.3
Pressure (PSI)	62

Additional Comments:

Sampled by: Jesus Lynch
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # GR-1

Date: 05-01-24

Sample Time: 11:15

Sample ID: GR-1

Flow Rate (Q)	785
Flow Totalizer	3070856
Elec Cond (u Ohms)	1326
Temp (Deg C)	26.1 C
pH	7.6
DO (mg/L)	8.1
Pressure (PSI)	29

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # MEX-1MA

Date: 05-01-24

Sample Time: 11:08

Sample ID: MEX-1MA

Flow Rate (Q)	903
Flow Totalizer	N/A
Elec Cond (u Ohms)	1369
Temp (Deg C)	26.7C
pH	7.6
DO (mg/L)	7.6
Pressure (PSI)	N/A

Additional Comments:

Sampled by: Jess Lynch
Printed

Jess Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-11

Date: 5/1/24

Sample Time: 09:50

Sample ID: PV-11

Flow Rate (Q)	2402
Flow Totalizer	8204053
Elec Cond (u Ohms)	720
Temp (Deg C)	33.1 C
pH	7.6
DO (mg/L)	7.6
Pressure (PSI)	28

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-12B

Date: 05/01/24

Sample Time: 09:36

Sample ID: PV-12B

Flow Rate (Q)	3210
Flow Totalizer	7432727
Elec Cond (u Ohms)	681
Temp (Deg C)	31.6 C
pH	7.7
DO (mg/L)	8.2
Pressure (PSI)	16

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-14

Date: 05/01/24

Sample Time: 09:11

Sample ID: PV-14

Flow Rate (Q)	2071.72
Flow Totalizer	N/A
Elec Cond (u Ohms)	929
Temp (Deg C)	31.4c
pH	7.7
DO (mg/L)	7.0
Pressure (PSI)	N/A

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # COS-75a

Date: 5-8-2014

Sample Time: 12:50

Sample ID: COS-75a

Flow Rate (Q)	2005
Flow Totalizer	2260388
Elec Cond (u Ohms)	1312
Temp (Deg C)	31.3
pH	7.28
DO (mg/L)	7.4
Pressure (PSI)	~~28~~ 23.6

Additional Comments:

Sampled by: RL LYNCH

Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PCX-1

Date: 05/08/2024

Sample Time: 1135

Sample ID: PCX-1

Flow Rate (Q)	2132
Flow Totalizer	111411
Elec Cond (u Ohms)	1236
Temp (Deg C)	34
pH	7.85
DO (mg/L)	7.6
Pressure (PSI)	38

Additional Comments:

Sampled by: R L LYNCH
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # MEX-1MA

Date: 6/7/24

Sample Time: 10:31

Sample ID: [redacted] MEX-1MA

Flow Rate (Q)	915
Flow Totalizer	N/A
Elec Cond (u Ohms)	1430
Temp (Deg C)	26.5c
pH	7.4
DO (mg/L)	~~12.1~~ 9.9
Pressure (PSI)	N/A

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-11

Date: 6/3/24

Sample Time: 09:45

Sample ID: PV-11

Flow Rate (Q)	2299
Flow Totalizer	8317975
Elec Cond (u Ohms)	1026
Temp (Deg C)	33.1°
pH	7.6
DO (mg/L)	9.7
Pressure (PSI)	34 psi

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-12B

Date: 6/3/24

Sample Time: 09:40

Sample ID: PV-12B

Flow Rate (Q)	3066
Flow Totalizer	7520890
Elec Cond (u Ohms)	661
Temp (Deg C)	33.4°
pH	7.61
DO (mg/L)	12.7
Pressure (PSI)	20

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # **PV-14**

Date: 6/3/24

Sample Time: 09:15

Sample ID: **PV-14**

Flow Rate (Q)	2080.52
Flow Totalizer	**N/A**
Elec Cond (u Ohms)	1919
Temp (Deg C)	31.6°
pH	7.6
DO (mg/L)	8.3
Pressure (PSI)	**N/A**

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-15

Date: 6/3/24

Sample Time: 09:20

Sample ID: PV-15

Flow Rate (Q)	2098.57
Flow Totalizer	N/A
Elec Cond (u Ohms)	1128
Temp (Deg C)	32.4°
pH	7.5
DO (mg/L)	8.5
Pressure (PSI)	66

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # ~~COS 71a~~ COS-75A Date: 06-05-24

Sample Time: 9:29

Sample ID: COS-75A.

Flow Rate (Q)	1983.6
Flow Totalizer	2323377.
Elec Cond (u Ohms)	1488
Temp (Deg C)	31.1 C
pH	7.34
DO (mg/L)	7.0
Pressure (PSI)	~~23~~ psi 23

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

FIGURE 9. NIBW Groundwater Mc toring Field Data Report
Production ell

Well # ~~COS-31~~ PCX-1 Date: 06.05.24

Sam Time: ~~8:25~~ 8:40

S. ple ID: _____

Flow Rate (Q)	2122.6	
Flow Totalizer	1196.756	
Elec Cond (u Ohms)	1488	
Temp (Deg C)	33.5	
pH	7.34	
DO (mg/L)	6.9	
Pressure (PSI)	39 psi	

Additional Comments:

Sar ed by: Jorge Vivar
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # 7EX-3aMA

Date: July-02-24

Sample Time: 9:10

Sample ID: 7EX-3a MA

Flow Rate (Q)	175
Flow Totalizer	119532809
Elec Cond (u Ohms)	1692
Temp (Deg C)	27.5
pH	7.5
DO (mg/L)	7.5
Pressure (PSI)	5psi

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # 7EX-6MA

Date: Jul-02-24.

Sample Time: 9:08

Sample ID: 7EX-6MA

Flow Rate (Q)	206 GPM
Flow Totalizer	18264368
Elec Cond (u Ohms)	1770
Temp (Deg C)	27.0°
pH	7.5
DO (mg/L)	8.9
Pressure (PSI)	8psi

Additional Comments:

Sampled by: Jorge Vivar

Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # COS-75a

Date: July-02

Sample Time: 8:30

Sample ID: COS-75a

Flow Rate (Q)	1984.9
Flow Totalizer	240441
Elec Cond (u Ohms)	1747
Temp (Deg C)	31.2
pH	7.15
DO (mg/L)	7.9
Pressure (PSI)	23~~8~~ psi

Additional Comments:

Sampled by: Jorge Viva
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # GR-1 ~~GR-1A~~

Date: 7/2/24

Sample Time: 09:45

Sample ID: GR-1-1A - 07022024

Flow Rate (Q)	885
Flow Totalizer	N/A
Elec Cond (u Ohms)	1323
Temp (Deg C)	26.6°
pH	7.4
DO (mg/L)	7.9
Pressure (PSI)	28

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # **MEX-1MA**

Date: 7-2-2024

Sample Time: 09:35

Sample ID: MEX-1-1A-07022024

Flow Rate (Q)	908
Flow Totalizer	**N/A**
Elec Cond (u Ohms)	1379
Temp (Deg C)	28.0
pH	7.48
DO (mg/L)	9.3
Pressure (PSI)	**N/A**

Additional Comments:

Sampled by: Jorge Vidal
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PCX-1 [redacted]

Date: 7/2/24

Sample Time: 13:00

Sample ID: PCX-1

Flow Rate (Q)	2125.9
Flow Totalizer	1,277,927
Elec Cond (u Ohms)	1488
Temp (Deg C)	34.0°
pH	7.41
DO (mg/L)	~~11.2~~ 8.4
Pressure (PSI)	41

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-11

Date: JULY 2, 2024

Sample Time: 8:05

Sample ID: PV-11

Flow Rate (Q)	2297
Flow Totalizer	8413928
Elec Cond (u Ohms)	987
Temp (Deg C)	36.6 C
pH	7.6
DO (mg/L)	8.6
Pressure (PSI)	32 psi

Additional Comments:

Sampled by: Jorge Vigon
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-12B

Date: JULY 2, 2024

Sample Time: 8:10

Sample ID: PV-12B

Flow Rate (Q)	3045
Flow Totalizer	7577270
Elec Cond (u Ohms)	682
Temp (Deg C)	34.0
pH	7.6
DO (mg/L)	8.4
Pressure (PSI)	26 PSI

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

90.4 F
(32.6

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # **PV-14**

Date: JULY 2, 2024

Sample Time: 07:30

Sample ID: **PV-14**

Flow Rate (Q)	2039.46
Flow Totalizer	**N/A**
Elec Cond (u Ohms)	9.84
Temp (Deg C)	32.6
pH	7.7
DO (mg/L)	7.6
Pressure (PSI)	**N/A**

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # **PV-15**

Date: JULY 2, 2024

Sample Time: 07:35

Sample ID: **PV-15**

Flow Rate (Q)	2068.89
Flow Totalizer	**N/A**
Elec Cond (u Ohms)	1129
Temp (Deg C)	32.6
pH	7.73
DO (mg/L)	6.9
Pressure (PSI)	66 psi

Additional Comments:

Sampled by: Jorge Viva
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # COS-75a

Date: 8-1-24

Sample Time: 08:00

Sample ID: COS-75a

Flow Rate (Q)	1962.1
Flow Totalizer	2485115
Elec Cond (u Ohms)	834
Temp (Deg C)	30.7
pH	7.64
DO (mg/L)	7.4
Pressure (PSI)	23 psi

Additional Comments:

Sampled by: Jorge Vinot
Printed

Signature

FIGURE 9. **NIBW Groundwater Monitoring Field Data Report**
Production Well

Well # GR-1

Date: 5-1-24

Sample Time: 09:20

Sample ID: GR-1-1A-05012024

Flow Rate (Q)	767
Flow Totalizer	3102392
Elec Cond (u Ohms)	1246
Temp (Deg C)	26.3
pH	7.5
DO (mg/L)	7.0
Pressure (PSI)	28.8 psi

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # **MEX-1MA**

Date: 8-1-24

Sample Time: 09:05

Sample ID: ~~MEX-1MA-08012024~~ MEX-1-1A-08012024

Flow Rate (Q)	9/6
Flow Totalizer	N/A
Elec Cond (u Ohms)	12154
Temp (Deg C)	26.5
pH	7.55
DO (mg/L)	7.1
Pressure (PSI)	N/A

Additional Comments:

Sampled by: Jorge Vivas
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PCX-1

Date: 08/01/2024

Sample Time: 08:30

Sample ID: PCX-1

Flow Rate (Q)	2134
Flow Totalizer	1337704
Elec Cond (u Ohms)	1449
Temp (Deg C)	33.7
pH	7.4
DO (mg/L)	7.1
Pressure (PSI)	37

Additional Comments:

Sampled by: Jorge vivar

Printed

Signature

FIGURE 9. **NIBW Groundwater Monitoring Field Data Report**
Production Well

Well # PV-11

Date: 8-1-24

Sample Time: 7:45

Sample ID: **PV-11**

Flow Rate (Q)	2277
Flow Totalizer	85177414
Elec Cond (u Ohms)	923
Temp (Deg C)	32.9
pH	7.71
DO (mg/L)	7.2
Pressure (PSI)	32 psi

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

FIGURE 9. **NIBW Groundwater Monitoring Field Data Report**
Production Well

Well # PV-12B

Date: 8-1-24

Sample Time: 7:35

Sample ID: PV-12B

Flow Rate (Q)	3031
Flow Totalizer	7664732
Elec Cond (u Ohms)	744
Temp (Deg C)	33.6
pH	7.71
DO (mg/L)	7.6
Pressure (PSI)	25 psi

Additional Comments:

Sampled by: Jorge Vivar

Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-14

Date: 8-1-24

Sample Time: 07:00

Sample ID: PV-14

Flow Rate (Q)	2140.59
Flow Totalizer	N/A
Elec Cond (u Ohms)	968
Temp (Deg C)	32.4
pH	7.70
DO (mg/L)	8.0
Pressure (PSI)	N/A

Additional Comments:

Sampled by: Jorge Vigar
Printed

Signature

FIGURE 9. **NIBW Groundwater Monitoring Field Data Report**
Production Well

Well # PV-15

Date: 8-1-24

Sample Time: 07:10

Sample ID: PV-15

Flow Rate (Q)	2075.24
Flow Totalizer	N/A
Elec Cond (u Ohms)	1125
Temp (Deg C)	32.9
pH	7.71
DO (mg/L)	6.9
Pressure (PSI)	65

Additional Comments:

Sampled by: Jorge Vivas
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # COS-75a

Date: 9/4/24

Sample Time: 07:37

Sample ID: COS-75a

Flow Rate (Q)	1959.9
Flow Totalizer	2580949
Elec Cond (u Ohms)	1687
Temp (Deg C)	33.2 C
pH	7.12
DO (mg/L)	7.1
Pressure (PSI)	[redacted] 22.9

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # GR-1

Date: 9/4/24

Sample Time: 9:48

Sample ID:

Flow Rate (Q)	763
Flow Totalizer	3139897
Elec Cond (u Ohms)	1270
Temp (Deg C)	23.2
pH	7.54
DO (mg/L)	7.6
Pressure (PSI)	28.6

Additional Comments:

Sampled by: Jorge Vivas
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # **MEX-1MA** Date: 9/4/24

Sample Time: 09:40

Sample ID: Mex-1MA

Flow Rate (Q)	842
Flow Totalizer	**N/A**
Elec Cond (u Ohms)	1307
Temp (Deg C)	26.8
pH	7.4
DO (mg/L)	6.5
Pressure (PSI)	**N/A**

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # **PCX-1**

Date: 09/04/2024

Sample Time: 9:12

Sample ID: **PCX-1**

Flow Rate (Q)	2065
Flow Totalizer	143.864
Elec Cond (u Ohms)	1450
Temp (Deg C)	33.8
pH	7.4
DO (mg/L)	7.8
Pressure (PSI)	36 psi

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-11

Date: 9-4-24

Sample Time: 09:48

Sample ID: PV-11

Flow Rate (Q)	2300
Flow Totalizer	8619624
Elec Cond (u Ohms)	744
Temp (Deg C)	33.0c
pH	7.7
DO (mg/L)	7.2
Pressure (PSI)	30

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-12B

Date: 9-4-24

Sample Time: 09:50

Sample ID: PV-12B

Flow Rate (Q)	3059
Flow Totalizer	7758507
Elec Cond (u Ohms)	1025
Temp (Deg C)	36.6°
pH	7.2
DO (mg/L)	7.6
Pressure (PSI)	18

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # **PV-14**

Date: 9/4/24

Sample Time: 10:00

Sample ID: **PV-14**

Flow Rate (Q)	2085.13
Flow Totalizer	**N/A**
Elec Cond (u Ohms)	980
Temp (Deg C)	32.1 F
pH	802
DO (mg/L)	7.3
Pressure (PSI)	**N/A**

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-15

Date: 09.04.24

Sample Time: 10:05

Sample ID: PV-15

Flow Rate (Q)	2086.81
Flow Totalizer	N/A
Elec Cond (u Ohms)	1220
Temp (Deg C)	25.0
pH	8.04
DO (mg/L)	6.9
Pressure (PSI)	63psi

Additional Comments:

Sampled by: Jorge Vivas
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # 7EX-3aMA

Date: 10/1/24

Sample Time: 09:40

Sample ID: 7EX-3aMA

Flow Rate (Q)	175
Flow Totalizer	139725648
Elec Cond (u Ohms)	1605
Temp (Deg C)	26
pH	7.49
DO (mg/L)	8.2
Pressure (PSI)	6

Additional Comments:

Sampled by: Jesse Lynch
Printed

Jesse Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # 7EX-6MA

Date: 10/1/24

Sample Time: 09:05

Sample ID: 7EX-6MA

Flow Rate (Q)	208
Flow Totalizer	175144016
Elec Cond (u Ohms)	1595
Temp (Deg C)	26.0C
pH	7.63
DO (mg/L)	7.5
Pressure (PSI)	12

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. **NIBW Groundwater Monitoring Field Data Report**
Production Well

Well # COS-75a

Date: 10/1/24

Sample Time: 07:13

Sample ID: COS-75a

Flow Rate (Q)	1962
Flow Totalizer	2651487
Elec Cond (u Ohms)	1635
Temp (Deg C)	~~35.0~~ 30.5
pH	7.26
DO (mg/L)	6.6
Pressure (PSI)	23

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. **NIBW Groundwater Monitoring Field Data Report**
Production Well

Well # GR-1

Date: 10-1-24

Sample Time: 10:45

Sample ID: GR-1-1A-10012024

Flow Rate (Q)	757
Flow Totalizer	3169585
Elec Cond (µ Ohms)	1277
Temp (Deg C)	26.3
pH	7.63
DO (mg/L)	8.5
Pressure (PSI)	28.4

Additional Comments:

Sampled by: R L CYNCH III
Printed

Signature

FIGURE 9. **NIBW Groundwater Monitoring Field Data Report**
Production Well

Well # **MEX-1MA**

Date: 10-1-2024

Sample Time: 10:25

Sample ID: MEX-1-1A-10012024

Flow Rate (Q)	837
Flow Totalizer	N/A
Elec Cond (u Ohms)	1283
Temp (Deg C)	26.8
pH	7.63
DO (mg/L)	7.2
Pressure (PSI)	N/A

Additional Comments:

Sampled by: R L LYNCH
Printed

Signature

FIGURE 9. **NIBW Groundwater Monitoring Field Data Report**
Production Well

Well # PCX-1

Date: 10/01/2024

Sample Time: 07:35

Sample ID: PCX-1

Flow Rate (Q)	2038.9
Flow Totalizer	1517.804
Elec Cond (u Ohms)	1445
Temp (Deg C)	33.6 C.
pH	7.44
DO (mg/L)	7.6
Pressure (PSI)	~~28~~ 35

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-11

Date: 10/1/24

Sample Time: 06:55

Sample ID: PV-11

Flow Rate (Q)	2313
Flow Totalizer	8707532
Elec Cond (u Ohms)	754
Temp (Deg C)	34
pH	7.83
DO (mg/L)	8.1
Pressure (PSI)	29

Additional Comments:

Sampled by: J. LYNCH

Printed

Signature

FIGURE 9. **NIBW Groundwater Monitoring Field Data Report**
Production Well

Well # PV-12B

Date: 10/1/24

Sample Time: 06:48

Sample ID: **PV-12B**

Flow Rate (Q)	3052
Flow Totalizer	7820687
Elec Cond (u Ohms)	640
Temp (Deg C)	34.0°
pH	7.71
DO (mg/L)	7.1
Pressure (PSI)	17

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-14

Date: 10/1/24

Sample Time: 06:18

Sample ID: PV-14

Flow Rate (Q)	212.05
Flow Totalizer	N/A
Elec Cond (u Ohms)	936
Temp (Deg C)	32.4
pH	7.76
DO (mg/L)	8.0
Pressure (PSI)	N/A

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. **NIBW Groundwater Monitoring Field Data Report**
Production Well

Well # PV-15

Date: 10/1/24

Sample Time: 06:25

Sample ID: PV-15

Flow Rate (Q)	2157.10
Flow Totalizer	N/A
Elec Cond (u Ohms)	1092
Temp (Deg C)	32.7°
pH	7.71
DO (mg/L)	7.2
Pressure (PSI)	58

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # GR-1

Date: 11.04.2024

Sample Time: 9:50

Sample ID: GR-1-1A-11042024

Flow Rate (Q)	752
Flow Totalizer	3206427
Elec Cond (u Ohms)	987
Temp (Deg C)	24.9
pH	7.2
DO (mg/L)	8.5
Pressure (PSI)	28.9

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # MEX-1MA

Date: 11.04.24

Sample Time: 9:30

Sample ID: MEX-1MA-11042024.

Flow Rate (Q)	89?
Flow Totalizer	N/A
Elec Cond (u Ohms)	1223
Temp (Deg C)	25.4
pH	7.7
DO (mg/L)	7.3
Pressure (PSI)	N/A

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PCX-1

Date: 11/04/2024

Sample Time: 8:55

Sample ID: PCX-1

Flow Rate (Q)	2034.9
Flow Totalizer	1617.311
Elec Cond (u Ohms)	1285
Temp (Deg C)	32.3
pH	7.44
DO (mg/L)	7.7
Pressure (PSI)	62.4

Additional Comments:

Sampled by:

Printed

Jorge Vivar.

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-11

Date: 11-4-2024

Sample Time: 7:38

Sample ID: PV-11

Flow Rate (Q)	2313
Flow Totalizer	8821380
Elec Cond (u Ohms)	1254
Temp (Deg C)	32c
pH	7.72
DO (mg/L)	7.1
Pressure (PSI)	30

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-12B

Date: 11-4-24

Sample Time: 07:28

Sample ID: PV-12B

Flow Rate (Q)	3028
Flow Totalizer	7903377
Elec Cond (u Ohms)	~~1668~~ 1224
Temp (Deg C)	33.0°
pH	8.0
DO (mg/L)	6.3
Pressure (PSI)	21

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-14

Date: 11-4-24

Sample Time: 06:50

Sample ID: PV-14

Flow Rate (Q)	2117.54
Flow Totalizer	N/A
Elec Cond (u Ohms)	1871
Temp (Deg C)	32.0°
pH	7.94
DO (mg/L)	9.6
Pressure (PSI)	N/A

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-15

Date: 11-4-24

Sample Time: 06:55

Sample ID: PV-15

Flow Rate (Q)	2157.73
Flow Totalizer	N/A
Elec Cond (u Ohms)	1476
Temp (Deg C)	31.0°
pH	7.90
DO (mg/L)	7.8
Pressure (PSI)	58

Additional Comments:

Sampled by: Jesus Zynch

Printed

Jesus Zynch

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # COS-31

Date: 12.02.24

Sample Time: 9:45

Sample ID:

Flow Rate (Q)	2537.1
Flow Totalizer	6313724
Elec Cond (u Ohms)	
Temp (Deg C)	27.5
pH	7.0pH
DO (mg/L)	6.9
Pressure (PSI)	18.8

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # GR-1

Date: 12.02.2024

Sample Time: _____

Sample ID: _____

Flow Rate (Q)	739
Flow Totalizer	3736.615
Elec Cond (u Ohms)	
Temp (Deg C)	25.7
pH	7.2
DO (mg/L)	7.4
Pressure (PSI)	28.2

Additional Comments:

Sampled by: Jorge Vivas
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # **MEX-1MA**

Date: 12-02-2024

Sample Time: 10:20

Sample ID: MEX-1MA

Flow Rate (Q)	849
Flow Totalizer	**N/A**
Elec Cond (u Ohms)	1387
Temp (Deg C)	25.9
pH	7.1
DO (mg/L)	7.4
Pressure (PSI)	**N/A**

Additional Comments:

Sampled by: Jorge Vivar
Printed

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PCX-1

Date: 12-2-24

Sample Time: 08:15

Sample ID: PCX-1

Flow Rate (Q)	2015.4
Flow Totalizer	1699.002
Elec Cond (u Ohms)	
Temp (Deg C)	32.1C
pH	7.77
DO (mg/L)	8.0
Pressure (PSI)	[redacted] 35

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-11

Date: 12-2-24

Sample Time: 07:37

Sample ID: PV-11

Flow Rate (Q)	2429
Flow Totalizer	8892566
Elec Cond (u Ohms)	1105
Temp (Deg C)	32°
pH	7.77
DO (mg/L)	9.7
Pressure (PSI)	22

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-14

Date: [redacted] 12/2/24

Sample Time: 07:10

Sample ID: PV-14

Flow Rate (Q)	2065.92
Flow Totalizer	N/A
Elec Cond (u Ohms)	928
Temp (Deg C)	32.0°
pH	7.78
DO (mg/L)	8.0
Pressure (PSI)	N/A

Additional Comments:

Sampled by: Jesus Lynch

Printed

Jesus Lynch

Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # PV-15

Date: 12/2/24

Sample Time: 07:06

Sample ID: PV-15

Flow Rate (Q)	2120.69
Flow Totalizer	N/A
Elec Cond (u Ohms)	1075
Temp (Deg C)	32.5°C
pH	7.74
DO (mg/L)	8.7
Pressure (PSI)	62

Additional Comments:

Sampled by: Jesus Lynch
Printed

Jesus Lynch
Signature

FIGURE 9. NIBW Groundwater Monitoring Field Data Report
Production Well

Well # COS-75a

Date: 12-13-24

Sample Time: 11:06

Sample ID: COS-75a

Flow Rate (Q)	1968
Flow Totalizer	2734453
Elec Cond (u Ohms)	1131
Temp (Deg C)	32.4
pH	7.11
DO (mg/L)	6.8
Pressure (PSI)	23.6

Additional Comments:

Sampled by: R. L. LYNCH

Printed

Signature

APPENDIX E
MONITORING WELL CALIBRATION FORMS

Equipment Calibration Form

Date/Time of Calibration: January 8, 2024 5:00 AM
Sample Party
Company: Confluence Environmental
Personnel: A. Dewitz
Field Parameter Unit: YSI pro plus
Unit Serial Number: 0415
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	2GE006	May 31, 2024	15	4.02	4
pH 7	OGD808	October 31, 2024	15	7.09	7
pH 10	2GD857	April 30, 2024	15	9.94	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	2GI1137	September 30, 2024	15	1,511	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
244	042023	July 31, 2024	15	

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100	15.9	95.8	100

Turbidity Calibration
Turbidity Calibration Verification:

800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID: DGSI Water Level Indicator 500’
Sampling Equipment: Submersible Pump -
Comments:



Signature:

North Indian Bend Wash Superfund Site

Equipment Calibration Form

Date/Time of Calibration: January 9, 2024 6:10 AM
Sample Party
Company: Confluence Environmental
Personnel: A. Dewitz
Field Parameter Unit: YSI Pro plus
Unit Serial Number: 0415
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	2GE006	May 31, 2024	2.8	4.14	4
pH 7	OGD808	October 31, 2024	2.8	7.11	7
pH 10	2GD857	April 30, 2024	2.8	9.97	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	2GI1137	September 30, 2024	2.8	1,503	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
257	04023	July 20, 2024	5	

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100	0	98.1	100

Turbidity Calibration
Turbidity Calibration Verification:

800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID: Heron dipper-T2 300’
Sampling Equipment: Submersible Pump -
Comments:



Signature:

Equipment Calibration Form

Date/Time of Calibration: January 9, 2024 12:51 PM
Sample Party
Company: Montgomery & Associates
Personnel: A. Platt, E. Boyle
Field Parameter Unit: Myron L Ultrameter II 6PFCE
Unit Serial Number: 6223037
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	4GA1251	January 2026		4.34	4
pH 7	4GA1179	January 2026	17.5	6.87	7.02
pH 10	4GA0900	January 2026		10.34	9.99

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	4GA1091	January 2025	18.3	1,430	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
240				

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100			

Turbidity Calibration
Turbidity Calibration Verification:

800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID:
Sampling Equipment: HydraSleeve -
Comments:



Signature:

North Indian Bend Wash Superfund Site

Equipment Calibration Form

Date/Time of Calibration: January 10, 2024 7:40 AM
Sample Party
Company: Montgomery & Associates
Personnel: A. Platt
Field Parameter Unit: Myron L Ultrameter II 6PFCE
Unit Serial Number: 6223037
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	4GA1251	January 2026		4.02	4
pH 7	4GA1179	January 2026	11.8	6.97	6.99
pH 10	4GA0900	January 2026		9.96	10.01

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	4GA1091	January 2025	11.6	1,440	1,412

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
240				

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100			

Turbidity Calibration
Turbidity Calibration Verification:

800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID:
Sampling Equipment: HydraSleeve -
Comments:



Signature:

North Indian Bend Wash Superfund Site

Equipment Calibration Form

Date/Time of Calibration: January 10, 2024 7:45 AM
Sample Party
Company: Confluence Environmental
Personnel: A. Dewitz
Field Parameter Unit: YSI Pro plus
Unit Serial Number: 0415
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	2GE006	May 31, 2024	4.8	4.03	4
pH 7	OGD808	October 31, 2024	4.8	6.95	7
pH 10	2GD857	April 30, 2024	4.827	9.92	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	2GI1137	September 30, 2024	4.8	1,433	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
257	042023	July 31, 2024	5	

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100	5.4	99.2	100

Turbidity Calibration
Turbidity Calibration Verification:

800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID: Heron dipper-T2 300’
Sampling Equipment: Submersible Pump -
Comments:



Signature:

North Indian Bend Wash Superfund Site

Equipment Calibration Form

Date/Time of Calibration: January 11, 2024 7:30 AM
Sample Party
Company: Confluence Environmental
Personnel: A. Dewitz
Field Parameter Unit: YSI Pro plus
Unit Serial Number: 0415
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	2GE006	May 31, 2024	4.5	4.02	4
pH 7	OGD808	October 31, 2024	4.5	7	7
pH 10	2GD857	April 30, 2024	4.5	9.97	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	2GI1137	September 30, 2024	4.5	1,420	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
257	04202023	July 31, 2024	5	

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100	4.7	95.6	100

Turbidity Calibration
Turbidity Calibration Verification:

800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID: Heron Dipper-T2 300’
Sampling Equipment: HydraSleeve -
Comments:



Signature:

North Indian Bend Wash Superfund Site

Equipment Calibration Form

Date/Time of Calibration: April 4, 2024 7:09 AM
Sample Party
Company: Montgomery & Associates
Personnel: A. Platt
Field Parameter Unit: Myron L Ultrameter II 6PFCE
Unit Serial Number: 6297871
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	4GA1251	January 2026	69.6	4.03	3.97
pH 7	4GA1179	January 2026	69.3	7.02	7
pH 10	4GA0900	January 2026	68.5	10	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	4GA1091	January 2025	69.8	1,406	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
240			67.7	

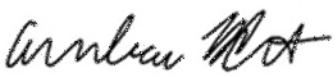
Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100			

Turbidity Calibration
Turbidity Calibration Verification:

800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID:
Sampling Equipment: HydraSleeve -
Comments:



Signature:

North Indian Bend Wash Superfund Site

Equipment Calibration Form

Date/Time of Calibration: April 9, 2024 5:50 AM
Sample Party
Company: Confluence Environmental
Personnel: E. Morse
Field Parameter Unit: YSI Pro plus
Unit Serial Number: 0396
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	13453	June 1, 2024	13.2	3.96	4
pH 7	14336	June 2, 2025	13.2	6.99	7
pH 10	15667	June 1, 2024	13.2	9.97	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	26345	July 1, 2025	13.5	1,398	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
244	12723	April 3, 2025	15	

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100	13.9	96	100

Turbidity Calibration
Turbidity Calibration Verification:

800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID: Heron dipper-T2 500ft
Sampling Equipment: Submersible Pump -
Comments:

Signature: 

North Indian Bend Wash Superfund Site

Equipment Calibration Form

Date/Time of Calibration: April 10, 2024 6:00 AM
Sample Party
Company: Confluence Environmental
Personnel: E. Morse
Field Parameter Unit: Ysi Pro plus
Unit Serial Number: 0396
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	25562	April 10, 2024	15	3.89	4
pH 7	24581	April 10, 2024	15	6.95	7
pH 10	27410	April 10, 2024	15	9.99	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	23559	June 27, 2024	16	1,411	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
244	12733	March 1, 2025	15	

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100	15	96	100

Turbidity Calibration
Turbidity Calibration Verification:

800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID: Heron dipper-T2
Sampling Equipment: Submersible Pump -
Comments:



Signature:

Equipment Calibration Form

Date/Time of Calibration: July 3, 2024 6:45 AM
Sample Party
Company: Montgomery & Associates
Personnel: A. Platt
Field Parameter Unit: Myron L Ultrameter II 6PFCE
Unit Serial Number: 6223037
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	4GA1251	January 2026	29.1	6.98	6.99
pH 7	4GA1179	January 2026	29.2	4.01	4.01
pH 10	4GA0900	January 2026	29	9.82	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	4GA1091	January 2025	28.2	1,454	1,412

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100			

Turbidity Calibration
Turbidity Calibration Verification:

800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID:
Sampling Equipment: HydraSleeve -
Comments:



Signature:

North Indian Bend Wash Superfund Site

Equipment Calibration Form

Date/Time of Calibration: July 8, 2024 11:56 PM
Sample Party
Company: Confluence Environmental
Personnel: E. Morse, N. Alva
Field Parameter Unit: Ysi Pro plus
Unit Serial Number: 0396
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4		November 30, 2024	25	4	4
pH 7		October 24, 2024	25	7	7
pH 10		November 26, 2024	25	10	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413		August 31, 2024	25	1,412	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
231		July 31, 2024	25	

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100	25	99	100

Turbidity Calibration
Turbidity Calibration Verification:

800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID: Heron
Sampling Equipment: -
Comments:

Signature: 

Equipment Calibration Form

Date/Time of Calibration: July 9, 2024 5:10 AM

Sample Party

Company: Confluence Environmental

Personnel: N. Alva

Field Parameter Unit: Ysi Pro Plus

Unit Serial Number: 0397

pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4		November 22, 2024	25	4	4
pH 7		December 28, 2024	25	7	7
pH 10		December 19, 2024	25	10	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413			25	1,412	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
231			25	

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100	25	99.2	100

Turbidity Calibration

Turbidity Calibration Verification:

800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID: Heron

Sampling Equipment: -

Comments:



Signature:

Equipment Calibration Form

Date/Time of Calibration: October 7, 2024 1:15 PM
Sample Party
Company: Confluence Environmental
Personnel: N. Alva
Field Parameter Unit: Ysi
Unit Serial Number: 0582
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	076661	October 1, 2025	25	3.9	4
pH 7	07654	January 1, 2026	25	7	7
pH 10	06652	February 4, 2026	25	9.9	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,434	02213	February 14, 2025	25	1,412	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
240	076721	January 10, 2025	25	240

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100	25	100	100

Turbidity Calibration
Turbidity Calibration Verification:
20 NTU, 100 NTU, 800 NTU
800 NTU – Turbidity Calibration Check: 800

Water Level Indicator Type/ID: Heron
Sampling Equipment: -
Comments:



Signature:

North Indian Bend Wash Superfund Site

Equipment Calibration Form

Date/Time of Calibration: October 9, 2024 7:04 AM
Sample Party
Company: Montgomery & Associates
Personnel: A. Platt
Field Parameter Unit: Myron L Ultrameter II 6PFCE
Unit Serial Number: 6223037
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	4GA1251	January 2026	25.2	3.9	3.98
pH 7	4GA1179	January 2026	25.4	6.69	7.02
pH 10	4GA0900	January 2026	25.1	9.63	10.01

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	4GA1091	January 2025	25.1	1,392	1,412

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
240	7788	June 2027	23.5	231

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100			

Turbidity Calibration
Turbidity Calibration Verification:

800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID: PHX 3
Sampling Equipment: HydraSleeve -
Comments:



Signature:

North Indian Bend Wash Superfund Site

Equipment Calibration Form

Date/Time of Calibration: October 10, 2024 11:27 AM
Sample Party
Company: Montgomery & Associates
Personnel: E. Boyle
Field Parameter Unit: Myron L Ultrameter II 6PFCE & Hach Turbidity 2100Q
Unit Serial Number: 6297871 & 21010D000380
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	4GA1251	January 2026		4.01	4
pH 7	4GA1179	January 2026	28.7	7.01	7
pH 10	4GA0900	January 2026		10.04	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	4GA1091	January 2025	28.1	1,425	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
240	7788	June 2027		218

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100			

Turbidity Calibration
Turbidity Calibration Verification: Passed with 10 NTU standard – 10.1 NTU

800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID:
Sampling Equipment: HydraSleeve -
Comments:



Signature:

Equipment Calibration Form

Date/Time of Calibration: October 10, 2024 2:29 PM
Sample Party
Company: Montgomery & Associates
Personnel: A. Platt, R. Briggs
Field Parameter Unit: Myron L Ultrameter II 6PFCE & Hach Turbidity 2100Q
Unit Serial Number: 6223037 & 23060D00240
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	4GA1251	January 2026	37.2	4.09	4
pH 7	4GA1179	January 2026	37.1	7.08	7.02
pH 10	4GA0900	January 2026	37	10.03	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	4GA1091	January 2025	37	1,412	1,411

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
240	7788	June 2027	33.9	221

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100			

Turbidity Calibration
Turbidity Calibration Verification: Passed with 10 NTU standard – 9.49 NTU

800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID: PHX 3
Sampling Equipment: HydraSleeve -
Comments:

Signature:

Equipment Calibration Form

Date/Time of Calibration: October 11, 2024 6:40 AM
Sample Party
Company: Montgomery & Associates
Personnel: A. Platt, R. Briggs
Field Parameter Unit: Myron L Ultrameter II 6PFCE & Hach Turbidity 2100Q
Unit Serial Number: 6223037 & 23060D000240

pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	4GA1251	January 2026	29.1	4.16	3.99
pH 7	4GA1179	January 2026	29.2	7.14	7.01
pH 10	4GA0900	January 2026	29	10.22	10.01

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	4GA1091	January 2025	28.9	1,424	1,412

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
240	7788	June 2027	29	218

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100			

Turbidity Calibration

Turbidity Calibration Verification: Passed with 10 NTU standard - 9.94 NTU

800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID:
Sampling Equipment: HydraSleeve -
Comments: Lot no A3166 Exp. Sept 2024



Signature:

North Indian Bend Wash Superfund Site

Equipment Calibration Form

Date/Time of Calibration: October 15, 2024 7:40 AM
Sample Party
Company: Montgomery & Associates
Personnel: A. Platt
Field Parameter Unit: Myron L Ultrameter II 6PFCE and Hach Turbidity 2100Q
Unit Serial Number: 6223037 & 23060D00240
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	4GA1251	January 2026	26.1	3.83	3.99
pH 7	4GA1179	January 2026	26	6.94	7.03
pH 10	4GA0900	January 2026	25.8	10.08	10.02

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	4GA1091	January 2025	26.7	1,424	1,412

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
240	7788	June 2027	24.4	231

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100			

Turbidity Calibration
Turbidity Calibration Verification:
20 NTU, 100 NTU, 800 NTU
800 NTU – Turbidity Calibration Check: 787

Water Level Indicator Type/ID: M&A PFAS free
Sampling Equipment: HydraSleeve -
Comments:



Signature:

North Indian Bend Wash Superfund Site

Equipment Calibration Form

Date/Time of Calibration: October 16, 2024 7:44 AM
Sample Party
Company: Montgomery & Associates
Personnel: A. Platt, G. Rump
Field Parameter Unit: Myron L Ultrameter II 6PFCE and Hach Turbidity 2100Q
Unit Serial Number: 6223037 & 23060D000240

pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	4GA1251	January 2026	26.2	4.1	3.99
pH 7	4GA1179	January 2026	25.8	7.02	7.02
pH 10	4GA0900	January 2026	25.6	9.95	10.01

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	4GA1091	January 2025	24.9	1,427	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
240	7788	June 2027	24.2	232

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100			

Turbidity Calibration

Turbidity Calibration Verification:
20 NTU, 100 NTU, 800 NTU
800 NTU – Turbidity Calibration Check: 790

Water Level Indicator Type/ID: PHX 6
Sampling Equipment: HydraSleeve -
Comments:



Signature:

Equipment Calibration Form

Date/Time of Calibration: October 16, 2024 2:30 PM

Sample Party

Company: Montgomery & Associates

Personnel: E. Boyle

Field Parameter Unit: Myron L Ultrameter II 6PFCE & Hach Turbidity 2100Q

Unit Serial Number: 6297871 & 21010D000380

pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	4GA1251	January 2026		4.06	4
pH 7	4GA1179	January 2026	32.3	6.9	7
pH 10	4GA0900	January 2026		10.14	

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	4GA1091	January 2025	32.6	1,375	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
240	7788	June 2027		214

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100			

Turbidity Calibration

Turbidity Calibration Verification: Passed with 10 NTU standard - 9.67 NTU

800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID:

Sampling Equipment: -

Comments:

Signature: 

North Indian Bend Wash Superfund Site

Equipment Calibration Form

Date/Time of Calibration: October 17, 2024 6:53 AM
Sample Party
Company: Montgomery & Associates
Personnel: A. Platt, G. Rump
Field Parameter Unit: Myron L Ultrameter II 6PFCE and Hach Turbidity 2100Q
Unit Serial Number: 6223037 & 23060D000240
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	4GA1251	January 2026	24.3	3.98	3.94
pH 7	4GA1179	January 2026	24.7	7.12	7.01
pH 10	4GA0900	January 2026	25	9.86	10.01

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	4GA1091	January 2025	26.8	1,418	1,413

ORP Calibration

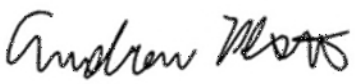
Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
240	7788	June 2027	24.1	231

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100			

Turbidity Calibration
Turbidity Calibration Verification:
20 NTU, 100 NTU, 800 NTU
800 NTU – Turbidity Calibration Check: 789

Water Level Indicator Type/ID: PHX 6
Sampling Equipment: HydraSleeve -
Comments:



Signature:

North Indian Bend Wash Superfund Site

Equipment Calibration Form

Date/Time of Calibration: October 17, 2024 9:24 AM
Sample Party
Company: Montgomery & Associates
Personnel: E. Boyle
Field Parameter Unit: Myron L Ultrameter II 6PFCE & Hach Turbidity 2100Q
Unit Serial Number: 6297871 & 21010D000380

pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	4GA1251	January 2026		3.92	4
pH 7	4GA1179	January 2026		6.94	7
pH 10	4GA0900	January 2026		10.04	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	4GA1091	January 2025	26.2	1,380	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
240	7788	June 2027		221

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100			

Turbidity Calibration

Turbidity Calibration Verification:
20 NTU, 100 NTU, 800 NTU
800 NTU – Turbidity Calibration Check: 798

Water Level Indicator Type/ID:
Sampling Equipment: HydraSleeve -
Comments:



Signature:

North Indian Bend Wash Superfund Site

Equipment Calibration Form

Date/Time of Calibration: October 22, 2024 1:06 PM
Sample Party
Company: Montgomery & Associates
Personnel: A. Platt, E. Boyle
Field Parameter Unit: Myron L Ultrameter II 6PFCE & Hach Turbidity 2100Q
Unit Serial Number: 6223037 & 23060D000240
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	4GA1251	January 2026		3.87	4
pH 7	4GA1179	January 2026	28.3	7	7
pH 10	4GA0900	January 2026		9.96	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	4GA1091	January 2025		1,444	1,413

ORP Calibration

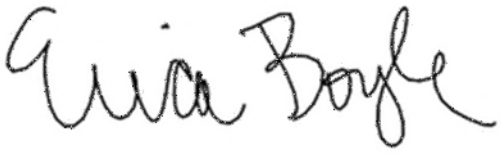
Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
240	7788	June 2027	29.3	227

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100			

Turbidity Calibration
Turbidity Calibration Verification:
20 NTU, 100 NTU, 800 NTU
800 NTU – Turbidity Calibration Check: 796

Water Level Indicator Type/ID:
Sampling Equipment: HydraSleeve -
Comments:



Signature:

North Indian Bend Wash Superfund Site

Equipment Calibration Form

Date/Time of Calibration: October 24, 2024 9:20 AM
Sample Party
Company: Montgomery & Associates
Personnel: E. Boyle, R. Briggs
Field Parameter Unit: Myron L Ultrameter II 6PFCE & Hach Turbidity 2100Q
Unit Serial Number: 6297871 & 23060D000240
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	4GA1251	January 2026		3.93	4
pH 7	4GA1179	January 2026		7.01	7
pH 10	4GA0900	January 2026		10.06	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	4GA1091	January 2025		1,376	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
240	7788	June 2027		235

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100			

Turbidity Calibration
Turbidity Calibration Verification: Passed with 10 NTU standard – 10.7 NTU
20 NTU, 100 NTU, 800 NTU
800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID:
Sampling Equipment: -
Comments:



Signature:

Equipment Calibration Form

Date/Time of Calibration: November 19, 2024 1:30 PM
Sample Party
Company: Confluence Environmental
Personnel: N. Alva
Field Parameter Unit: Ysi Quattro
Unit Serial Number: 0576
pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	0231	January 31, 2026	15	4.3	4
pH 7	0682	February 27, 2026	15	7.1	7
pH 10	1836	March 2, 2026	15	10	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413		February 28, 2026	15	1,410	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
240	0772	April 30, 2026	15	240

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100	10	99.7	100

Turbidity Calibration
Turbidity Calibration Verification:
20 NTU, 100 NTU, 800 NTU
800 NTU – Turbidity Calibration Check: 800

Water Level Indicator Type/ID: Heron
Sampling Equipment: - Dedicated
Comments:



Signature:

Equipment Calibration Form

Date/Time of Calibration: November 19, 2024 2:40 PM
Sample Party
Company: Montgomery & Associates
Personnel: E. Boyle
Field Parameter Unit: Myron L Ultrameter II 6PFCE
Unit Serial Number: 6297871

pH Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading	Post-Calibration Reading
pH 4	4GA1251	January 2026		4.08	4
pH 7	4GA1179	January 2026		6.85	7
pH 10	4GA0900	January 2026		10.01	10

Conductivity Calibration

Standard	Lot Number	Expiration Date	Temperature (°C)	Pre-Calibration Reading (µS/cm)	Post-Calibration Reading (µS/cm)
1,413	4GA1091	January 2025		1,410	1,413

ORP Calibration

Standard ORP (mV)	Lot Number	Expiration Date	Temperature (°C)	Bump Test Reading (mV)
240	7788	June 2027		227

Dissolved Oxygen Calibration

Standard DO (%)	Temperature (°C)	Pre-Calibration Reading (%)	Post-Calibration Reading (%)
100			

Turbidity Calibration

Turbidity Calibration Verification:
20 NTU, 100 NTU, 800 NTU
800 NTU – Turbidity Calibration Check:

Water Level Indicator Type/ID:
Sampling Equipment: -
Comments:



Signature:

APPENDIX E
MONITORING WELL FIELD SAMPL**E** DATA FORMS

Field Sample Data Form - Pump

Well Name: M-15MA
Sample Collected Date and Time: January 8, 2024 4:50 PM
Sample ID: M-15MA

Weather:

Sample Party

Company: Confluence
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 96.97
Water Column Thickness (ft): 203.03
Initial Casing Volume (gal): 0
Casing Volume (gal): 131.96
Minimum Purge Volume (gal): 263.93
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
16:30	Yes		0		0							Clear/none
16:30	Yes	96.97	0	0	0	8.3	22.9	953		30.4		Clear/none
16:34	Yes	102.88	80	80	20	8.18	22.2	962		28.5		Clear / no odor
16:38	Yes	102.9	160	160	20	8.03	23.5	977		18.9		clear/none
16:42	Yes	102.94	240	240	20	8.01	23.2	971		18.7		Clear / no odor
16:46	Yes	102.95	320	320	20	7.99	22.8	973		25.3		Clear/none
16:46	16:50	102.95	320	320	20	7.99	22.8	973		25.3		Clear/none

Sample Information

Sample Collected Date and Time: January 8, 2024 4:50 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: No
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: No totalizer used
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-1LA
Sample Collected Date and Time: January 8, 2024 3:55 PM
Sample ID: PG-1LA

Weather:

Sample Party

Company: Confluence
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 809
Depth for Casing Volume Calc (ft bls): 809
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 223.7
Water Column Thickness (ft): 585.3
Initial Casing Volume (gal): 0
Casing Volume (gal): 380.44
Minimum Purge Volume (gal): 760.89
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
15:14	Yes		0									Clear / no odor
15:14	Yes	223.7	0	0	0	8.12	25.7	521		106.4		Clear/none
15:24	Yes	224.58	200	200	20	7.95	27.8	705		68		Clear / no odor
15:34	Yes	224.76	400	400	20	7.86	29.4	734		66		Clear/none
15:44	Yes	225.08	600	600	20	7.8	28.7	734		63.3		Clear / no odor
15:54	Yes	225.22	800	800	20	7.76	28.3	741		61.3		Clear/ no odor
15:54	15:55	225.22	800	800	20	7.76	28.3	741		61.3		Clear / no odor

Sample Information

Sample Collected Date and Time: January 8, 2024 3:55 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: No
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: 800 gallons purged before sample taken. No totalizer used
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: E-1MA
Sample Collected Date and Time: January 9, 2024 1:10 PM
Sample ID: E-1MA

Weather:

Sample Party

Company: Confluence
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 91.3
Water Column Thickness (ft): 208.7
Initial Casing Volume (gal): 0
Casing Volume (gal): 135.65
Minimum Purge Volume (gal): 271.31
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
12:38	Yes		6,890		0							Clear / no odor
12:45	Yes	94.99	6,960	70	10	7.57	24.1	1,056		43.7		Clear / no odor
12:52	Yes	95.12	7,030	140	10	7.47	24.3	1,066		36.4		Clear / no odor
12:59	Yes	95.13	7,100	210	10	7.42	24.2	1,072		46.4		Clear / no odor
13:06	Yes	95.13	7,170	280	10	7.4	24.3	1,074		51.2		Clear / no odor
13:06	13:10	95.13	7,170	280	10	7.4	24.3	1,074		51.2		Clear / no odor

Sample Information

Sample Collected Date and Time: January 9, 2024 1:10 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: No
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: Double checked DTW
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: E-5MA
Sample Collected Date and Time: January 9, 2024 2:45 PM
Sample ID: E-5MA

Weather:

Sample Party

Company: Confluence
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 83.12
Water Column Thickness (ft): 216.88
Initial Casing Volume (gal): 0
Casing Volume (gal): 140.97
Minimum Purge Volume (gal): 281.94
Condition of Well: 3/3 bolts missing

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
14:19	Yes		7,520		10							Clear / no odor
14:25	Yes	84.37	7,595	75	12.5	7.53	24.8	1,211		-28.5		Clear / no odor
14:31	Yes	84.53	7,670	150	12.5	7.41	24.6	1,211		4.4		Clear / no odor
14:36	Yes	84.55	7,745	225	15	7.4	24.5	1,203		17.8		Clear / no odor
14:41	Yes	84.56	7,820	300	15	7.38	24.5	1,198		24.3		Clear / no odor
14:41	14:45	84.56	7,820	300	15	7.38	24.5	1,198		24.3		Clear / no odor

Sample Information

Sample Collected Date and Time: January 9, 2024 2:45 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: E-8MA
Sample Collected Date and Time: January 9, 2024 2:00 PM
Sample ID: E-8MA

Weather:

Sample Party

Company: Confluence
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 77.24
Water Column Thickness (ft): 222.76
Initial Casing Volume (gal): 0
Casing Volume (gal): 144.79
Minimum Purge Volume (gal): 289.58
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
13:39	Yes		7,190									Clear / no odor
13:44	Yes	80.41	7,265	75	15	7.63	24.9	985		64.9		Clear / no odor
13:49	Yes	80.51	7,340	150	15	7.53	25.2	1,003		62.1		Clear / no odor
13:55	Yes	80.55	7,415	225	12.5	7.5	25.1	999		58.6		Clear / no odor
14:00	Yes	80.69	7,490	300	15	7.47	25.2	1,000		58.8		Clear / no odor
14:00	14:00	80.69	7,490	300	15	7.47	25.2	1,000		58.8		Clear / no odor

Sample Information

Sample Collected Date and Time: January 9, 2024 2:00 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:

Signature: 

Field Sample Data Form - HydraSleeve

Well Name: M-17MA/LA
Sample Collected Date and Time: January 9, 2024 1:14 PM
Sample ID: M-17MA/LAHS
Weather: Temperature 54 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 124.6

HydraSleeve Information

HydraSleeve Set Date and Time: January 9, 2024 8:40 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 276.9
Tag Depth of well (ft bls): 300.7
Weight Size: Compact weight: 23oz
Tether Type: Metered tether
HydraSleeve Bag Type: HS-2 (unarmored) - 600 mL

Field Parameters

Time of Collection of Stable Parameters: 13:14
Stable pH (standard units): 9.44
Stable Temperature (°C): 22.3
Stable Specific Conductance (µS/cm): 2,116
Stable ORP (mV): 198
Stable Turbidity (NTU):
Remarks: Bubbles, trace solids

Sample Information

Sample Collected Date and Time: January 9, 2024 1:14 PM
Sample Odor: Yes
Sample Appearance: Murky
Sample ID: M-17MA/LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PA-12MA
Sample Collected Date and Time: January 9, 2024 12:00 PM
Sample ID: PA-12MA

Weather:

Sample Party

Company: Confluence
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 114.66
Water Column Thickness (ft): 185.34
Initial Casing Volume (gal): 0
Casing Volume (gal): 120.47
Minimum Purge Volume (gal): 240.94
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
11:36	Yes		6,616		12.8							Clear / no odor
11:41	Yes	115.22	6,680	64	12.8	7.81	24.2	1,075		68.8		Clear / no odor
11:47	Yes	115.23	6,745	129	10.83	7.72	24.5	1,054		61.4		Clear / no odor
11:53	Yes	115.26	6,810	194	10.83	7.69	24.6	1,046		50		Clear / no odor
11:59	Yes	115.34	6,875	259	10.83	7.66	24.8	1,045		44.1		Clear / no odor
11:59	12:00	115.34	6,875	259	10.83	7.66	24.8	1,045		44.1		Clear / no odor

Sample Information

Sample Collected Date and Time: January 9, 2024 12:00 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-42LA
Sample Collected Date and Time: January 9, 2024 8:50 AM
Sample ID: PG-42LA

Weather:

Sample Party

Company: Confluence
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 759
Depth for Casing Volume Calc (ft bls): 759
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 275.61
Water Column Thickness (ft): 483.39
Initial Casing Volume (gal): 0
Casing Volume (gal): 314.20
Minimum Purge Volume (gal): 628.40
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
08:11	Yes		5,660									Clear / no odor
08:20	Yes	276.46	5,820	160	17.78	7.35	29.5	752		13.8		Clear / no odor
08:30	Yes	276.46	5,980	320	16	7.31	29.6	843		54.7		Clear / no odor
08:38	Yes	276.46	6,140	480	20	7.28	29.6	882		62.7		Clear / no odor
08:48	Yes	276.46	6,300	640	16	7.27	29.8	896		67.7		Clear / no odor
08:48	08:50	276.46	6,300	640	16	7.27	29.8	896		67.7		Clear / no odor

Sample Information

Sample Collected Date and Time: January 9, 2024 8:50 AM
Sample Odor: Yes
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: No
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: S-2LA
Sample Collected Date and Time: January 9, 2024 7:25 AM
Sample ID: S-2LA

Weather:

Sample Party

Company: Confluence
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 668
Depth for Casing Volume Calc (ft bls): 668
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 218.74
Water Column Thickness (ft): 449.26
Initial Casing Volume (gal): 0
Casing Volume (gal): 292.01
Minimum Purge Volume (gal): 584.03
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
06:25	No		5,025									Clear/none
06:40	Yes	237.49	5,180	155	10.33	7.67	21	743		188.1		Clear/none
06:55	Yes	237.5	5,330	305	10	7.48	25.3	778		145.8		Clear / no odor
07:08	Yes	237.5	5,480	455	11.54	7.42	26.4	779		133.7		Clear / no odor
07:21	Yes	237.5	5,630	605	11.54	7.39	26.5	781		128.3		Clear / no odor
07:21	07:25	237.5	5,630	605	11.54	7.39	26.5	781		128.3		Clear/none

Sample Information

Sample Collected Date and Time: January 9, 2024 7:25 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: Yes
Duplicate ID: B
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: W-2MA
Sample Collected Date and Time: January 9, 2024 10:45 AM
Sample ID: W-2MA

Weather:

Sample Party

Company: ConfluenceHi
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 290
Depth for Casing Volume Calc (ft bls): 290
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 117.97
Water Column Thickness (ft): 172.03
Initial Casing Volume (gal): 0
Casing Volume (gal): 111.81
Minimum Purge Volume (gal): 223.63
Condition of Well: 1/2 bolts missing

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
10:23	Yes		6,355									brown tint/no
10:28	Yes	128.41	6,415	60	12	7.61	24.5	1,311		79.2		Clear / no odor
10:33	Yes	130.08	6,475	120	12	7.54	24.7	1,285		76.9		Clear / no odor
10:38	Yes	130.66	6,535	180	12	7.5	24.8	1,262		75.4		Clear / no odor
10:43	Yes	130.88	6,595	240	12	7.49	24.8	1,253		74.4		Clear / no odor
10:43	10:45	130.88	6,595	240	12	7.49	24.8	1,253		74.4		Clear / no odor

Sample Information

Sample Collected Date and Time: January 9, 2024 10:45 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: 1/2 bolts missing
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: E-10MA
Sample Collected Date and Time: January 10, 2024 1:13 PM
Sample ID: E-10MAHS
Weather: Temperature 58 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 132.19

HydraSleeve Information

HydraSleeve Set Date and Time: January 8, 2024 3:35 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 277.4
Tag Depth of well (ft bls): 301.1
Weight Size: 11 oz compact
Tether Type: Metered tether
HydraSleeve Bag Type: HS-2 (unarmored) - 600 mL

Field Parameters

Time of Collection of Stable Parameters: 13:13
Stable pH (standard units): 8.02
Stable Temperature (°C): 21.8
Stable Specific Conductance (µS/cm): 1,087
Stable ORP (mV): 9
Stable Turbidity (NTU):
Remarks:

Sample Information

Sample Collected Date and Time: January 10, 2024 1:13 PM
Sample Odor: No
Sample Appearance:
Sample ID: E-10MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: Slightly turbid in bottom third of bag, .5 inches solids
Photos:

Signature: Erica Boyle

Field Sample Data Form - HydraSleeve

Well Name: M-2MA
Sample Collected Date and Time: January 10, 2024 9:32 AM
Sample ID: M-2MAHS-256
Weather: Temperature 57 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 93.09

HydraSleeve Information

HydraSleeve Set Date and Time: January 5, 2024 11:15 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 256.4
Tag Depth of well (ft bls): 296.1
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: HS-2 (armored) - 500 mL

Field Parameters

Time of Collection of Stable Parameters: 9:32
Stable pH (standard units): 7.42
Stable Temperature (°C): 19.7
Stable Specific Conductance (µS/cm): 1,206
Stable ORP (mV): 98
Stable Turbidity (NTU):
Remarks: Black suspended sediment, 1.5 inches on bottom

Sample Information

Sample Collected Date and Time: January 10, 2024 9:32 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: M-2MAHS256
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: M-2MA
Sample Collected Date and Time: January 10, 2024 9:44 AM
Sample ID: M-2MAHS-275
Weather: Temperature 56 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 93.09

HydraSleeve Information

HydraSleeve Set Date and Time: January 5, 2024 11:15 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 275
Tag Depth of well (ft bls): 296.1
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: HS-2 (armored) - 500 mL

Field Parameters

Time of Collection of Stable Parameters: 9:44
Stable pH (standard units): 7.95
Stable Temperature (°C): 16.5
Stable Specific Conductance (µS/cm): 1,103
Stable ORP (mV): 65
Stable Turbidity (NTU):
Remarks: Black suspended sediment, 1 inch on bottom

Sample Information

Sample Collected Date and Time: January 10, 2024 9:44 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: M-2MAHS-275
Is there a duplicate associated with this sample?: Yes
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: M-2MA
Sample Collected Date and Time: January 10, 2024 9:53 AM
Sample ID: M-2MAHS-290
Weather: Temperature 60 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 93.09

HydraSleeve Information

HydraSleeve Set Date and Time: January 5, 2024 11:15 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 290.5
Tag Depth of well (ft bls): 296.1
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: HS-2 (armored) - 500 mL

Field Parameters

Time of Collection of Stable Parameters: 9:53
Stable pH (standard units): 7.86
Stable Temperature (°C): 13.5
Stable Specific Conductance (µS/cm): 1,145
Stable ORP (mV): 61
Stable Turbidity (NTU):
Remarks: Slightly cloudy, brown suspended sediment, 1 inch on bottom

Sample Information

Sample Collected Date and Time: January 10, 2024 9:53 AM
Sample Odor: No
Sample Appearance: Murky
Sample ID: M-2MAHS-290
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?: No
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Andrew Platt

Signature:

Field Sample Data Form - HydraSleeve

Well Name: M-4MA
Sample Collected Date and Time: January 10, 2024 9:02 AM
Sample ID: M-4MAHS
Weather: Temperature 56 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 95.84

HydraSleeve Information

HydraSleeve Set Date and Time: January 5, 2024 9:55 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 272.7
Tag Depth of well (ft bls): 290.25
Weight Size: Bullet weight: 5oz
Tether Type: Metered tether
HydraSleeve Bag Type: HS-2 (unarmored) - 600 mL

Field Parameters

Time of Collection of Stable Parameters: 9:02
Stable pH (standard units): 7.46
Stable Temperature (°C): 16.9
Stable Specific Conductance (µS/cm): 1,060
Stable ORP (mV): 165
Stable Turbidity (NTU):
Remarks: Black suspended solids, 1 inch on bottom

Sample Information

Sample Collected Date and Time: January 10, 2024 9:02 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: M-4MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-5MA
Sample Collected Date and Time: January 10, 2024 9:30 AM
Sample ID: M-5MA

Weather:

Sample Party

Company: Confluence
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 302
Depth for Casing Volume Calc (ft bls): 302
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 98.21
Water Column Thickness (ft): 203.79
Initial Casing Volume (gal): 0
Casing Volume (gal): 132.46
Minimum Purge Volume (gal): 264.92
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
09:04	Yes		8,080		12							Clear / no odor
09:09	No	103.73	8,150	70	14	7.72	23.9	987		12.2		Clear / no odor
09:14	Yes	103.18	8,220	140	14	7.63	24.5	1,008		18.2		Clear/ no odor
09:20	Yes	103.9	8,290	210	11.67	7.58	24.8	1,006		23.1		Clear/n one
09:26	No	103.09	8,360	280	11.67	7.55	24.9	1,005		24.3		Clear/ no odor
09:26	09:30	103.09	8,360	280	11.67	7.55	24.9	1,005		24.3		Clear/ no odor

Sample Information

Sample Collected Date and Time: January 10, 2024 9:30 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-6MA
Sample Collected Date and Time: January 10, 2024 12:50 PM
Sample ID: M-6MA

Weather:

Sample Party

Company: Confluence
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 302
Depth for Casing Volume Calc (ft bls): 302
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 95.8
Water Column Thickness (ft): 206.2
Initial Casing Volume (gal): 0
Casing Volume (gal): 134.03
Minimum Purge Volume (gal): 268.06
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
11:35	Yes		8,875		4							Clear / no odor
11:52	Yes	98.05	8,945	70	4.12	7.48	25.1	1,090		42.2		Clear / no odor
12:12	Yes	98.08	9,015	140	3.5	7.45	25.5	1,091		49.7		Clear / no odor
12:28	Yes	98.14	9,085	210	4.38	7.43	25.2	1,091		53		Clear / no odor
12:47	Yes	98.14	9,155	280	3.68	7.44	25.6	1,093		57.5		Clear / no odor
12:47	12:50	98.14	9,155	280	3.68	7.44	25.6	1,093		57.5		Clear / no odor

Sample Information

Sample Collected Date and Time: January 10, 2024 12:50 PM
Sample Odor: Yes
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:

Signature:



Field Sample Data Form - Pump

Well Name: M-10MA2
Sample Collected Date and Time: January 10, 2024 1:50 PM
Sample ID: M-10MA2

Weather:

Sample Party

Company: Confluence
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 1
Initial Water Level (ft/bmp): 100.95
Water Column Thickness (ft): 199.05
Initial Casing Volume (gal): 0
Casing Volume (gal): 199.05
Minimum Purge Volume (gal): 398.18
Condition of Well: 1/3 bolts missing

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
13:17	Yes		9,165		12							Clear / no odor
13:25	Yes	103.62	9,265	100	12.5	7.5	25	1,082		69.1		Clear / no odor
13:32	Yes	103.65	9,365	200	14.29	7.47	25.2	1,100		72.8		Clear / no odor
13:39	Yes	103.66	9,465	300	14.29	7.47	25.3	1,100		73		Clear / no odor
13:47	Yes	103.66	9,565	400	12.5	7.47	25.1	1,101		73.8		Clear / no odor
13:47	13:50	103.66	9,565	400	12.5	7.47	25.1	1,101		73.8		Clear / no odor

Sample Information

Sample Collected Date and Time: January 10, 2024 1:50 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: Yes
Duplicate ID: C
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: M-12MA2
Sample Collected Date and Time: January 10, 2024 12:33 PM
Sample ID: M-12MA2HS
Weather: Temperature 57 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 154.93

HydraSleeve Information

HydraSleeve Set Date and Time: January 5, 2024 3:55 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 276.4
Tag Depth of well (ft bls): 298.3
Weight Size: Bullet weight: 8oz
Tether Type: Nylon rope
HydraSleeve Bag Type: HS-2 (unarmored) - 600 mL

Field Parameters

Time of Collection of Stable Parameters: 12:33
Stable pH (standard units): 6.97
Stable Temperature (°C): 22.9
Stable Specific Conductance (µS/cm): 1,250
Stable ORP (mV):
Stable Turbidity (NTU):
Remarks: Orp -2 mV

Sample Information

Sample Collected Date and Time: January 10, 2024 12:33 PM
Sample Odor: Yes
Sample Appearance: Clear
Sample ID: M-12MA2HS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: Slight earthy odor, approx .75 inch settled solids
Photos:

Signature: Erica Boyle

Field Sample Data Form - Pump

Well Name: PA-5LA
Sample Collected Date and Time: January 10, 2024 5:20 PM
Sample ID: PA-5LA

Weather:

Sample Party

Company: Confluence
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 802
Depth for Casing Volume Calc (ft bls): 802
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 189.62
Water Column Thickness (ft): 612.38
Initial Casing Volume (gal): 0
Casing Volume (gal): 398.04
Minimum Purge Volume (gal): 796.09
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
16:20	Yes		10,300		13							Clear / no odor
16:35	Yes	197.57	10,500	200	13.33	8.22	27.7	990		-140.5		Clear / no odor
16:50	Yes	197.59	10,700	400	13.33	7.6	28.6	1,228		-134.4		Clear / no odor
17:05	Yes	197.59	10,900	600	13.33	7.35	28.7	1,255		-94.5		Clear / no odor
17:20	Yes	197.6	11,100	800	13.33	7.31	28.9	1,261		-85.2		Clear / no odor

Sample Information

Sample Collected Date and Time: January 10, 2024 5:20 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:

Signature: 

Field Sample Data Form - HydraSleeve

Well Name: PA-6LA
Sample Collected Date and Time: January 10, 2024 2:02 PM
Sample ID: PA-6LAHS
Weather: Temperature 57 °F

Sample Party

Company: M&A
Personnel: Andrew Platt

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 221.13

HydraSleeve Information

HydraSleeve Set Date and Time: January 8, 2024 3:00 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 744.8
Tag Depth of well (ft bls): 765.6
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: HS-2 (armored) - 500 mL

Field Parameters

Time of Collection of Stable Parameters: 14:02
Stable pH (standard units): 8:48
Stable Temperature (°C): 23.3
Stable Specific Conductance (µS/cm): 1,008
Stable ORP (mV):
Stable Turbidity (NTU):
Remarks: Metallic odor, 1 inch sediment, ORP: -15mV

Sample Information

Sample Collected Date and Time: January 10, 2024 2:02 PM
Sample Odor: Yes
Sample Appearance: Clear
Sample ID: PA-6LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:

Signature: 

Field Sample Data Form - HydraSleeve

Well Name: PA-10MA
Sample Collected Date and Time: January 10, 2024 1:37 PM
Sample ID: PA-10MAHS
Weather: Temperature 57 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 122.98

HydraSleeve Information

HydraSleeve Set Date and Time: January 9, 2024 3:50 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 267.9
Tag Depth of well (ft bls): 290.5
Weight Size: Bullet weight: 8oz
Tether Type: Metered tether
HydraSleeve Bag Type: HS-2 (armored) - 500 mL

Field Parameters

Time of Collection of Stable Parameters: 13:37
Stable pH (standard units): 8.85
Stable Temperature (°C): 22.8
Stable Specific Conductance (µS/cm): 1,058
Stable ORP (mV): 35
Stable Turbidity (NTU):
Remarks: Brown suspended sediment, 1.5 inches on bottom

Sample Information

Sample Collected Date and Time: January 10, 2024 1:37 PM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PA-10MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PA-13LA
Sample Collected Date and Time: January 10, 2024 3:20 PM
Sample ID: PA-13LA

Weather:

Sample Party

Company: Confluence
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 710
Depth for Casing Volume Calc (ft bls): 710
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 208.51
Water Column Thickness (ft): 501.49
Initial Casing Volume (gal): 0
Casing Volume (gal): 325.96
Minimum Purge Volume (gal): 651.93
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
14:31	Yes		9,590		15							Clear / no odor
14:43	Yes		9,760	170	14.17	7.3	28.1	1,288		-74.1		Clear / no odor
14:54	Yes		9,930	340	15.45	7.22	28	1,313		-44.3		Clear / no odor
15:05	Yes		10,100	510	15.45	7.2	27.9	1,322		-31.6		Clear / no odor
15:18			10,270	680	13.08	7.18	27.8	1,324		-27.2		Clear / no odor
15:18	15:20		10,270	680	13.08	7.18	27.8	1,324		-27.2		Clear / no odor

Sample Information

Sample Collected Date and Time: January 10, 2024 3:20 PM
Sample Odor:
Sample Appearance:
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered:
Field Observations: Unable to read water levels during pumping due to wet sounding port
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PA-20MA
Sample Collected Date and Time: January 10, 2024 8:20 AM
Sample ID: PA-20MA

Weather:

Sample Party

Company: Confluence
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 260
Depth for Casing Volume Calc (ft bls): 260
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 112.49
Water Column Thickness (ft): 147.51
Initial Casing Volume (gal): 0
Casing Volume (gal): 95.88
Minimum Purge Volume (gal): 191.76
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
07:57	Yes		7,850		11							Clear / no odor
08:02	Yes	113.51	7,900	50	10	7.02	23.8	1,360		-11.2		Clear / no odor
08:06	Yes	113.51	7,950	100	12.5	7.11	23.3	1,392		3.8		Clear / no odor
08:11	Yes	113.51	8,000	150	10	7.08	23.4	1,398		4.5		Clear / no odor
08:16	Yes	113.51	8,050	200	10	7.04	23.5	1,412		5.1		Clear / no odor
08:16	08:20	113.51	8,050	200	10	7.04	23.5	1,412		5.1		Clear / no odor

Sample Information

Sample Collected Date and Time: January 10, 2024 8:20 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-43LA
Sample Collected Date and Time: January 10, 2024 3:27 PM
Sample ID: PG-43LAHS
Weather: Temperature 57 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 234.71

HydraSleeve Information

HydraSleeve Set Date and Time: January 8, 2024 8:43 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 791
Tag Depth of well (ft bls): 859
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: HS-2 (armored) - 500 mL

Field Parameters

Time of Collection of Stable Parameters: 15:27
Stable pH (standard units): 9.53
Stable Temperature (°C): 23
Stable Specific Conductance (µS/cm): 505.9
Stable ORP (mV): 14
Stable Turbidity (NTU):
Remarks: Earthy odor, brown suspended sediment, 2 inches on bottom

Sample Information

Sample Collected Date and Time: January 10, 2024 3:27 PM
Sample Odor: Yes
Sample Appearance: Murky
Sample ID: PG-43LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-44LA
Sample Collected Date and Time: January 10, 2024 2:33 PM
Sample ID: PG-44LAHS
Weather: Temperature 56 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 278.67

HydraSleeve Information

HydraSleeve Set Date and Time: January 8, 2024 2:20 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 695
Tag Depth of well (ft bls): 752.6
Weight Size: Compact weight: 23oz
Tether Type:
HydraSleeve Bag Type: HS-2 (armored) - 500 mL

Field Parameters

Time of Collection of Stable Parameters: 14:33
Stable pH (standard units): 9.22
Stable Temperature (°C): 24.6
Stable Specific Conductance (µS/cm): 1,639
Stable ORP (mV): 7
Stable Turbidity (NTU):
Remarks:

Sample Information

Sample Collected Date and Time: January 10, 2024 2:33 PM
Sample Odor: Yes
Sample Appearance: Clear
Sample ID: PG-44LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: Smells of cricket excrement, unsure if it is in the water or on the bag; approx 1" of settled sediment
Photos:

Signature: Erica Boyle

Field Sample Data Form - Pump

Well Name: PG-48MA
Sample Collected Date and Time: January 10, 2024 11:20 AM
Sample ID: PG-48MA

Weather:

Sample Party

Company: Confluence
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 430
Depth for Casing Volume Calc (ft bls): 430
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 100.16
Water Column Thickness (ft): 329.84
Initial Casing Volume (gal): 0
Casing Volume (gal): 214.39
Minimum Purge Volume (gal): 428.79
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
10:08	Yes		8,420		10							Clear / no odor
10:21	Yes	207.13	8,530	110	8.46	7.41	23.9	920		-112.2		Clear/none
10:38	Yes	207.58	8,640	220	6.47	7.98	24.8	919		-50.1		Clear / no odor
10:58	Yes	208.18	8,750	330	5.5	7.9	25.6	933		13.2		Clear/ no odor
11:18	Yes	209.23	8,860	440	5.5	7.87	25.9	929		21.2		Clear / no odor
11:18	11:20	209.23	8,860	440	5.5	7.87	25.9	929		21.2		Clear / no odor

Sample Information

Sample Collected Date and Time: January 10, 2024 11:20 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: D-4MA
Sample Collected Date and Time: January 11, 2024 8:05 AM
Sample ID: D-4MA

Weather:

Sample Party

Company: Confluence
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: D-4MA

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 249.5
Depth for Casing Volume Calc (ft bls): 249.5
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 113.02
Water Column Thickness (ft): 136.48
Initial Casing Volume (gal): 0
Casing Volume (gal): 88.71
Minimum Purge Volume (gal): 177.42
Condition of Well: 3/3 bolts missing. 1 tab broken

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
07:46	Yes		11,110		13							Clear / no odor
07:50	Yes	117.25	11,160	50	12.5	7.23	24.1	1,326		102.2		Clear / no odor
07:54	Yes	117.83	11,210	100	12.5	7.33	24.3	1,324		120.2		Clear / no odor
07:58	Yes	117.8	11,260	150	12.5	7.34	24.2	1,323		113.1		Clear / no odor
08:02	Yes	117.96	11,310	200	12.5	7.35	24.2	1,322		110.5		Clear / no odor
08:02	08:05	117.96	11,310	200	12.5	7.35	24.2	1,322		110.5		Clear / no odor

Sample Information

Sample Collected Date and Time: January 11, 2024 8:05 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: Yes
Duplicate ID: D
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: W-1MA
Sample Collected Date and Time: January 11, 2024 10:05 AM
Sample ID: W-1MA

Weather:

Sample Party

Company: Confluence
Personnel: Austin_DeWitz

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 290
Depth for Casing Volume Calc (ft bls): 290
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 97.37
Water Column Thickness (ft): 192.63
Initial Casing Volume (gal): 0
Casing Volume (gal): 125.20
Minimum Purge Volume (gal): 250.41
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
08:31	Yes		11,350		4							Clear/ no odor
08:53	Yes	117.82	11,415	65	2.95	7.13	23.1	1,537		96.1		Clear / no odor
09:17	Yes	118.13	11,480	130	2.71	7.11	23.4	1,517		39.7		Clear / no odor
09:40	Yes	118.06	11,545	195	2.83	7.06	23.5	1,511		53.2		Clear / no odor
10:03	Yes	118.09	11,610	260	2.83	7.07	22.5	1,499		54.9		Clear / no odor
10:03	10:05	118.09	11,610	260	2.83	7.07	22.5	1,499		54.9		Clear / no odor

Sample Information

Sample Collected Date and Time: January 11, 2024 10:05 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: E-10MA
Sample Collected Date and Time: April 4, 2024 11:55 AM
Sample ID: E-10MAHS
Weather: Temperature 91 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 126.52

HydraSleeve Information

HydraSleeve Set Date and Time: April 2, 2024 3:18 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 277.4
Tag Depth of well (ft bls): 299.6
Weight Size: Compact weight: 17oz
Tether Type: Metered tether
HydraSleeve Bag Type: HS-2 (unarmored) - 600 mL

Field Parameters

Time of Collection of Stable Parameters: 11:55
Stable pH (standard units): 8.07
Stable Temperature (°C): 76.8
Stable Specific Conductance (µS/cm): 1,091
Stable ORP (mV): 184
Stable Turbidity (NTU):
Remarks:

Sample Information

Sample Collected Date and Time: April 4, 2024 11:55 AM
Sample Odor:
Sample Appearance: Clear
Sample ID: E-10MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?: No
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: Some brown suspended sediment, half inch on bottom
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: M-4MA
Sample Collected Date and Time: April 4, 2024 12:55 PM
Sample ID: M-4MAHS
Weather: Temperature 89 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 94.57

HydraSleeve Information

HydraSleeve Set Date and Time: April 3, 2024 12:00 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 272.7
Tag Depth of well (ft bls): 290.7
Weight Size: Bullet weight: 5oz
Tether Type: Metered tether
HydraSleeve Bag Type: HS-2 (unarmored) - 600 mL

Field Parameters

Time of Collection of Stable Parameters: 12:55
Stable pH (standard units): 8.01
Stable Temperature (°C): 81
Stable Specific Conductance (µS/cm): 1,132
Stable ORP (mV): 133
Stable Turbidity (NTU):
Remarks:

Sample Information

Sample Collected Date and Time: April 4, 2024 12:55 PM
Sample Odor: No
Sample Appearance: Murky
Sample ID: M-4MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: Suspended black sediment, about 1 inch on bottom
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PA-6LA
Sample Collected Date and Time: April 4, 2024 10:30 AM
Sample ID: PA-6LAHS
Weather: Temperature 89 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 219.63

HydraSleeve Information

HydraSleeve Set Date and Time: April 2, 2024 4:30 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 744.8
Tag Depth of well (ft bls): 758.3
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: HS-2 (armored) - 500 mL

Field Parameters

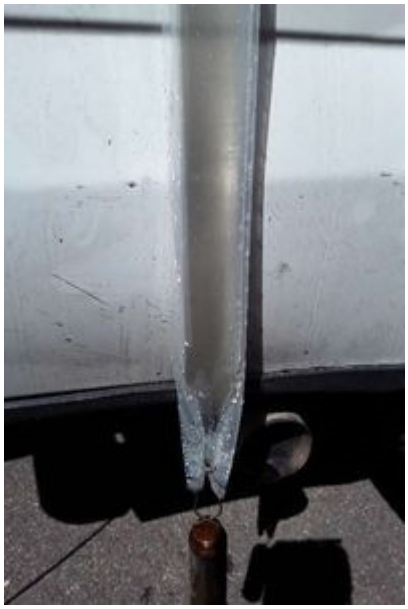
Time of Collection of Stable Parameters: 10:30
Stable pH (standard units): 8.26
Stable Temperature (°C): 28.1
Stable Specific Conductance (µS/cm): 976
Stable ORP (mV): 11
Stable Turbidity (NTU):
Remarks: ORP negative

Sample Information

Sample Collected Date and Time: April 4, 2024 10:30 AM
Sample Odor:
Sample Appearance: Clear
Sample ID: PA-6LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?: No
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: About half inch of black sediment on botom
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PA-10MA
Sample Collected Date and Time: April 4, 2024 11:25 AM
Sample ID: PA-10MAHS
Weather: Temperature 88 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 117.77

HydraSleeve Information

HydraSleeve Set Date and Time: April 3, 2024 2:25 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 267.9
Tag Depth of well (ft bls): 290.5
Weight Size: Bullet weight: 8oz
Tether Type: Metered tether
HydraSleeve Bag Type: HS-2 (armored) - 500 mL

Field Parameters

Time of Collection of Stable Parameters: 11:25
Stable pH (standard units): 8.5
Stable Temperature (°C): 26.9
Stable Specific Conductance (µS/cm): 1,097
Stable ORP (mV): 69
Stable Turbidity (NTU):
Remarks:

Sample Information

Sample Collected Date and Time: April 4, 2024 11:25 AM
Sample Odor: No
Sample Appearance: Murky
Sample ID: PA-10MAHS
Is there a duplicate associated with this sample?: Yes
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: Suspended brown sediment with 1 inch on bottom
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-43LA
Sample Collected Date and Time: April 4, 2024 8:40 AM
Sample ID: PG-43LAHS
Weather: Temperature 92 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 222.39

HydraSleeve Information

HydraSleeve Set Date and Time: April 3, 2024 8:10 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 791
Tag Depth of well (ft bls): 858.9
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: HS-2 (armored) - 500 mL

Field Parameters

Time of Collection of Stable Parameters: 8:40
Stable pH (standard units): 9.01
Stable Temperature (°C): 24.8
Stable Specific Conductance (µS/cm): 501.4
Stable ORP (mV): 179
Stable Turbidity (NTU):
Remarks:

Sample Information

Sample Collected Date and Time: April 4, 2024 8:40 AM
Sample Odor: Yes
Sample Appearance: Murky
Sample ID: PG-43LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: Earthy odor, about 2 inches of sediment on bottom of HS
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-44LA
Sample Collected Date and Time: April 4, 2024 9:30 AM
Sample ID: PG-44LAHS
Weather: Temperature 93 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 270.22

HydraSleeve Information

HydraSleeve Set Date and Time: April 3, 2024 9:20 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 695
Tag Depth of well (ft bls): 752.5
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: HS-2 (armored) - 500 mL

Field Parameters

Time of Collection of Stable Parameters: 9:30
Stable pH (standard units): 8.27
Stable Temperature (°C): 27.4
Stable Specific Conductance (µS/cm): 1,730
Stable ORP (mV): 188
Stable Turbidity (NTU):
Remarks:

Sample Information

Sample Collected Date and Time: April 4, 2024 9:30 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PG-44LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: About 1/2 inch of black sediment
Photos:





Signature:

Field Sample Data Form - Pump

Well Name: PG-1LA
Sample Collected Date and Time: April 8, 2024 4:10 PM
Sample ID: PG-1LA

Weather:

Sample Party

Company: Confluence
Personnel: Eric Morse

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 809
Depth for Casing Volume Calc (ft bls): 809
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 218.29
Water Column Thickness (ft): 590.71
Initial Casing Volume (gal): 0
Casing Volume (gal): 383.96
Minimum Purge Volume (gal): 767.92
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
14:50	No		17,369									
15:18	Yes	218.79	17,380	11	0.39	8.58	26.6	599		67.2		Replaced plug
15:28	Yes	219.31	17,584	215	20.4	8.4	29.6	600		-51.6		
15:38	Yes	219.58	17,750	381	16.6	8.18	29.9	601		-18		
15:58	Yes	219.95	17,991	622	12.05	8.15	30	603		-4.1		
16:05	No	220.13	18,140	771	21.29	8.13	30.1	619		15.3		
16:05	16:05	220.13	18,140	771	21.29	8.13	30.1	619		15.3		

Sample Information

Sample Collected Date and Time: April 8, 2024 4:10 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: No
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - Pump

Well Name: PG-40LA
Sample Collected Date and Time: April 8, 2024 12:45 PM
Sample ID: PG-40LA

Weather:

Sample Party

Company: Confluence
Personnel: Eric Morse

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 1,400
Depth for Casing Volume Calc (ft bls): 900
Unit Casing Volume (gal/ft): 2.6
Initial Water Level (ft/bmp): 251.55
Water Column Thickness (ft): 648.45
Initial Casing Volume (gal): 750
Casing Volume (gal): 1,685.97
Minimum Purge Volume (gal): 3,371.94
Condition of Well: Ok, no bolts

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
10:23	No		11,608									
10:25	Yes	251.55	11,619	11	5.5	7.63	32.7	1,017		37		
10:51	Yes	251.55	12,461	853	32.38	7.61	32.9	1,016		37.4		
12:31	Yes	251.67	16,458	4,850	39.97	7.61	32.9	1,017		1,016		
12:35					0							
12:44	Yes	251.66	16,633	5,025	13.46	7.61	33	1,018		38.9		
12:45	12:45	251.66	16,633	5,025	13.46	7.61	33	1,018		38.9		

Sample Information

Sample Collected Date and Time: April 8, 2024 12:45 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: Yes
Duplicate ID: E
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: Pump making large vibration through effluent line. No issues at this time Collect PT20240408@ 1300
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-42LA
Sample Collected Date and Time: April 8, 2024 2:05 PM
Sample ID: PG-42LA

Weather:

Sample Party

Company: Confluence
Personnel: Eric Morse

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 759
Depth for Casing Volume Calc (ft bls): 759
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 267.03
Water Column Thickness (ft): 491.97
Initial Casing Volume (gal): 0
Casing Volume (gal): 319.78
Minimum Purge Volume (gal): 639.56
Condition of Well: Good, no bolts

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
13:20	Yes		16,633									
13:25	Yes	267.03	16,670	37	7.4	8.13	28.7	547		-6.5		
13:40	No	267.6	17,010	377	17.89	7.52	30.4	933		61.6		
13:51	Yes	267.65	17,142	509	18.86	7.52	30.3	957		67		Active parking
13:58	Yes	267.7	17,287	654	20.71	7.52	30.3	974		71.2		
14:05	Yes	267.68	17,353	720	9.43	7.52	30.2	977		74.3		
14:05	14:05	267.68	17,353	720	9.43	7.52	30.2	977		74.3		

Sample Information

Sample Collected Date and Time: April 8, 2024 2:05 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: No
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:

Signature: 

Field Sample Data Form - Pump

Well Name: E-1MA
Sample Collected Date and Time: April 9, 2024 2:20 PM
Sample ID: E-1MA

Weather:

Sample Party

Company: Confluence
Personnel: Eric Morse

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 116.89
Water Column Thickness (ft): 183.11
Initial Casing Volume (gal): 0
Casing Volume (gal): 119.02
Minimum Purge Volume (gal): 238.04
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
13:45	Yes		21,721									
13:48	Yes	119.89	21,749	28	9.33	7.89	26.4	896		-19.5		
13:55	Yes	120.05	21,818	97	9.86	7.62	26.6	1,127		56.1		
14:02	Yes	120.05	21,866	145	6.86	7.61	26.6	1,127		66.3		
14:09	Yes	120.05	21,940	219	10.57	7.6	26.6	1,128		72.5		
14:16	Yes	120.05	22,000	279	8.57	7.59	26.5	1,130		70.1		
14:16	14:16	120.05	22,000	279	8.57	7.59	26.5	1,130		70.1		

Sample Information

Sample Collected Date and Time: April 9, 2024 2:20 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: E-5MA
Sample Collected Date and Time: April 9, 2024 11:15 AM
Sample ID: E-5MA

Weather:

Sample Party

Company: Confluence
Personnel: Eric Morse

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 89.9
Water Column Thickness (ft): 210.1
Initial Casing Volume (gal): 0
Casing Volume (gal): 136.56
Minimum Purge Volume (gal): 273.13
Condition of Well: Okay no bolts

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
10:40	No		20,606									
10:52	Yes	90.76	20,655	49	8.17	7.76	26.4	1,188		-55.2		
10:58	Yes	90.8	20,730	124	12.5	7.68	26.2	1,214		-6.6		
10:58	Yes	90.96	20,811	205	13.5	7.67	26.3	1,216		0.5		
11:05	Yes	91.05	20,886	280	12.5	7.67	26.3	1,216		10.3		
11:05	Yes	91.1	20,919	313	33	7.67	26.3	1,213		12.7		
11:05	11:05	91.1	20,919	313	33	7.67	26.3	1,213		12.7		

Sample Information

Sample Collected Date and Time: April 9, 2024 11:15 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-10MA2
Sample Collected Date and Time: April 9, 2024 12:15 PM
Sample ID: M-10MA2

Weather:

Sample Party

Company: Confluence
Personnel: Eric Morse

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 1
Initial Water Level (ft/bmp): 114.1
Water Column Thickness (ft): 185.9
Initial Casing Volume (gal): 0
Casing Volume (gal): 185.9
Minimum Purge Volume (gal): 371.8
Condition of Well: Okay missing bolt

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
11:37	No		20,941									
11:49	Yes	116.62	21,091	150	12.5	7.56	26.6	1,203		83		
12:58	Yes	116.62	21,210	269	13.22	7.57	26.6	1,202		87.5		
12:04	Yes	116.62	21,241	300	5.17	7.58	26.6	1,202		87.6		
12:08	Yes	116.62	21,316	375	18.75	7.57	26.7	1,201		89.3		
12:10	Yes	116.62	21,341	400	12.5	7.56	26.6	1,203		89.5		
12:10	12:10	116.62	21,341	400	12.5	7.56	26.6	1,203		89.5		

Sample Information

Sample Collected Date and Time: April 9, 2024 12:15 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: Yes
Duplicate ID: F
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-15MA
Sample Collected Date and Time: April 9, 2024 3:15 PM
Sample ID: M-15MA

Weather:

Sample Party

Company: Confluence
Personnel: Eric Morse

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 114.8
Water Column Thickness (ft): 185.2
Initial Casing Volume (gal): 0
Casing Volume (gal): 120.38
Minimum Purge Volume (gal): 240.76
Condition of Well: Okay no bolts

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
14:50	No		22,025									
14:54	Yes	115.3	22,099	74	18.5	8.11	26.2	1,066		-28.1		
15:01	Yes	118.46	22,200	175	14.43	7.65	26.7	1,167		60.2		
15:08	Yes	118.6	22,310	285	15.71	7.69	26.8	1,167		69.9		
15:10	Yes	118.6	22,325	300	7.5	7.68	26.7	1,168		70.9		
15:12	Yes	118.6	22,345	320	10	7.68	26.7	1,167		71.5		
15:12	15:15	118.6	22,345	320	10	7.68	26.7	1,167		71.5		

Sample Information

Sample Collected Date and Time: April 9, 2024 3:15 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: No
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PA-5LA
Sample Collected Date and Time: April 9, 2024 9:45 AM
Sample ID: PA-5LA

Weather:

Sample Party

Company: Confluence
Personnel: Eric Morse

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 802
Depth for Casing Volume Calc (ft bls): 802
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 195.45
Water Column Thickness (ft): 606.55
Initial Casing Volume (gal): 0
Casing Volume (gal): 394.25
Minimum Purge Volume (gal): 788.51
Condition of Well: Okay no bolts

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
08:24	No		19,643									
08:28	Yes	203.78	19,700	57	14.25	7.68	26.6	1,078		-175.2		
08:44	Yes	203.85	19,902	259	12.63	8.21	28.3	997		-152.2		
09:00	Yes	205.95	20,127	484	14.06	7.35	29.1	1,320		-122.5		
09:16	Yes	206.15	20,333	690	12.88	7.31	29.1	1,324		-92.5		
09:32	Yes	206.77	20,550	907	13.56	7.27	29.2	1,324		-76.2		
09:32	09:32	206.77	20,550	907	13.56	7.27	29.2	1,324		-76.2		

Sample Information

Sample Collected Date and Time: April 9, 2024 9:45 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), Inorganics (500 mL plastic bottle, HN03 preserved); EPA 200.7: Calcium (Ca), Magnesium, Total (Mg), Potassium (K), Sodium (Na); SM 2340B: Hardness (as CaCO3); EPA 200.8: Arsenic, Total (As), Chromium, Total (Cr)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PA-12MA
Sample Collected Date and Time: April 9, 2024 1:15 PM
Sample ID: PA-12MA

Weather:

Sample Party

Company: Confluence
Personnel: Eric Morse

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 109.35
Water Column Thickness (ft): 190.65
Initial Casing Volume (gal): 0
Casing Volume (gal): 123.92
Minimum Purge Volume (gal): 247.84
Condition of Well: Okay, no bolts, wells not at kmz location

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
12:40	No		21,391									
12:48	Yes	109.7	21,471	-20	10	7.91	25.9	1,079		85.8		
12:53	Yes	109.7	21,517	26	9.2	7.9	25.8	1,079		50.9		
12:59	Yes	109.7	21,585	194	11.33	7.95	26	1,076		44.4		
13:04	Yes	109.7	21,628	237	8.6	7.99	26	1,079		44.8		
13:10	Yes	109.7	21,685	294	9.5	7.97	26.1	1,082		42.9		
13:10	13:10	109.7	21,685	294	9.5	7.97	26.1	1,082		42.9		

Sample Information

Sample Collected Date and Time: April 9, 2024 1:15 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PA-13LA
Sample Collected Date and Time: April 9, 2024 8:05 AM
Sample ID: PA-13LA

Weather:

Sample Party

Company: Confluence
Personnel: Eric Morse

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 710
Depth for Casing Volume Calc (ft bls): 710
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 203.68
Water Column Thickness (ft): 506.32
Initial Casing Volume (gal): 0
Casing Volume (gal): 329.10
Minimum Purge Volume (gal): 658.21
Condition of Well: Okay no bolts

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
07:13	Yes		18,905									
07:14	Yes	212.8	18,920	10	15	7.87	29.3	1,089		-216.8		
07:28	Yes	212.49	19,107	202	13.36	7.13	28.5	1,367		-63		
07:42	Yes	220.35	19,332	427	16.07	7.06	28.5	1,384		-32.1		
07:56	Yes	224.56	19,545	640	15.21	7.08	28.3	1,388		-23.1		
08:01	Yes	224.51	19,610	705	13	7.08	28.6	1,390		-19.5		
08:01	08:01	224.51	19,610	705	13	7.08	28.6	1,390		-19.5		

Sample Information

Sample Collected Date and Time: April 9, 2024 8:05 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - Pump

Well Name: S-2LA
Sample Collected Date and Time: April 9, 2024 7:00 AM
Sample ID: S-2LA

Weather:

Sample Party

Company: Confluence
Personnel: Eric Morse

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 668
Depth for Casing Volume Calc (ft bls): 668
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 215.12
Water Column Thickness (ft): 452.88
Initial Casing Volume (gal): 0
Casing Volume (gal): 294.37
Minimum Purge Volume (gal): 588.74
Condition of Well: Okay no bolts

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
06:01	No		18,209									
06:01	Yes	215.12	18,216	7	3.5	8.32	26.6	588		40.1		
06:16	Yes	233.41	18,387	178	11.4	7.25	27.7	799		29.9		
06:31	Yes	234.75	18,567	358	12	7.25	28.2	810		69.5		
06:46	Yes	235.86	18,748	539	12.07	7.27	28.3	809		78.2		
06:53	Yes	235.95	18,805	596	8.14	7.28	28.3	809		79.1		
06:53	06:53	235.95	18,805	596	8.14	7.28	28.3	809		79.1		

Sample Information

Sample Collected Date and Time: April 9, 2024 7:00 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - Pump

Well Name: D-4MA
Sample Collected Date and Time: April 10, 2024 11:45 AM
Sample ID: D-4MA

Weather:

Sample Party

Company: Confluence
Personnel: Eric Morse

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 249.5
Depth for Casing Volume Calc (ft bls): 249.5
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 120.9
Water Column Thickness (ft): 128.6
Initial Casing Volume (gal): 0
Casing Volume (gal): 83.59
Minimum Purge Volume (gal): 167.18
Condition of Well: Okay no bolts

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
11:19	No		23,826									
11:26	Yes	125.3	23,911	85	12.14	7.74	27	1,380		72.7		
11:30	Yes	125.45	23,949	123	9.5	7.65	27.1	1,375		74.9		
11:35	Yes	125.45	24,015	189	13.2	7.67	27.2	1,366		77.9		
11:37	Yes	125.45	24,060	234	22.5	7.69	27.2	1,366		73.4		
11:40	Yes	125.45	24,087	261	9	7.69	27.1	1,367		78.6		
11:40	11:40	125.45	24,087	261	9	7.69	27.1	1,367		78.6		

Sample Information

Sample Collected Date and Time: April 10, 2024 11:45 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-5MA
Sample Collected Date and Time: April 10, 2024 6:50 AM
Sample ID: M-5MA

Weather:

Sample Party

Company: Confluence
Personnel: Eric Morse

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 302
Depth for Casing Volume Calc (ft bls): 302
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 137.2
Water Column Thickness (ft): 164.8
Initial Casing Volume (gal): 0
Casing Volume (gal): 107.12
Minimum Purge Volume (gal): 214.24
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
06:16	No		22,391									
06:23	Yes	139.9	22,461	70	10	7.95	20.5	1,035		77.4		
06:28	Yes	142.23	22,522	131	12.2	7.56	24.3	1,037		81.6		
06:33	Yes	142.23	22,590	199	13.6	7.49	24.5	1,042		77.9		
06:37	Yes	142.23	22,621	230	7.75	7.49	24.5	1,043		77.5		
06:40	Yes	142.23	22,662	271	13.67	7.49	24.6	1,043		78		
06:40	06:40	142.23	22,662	271	13.67	7.49	24.6	1,043		78		

Sample Information

Sample Collected Date and Time: April 10, 2024 6:50 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-6MA
Sample Collected Date and Time: April 10, 2024 8:15 AM
Sample ID: M-6MA

Weather:

Sample Party

Company: Confluence
Personnel: Eric Morse

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 302
Depth for Casing Volume Calc (ft bls): 302
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 127.15
Water Column Thickness (ft): 174.85
Initial Casing Volume (gal): 0
Casing Volume (gal): 113.65
Minimum Purge Volume (gal): 227.30
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
07:10	No		22,588									
07:19	Yes	128.11	22,673	85	9.44	7.43	25.6	1,199		66.1		
07:38	Yes	128.11	22,771	183	5.16	7.44	25.6	1,188		67.3		
07:52	Yes	128.11	22,811	223	2.86	7.45	25.6	1,182		71.3		
08:00	Yes	128.11	22,823	235	1.5	7.45	25.7	1,183		72.1		
08:05	Yes	128.11	22,835	247	2.4	7.45	25.7	1,176		74.9		
08:05	8:05	128.11	22,835	247	2.4	7.45	25.7	1,176		74.9		

Sample Information

Sample Collected Date and Time: April 10, 2024 8:15 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:

Signature: 

Field Sample Data Form - HydraSleeve

Well Name: M-17MA/LA
Sample Collected Date and Time: April 10, 2024 10:36 AM
Sample ID: M-17MA/LAHS
Weather: Temperature 90 °F

Sample Party

Company: M&A
Personnel: Erica Boyle, Ryan Briggs

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 121.16

HydraSleeve Information

HydraSleeve Set Date and Time: April 2, 2024 9:20 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 276.9
Tag Depth of well (ft bls): 300.7
Weight Size: Compact weight: 23oz
Tether Type: Metered tether
HydraSleeve Bag Type: HS-2 (unarmored) - 600 mL

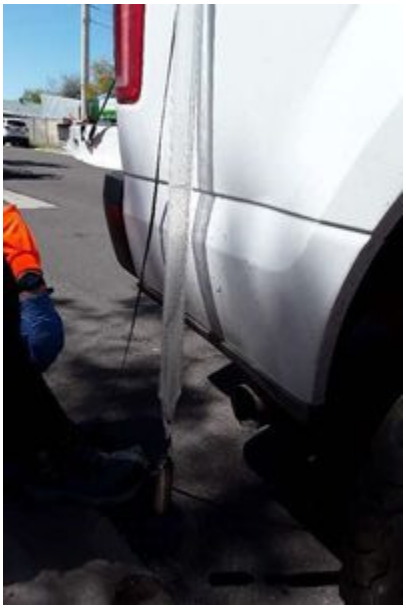
Field Parameters

Time of Collection of Stable Parameters: 10:36
Stable pH (standard units): 10.14
Stable Temperature (°C): 24.9
Stable Specific Conductance (µS/cm): 1,865
Stable ORP (mV): 185
Stable Turbidity (NTU):
Remarks: Temperature in fahrenheit

Sample Information

Sample Collected Date and Time: April 10, 2024 10:36 AM
Sample Odor: Yes
Sample Appearance: Clear
Sample ID: M-17MA/LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: Slightly smells like gasoline, very aerated throughout, .25 in black sediment in bag
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-2LA
Sample Collected Date and Time: April 10, 2024 11:00 AM
Sample ID: PG-2LA

Weather:

Sample Party

Company: Confluence
Personnel: Eric Morse

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 762
Depth for Casing Volume Calc (ft bls): 762
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 266.68
Water Column Thickness (ft): 495.32
Initial Casing Volume (gal): 0
Casing Volume (gal): 321.95
Minimum Purge Volume (gal): 643.91
Condition of Well: Okay no bolts

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
10:06	No		23,104									
10:12	Yes	269.52	23,175	71	11.83	8.53	29	798		48.1		
10:24	Yes	269.75	23,341	237	13.83	7.85	30.9	1,065		-1.3		
10:36	Yes	269.75	23,509	405	14	7.65	31.4	1,217		26		
10:46	Yes	269.75	23,658	554	14.9	7.58	31.6	1,228		47.2		
10:56	Yes	269.75	23,779	675	12.1	7.56	31.7	1,232		52.6		
10:56	10:56	269.75	23,779	675	12.1	7.56	31.7	1,232		52.6		

Sample Information

Sample Collected Date and Time: April 10, 2024 11:00 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: Yes
Duplicate ID: G
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:

Signature: 

Field Sample Data Form - Pump

Well Name: PG-48MA
Sample Collected Date and Time: April 10, 2024 2:00 PM
Sample ID: PG-48MA

Weather:

Sample Party

Company: Confluence
Personnel: Eric Morse

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 430
Depth for Casing Volume Calc (ft bls): 430
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 122.14
Water Column Thickness (ft): 307.86
Initial Casing Volume (gal): 0
Casing Volume (gal): 200.10
Minimum Purge Volume (gal): 400.21
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
12:44	Yes		24,122									
12:49	Yes	159.98	24,164	42	8.4	7.52	25.9	1,019		-166.6		
12:57	Yes	198.99	24,242	120	9.75	7.92	27.6	990		-270.7		
13:10	Yes	196.58	24,285	116	3.31	7.96	27.5	986		-276.8		
13:23	Yes	201.57	24,352	230	5.15	8.16	28.7	967		-12.4		
13:38	Yes	201.57	24,431	309	5.27	8.15	28.9	985		33.1		
13:50	Yes	201.57	24,506	384	6.25	8.16	28.9	990		55.7		
14:00	Yes	201.57	24,553	431	4.7	8.15	28.9	995		60.4		
14:00	14:00	201.57	24,553	431	4.7	8.15	28.9	995		60.4		

Sample Information

Sample Collected Date and Time: April 10, 2024 2:00 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: W-2MA
Sample Collected Date and Time: April 10, 2024 9:50 AM
Sample ID: W-2MA

Weather:

Sample Party

Company: Confluence
Personnel: Eric Morse

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type:

Well Information

Total Depth (ft bls): 290
Depth for Casing Volume Calc (ft bls): 290
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 124.7
Water Column Thickness (ft): 165.3
Initial Casing Volume (gal): 0
Casing Volume (gal): 107.44
Minimum Purge Volume (gal): 214.89
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
09:23	No		22,824									
09:29	Yes		22,900	76	12.67	7.46	25.8	1,294		83.1		
09:34	Yes	136.6	22,951	127	10.2	7.68	26	1,295		81.6		
09:39	Yes	137.5	23,000	176	9.8	7.71	25.8	1,297		78.1		
09:44	Yes	137.5	23,069	245	13.8	7.71	25.9	1,297		75.2		
09:47	Yes	137.75	23,100	276	10.33	7.72	25.9	1,296		73.5		
09:47	09:47	137.75	23,100	276	10.33	7.72	25.9	1,296		73.5		

Sample Information

Sample Collected Date and Time: April 10, 2024 9:50 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: E-10MA
Sample Collected Date and Time: July 3, 2024 10:44 AM
Sample ID: E-10MAHS
Weather: Temperature 114 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 129.94

HydraSleeve Information

HydraSleeve Set Date and Time: July 2, 2024 8:30 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 277.67
Tag Depth of well (ft bls): 301.1
Weight Size: Compact 8oz? 1.5"
Tether Type: Metered tether
HydraSleeve Bag Type: HS-2 (unarmored) - 600 mL

Field Parameters

Time of Collection of Stable Parameters: 10:45
Stable pH (standard units): 7.53
Stable Temperature (°C): 27.2
Stable Specific Conductance (µS/cm): 1,090
Stable ORP (mV): 140
Stable Turbidity (NTU):
Remarks: .75" tan sediment in bag, murky bottom 6"

Sample Information

Sample Collected Date and Time: July 3, 2024 10:44 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: E-10MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: M-4MA
Sample Collected Date and Time: July 3, 2024 12:00 PM
Sample ID: M-4MAHS
Weather: Temperature 113 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 111.24

HydraSleeve Information

HydraSleeve Set Date and Time: July 2, 2024 12:57 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 272.69
Tag Depth of well (ft bls): 290.6
Weight Size: Bullet weight: 5oz
Tether Type: Metered tether
HydraSleeve Bag Type: HS-2 (unarmored) - 600 mL

Field Parameters

Time of Collection of Stable Parameters: 12:02
Stable pH (standard units): 8.22
Stable Temperature (°C): 30.1
Stable Specific Conductance (µS/cm): 1,065
Stable ORP (mV): -14
Stable Turbidity (NTU):
Remarks: Approx 1 inch black sediment in bottom of bag, suspended black throughout

Sample Information

Sample Collected Date and Time: July 3, 2024 12:00 PM
Sample Odor: No
Sample Appearance: Clear
Sample ID: M-4MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?: No
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PA-6LA
Sample Collected Date and Time: July 3, 2024 10:10 AM
Sample ID: PA-6LAHS
Weather: Temperature 115 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 227.36

HydraSleeve Information

HydraSleeve Set Date and Time: July 1, 2024 10:46 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 741.3
Tag Depth of well (ft bls): 758.02
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: HS-2 (armored) - 500 mL

Field Parameters

Time of Collection of Stable Parameters: 10:10
Stable pH (standard units): 7.98
Stable Temperature (°C): 29.9
Stable Specific Conductance (µS/cm): 888
Stable ORP (mV): 90
Stable Turbidity (NTU):
Remarks: Half inch black seds

Sample Information

Sample Collected Date and Time: July 3, 2024 10:10 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PA-6LAHS
Is there a duplicate associated with this sample?: Yes
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PA-10MA
Sample Collected Date and Time: July 3, 2024 11:05 AM
Sample ID: PA-10MAHS
Weather: Temperature 115 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 121.76

HydraSleeve Information

HydraSleeve Set Date and Time: July 1, 2024 1:09 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 267.9
Tag Depth of well (ft bls): 290.4
Weight Size: Bullet weight: 8oz
Tether Type: Metered tether
HydraSleeve Bag Type: HS-2 (armored) - 500 mL

Field Parameters

Time of Collection of Stable Parameters: 11:05
Stable pH (standard units): 8.83
Stable Temperature (°C): 27.1
Stable Specific Conductance (µS/cm): 1,062
Stable ORP (mV): -71
Stable Turbidity (NTU):
Remarks: 1 inch rusty seds on bottom

Sample Information

Sample Collected Date and Time: July 3, 2024 11:05 AM
Sample Odor: No
Sample Appearance: Murky
Sample ID: PA-10MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-43LA
Sample Collected Date and Time: July 3, 2024 8:00 AM
Sample ID: PG-43LAHS
Weather: Temperature 114 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 236.02

HydraSleeve Information

HydraSleeve Set Date and Time: July 1, 2024 8:55 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 791
Tag Depth of well (ft bls): 858.9
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: HS-2 (armored) - 500 mL

Field Parameters

Time of Collection of Stable Parameters: 8:03
Stable pH (standard units): 9.27
Stable Temperature (°C): 28.3
Stable Specific Conductance (µS/cm): 508.7
Stable ORP (mV): 117
Stable Turbidity (NTU):
Remarks: 3 inches brown, rusty sediment

Sample Information

Sample Collected Date and Time: July 3, 2024 8:00 AM
Sample Odor: No
Sample Appearance: Murky
Sample ID: PG-43LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), Inorganics (1 L plastic bottle, unpreserved); EPA 300.0: Bromide (Br), Chloride (Cl), Fluoride (F), Nitrate (NO3), Nitrite (NO2), Orthophosphate (PO4), Sulfate (SO4); SM 2320B: Alkalinity (Total, HCO3, CO3, Phenolphthalein & OH); SM 4500 H+ B: pH; SM 2510B: Specific Conductance; SM 2540C: Total Dissolved Solids (TDS)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-44LA
Sample Collected Date and Time: July 3, 2024 7:00 AM
Sample ID: PG-44LAHS
Weather: Temperature 112 °F

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 282.19

HydraSleeve Information

HydraSleeve Set Date and Time: July 1, 2024 10:08 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 695
Tag Depth of well (ft bls): 752.5
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: HS-2 (armored) - 500 mL

Field Parameters

Time of Collection of Stable Parameters: 7:00
Stable pH (standard units): 7.67
Stable Temperature (°C): 29.4
Stable Specific Conductance (µS/cm): 2,182
Stable ORP (mV): 80
Stable Turbidity (NTU):
Remarks:

Sample Information

Sample Collected Date and Time: July 3, 2024 7:00 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PG-44LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: Half inch black seds on bottom
Photos:





Signature:

Field Sample Data Form - Pump

Well Name: PA-5LA
Sample Collected Date and Time: July 8, 2024 3:10 PM
Sample ID: PA-5LA

Weather:

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 802
Depth for Casing Volume Calc (ft bls): 802
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 221.4
Water Column Thickness (ft): 580.6
Initial Casing Volume (gal): 0
Casing Volume (gal): 377.39
Minimum Purge Volume (gal): 754.78
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
14:13	No		25,378									
14:14	Yes	223.4	25,393	15	15	8.2	29.8	1,126		-172.1		
14:28	Yes	231.7	25,641	263	17.71	8.45	30.7	1,049		-242.9		
14:42	Yes	244.2	25,816	438	12.5	7.85	31.1	1,355		-161		
14:58	Yes	244	26,020	642	12.75	7.62	31.6	1,375		108.3		
15:09	Yes	246	26,145	767	11.36	7.59	31.5	1,374		108.3		
15:09	15:09	246	26,145	767	11.36	7.59	31.5	1,374		108.3		

Sample Information

Sample Collected Date and Time: July 8, 2024 3:10 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PA-13LA
Sample Collected Date and Time: July 8, 2024 4:15 PM
Sample ID: PA-13LA

Weather:

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 710
Depth for Casing Volume Calc (ft bls): 710
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 234.42
Water Column Thickness (ft): 475.58
Initial Casing Volume (gal): 0
Casing Volume (gal): 309.12
Minimum Purge Volume (gal): 618.25
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
15:25	No		26,148									
15:26	Yes	235.5	26,163	15	15							
15:36	Yes	237.9	26,313	165	15	7.88	31.5	1,016		-230.7		
15:46	Yes	239.9	26,469	321	15.6	7.44	31	1,211		-69.9		
15:56	Yes	241.4	26,615	467	14.6	7.11	31.1	1,299		-31		
16:11	Yes	245.7	26,815	667	13.33	7.1	31.1	1,300		-29.9		
16:11	16:11	245.7	26,815	667	13.33	7.1	31.1	1,300		-29.9		

Sample Information

Sample Collected Date and Time: July 8, 2024 4:15 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?:
Sample Matrix:
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:

Signature: 

Field Sample Data Form - Pump

Well Name: PG-1LA
Sample Collected Date and Time: July 8, 2024 1:45 PM
Sample ID: PG-1LA

Weather:

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 809
Depth for Casing Volume Calc (ft bls): 809
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 226
Water Column Thickness (ft): 583
Initial Casing Volume (gal): 0
Casing Volume (gal): 378.99
Minimum Purge Volume (gal): 757.90
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
12:55	No		24,598									
12:56	Yes	229	24,610	12	12	8.46	31.4	699		3.61		
13:08	Yes	231.5	24,740	142	10.83	8.35	31.5	1,011		17.3		
13:21	Yes	231	25,014	416	21.08	8.1	31.7	897		31.8		
13:30	Yes	236	25,187	589	19.22	8.05	31.6	900		33		
13:45	Yes	237	25,370	772	12.2	8	31.7	901		34.6		
13:45	13:45	237	25,370	772	12.2	8	31.7	901		34.6		

Sample Information

Sample Collected Date and Time: July 8, 2024 1:45 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: No
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: E-1MA
Sample Collected Date and Time: July 9, 2024 10:00 AM
Sample ID: E-1MA

Weather:

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 135.6
Water Column Thickness (ft): 164.4
Initial Casing Volume (gal): 0
Casing Volume (gal): 106.86
Minimum Purge Volume (gal): 213.72
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
09:23	No		28,071									
09:24	Yes	136.9	28,087	16	16	7.46	26.8	1,135		57.5		
09:31	Yes	137.9	28,144	73	8.14	7.44	26.7	1,187		55.6		
09:36	Yes	138.8	28,180	109	7.2	7.34	26.7	1,195		53.5		
09:46	Yes	138.7	28,253	182	7.3	7.41	26.8	1,193		50.7		
09:54	Yes	140.1	28,300	229	5.88	7.41	26.8	1,194		53.1		
09:54	09:54	140.1	28,300	229	5.88	7.41	26.8	1,194		53.1		

Sample Information

Sample Collected Date and Time: July 9, 2024 10:00 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: E-5MA
Sample Collected Date and Time: July 9, 2024 8:05 AM
Sample ID: E-5MA

Weather:

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 101.3
Water Column Thickness (ft): 198.7
Initial Casing Volume (gal): 0
Casing Volume (gal): 129.15
Minimum Purge Volume (gal): 258.31
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
07:44	No		27,420									
07:45	Yes	105.9	27,435	15	15	8.32	28.3	1,011		4.1		
07:55	Yes	105.9	27,571	151	13.6	7.54	28.9	1,290		2.3		
08:00	Yes	110.5	27,631	211	12	7.61	28.5	1,293		10.3		
08:03	Yes	111.2	27,650	230	6.33	7.6	28.5	1,292		12.1		
08:05	Yes	111.8	27,680	260	15	7.6	28.5	1,293		12.9		
08:05	08:05	111.8	27,680	260	15	7.6	28.5	1,293		12.9		

Sample Information

Sample Collected Date and Time: July 9, 2024 8:05 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-10MA2
Sample Collected Date and Time: July 9, 2024 9:00 AM
Sample ID: M-10MA2

Weather:

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 1
Initial Water Level (ft/bmp): 127.9
Water Column Thickness (ft): 172.1
Initial Casing Volume (gal): 0
Casing Volume (gal): 172.1
Minimum Purge Volume (gal): 344.2
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
08:32	No		27,680									
08:33	Yes	128.9	27,694	14	14	7.73	27.6	1,108		41.2		
08:37	Yes	132.7	27,800	120	26.5	7.57	26.9	1,153		48.4		
08:41	Yes	135.9	27,866	186	16.5	7.5	27.1	1,255		50		
08:45	Yes		27,901	221	8.75	7.5	27.1	1,251		54.1		
08:55	Yes	140.6	28,041	361	14	7.5	27.1	1,250		51.1		
08:55	08:55	140.6	28,041	361	14	7.5	27.1	1,250		51.1		

Sample Information

Sample Collected Date and Time: July 9, 2024 9:00 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-15MA
Sample Collected Date and Time: July 9, 2024 10:45 AM
Sample ID: M-15MA

Weather:

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 125.6
Water Column Thickness (ft): 174.4
Initial Casing Volume (gal): 0
Casing Volume (gal): 113.36
Minimum Purge Volume (gal): 226.72
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
10:25	No		28,300									
10:26	Yes	126.8	28,315	15	15	7.88	27.6	1,014		44.7		
10:33	Yes	130.9	28,428	128	16.14	7.62	27.4	1,200		35.3		
10:39	Yes	135.4	28,538	238	18.33	7.51	27.5	1,207		48.5		
10:41	Yes	135.4	28,568	268	15	7.51	27.5	1,207		50.1		
10:43	Yes	140.1	28,573	273	2.5	7.5	27.5	1,208		52.7		
10:43	10:43	140.1	28,573	273	2.5	7.5	27.5	1,208		52.7		

Sample Information

Sample Collected Date and Time: July 9, 2024 10:45 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: No
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:

Signature: 

Field Sample Data Form - Pump

Well Name: PA-12MA
Sample Collected Date and Time: July 9, 2024 1:50 PM
Sample ID: PA-12MA

Weather:

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 160.8
Water Column Thickness (ft): 139.2
Initial Casing Volume (gal): 0
Casing Volume (gal): 90.47
Minimum Purge Volume (gal): 180.95
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
13:28	No		29,290									
13:29	Yes	166.2	29,304	14	14	8.2	27.4	1,140		27.4		
13:34	Yes	170.5	29,380	90	15.2	8.23	27.3	1,133		38.6		
13:39	Yes	169.5	29,455	165	15	8.26	27.2	1,130		38		
13:43	Yes	170.6	29,480	190	6.25	8.26	27.1	1,129		37.5		
13:44	Yes	170.4	29,495	205	15	8.36	27.1	1,129		37.4		
13:44	13:44	170.4	29,495	205	15	8.36	27.1	1,129		37.4		

Sample Information

Sample Collected Date and Time: July 9, 2024 1:50 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-42LA
Sample Collected Date and Time: July 9, 2024 12:10 AM
Sample ID: PG-42LA

Weather:

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 759
Depth for Casing Volume Calc (ft bls): 759
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 289.3
Water Column Thickness (ft): 469.7
Initial Casing Volume (gal): 0
Casing Volume (gal): 305.30
Minimum Purge Volume (gal): 610.61
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
11:22	No		28,635									
11:23	Yes	286.7	28,650	15	15	7.49	29.8	1,047		63.2		
11:40	Yes	290.1	28,905	270	15	7.33	29.7	1,103		54.3		
11:50	Yes	290.3	29,065	430	16	7.32	29.7	1,113		45.5		
12:00	Yes	291.9	29,210	575	14.5	7.32	29.7	1,132		33.2		
12:08	Yes	294.5	29,288	653	9.75	7.32	29.6	1,133		31.2		
12:08	12:08	294.5	29,288	653	9.75	7.32	29.6	1,133		31.2		

Sample Information

Sample Collected Date and Time: July 9, 2024 12:10 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:

Signature: 

Field Sample Data Form - Pump

Well Name: PG-48MA
Sample Collected Date and Time: July 9, 2024 3:30 PM
Sample ID: PG-48MA

Weather:

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 430
Depth for Casing Volume Calc (ft bls): 430
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 113.8
Water Column Thickness (ft): 316.2
Initial Casing Volume (gal): 0
Casing Volume (gal): 205.53
Minimum Purge Volume (gal): 411.06
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
14:02	Yes		29,504									
14:03	Yes	110.9	29,510	6	6	7.89	31.8	989		51.1		
14:15	Yes	111.9	29,586	82	6.33	7.74	27.5	1,117		-232.7		
14:25	Yes	120.8	29,640	136	5.4	7.6	27.3	1,300		-166.3		
14:35	Yes	122.9	29,691	187	5.1	8.3	30	1,005		-104.1		
14:55	Yes	130.1	29,791	287	5	8.04	30.3	1,011		7.5		
15:21	Yes	130.1	29,920	416	4.96	8.02	30.2	1,010		7.9		
15:21	15:21	130.1	29,920	416	4.96	8.02	30.2	1,010		7.9		

Sample Information

Sample Collected Date and Time: July 9, 2024 3:30 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: S-2LA
Sample Collected Date and Time: July 9, 2024 6:30 AM
Sample ID: S-2LA

Weather:

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type:

Well Information

Total Depth (ft bls): 668
Depth for Casing Volume Calc (ft bls): 668
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 245.7
Water Column Thickness (ft): 422.3
Initial Casing Volume (gal): 0
Casing Volume (gal): 274.49
Minimum Purge Volume (gal): 548.99
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
05:40	Yes		26,820									
05:41	Yes	245.6	26,835	15	15	8.1	29.7	706		122.8		
05:51	Yes	251.7	26,958	138	12.3	7.66	29.9	811		67.5		
06:01	Yes	255.2	27,110	290	15.2	7.5	29.9	840		21		
06:11	Yes	256.1	27,260	440	15	7.51	29.9	839		19.9		
06:21	Yes	255.9	27,410	590	15	7.51	29.9	838		19.3		
06:21	06:21	255.9	27,410	590	15	7.51	29.9	838		19.3		

Sample Information

Sample Collected Date and Time: July 9, 2024 6:30 AM
Sample Odor: Yes
Sample Appearance: Murky
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: D-4MA
Sample Collected Date and Time: July 10, 2024 12:30 PM
Sample ID: D-4MA

Weather:

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 249.5
Depth for Casing Volume Calc (ft bls): 249.5
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 125.9
Water Column Thickness (ft): 123.6
Initial Casing Volume (gal): 0
Casing Volume (gal): 80.34
Minimum Purge Volume (gal): 160.68
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
12:10	No		31,001									
12:11	Yes	126.4	31,017	16	16	7.98	26.7	1,415		64.4		
12:14	Yes	127.02	31,061	60	14.67	7.69	28.1	1,417		76.1		
12:17	Yes	127.02	31,107	106	15.33	7.83	26.7	1,405		75.6		
12:23	Yes	127.5	31,163	162	9.33	7.79	28.1	1,418		78.9		
12:24	Yes	127.5	31,176	175	13	7.78	28.2	1,420		79		
12:24	12:24	127.5	31,176	175	13	7.78	28.2	1,420		79		

Sample Information

Sample Collected Date and Time: July 10, 2024 12:30 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-5MA
Sample Collected Date and Time: July 10, 2024 8:45 AM
Sample ID: M-5MA

Weather:

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 302
Depth for Casing Volume Calc (ft bls): 302
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 142.6
Water Column Thickness (ft): 159.4
Initial Casing Volume (gal): 0
Casing Volume (gal): 103.61
Minimum Purge Volume (gal): 207.22
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
08:18	Yes		30,291									
08:22	Yes	150.3	30,342	51	12.75	7.71	28.3	1,106		76.3		
08:24	Yes	156.4	30,367	76	12.5	7.73	28.2	1,082		75.1		
08:26	Yes	153.31	30,400	109	16.5	7.66	27.9	1,078		75		
08:30	Yes	153.31	30,430	139	7.5	7.64	28.1	1,080		75.1		
08:37	Yes	153.31	30,510	219	11.43	7.63	28.1	1,077		76.5		
08:37	08:37	153.31	30,510	219	11.43	7.63	28.1	1,077		76.5		

Sample Information

Sample Collected Date and Time: July 10, 2024 8:45 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-6MA
Sample Collected Date and Time: July 10, 2024 10:00 AM
Sample ID: M-6MA

Weather:

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 302
Depth for Casing Volume Calc (ft bls): 302
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 132.28
Water Column Thickness (ft): 169.72
Initial Casing Volume (gal): 0
Casing Volume (gal): 110.31
Minimum Purge Volume (gal): 220.63
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
08:52	No		30,522									
09:00	Yes	136.67	30,565	43	5.38	7.76	28.4	1,165		78.5		
09:19	Yes	138.85	30,631	109	3.47	7.63	32.7	1,172		79.9		
09:30	Yes	140.5	30,671	149	3.64	7.65	29.4	1,169		79.9		
09:48	Yes	140.5	30,730	208	3.28	7.63	29.5	1,168		77.5		
09:55	Yes	140.5	30,751	229	3	7.65	29.5	1,172		77.1		
09:55	09:55	140.5	30,751	229	3	7.65	29.5	1,172		77.1		

Sample Information

Sample Collected Date and Time: July 10, 2024 10:00 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: M-17MA/LA
Sample Collected Date and Time: July 10, 2024 12:48 PM
Sample ID: M-17MA/LAHS
Weather: Temperature 116 °F

Sample Party

Company: M&A
Personnel: Erica Boyle, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 118.82

HydraSleeve Information

HydraSleeve Set Date and Time: July 10, 2024 7:57 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 276.9
Tag Depth of well (ft bls): 300.71
Weight Size: Compact weight: 23oz
Tether Type: Metered tether
HydraSleeve Bag Type: HS-2 (unarmored) - 600 mL

Field Parameters

Time of Collection of Stable Parameters: 12:50
Stable pH (standard units): 8.22
Stable Temperature (°C): 30.9
Stable Specific Conductance (µS/cm): 2,008
Stable ORP (mV): 55
Stable Turbidity (NTU):
Remarks: Sample clear with tiny bubbles throughout, trace black sediment in bottom, slight sulfur odor

Sample Information

Sample Collected Date and Time: July 10, 2024 12:48 PM
Sample Odor:
Sample Appearance: Clear
Sample ID: M-17MA/LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - Pump

Well Name: W-1MA
Sample Collected Date and Time: July 10, 2024 12:00 PM
Sample ID: W-1MA

Weather:

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 290
Depth for Casing Volume Calc (ft bls): 290
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 101.1
Water Column Thickness (ft): 188.9
Initial Casing Volume (gal): 0
Casing Volume (gal): 122.78
Minimum Purge Volume (gal): 245.57
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
10:14	No		30,742									
10:20	Yes	103.5	30,753	11	1.83	7.27	27.5	1,767		35.6		
10:50	Yes	103.5	30,815	73	2.07	7.61	28.7	1,603		63.2		
11:03	Yes	103.5	30,861	119	3.54	7.44	28.6	1,594		72.9		
11:30	Yes	103.5	30,923	181	2.3	7.45	28.7	1,599		73.2		
11:55	Yes	103.5	30,988	246	2.6	7.45	28.6	1,594		73.5		
11:55	11:55	103.5	30,988	246	2.6	7.45	28.6	1,594		73.5		

Sample Information

Sample Collected Date and Time: July 10, 2024 12:00 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:

Signature: 

Field Sample Data Form - Pump

Well Name: W-2MA
Sample Collected Date and Time: July 10, 2024 8:00 AM
Sample ID: W-2MA

Weather:

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 290
Depth for Casing Volume Calc (ft bls): 290
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 125.68
Water Column Thickness (ft): 164.32
Initial Casing Volume (gal): 0
Casing Volume (gal): 106.80
Minimum Purge Volume (gal): 213.61
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
07:28	No		30,030									
07:29	Yes	129.9	30,050	15	15	7.81	26.6	1,345		67.1		
07:33	Yes	133.9	30,052	51	0.5	7.72	26.7	1,340		63.9		
07:35	Yes	139.7	30,101	71	24.5	7.71	27.2	1,326		64.8		
07:40	Yes	142.3	30,148	118	9.4	7.7	28.2	1,345		67.1		
07:46	Yes	142.35	30,226	196	13	7.74	28.1	1,346		66.8		
07:48	Yes	142.35	30,246	216	10	7.73	28.1	1,345		67.2		
07:48	07:48	142.35	30,246	216	10	7.73	28.1	1,345		67.2		

Sample Information

Sample Collected Date and Time: July 10, 2024 8:00 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: Yes
Duplicate ID: I
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-40LA
Sample Collected Date and Time: July 11, 2024 7:50 AM
Sample ID: PG-40LA
Weather: Temperature 112 °F

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 1,400
Depth for Casing Volume Calc (ft bls): 900
Unit Casing Volume (gal/ft): 2.6
Initial Water Level (ft/bmp): 259.1
Water Column Thickness (ft): 640.9
Initial Casing Volume (gal): 750
Casing Volume (gal): 1,666.34
Minimum Purge Volume (gal): 3,332.68
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
05:48	Yes		31,202									
05:49	Yes	260.5	31,232	30	30	8.23	27.9	866		-254.8		
06:49	Yes	260.5	33,037	1,835	30.08	7.98	22.7	1,211		20.6		
07:15	Yes	260.5	33,825	2,623	30.31	7.96	22.7	1,288		38.9		
07:30	Yes	260.5	34,281	3,079	30.4	7.97	22.8	1,290		41.1		
07:45	Yes	260.5	34,740	3,538	30.6	7.96	22.8	1,288		45.9		
07:45	07:45	260.5	34,740	3,538	30.6	7.96	22.8	1,288		45.9		

Sample Information

Sample Collected Date and Time: July 11, 2024 7:50 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: Yes
Duplicate ID: J
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PA-2LA
Sample Collected Date and Time: October 7, 2024 3:40 PM
Sample ID: PA-2LA
Weather: Temperature 107 °F, Pressure 29.80 inHg, Humidity 25%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 898
Depth for Casing Volume Calc (ft bls): 898
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 234.66
Water Column Thickness (ft): 663.34
Initial Casing Volume (gal): 0
Casing Volume (gal): 431.17
Minimum Purge Volume (gal): 862.34
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
14:35	No		35,360									
14:36	Yes	234.66	35,380	20	20	9.01	31.3	703	0.45	94.4	8	
14:46	Yes	234.66	35,502	142	12.2	8.75	32.4	698	0.5	90.5	11	
14:56	Yes	234.67	35,654	294	15.2	8.15	32	801	0.66	75.8	10	
15:06	Yes	234.66	35,803	443	14.9	8.14	32.3	799	0.69	76.7	10	
15:16	Yes	234.66	35,975	615	17.2	8.14	32	799	0.7	77.8	10	
15:35	Yes	234.66	36,225	865	13.16	8.14	31.9	807	0.71	78	10	
15:35	15:35	234.66	36,225	865	13.16	8.14	31.9	807	0.71	78	10	

Sample Information

Sample Collected Date and Time: October 7, 2024 3:40 PM
Sample Odor: Yes
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-42LA
Sample Collected Date and Time: October 7, 2024 2:25 PM
Sample ID: PG-42LA
Weather: Temperature 106 °F, Pressure 29.80 inHg, Humidity 25%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 759
Depth for Casing Volume Calc (ft bls): 759
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 291.6
Water Column Thickness (ft): 467.4
Initial Casing Volume (gal): 0
Casing Volume (gal): 303.81
Minimum Purge Volume (gal): 607.62
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
13:40	No		34,750									
13:42	Yes	295.8	34,775	25	12.5	7.56	31.6	901	5.55	155.5		
13:50	Yes	291.99	34,869	119	11.75	7.54	31.7	960	5.49	130.8	23	
14:00	Yes	291.99	35,019	269	15	7.6	31.7	957	5.49	128.8	19	
14:10	Yes	231.99	35,288	538	26.9	7.61	31.9	961	5.39	127.7	17	
14:20	Yes	231.99	35,359	609	7.1	7.65	31.7	960	5.38	127.1	14	
14:20	14:20	231.99	35,359	609	7.1	7.65	31.7	960	5.38	127.1	14	

Sample Information

Sample Collected Date and Time: October 7, 2024 2:25 PM
Sample Odor: Yes
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PA-3MA
Sample Collected Date and Time: October 8, 2024 7:30 AM
Sample ID: PA-3MA
Weather: Temperature 103 °F, Pressure 29.79 inHg, Humidity 27%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls):
Depth for Casing Volume Calc (ft bls):
Unit Casing Volume (gal/ft):
Initial Water Level (ft/bmp): 119.63
Water Column Thickness (ft):
Initial Casing Volume (gal):
Casing Volume (gal):
Minimum Purge Volume (gal):
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
06:50	No		36,225									
06:51	Yes	120.76	36,240	15	15	8.67	33	11,621		-86.1	169	
07:00	Yes	120.76	36,376	151	15.11	8.6	32.6	11,061		-81.1	43	
07:10	Yes	120.76	36,525	300	14.9	8.38	32.2	10,990		-79.7	43	
07:20	Yes	120.76	36,679	454	15.4	8.39	32.2	10,989		-78.5	30	
07:30	Yes	120.76	36,830	605	15.1	8.37	32.1	10,980		-77.1	29	
07:30	07:30	120.76	36,830	605	15.1	8.37	32.1	10,980		-77.1	29	

Sample Information

Sample Collected Date and Time: October 8, 2024 7:30 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered:
Field Observations: No available well in ID selection on app.
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PA-5LA
Sample Collected Date and Time: October 8, 2024 11:10 AM
Sample ID: PA-5LA
Weather: Temperature 94 °F, Pressure 29.84 inHg, Wind 6 mph W, Humidity 15%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 802
Depth for Casing Volume Calc (ft bls): 802
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 199.35
Water Column Thickness (ft): 602.65
Initial Casing Volume (gal): 0
Casing Volume (gal): 391.72
Minimum Purge Volume (gal): 783.44
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
10:15	No		38,260									
10:16	Yes	199.35	38,274	14	14	8.34	28.3	1,116	4.76	-308.1	30	
10:26	Yes	199.35	38,424	164	15	8.26	28.6	1,133	3.99	-348.8	17	
10:36	Yes	199.35	38,589	329	16.5	8.68	29.4	1,062	1.97	-311.3	16	
10:46	Yes	199.35	38,739	479	15	8.69	29.3	1,065	1.89	-315.2	24	
11:07	Yes	199.35	39,044	784	14.52	8.66	29.3	1,066	1.85	-316.7	15	
11:07	11:07	199.35	39,044	784	14.52	8.66	29.3	1,066	1.85	-316.7	15	

Sample Information

Sample Collected Date and Time: October 8, 2024 11:10 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered:
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PA-8LA2
Sample Collected Date and Time: October 8, 2024 12:40 PM
Sample ID: PA-8LA2
Weather: Temperature 98 °F, Pressure 29.78 inHg, Wind 6mph NW, Humidity 13%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 751
Depth for Casing Volume Calc (ft bls): 751
Unit Casing Volume (gal/ft): 1
Initial Water Level (ft/bmp): 158.2
Water Column Thickness (ft): 592.8
Initial Casing Volume (gal): 0
Casing Volume (gal): 592.8
Minimum Purge Volume (gal): 1,185.6
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
11:22	No		39,044									
11:23	Yes	158.18	39,057	13	13	9.31	28.1	1,206	3.19	-214.3	44	
11:48	Yes	158.18	39,432	388	15	9.22	29	1,271	0.87	-275.2	26	
12:11	Yes	158.19	39,799	755	15.96	7.89	28.2	1,578	2.38	-86.2	22	
12:36	Yes	158.18	40,169	1,125	14.8	7.83	28.2	1,580	2.33	-80.1	23	
12:40	Yes	158.18	40,230	1,186	15.25	7.86	28.2	1,582	2.3	-79.9	23	
12:40	12:40	158.18	40,230	1,186	15.25	7.86	28.2	1,582	2.3	-79.9	23	

Sample Information

Sample Collected Date and Time: October 8, 2024 12:40 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered:
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PA-11LA
Sample Collected Date and Time: October 8, 2024 1:40 PM
Sample ID: PA-11LA
Weather: Temperature 102 °F, Pressure 29.75 inHg, Wind 6 mph NW, Humidity 12%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 585
Depth for Casing Volume Calc (ft bls): 585
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 133.21
Water Column Thickness (ft): 451.79
Initial Casing Volume (gal): 0
Casing Volume (gal): 293.66
Minimum Purge Volume (gal): 587.32
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
12:55	Yes		40,230									
12:56	Yes	133.31	40,243	13	13	8.96	26.6	1,475	4.11	-36	46	
13:06	Yes	133.21	40,395	165	15.2	8.8	26.6	1,520	0.78	-204.4	32	
13:16	Yes	133.21	40,542	312	14.7	8.9	26.6	1,533	0.69	-210	27	
13:26	Yes	133.21	40,696	466	15.4	7.56	26.2	1,752	3.96	-42.1	14	
13:36	Yes	133.21	40,826	596	13	7.55	26.2	1,750	3.95	-37.7	15	
13:36	13:36	133.21	40,826	596	13	7.55	26.2	1,750	3.95	-37.7	15	

Sample Information

Sample Collected Date and Time: October 8, 2024 1:40 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PA-12MA
Sample Collected Date and Time: October 8, 2024 2:10 PM
Sample ID: PA-12MA
Weather: Temperature 102 °F, Pressure 29.73 inHg, Wind 6 mph NW, Humidity 12%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 114.43
Water Column Thickness (ft): 185.57
Initial Casing Volume (gal): 0
Casing Volume (gal): 120.62
Minimum Purge Volume (gal): 241.24
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
13:47	No		40,826									
13:48	Yes	115.43	40,838	12	12	7.99	26.9	1,156	4.05	-34	65	
13:58	Yes	115.43	40,952	126	11.4	8.01	26.4	1,142	3.8	-19.6	23	
14:08	Yes	133.21	41,074	248	12.2	7.99	26.5	1,140	3.76	-16.4	20	
14:10	Yes	133.21	41,089	263	7.5	8	26.5	1,140	3.69	-13.7	20	
14:10	14:10	133.21	41,089	263	7.5	8	26.5	1,140	3.69	-13.7	20	

Sample Information

Sample Collected Date and Time: October 8, 2024 2:10 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered:
Field Observations:
Photos:

Signature: 

Field Sample Data Form - Pump

Well Name: PA-13LA
Sample Collected Date and Time: October 8, 2024 10:05 AM
Sample ID: PA-13LA
Weather: Temperature 87F, Pressure 29.82 inHg, Wind 5 mph W, Humidity 18%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 710
Depth for Casing Volume Calc (ft bls): 710
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 206.61
Water Column Thickness (ft): 503.39
Initial Casing Volume (gal): 0
Casing Volume (gal): 327.20
Minimum Purge Volume (gal): 654.40
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
09:14	No		37,602									
09:17	Yes	206.61	37,644	42	14	8.89	29.9	1,003	3.05	-90.1	58	
09:27	Yes	206.61	37,796	194	15.2	7.82	29.2	1,393	2.22	-112.1	21	
09:37	Yes	206.61	37,935	333	13.9	7.65	28.9	1,433	2.75	-84.8	19	
09:47	Yes	206.61	38,084	482	14.9	7.64	28.9	1,434	3	-82.8	18	
10:04	Yes	206.61	38,259	657	10.29	7.63	28.9	1,436	2.99	-80	16	
10:04	10:04	206.61	38,259	657	10.29	7.63	28.9	1,436	2.99	-80	16	

Sample Information

Sample Collected Date and Time: October 8, 2024 10:05 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered:
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PA-19LA
Sample Collected Date and Time: October 8, 2024 3:15 PM
Sample ID: PA-19LA
Weather: Temperature 105 °F, Pressure 29.80 inHg, Wind 5 mph W, Humidity 11%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 405
Depth for Casing Volume Calc (ft bls): 405
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 114.35
Water Column Thickness (ft): 290.65
Initial Casing Volume (gal): 0
Casing Volume (gal): 188.92
Minimum Purge Volume (gal): 377.84
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
14:30	No		41,089									
14:31	Yes	115.68	41,102	13	13	8.88	25.9	1,186	3.59	-235.8	42	
14:41	Yes	115.99	41,214	125	11.2	7.68	25.7	1,600	3.95	-87.5	32	
14:51	Yes	115.99	41,313	224	9.9	7.61	25.7	1,607	4.23	-63.6	12	
15:01	Yes	115.99	41,415	326	10.2	7.55	25.7	1,599	4.13	-59.7	10	
15:11	Yes	115.99	41,514	425	9.9	7.55	25.6	1,597	4.15	-57.8	10	
15:11	15:11	115.99	41,514	425	9.9	7.55	25.6	1,597	4.15	-57.8	10	

Sample Information

Sample Collected Date and Time: October 8, 2024 3:15 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-1LA
Sample Collected Date and Time: October 8, 2024 8:50 AM
Sample ID: PG-1LA
Weather: Temperature 74 °F, Pressure 29.90 inHg, Humidity 30%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 809
Depth for Casing Volume Calc (ft bls): 809
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 228.1
Water Column Thickness (ft): 580.9
Initial Casing Volume (gal): 0
Casing Volume (gal): 377.58
Minimum Purge Volume (gal): 755.17
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
07:57	No		36,830									
07:58	Yes	228.1	36,843	13	13	8.95	28.6	576	4.26	-55.9	30	
08:08	Yes		36,999	169	15.6	8.61	29.1	766	4.11	-155.1	42	
08:18	Yes	228.1	37,148	318	14.9	8.25	31.2	888		-160	25	
08:28	Yes	228.1	37,302	472	15.4	8.06	31.5	900		-163.2	32	
08:48	Yes	228.1	37,601	771	14.95	8.01	31.5	900		-161.1	23	
08:48	08:48	228.1	37,601	771	14.95	8.01	31.5	900		-161.1	23	

Sample Information

Sample Collected Date and Time: October 8, 2024 8:50 AM
Sample Odor: Yes
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: B-J
Sample Collected Date and Time: October 9, 2024 10:15 AM
Sample ID: B-J
Weather: Temperature 86 °F, Pressure 29.89 inHg, Wind 5 mph W, Humidity 20%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type:

Well Information

Total Depth (ft bls): 113
Depth for Casing Volume Calc (ft bls): 113
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 55.86
Water Column Thickness (ft): 57.14
Initial Casing Volume (gal): 0
Casing Volume (gal): 37.14
Minimum Purge Volume (gal): 74.28
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
10:01	No		42,982									
10:02	Yes	57.99	42,988	6	6	7.09	26.3	1,865		32.9	12	
10:07	Yes	55.9	43,027	45	7.8	7.11	26.4	1,866		40.3	7	
10:12	Yes	55.9	43,068	86	8.2	7.1	26.3	1,866		45.2	7	
10:13	Yes	55.9	43,074	92	6	7.11	26.3	1,866		47.4	7	
10:14	Yes	55.9	43,080	98	6	7.11	26.3	1,866		49.6	7	
10:14	10:14	55.9	43,080	98	6	7.11	26.3	1,866		49.6	7	

Sample Information

Sample Collected Date and Time: October 9, 2024 10:15 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: E-5MA
Sample Collected Date and Time: October 9, 2024 11:10 AM
Sample ID: E-5MA
Weather: Temperature 90 °F, Pressure 29.89 inHg, Wind 3 mph W, Humidity 18%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type:

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 99.11
Water Column Thickness (ft): 200.89
Initial Casing Volume (gal): 0
Casing Volume (gal): 130.57
Minimum Purge Volume (gal): 261.15
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
10:45	No		43,081									
10:46	Yes	105.44	43,095	14	14	7.53	26.6	1,297		79.1	13	
10:56	Yes	107.66	43,226	145	13.1	7.59	26.5	1,261		55.2	7	
11:00	Yes	107.66	43,279	198	13.25	7.61	26.4	1,260		45	7	
11:05	Yes	107.66	43,344	263	13	7.61	26.5	1,258		33.1	7	
11:06	Yes	107.66	43,356	275	12	7.61	26.4	1,258		27.4	7	
11:06	11:06	107.66	43,356	275	12	7.61	26.4	1,258		27.4	7	

Sample Information

Sample Collected Date and Time: October 9, 2024 11:10 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: E-7LA
Sample Collected Date and Time: October 9, 2024 12:25 PM
Sample ID: E-7LA
Weather: Temperature 93 °F, Pressure 29.87 inHg, Wind 4 mph W, Humidity 17%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 600
Depth for Casing Volume Calc (ft bls): 600
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 98.4
Water Column Thickness (ft): 501.6
Initial Casing Volume (gal): 0
Casing Volume (gal): 326.04
Minimum Purge Volume (gal): 652.08
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
11:30	No		43,356									
11:31	Yes	99.99	43,369	13	13	8.72	26.3	1,260	4.28	-92.4	32	
11:40	Yes	103.5	43,485	129	12.89	8.74	26.7	1,328		-170.9	12	
11:50	Yes	99.85	43,616	260	13.1	8.84	27.9	1,324		-200.8	11	
12:00	Yes	99.85	43,741	385	12.5	7.65	27.5	1,585	1.99	-75	7	
12:15	Yes	99.85	43,936	580	13	7.55	27.5	1,590	1.89	-69.6	7	
12:22	Yes	99.86	44,026	670	12.86	7.55	27.4	1,587	1.86	-67.4	7	
12:22	12:22	99.86	44,026	670	12.86	7.55	27.4	1,587	1.86	-67.4	7	

Sample Information

Sample Collected Date and Time: October 9, 2024 12:25 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: E-8MA
Sample Collected Date and Time: October 9, 2024 9:40 AM
Sample ID: E-8MA
Weather: Temperature 85 °F, Pressure 29.89 inHg, Wind 4 mph W, Humidity 21%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 91.8
Water Column Thickness (ft): 208.2
Initial Casing Volume (gal): 0
Casing Volume (gal): 135.33
Minimum Purge Volume (gal): 270.66
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
09:09	No		42,710									
09:10	Yes	91.1	42,719	9	9	7.75	26.5	1,009		31.3	15	
09:20	Yes	91.1	42,816	106	9.7	7.74	26.6	1,049		63.1	6	
09:25	Yes	91.1	42,865	155	9.8	7.73	26.5	1,048		64	5	
09:30	Yes	91.1	42,913	203	9.6	7.73	26.5	1,049		65.5	4	
09:37	Yes	91.1	42,982	272	9.86	7.73	26.6	1,048		66.2	4	
09:37	09:37	91.1	42,982	272	9.86	7.73	26.6	1,048		66.2	4	

Sample Information

Sample Collected Date and Time: October 9, 2024 9:40 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-10MA2
Sample Collected Date and Time: October 9, 2024 1:10 PM
Sample ID: M-10MA2
Weather: Temperature 97 °F, Pressure 29.85 inHg, Wind 4 mph N, Humidity 14%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 1
Initial Water Level (ft/bmp): 129.45
Water Column Thickness (ft): 170.55
Initial Casing Volume (gal): 0
Casing Volume (gal): 170.55
Minimum Purge Volume (gal): 341.1
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
12:44	No		44,027									
12:45	Yes	130.1	44,042	15	15	7.62	26.6	1,092		40.6	38	
12:55	Yes	136.5	44,191	164	14.9	7.62	27	1,171		48.1	15	
13:05	Yes	140.61	44,340	313	14.9	7.6	27	1,176		50.6	9	
13:07	Yes	150.6	44,371	344	15.5	7.58	26.9	1,174		51.7	9	
13:08	Yes	150.7	44,384	357	13	7.59	26.9	1,169		54.2	5	
13:08	13:08	150.7	44,384	357	13	7.59	26.9	1,169		54.2	5	

Sample Information

Sample Collected Date and Time: October 9, 2024 1:10 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered:
Field Observations: Ms/msd taken
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-11MA
Sample Collected Date and Time: October 9, 2024 2:25 PM
Sample ID: M-11MA
Weather: Temperature 98 °F, Pressure 29.86 inHg, Wind 2 mph SE, Humidity 13%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 99.1
Water Column Thickness (ft): 200.9
Initial Casing Volume (gal): 0
Casing Volume (gal): 130.5
Minimum Purge Volume (gal): 261.17
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
13:30	No		44,384									
13:31	Yes	99.76	44,390	6	6	8.61	26.5	1,455	4.11	40.7	56	
13:41	Yes	102.56	44,439	55	4.9	8.35	26.2	1,473	3.8	29.8	21	
13:51	Yes	105.7	44,499	115	6	8.23	26.5	1,440	4.25	18	8	
14:01	Yes	105.7	44,554	170	5.5	8.01	26.6	1,443	4.4	21.8	9	
14:10	Yes	105.7	44,599	215	5	7.97	26.6	1,445	4.23	24.7	9	
14:20	Yes	105.7	44,650	266	5.1	7.96	26.6	1,447	4.12	30.7	9	
14:20	14:20	105.7	44,650	266	5.1	7.96	26.6	1,447	4.12	30.7	9	

Sample Information

Sample Collected Date and Time: October 9, 2024 2:25 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered:
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: M-17MA/LA
Sample Collected Date and Time: October 9, 2024 11:35 AM
Sample ID: M-17MA/LAHS
Weather: Temperature 94 °F, Pressure 29.86 inHg, Wind 5 mph SE, Humidity 12%

Sample Party

Company: M&A
Personnel: Andrew Platt, Ryan Briggs

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 120.14

HydraSleeve Information

HydraSleeve Set Date and Time: October 8, 2024 11:55 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 277.8
Tag Depth of well (ft bls): 300.7
Weight Size: Compact weight: 23oz
Tether Type: Metered tether
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

Field Parameters

Time of Collection of Stable Parameters: 11:35
Stable pH (standard units): 10.89
Stable Temperature (°C): 28.7
Stable Specific Conductance (µS/cm): 1,636
Stable ORP (mV): -36
Stable Turbidity (NTU):
Remarks: Trace black sediment

Sample Information

Sample Collected Date and Time: October 9, 2024 11:35 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: M-17MA/LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - Pump

Well Name: PA-20MA
Sample Collected Date and Time: October 9, 2024 7:20 AM
Sample ID: PA-20MA
Weather: Temperature 72 °F, Pressure 29.87 inHg, Wind 3 mph W, Humidity 28%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 260
Depth for Casing Volume Calc (ft bls): 260
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 111.49
Water Column Thickness (ft): 148.51
Initial Casing Volume (gal): 0
Casing Volume (gal): 96.53
Minimum Purge Volume (gal): 193.06
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
06:55	Yes		42,071									
06:56	Yes	112.56	42,080	9	9	7.33	25.1	1,424	4.8	-9.1	45	
07:06	Yes	111.55	42,181	110	10.1	7.31	25.2	1,442	4.38	-8.2	6	
07:16	Yes	111.55	42,280	209	9.9	7.3	25.2	1,450	4.3	-4.6	6	
07:17	Yes	111.55	42,289	218	9	7.31	25.2	1,451	4.25	-3.6	6	
07:17	07:17	111.55	42,289	218	9	7.31	25.2	1,451	4.25	-3.6	6	

Sample Information

Sample Collected Date and Time: October 9, 2024 7:20 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: PA-21MA
Sample Collected Date and Time: October 9, 2024 7:41 AM
Sample ID: PA-21MAHS
Weather: Temperature 76 °F, Pressure 29.88 inHg, Wind 4 mph NE, Humidity 22%

Sample Party

Company: M&A
Personnel: Andrew Platt, Ryan Briggs

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 112.51

HydraSleeve Information

HydraSleeve Set Date and Time: October 8, 2024 1:20 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 267.5
Tag Depth of well (ft bls): 291.1
Weight Size: Compact weight: 23oz
Tether Type: Metered tether
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

Field Parameters

Time of Collection of Stable Parameters: 8:39
Stable pH (standard units): 8.43
Stable Temperature (°C): 24.5
Stable Specific Conductance (µS/cm): 968.9
Stable ORP (mV): 182
Stable Turbidity (NTU):
Remarks: 1 inch black sediment, sediment suspended in water

Sample Information

Sample Collected Date and Time: October 9, 2024 7:41 AM
Sample Odor: No
Sample Appearance: Murky
Sample ID: PA-21MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: Field parameters collected immediately with second HydraSleeve
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-5MA
Sample Collected Date and Time: October 9, 2024 10:45 AM
Sample ID: PG-5MAHS
Weather: Temperature 92 °F, Pressure 29.88 inHg, Wind 5 mph E, Humidity 13%

Sample Party

Company: M&A
Personnel: Andrew Platt, Ryan Briggs

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 103.82

HydraSleeve Information

HydraSleeve Set Date and Time: October 8, 2024 10:10 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 270.7
Tag Depth of well (ft bls): 289.2
Weight Size: Bullet weight: 8oz
Tether Type: Metered tether
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

Field Parameters

Time of Collection of Stable Parameters: 10:45
Stable pH (standard units): 8.14
Stable Temperature (°C): 27.4
Stable Specific Conductance (µS/cm): 1,122
Stable ORP (mV): -138
Stable Turbidity (NTU):
Remarks: 1 inch brown sediment on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 9, 2024 10:45 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PG-5MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-5UA
Sample Collected Date and Time: October 9, 2024 11:05 AM
Sample ID: PG-5UAHS
Weather: Temperature 93 °F Pressure 29.88 inHg, Wind 4 mph E, Humidity 13%

Sample Party

Company: M&A
Personnel: Andrew Platt, Ryan Briggs

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 81.9

HydraSleeve Information

HydraSleeve Set Date and Time: October 8, 2024 10:30 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 128.4
Tag Depth of well (ft bls): 138.1
Weight Size: Bullet weight: 5oz
Tether Type: Metered tether
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

Field Parameters

Time of Collection of Stable Parameters: 11:05
Stable pH (standard units): 7.39
Stable Temperature (°C): 28.1
Stable Specific Conductance (µS/cm): 1,633
Stable ORP (mV): -63
Stable Turbidity (NTU):
Remarks: 1 inch brown sediment on bottom, little suspended

Sample Information

Sample Collected Date and Time: October 9, 2024 11:05 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PG-5UAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - Pump

Well Name: PG-8UA
Sample Collected Date and Time: October 9, 2024 8:00 AM
Sample ID: PG-8UA
Weather: Temperature 74 °F, Pressure 29.86 inHg, Wind 3 mph W, Humidity 27%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 162
Depth for Casing Volume Calc (ft bls): 162
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 89.79
Water Column Thickness (ft): 72.21
Initial Casing Volume (gal): 0
Casing Volume (gal): 46.93
Minimum Purge Volume (gal): 93.87
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
07:49	No		42,299									
07:50	Yes	91.16	42,313	14	14	7.12	25.4	1,745		17.6	12	
07:54	Yes	103.63	42,347	48	8.5	7.11	25.5	1,760		5.8	5	
07:58	Yes	105.77	42,424	125	19.25	7.11	25.4	1,766		5.9	5	
07:59	Yes	105.5	42,433	134	9	7.11	25.4	1,764		6	5	
08:00	Yes	106.8	42,441	142	8	7.11	25.4	1,763		6.6	5	
08:00	08:00	106.8	42,441	142	8	7.11	25.4	1,763		6.6	5	

Sample Information

Sample Collected Date and Time: October 9, 2024 8:00 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: Yes
Duplicate ID: M
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-18UA
Sample Collected Date and Time: October 9, 2024 8:55 AM
Sample ID: PG-18UA
Weather: Temperature 81 °F, Pressure 29.89 inHg, Wind 4 mph W, Humidity 22%

Sample PartÙ

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 160
Depth for Casing Volume Calc (ft bls): 160
Unit Casing Volume (gal/ft): 1.5
Initial Water Level (ft/bmp): 74.56
Water Column Thickness (ft): 85.44
Initial Casing Volume (gal): 0
Casing Volume (gal): 128.16
Minimum Purge Volume (gal): 256.32
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
08:25	No		42,443									
08:26	Yes		42,454	11	11	7.75	26.4	1,009		35.4	15	
08:36	Yes	86.88	42,566	123	11.2	7.7	26.4	1,010		40.1	10	
08:40	Yes	86.89	42,606	163	10	7.68	26.4	1,011		41.8	10	
08:45	Yes	86.88	42,657	214	10.2	7.65	26.5	1,010		42.9	10	
08:50	Yes	86.88	42,708	265	10.2	7.65	26.4	1,012		43.9	10	
08:50	08:50	86.88	42,708	265	10.2	7.65	26.4	1,012		43.9	10	

Sample Information

Sample Collected Date and Time: October 9, 2024 8:55 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-23UA
Sample Collected Date and Time: October 9, 2024 12:40 PM
Sample ID: PG-23UAHS
Weather: Temperature 99 °F, Pressure 29.83 inHg, Wind 4 mph S, Humidity 10%

Sample Party

Company: M&A
Personnel: Andrew Platt, Ryan Briggs

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 93.77

HydraSleeve Information

HydraSleeve Set Date and Time: October 8, 2024 7:45 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 145.5
Tag Depth of well (ft bls): 171.7
Weight Size: Bullet weight: 5oz
Tether Type: Metered tether
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

Field Parameters

Time of Collection of Stable Parameters: 12:42
Stable pH (standard units): 7.66
Stable Temperature (°C): 29
Stable Specific Conductance (µS/cm): 1,825
Stable ORP (mV): -112
Stable Turbidity (NTU):
Remarks: Half inch of brown sediment on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 9, 2024 12:40 PM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PG-23UAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-25UA
Sample Collected Date and Time: October 9, 2024 10:15 AM
Sample ID: PG-25UAHS
Weather: Temperature 90 °F, Pressure 29.89 inHg, Wind 5 mph E, Humidity 15%

Sample Party

Company: M&A
Personnel: Andrew Platt, Ryan Briggs

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 71.35

HydraSleeve Information

HydraSleeve Set Date and Time: October 9, 2024 11:20 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 120.1
Tag Depth of well (ft bls): 149.4
Weight Size: Bullet weight: 8oz
Tether Type: Metered tether
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

Field Parameters

Time of Collection of Stable Parameters: 10:15
Stable pH (standard units): 7.33
Stable Temperature (°C): 27
Stable Specific Conductance (µS/cm): 1,973
Stable ORP (mV): -27
Stable Turbidity (NTU):
Remarks: Half inch suspended sediment on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 9, 2024 10:15 AM
Sample Odor: No
Sample Appearance: Murky
Sample ID: PG-25UAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-53MA
Sample Collected Date and Time: October 9, 2024 9:15 AM
Sample ID: PG-53MAHS
Weather: Temperature 83 °F, Pressure 29.9 inHg, Wind 5 mph NE, Humidity 17%

Sample Party

Company: M&A
Personnel: Andrew Platt, Ryan Briggs

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 120.26

HydraSleeve Information

HydraSleeve Set Date and Time: October 8, 2024 12:45 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 561.6
Tag Depth of well (ft bls): 584.2
Weight Size:
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

Field Parameters

Time of Collection of Stable Parameters: 9:16
Stable pH (standard units): 7.45
Stable Temperature (°C): 28.3
Stable Specific Conductance (µS/cm): 989.8
Stable ORP (mV): -162
Stable Turbidity (NTU):
Remarks: Half inch brown sediment on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 9, 2024 9:15 AM
Sample Odor: No
Sample Appearance: Murky
Sample ID: PG-53MAHS
Is there a duplicate associated with this sample?: Yes
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: Small hole in HydraSleeve bag when HydraSleeve was pulled
Photos:





Signature:

Field Sample Data Form - Pump

Well Name: S-2LA
Sample Collected Date and Time: October 9, 2024 6:25 AM
Sample ID: S-2LA
Weather: Temperature 73 °F, Pressure 29.85 inHg, Wind 4 mph W, Humidity 28%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 668
Depth for Casing Volume Calc (ft bls): 668
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 241.72
Water Column Thickness (ft): 426.28
Initial Casing Volume (gal): 0
Casing Volume (gal): 277.08
Minimum Purge Volume (gal): 554.16
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
05:40	No		41,514									
05:41	Yes	245.65	41,526	12	12	8.21	29	702		10.1	35	
05:51	Yes	245.65	41,665	151	13.9	7.79	29.1	788		27.8	27	
06:01	Yes	245.65	41,815	301	15	7.77	29.1	799		45.9	43	
06:11	Yes	245.65	41,962	448	14.7	7.74	29.1	797		48.4	34	
06:21	Yes	245.65	42,071	557	10.9	7.72	29.1	797		51.6	10	
06:21	06:21	245.65	42,071	557	10.9	7.72	29.1	797		51.6	10	

Sample Information

Sample Collected Date and Time: October 9, 2024 6:25 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:

Signature: 

Field Sample Data Form - Pump

Well Name: E-1LA
Sample Collected Date and Time: October 10, 2024 2:05 PM
Sample ID: E-1LA
Weather: Temperature 100 °F, Pressure 29.87 inHg, Wind 2 mph N, Humidity 13%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 749
Depth for Casing Volume Calc (ft bls): 695
Unit Casing Volume (gal/ft): 1.5
Initial Water Level (ft/bmp): 236.7
Water Column Thickness (ft): 458.3
Initial Casing Volume (gal): 35.1
Casing Volume (gal): 687.45
Minimum Purge Volume (gal): 1,374.9
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
13:24	No		45,604									
13:25	Yes	236.89	45,623	19	19	8.68	27.2	967		-125.9	9	
13:35	Yes	242.55	45,821	217	19.8	8.63	27.6	967		-160.8	9	
13:45	Yes	242.55	46,011	407	19	8.7	28.8	967		-177.6	9	
13:55	Yes	242.55	46,205	601	19.4	7.57	29.3	1,435		-89.9	9	
14:05	Yes	242.55	46,411	807	20.6	7.55	29.5	1,440		-88.5	9	
14:05	14:05	242.55	46,411	807	20.6	7.55	29.5	1,440		-88.5	9	

Sample Information

Sample Collected Date and Time: October 10, 2024 2:05 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: E-5UA
Sample Collected Date and Time: October 10, 2024 2:47 PM
Sample ID: E-5UAHS
Weather: Temperature 104 °F, Pressure 29.8 inHg, Wind 5 mph SW, Humidity 8%

Sample Party

Company: M&A
Personnel: Andrew Platt, Ryan Briggs

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 62.25

HydraSleeve Information

HydraSleeve Set Date and Time: October 8, 2024 2:20 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 99.8
Tag Depth of well (ft bls): 118.9
Weight Size: Bullet weight: 8oz
Tether Type: Metered tether
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

Field Parameters

Time of Collection of Stable Parameters: 14:47
Stable pH (standard units): 7.16
Stable Temperature (°C): 27.4
Stable Specific Conductance (µS/cm): 1,847
Stable ORP (mV): -100
Stable Turbidity (NTU):
Remarks: 1 inch of brown sediment on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 10, 2024 2:47 PM
Sample Odor: No
Sample Appearance: Clear
Sample ID: E-5UAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: Sleeve had leak, couldnt get photos
Photos:

Signature:

Field Sample Data Form - HydraSleeve

Well Name: E-10MA
Sample Collected Date and Time: October 10, 2024 3:38 PM
Sample ID: E-10MAHS
Weather: Temperature 102 °F; Pressure 29.81 inHg, Wind 4 mph NE, Humidity 13%

Sample Party

Company: M&A
Personnel: Erica Boyle, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 131.26

HydraSleeve Information

HydraSleeve Set Date and Time: October 10, 2024 3:37 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 275.3
Tag Depth of well (ft bls): 296.95
Weight Size: Compact weight: 11oz
Tether Type: Metered tether
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve
HydraSleeveTM 1-liter

Field Parameters

Time of Collection of Stable Parameters: 15:40
Stable pH (standard units): 7.42
Stable Temperature (°C): 28.1
Stable Specific Conductance (µS/cm): 1,080
Stable ORP (mV): 299
Stable Turbidity (NTU):
Remarks: .5" milky brown sediment in bag

Sample Information

Sample Collected Date and Time: October 10, 2024 3:38 PM
Sample Odor: No
Sample Appearance: Murky
Sample ID: E-10MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:

Signature: 

Field Sample Data Form - HydraSleeve

Well Name: PA-10MA
Sample Collected Date and Time: October 10, 2024 4:27 PM
Sample ID: PA-10MAHS
Weather: Temperature 102 °F, Pressure 29.81 inHg, Wind 4 mph E, Humidity 13%

Sample Party

Company: M&A
Personnel: Erica Boyle, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 125.08

HydraSleeve Information

HydraSleeve Set Date and Time: October 8, 2024 2:50 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 267.8
Tag Depth of well (ft bls): 290.17
Weight Size: Bullet weight: 8oz
Tether Type: Metered tether
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

Field Parameters

Time of Collection of Stable Parameters: 16:32
Stable pH (standard units): 8.5
Stable Temperature (°C): 27.5
Stable Specific Conductance (µS/cm): 1,126
Stable ORP (mV): 184
Stable Turbidity (NTU):
Remarks: .5"

Sample Information

Sample Collected Date and Time: October 10, 2024 4:27 PM
Sample Odor: No
Sample Appearance: Murky
Sample ID: PA-10MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: Discarded metered tether following sampling, turbidity measured with Hach #2 @ 17:32
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-4MA
Sample Collected Date and Time: October 10, 2024 2:40 PM
Sample ID: PG-4MA
Weather: Temperature 93 °F, Pressure 29.88 inHg, Wind 4 mph W, Humidity 12%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 225
Depth for Casing Volume Calc (ft bls): 225
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 117.15
Water Column Thickness (ft): 107.85
Initial Casing Volume (gal): 0
Casing Volume (gal): 70.10
Minimum Purge Volume (gal): 140.20
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
14:20	No		46,411									
14:21	Yes	121.66	46,420	9	9	27.8	27.5	1,005		27.6	35	
14:25	Yes	121.66	46,456	45	9	7.23	27.3	1,163		11.6	11	
14:30	Yes	121.66	46,506	95	10	7.2	26.9	1,108		-24.1	11	
14:35	Yes	121.66	46,549	138	8.6	7.2	26.9	1,157		-22.1	11	
14:40	Yes	121.66	46,594	183	9	7.2	26.9	1,157		-23.1	11	
14:40	14:40	121.66	46,594	183	9	7.2	26.9	1,157		-23.1	11	

Sample Information

Sample Collected Date and Time: October 10, 2024 2:40 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-6MA
Sample Collected Date and Time: October 10, 2024 10:45 AM
Sample ID: PG-6MA
Weather: Temperature 90 °F, Pressure 29.94 inHg, Wind 5 mph W, Humidity 18%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 245
Depth for Casing Volume Calc (ft bls): 245
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 90.78
Water Column Thickness (ft): 154.22
Initial Casing Volume (gal): 0
Casing Volume (gal): 100.24
Minimum Purge Volume (gal): 200.48
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
10:20	No		44,995									
10:21	Yes	93.44	45,008	13	13	7.23	25.3	1,475		-95.7	175	
10:31	Yes	126.41	45,168	173	16	7.24	25.2	1,491		-91.3	65	
10:33	Yes	126.51	45,198	203	15	7.25	25.2	1,501		-87.6	55	
10:34	Yes	126.41	45,214	219	16	7.25	25.2	1,507		-84.2	63	
10:34	10:34	126.41	45,214	219	16	7.25	25.2	1,507		-84.2	63	

Sample Information

Sample Collected Date and Time: October 10, 2024 10:45 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: Yes
Duplicate ID: BA
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-6UA
Sample Collected Date and Time: October 10, 2024 11:25 AM
Sample ID: PG-6UA
Weather: Temperature 96 °F, Pressure 29.87 inHg, Wind 5 mph W, Humidity 15%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 170
Depth for Casing Volume Calc (ft bls): 170
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 81.61
Water Column Thickness (ft): 88.39
Initial Casing Volume (gal): 0
Casing Volume (gal): 57.45
Minimum Purge Volume (gal): 114.90
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
11:05	No		45,214									
11:06	Yes	82.2	45,226	12	12	7.88	25.5	1,625		180.6	35	
11:10	Yes	85.66	45,274	60	12	7.11	25.5	1,623		177.9	24	
11:13	Yes	85.66	45,298	84	8	7.11	25.6	1,622		176.7	21	
11:15	Yes	85.66	45,322	108	12	7.1	25.5	1,625		175.5	12	
11:17	Yes	85.66	45,347	133	12.5	7.11	25.5	1,625		174	12	
11:17	11:17	85.66	45,347	133	12.5	7.11	25.5	1,625		174	12	

Sample Information

Sample Collected Date and Time: October 10, 2024 11:25 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-7MA
Sample Collected Date and Time: October 10, 2024 9:50 AM
Sample ID: PG-7MA
Weather: Temperature 89 °F, Pressure 29.94 inHg, Wind 6 mph W, Humidity 19%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 86.76
Water Column Thickness (ft): 213.24
Initial Casing Volume (gal): 0
Casing Volume (gal): 138.60
Minimum Purge Volume (gal): 277.21
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
09:15	No		44,649									
09:16	Yes	100.5	44,668	19	19	8.33	25.4	1,196		106	34	
09:26	Yes	105.68	44,846	197	17.8	7.73	24.6	1,167		68.8	6	
09:30	Yes	105.68	44,921	272	18.75	7.72	24.5	1,181		65.8	6	
09:35	Yes	105.68	44,995	346	14.8	7.73	24.5	1,181		64.3	6	
09:35	09:35	105.68	44,995	346	14.8	7.73	24.5	1,181		64.3	6	

Sample Information

Sample Collected Date and Time: October 10, 2024 9:50 AM
Sample Odor:
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-23MA/LA
Sample Collected Date and Time: October 10, 2024 12:30 PM
Sample ID: PG-23MA/LA
Weather: Temperature 99 °F, Pressure 29.89 inHg, Wind 3 mph NW, Humidity 14%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 105.95
Water Column Thickness (ft): 194.05
Initial Casing Volume (gal): 0
Casing Volume (gal): 126.13
Minimum Purge Volume (gal): 252.26
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
12:09	No		45,347									
12:10	Yes	106.11	45,359	12	12	7.41	26.3	1,446		-10.5	29	
12:15	Yes	129.23	45,429	82	14	7.4	26.1	1,483		-7.7	18	
12:20	Yes	129.23	45,468	121	7.8	7.4	26.1	1,487		-10.3	7	
12:25	Yes	129.23	45,534	187	13.2	7.4	26.1	1,489		-11.2	7	
12:30	Yes	129.23	45,604	257	14	7.41	26.1	1,489		-12.2	7	
12:30	12:30	129.23	45,604	257	14	7.41	26.1	1,489		-12.2	7	

Sample Information

Sample Collected Date and Time: October 10, 2024 12:30 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: Yes
Duplicate ID: N
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: E-7UA
Sample Collected Date and Time: October 11, 2024 11:30 AM
Sample ID: E-7UAHS
Weather: Temperature 95 °F, Pressure 29.95 inHg, Wind 4 mph SE, Humidity 13%

Sample Party

Company: M&A
Personnel: Andrew Platt, Ryan Briggs

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 63.7

HydraSleeve Information

HydraSleeve Set Date and Time: October 9, 2024 1:40 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 114.9
Tag Depth of well (ft bls): 126.9
Weight Size: Bullet weight: 5oz
Tether Type: Metered tether
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

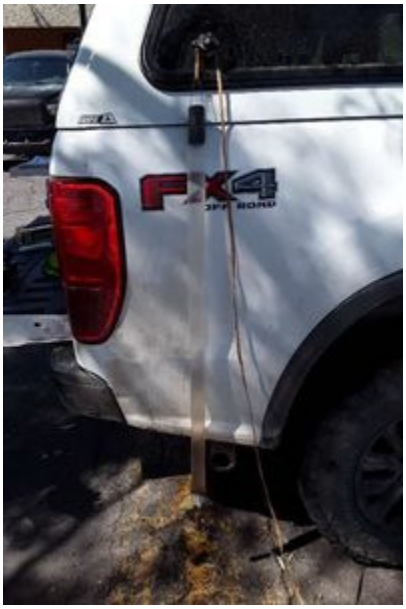
Field Parameters

Time of Collection of Stable Parameters: 11:32
Stable pH (standard units): 7.16
Stable Temperature (°C): 26.7
Stable Specific Conductance (µS/cm): 2,102
Stable ORP (mV): -13
Stable Turbidity (NTU):
Remarks: 0.5inch brown sediment

Sample Information

Sample Collected Date and Time: October 11, 2024 11:30 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: E-7UAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: E-13UA
Sample Collected Date and Time: October 11, 2024 10:00 AM
Sample ID: E-13UAHS
Weather: Temperature 90 °F, Pressure 29.98 inHg, Wind 5 mph SE, Humidity 16%

Sample Party

Company: M&A
Personnel: Andrew Platt, Ryan Briggs

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 68.59

HydraSleeve Information

HydraSleeve Set Date and Time: October 10, 2024 7:50 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 106.2
Tag Depth of well (ft bls): 115.8
Weight Size: Bullet weight: 5oz
Tether Type: Metered tether
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

Field Parameters

Time of Collection of Stable Parameters: 10:02
Stable pH (standard units): 6.8
Stable Temperature (°C): 26.6
Stable Specific Conductance (µS/cm): 2,228
Stable ORP (mV): -111
Stable Turbidity (NTU):
Remarks: 1.5inch of brown sediment on bottom

Sample Information

Sample Collected Date and Time: October 11, 2024 10:00 AM
Sample Odor: No
Sample Appearance: Murky
Sample ID: E-13UAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: M-10LA2
Sample Collected Date and Time: October 11, 2024 1:25 PM
Sample ID: M-10LA2HS
Weather: Temperature 98 °F, Pressure 29.91 inHg, Wind 7 mph SE, Humidity11%

Sample Party

Company: M&A
Personnel: Andrew Platt, Ryan Briggs

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 122.27

HydraSleeve Information

HydraSleeve Set Date and Time: October 9, 2024 2:00 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 678.1
Tag Depth of well (ft bls): 700.07
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve
HydraSleeveTM 1-liter

Field Parameters

Time of Collection of Stable Parameters: 13:27
Stable pH (standard units): 9.51
Stable Temperature (°C): 27.71
Stable Specific Conductance (µS/cm): 1,368
Stable ORP (mV): -18
Stable Turbidity (NTU):
Remarks: Less than half inch of black seds on bottom, little suspended

Sample Information

Sample Collected Date and Time: October 11, 2024 1:25 PM
Sample Odor: No
Sample Appearance: Clear
Sample ID: M-10LA2HS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - Pump

Well Name: M-16MA
Sample Collected Date and Time: October 11, 2024 9:00 AM
Sample ID: M-16MA
Weather: Temperature 76 °F, Pressure 29.96 inHg, Wind 4 mph W, Humidity 33%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 779
Depth for Casing Volume Calc (ft bls): 779
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 109.65
Water Column Thickness (ft): 669.35
Initial Casing Volume (gal): 0
Casing Volume (gal): 435.07
Minimum Purge Volume (gal): 870.15
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
08:15	No		47,106									
08:16	Yes	114.69	47,125	19	19	8.05	25.9	975		-50.1	66	
08:26	Yes	125.76	47,324	218	19.9	8	25.9	980		-51.3	32	
08:36	Yes	125.76	47,524	418	20	7.78	25.9	987		-54.3	12	
08:46	Yes	126.76	47,721	615	19.7	7.78	25.9	984		-52.8	12	
08:56	Yes	125.76	47,924	818	20.3	7.79	26	988		-55.7	6	
08:59	Yes	125.76	47,983	877	19.67	7.79	26	988		-55.8	5	
08:15	08:59	125.76	47,983	877	19.67	7.79	26	988		-55.8	5	

Sample Information

Sample Collected Date and Time: October 11, 2024 9:00 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: PA-1MA
Sample Collected Date and Time: October 11, 2024 8:00 AM
Sample ID: PA-1MAHS
Weather: Temperature 77 °F, Pressure 29.98 inHg, Wind 5 mph E, Humidity 24%

Sample Party

Company: M&A
Personnel: Andrew Platt, Ryan Briggs

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 104.22

HydraSleeve Information

HydraSleeve Set Date and Time: October 10, 2024 2:05 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 261.4
Tag Depth of well (ft bls): 277.8
Weight Size: Compact weight: 17oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve
HydraSleeveTM 2-liter

Field Parameters

Time of Collection of Stable Parameters: 8:02
Stable pH (standard units): 8.46
Stable Temperature (°C): 26.3
Stable Specific Conductance (µS/cm): 1,079
Stable ORP (mV): 180
Stable Turbidity (NTU):
Remarks: 4 inches black sediment on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 11, 2024 8:00 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PA-1MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PA-16MA
Sample Collected Date and Time: October 11, 2024 11:00 AM
Sample ID: PA-16MAHS
Weather: Temperature 93 °F, Pressure 29.96 inHg, Wind 5 mph SE, Humidity 15%

Sample Party

Company: M&A
Personnel: Andrew Platt, Ryan Briggs

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 90.18

HydraSleeve Information

HydraSleeve Set Date and Time: October 10, 2024 11:00 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 263.6
Tag Depth of well (ft bls): 283.6
Weight Size: Compact weight: 17oz
Tether Type: Metered tether
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

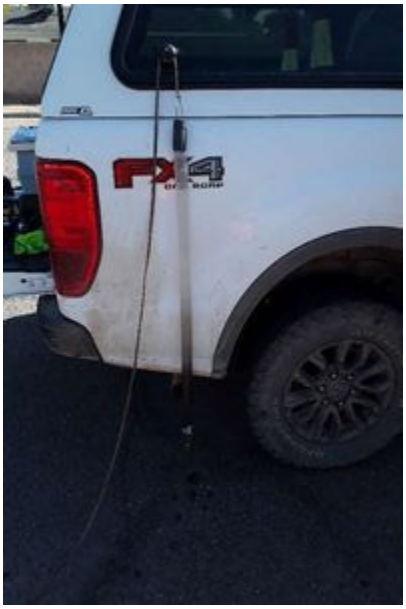
Field Parameters

Time of Collection of Stable Parameters: 11:01
Stable pH (standard units): 8.29
Stable Temperature (°C): 25.7
Stable Specific Conductance (µS/cm): 1,441
Stable ORP (mV): 45
Stable Turbidity (NTU):
Remarks: 1 inch black seds on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 11, 2024 11:00 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PA-16MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - Pump

Well Name: PG-2LA
Sample Collected Date and Time: October 11, 2024 3:30 PM
Sample ID: PG-2LA
Weather: Temperature 100 °F, Pressure 29.89 inHg, Wind 5 mph NE, Humidity 14%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 762
Depth for Casing Volume Calc (ft bls): 762
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 256.66
Water Column Thickness (ft): 505.34
Initial Casing Volume (gal): 0
Casing Volume (gal): 328.47
Minimum Purge Volume (gal): 656.94
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
14:45	No		50,101									
14:46	Yes	260.73	50,117	16	16	8.77	30	573		5.4	45	
14:51	Yes	267.77	50,182	81	13	8.66	30.6	630		-78	32	
15:01	No	269.86	50,331	230	14.9	7.85	31.6	1,182		-18.6	23	
15:11	Yes	269.86	50,504	403	17.3	7.56	30.9	1,198		-5.5	12	
15:21	Yes	269.89	50,663	562	15.9	7.64	31.1	1,205		0.8	11	
15:29	Yes	269.89	50,783	682	15	7.65	31.1	1,205		-1.1	11	
15:29	15:29	269.89	50,783	682	15	7.65	31.1	1,205		-1.1	11	

Sample Information

Sample Collected Date and Time: October 11, 2024 3:30 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-11UA
Sample Collected Date and Time: October 11, 2024 9:05 AM
Sample ID: PG-11UAHS
Weather: Temperature 85 °F, Pressure 29.99 inHg, Wind 4 mph E, Humidity 19%

Sample Party

Company: M&A
Personnel: Andrew Platt, Ryan Briggs

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 93.46

HydraSleeve Information

HydraSleeve Set Date and Time: October 10, 2024 12:20 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 138.2
Tag Depth of well (ft bls): 148.8
Weight Size: Bullet weight: 5oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 2-liter

Field Parameters

Time of Collection of Stable Parameters: 9:07
Stable pH (standard units): 7.25
Stable Temperature (°C): 26.1
Stable Specific Conductance (µS/cm): 2,297
Stable ORP (mV): -11
Stable Turbidity (NTU):
Remarks: Half inch brown seds on bottom, little suspended

Sample Information

Sample Collected Date and Time: October 11, 2024 9:05 AM
Sample Odor: Yes
Sample Appearance: Clear
Sample ID: PG-11UAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - Pump

Well Name: PG-11UA
Sample Collected Date and Time: October 11, 2024 1:50 PM
Sample ID: PG-11UA
Weather: Temperature 100 °F, Pressure 29.91 inHg, Wind 4 mph N, Humidity 14%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type:

Well Sample Information

Well Type: Well Sample
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Non-Dedicated

Well Information

Total Depth (ft bls): 148.8
Depth for Casing Volume Calc (ft bls):
Unit Casing Volume (gal/ft):
Initial Water Level (ft/bmp): 93.46
Water Column Thickness (ft): 55.34
Initial Casing Volume (gal):
Casing Volume (gal):
Minimum Purge Volume (gal):
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
13:15	No		49,630									
13:16	Yes	95.68	49,641	11	11	7.36	25	1,908		-36.1	99	
13:21	Yes	96.65	49,691	61	10	7.28	25.5	1,938		-10.6	19	
13:26	Yes	97.15	49,742	112	10.2	7.24	26.5	1,955		17.6	17	
13:31	Yes	98.5	49,793	163	10.2	7.21	26.9	1,956		30.1	15	
13:36	Yes	98.5	49,840	210	9.4	7.2	26.9	1,957		31.1	13	
13:36	13:36	98.5	49,840	210	9.4	7.2	26.9	1,957		31.1	13	

Sample Information

Sample Collected Date and Time: October 11, 2024 1:50 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered:
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-16UA
Sample Collected Date and Time: October 11, 2024 12:20 PM
Sample ID: PG-16UA
Weather: Temperature 95 °F, Pressure 29.96 inHg, Wind 4 mph NW, Humidity 17%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type:
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 166
Depth for Casing Volume Calc (ft bls):
Unit Casing Volume (gal/ft):
Initial Water Level (ft/bmp): 106.29
Water Column Thickness (ft):
Initial Casing Volume (gal):
Casing Volume (gal):
Minimum Purge Volume (gal):
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
11:30	No		49,303									
11:31	Yes	108.67	49,307	4	4	7.79	28	1,468		95.7	38	
11:41	Yes	111.21	49,348	45	4.1	7.67	27.6	1,466		67.6	26	
11:51	Yes	111.21	49,388	85	4	7.5	27	1,460		29.7	15	
12:01	Yes	111.21	49,429	126	4.1	7.47	26.9	1,459		15.7	15	
12:18	Yes	111.21	49,495	192	3.88	7.47	26.9	1,459		12.7	15	
12:18	12:18	111.21	49,495	192	3.88	7.47	26.9	1,459		12.7	15	

Sample Information

Sample Collected Date and Time: October 11, 2024 12:20 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-24UA
Sample Collected Date and Time: October 11, 2024 10:35 AM
Sample ID: PG-24UAHS
Weather: Temperature 91 °F, Pressure 29.97inHg, Wind 5 mph SE, Humidity 15%

Sample Party

Company: M&A
Personnel: Andrew Platt, Ryan Briggs

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 86.51

HydraSleeve Information

HydraSleeve Set Date and Time: October 9, 2024 2:05 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 129.8
Tag Depth of well (ft bls): 160.1
Weight Size: Bullet weight: 5oz
Tether Type: Metered tether
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

Field Parameters

Time of Collection of Stable Parameters: 10:35
Stable pH (standard units): 8.91
Stable Temperature (°C): 27.1
Stable Specific Conductance (µS/cm): 1,393
Stable ORP (mV): 27
Stable Turbidity (NTU):
Remarks: Half inch black seds on bottom, little suspended

Sample Information

Sample Collected Date and Time: October 11, 2024 10:35 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PG-24UAHS
Is there a duplicate associated with this sample?: Yes
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - Pump

Well Name: PG-28UA
Sample Collected Date and Time: October 11, 2024 12:55 PM
Sample ID: PG-28UA
Weather: Temperature 97 °F, Pressure 29.1 inHg, Wind 4 mph N, Humidity 15%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 173
Depth for Casing Volume Calc (ft bls): 173
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 95.4
Water Column Thickness (ft): 77.6
Initial Casing Volume (gal): 0
Casing Volume (gal): 50.44
Minimum Purge Volume (gal): 100.88
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
12:34	No		49,495									
12:35	Yes	96.59	49,503	8	8	7.24	26.4	1,863		60.7	33	
12:45	Yes	98.88	49,582	87	7.9	7.18	26.5	1,854		29.4	14	
12:47	Yes	98.88	49,598	103	8	7.19	26.4	1,857		28.8	12	
12:49	Yes	98.88	49,614	119	8	7.18	26.5	1,852		28.3	11	
12:51	Yes	98.88	49,630	135	8	7.19	26.4	1,854		28.1	11	
12:51	12:51	98.88	49,630	135	8	7.19	26.4	1,854		28.1	11	

Sample Information

Sample Collected Date and Time: October 11, 2024 12:55 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-29UA
Sample Collected Date and Time: October 11, 2024 10:20 AM
Sample ID: PG-29UA
Weather: Temperature 88 °F, Pressure 29.98 inHg, Wind 5 mph W, Humidity 20%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 152
Depth for Casing Volume Calc (ft bls): 152
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 95.2
Water Column Thickness (ft): 56.8
Initial Casing Volume (gal): 0
Casing Volume (gal): 36.92
Minimum Purge Volume (gal): 73.84
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
10:05	No		48,576									
10:06	Yes	95.69	48,590	14	14	7.49	25.1	1,761		-90.1	25	
10:09	Yes	99.75	48,628	52	12.67	7.2	25.1	1,750		-62.9	23	
10:12	Yes	99.75	48,667	91	13	7.17	25.1	1,749		-57.6	13	
10:15	Yes	99.75	48,706	130	13	7.15	25.1	1,748		-54.3	8	
10:15	10:15	99.75	48,706	130	13	7.15	25.1	1,748		-54.3	8	

Sample Information

Sample Collected Date and Time: October 11, 2024 10:20 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-39LA
Sample Collected Date and Time: October 11, 2024 6:55 AM
Sample ID: PG-39LA
Weather: Temperature 71 °F, Pressure 29.96 inHg, Wind 5 mph SW, Humidity 35%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 126.89
Water Column Thickness (ft): 173.11
Initial Casing Volume (gal): 0
Casing Volume (gal): 112.59
Minimum Purge Volume (gal): 225.04
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
06:30	No		46,594									
06:31	Yes	127.01	46,603	9	9	7.35	25.3	1,701		-1.1	29	
06:41	Yes	127.01	46,692	98	8.9	7.32	25.5	1,705		40.1	13	
06:51	Yes	127.01	46,783	189	9.1	7.32	25.4	1,705		44.6	11	
06:53	Yes	127.01	46,801	207	9	7.31	25.5	1,704		48.5	9	
06:55	Yes	127.01	46,820	226	9.5	7.31	25.5	1,705		52.1	9	
06:55	06:55	127.01	46,820	226	9.5	7.31	25.5	1,705		52.1	9	

Sample Information

Sample Collected Date and Time: October 11, 2024 6:55 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: Yes
Duplicate ID: O
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-44LA
Sample Collected Date and Time: October 11, 2024 11:37 AM
Sample ID: PG-44LAHS
Weather: Temperature 93 °F, Sunny, Pressure 29.97 inHg, Wind 5 mph SE, Humidity 17%

Sample Party

Company: M&A
Personnel: Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 292.59

HydraSleeve Information

HydraSleeve Set Date and Time: October 10, 2024 2:50 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 694.8
Tag Depth of well (ft bls): 751.22
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

Field Parameters

Time of Collection of Stable Parameters: 11:41
Stable pH (standard units): 7.99
Stable Temperature (°C): 29.6
Stable Specific Conductance (µS/cm): 2,109
Stable ORP (mV): 209
Stable Turbidity (NTU):
Remarks: Approx .5" black sediment in bag

Sample Information

Sample Collected Date and Time: October 11, 2024 11:37 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PG-44LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: Bagged ripped 5" down from collar
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-54MA
Sample Collected Date and Time: October 11, 2024 8:05 AM
Sample ID: PG-54MA
Weather: Temperature 71 °F, Pressure 29.96 inHg, Wind 4 mph W, Humidity 33%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 424
Depth for Casing Volume Calc (ft bls): 424
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 140.08
Water Column Thickness (ft): 283.92
Initial Casing Volume (gal): 0
Casing Volume (gal): 184.54
Minimum Purge Volume (gal): 369.09
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
07:35	No		46,820									
07:36	Yes	141.56	46,829	9	9	8.92	25.8	875		-141.8	57	
07:46	Yes	141.99	46,969	149	14	8.96	26.5	867		-197.5	32	
07:51	Yes	141.99	47,038	218	13.8	8.41	26.8	951		-115.6	14	
07:56	Yes	141.99	47,106	286	13.6	8.02	27.1	974		-15.8	80	
08:05	Yes	141.99	47,232	412	14	8.01	27.1	974		-13.6	80	
08:05	08:05	141.99	47,232	412	14	8.01	27.1	974		-13.6	80	

Sample Information

Sample Collected Date and Time: October 11, 2024 8:05 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-55MA
Sample Collected Date and Time: October 11, 2024 9:50 AM
Sample ID: PG-55MA
Weather: Temperature 82 °F, Pressure 29.99 inHg, Wind 5 mph W, Humidity 24%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 570
Depth for Casing Volume Calc (ft bls): 570
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 118.76
Water Column Thickness (ft): 451.24
Initial Casing Volume (gal): 0
Casing Volume (gal): 293.30
Minimum Purge Volume (gal): 586.61
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
09:15	No		47,983									
09:16	Yes	119	47,995	12	12	-93.3	26	1,720		-97.7	157	
09:26	Yes	119	48,135	152	14	7.05	26.1	1,724		-119.2	121	
09:36	Yes	119	48,334	351	19.9	7.35	29	1,082		-89.5	79	
09:41	Yes	119	48,429	446	19	7.36	29	1,074		-90.5	335	
09:50	Yes	119	48,576	593	16.33	7.37	29.1	1,067		-90.8	335	
09:50	09:50	119	48,576	593	16.33	7.37	29.1	1,067		-90.8	335	

Sample Information

Sample Collected Date and Time: October 11, 2024 9:50 AM
Sample Odor: No
Sample Appearance: Murky
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-56MA
Sample Collected Date and Time: October 11, 2024 11:15 AM
Sample ID: PG-56MA
Weather: Temperature 91 °F, Pressure 29.97 inHg, Wind 5 mph NW, Humidity 18%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 580
Depth for Casing Volume Calc (ft bls): 580
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 118.26
Water Column Thickness (ft): 461.74
Initial Casing Volume (gal): 0
Casing Volume (gal): 300.1
Minimum Purge Volume (gal): 600.26
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
10:40	No		48,706									
10:41	Yes	125.34	48,720	14	14	8.19	25.5	1,473		-176.6	36	
10:51	Yes	125.34	48,881	175	16.1	7.36	25.7	1,635		-111.4	56	
11:01	Yes	125.34	49,061	355	18	7.23	25.8	1,651		-69.9	855	
11:11	Yes	125.34	49,259	553	19.8	7.23	25.8	1,654		-56.6	865	
11:15	Yes	125.34	49,313	607	13.5	7.23	25.8	1,652		-51.9	870	
11:15	11:15	125.34	49,313	607	13.5	7.23	25.8	1,652		-51.9	10	

Sample Information

Sample Collected Date and Time: October 11, 2024 11:15 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: S-1MA
Sample Collected Date and Time: October 11, 2024 9:46 AM
Sample ID: S-1MAHS
Weather: Temperature 85 °F, Sunny, Pressure 29.98 inHg, Wind 5 mph SE, Humidity 22%

Sample Party

Company: M&A
Personnel: Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 137.56

HydraSleeve Information

HydraSleeve Set Date and Time: October 10, 2024 10:25 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 245.9
Tag Depth of well (ft bls): 265.16
Weight Size: 2 5 oz weights
Tether Type: Metered tether
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

Field Parameters

Time of Collection of Stable Parameters: 9:47
Stable pH (standard units): 7.66
Stable Temperature (°C): 25.7
Stable Specific Conductance (µS/cm): 668.1
Stable ORP (mV): 176
Stable Turbidity (NTU):
Remarks: Bottom 2/3 black murky

Sample Information

Sample Collected Date and Time: October 11, 2024 9:46 AM
Sample Odor: No
Sample Appearance: Murky
Sample ID: S-1MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations: Turbidity overranged, would not read; metered tether pulled
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: W-2MA
Sample Collected Date and Time: October 11, 2024 2:30 PM
Sample ID: W-2MA
Weather: Temperature 101 °F, Pressure 29.89 inHg, Wind 4 mph NE, Humidity 16%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 290
Depth for Casing Volume Calc (ft bls): 290
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 126.91
Water Column Thickness (ft): 163.09
Initial Casing Volume (gal): 0
Casing Volume (gal): 106.00
Minimum Purge Volume (gal): 212.01
Condition of Well: Good

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
14:05	No		49,840									
14:06	Yes	129.78	49,855	15	15	7.65	27.8	1,321		30.3	286	
14:11		129.33	49,920	80	13	7.73	27.2	1,299		32.1	76	
14:16	Yes	129.33	49,986	146	13.2	7.7	27.1	1,299		35.6	25	
14:21	Yes	129.33	50,041	201	11	7.7	27.1	1,300		40.1	12	
14:50	Yes	129.33	50,101	261	2.07	7.7	27.1	1,301		41.7	12	
14:50	14:50	129.33	50,101	261	2.07	7.7	27.1	1,301		41.7	12	

Sample Information

Sample Collected Date and Time: October 11, 2024 2:30 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: D-4MA
Sample Collected Date and Time: October 12, 2024 1:35 PM
Sample ID: D-4MA
Weather: Temperature 100 °F, Pressure 29.98 inHg, Wind 3 mph NE, Humidity 13%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

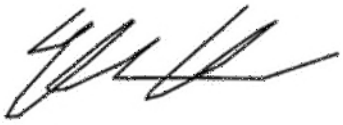
Total Depth (ft bls): 249.5
Depth for Casing Volume Calc (ft bls): 249.5
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 116.15
Water Column Thickness (ft): 133.35
Initial Casing Volume (gal): 0
Casing Volume (gal): 86.67
Minimum Purge Volume (gal): 173.35
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
13:15	No		53,209									
13:16	Yes	129.11	53,228	19	19	7.57	27.4	1,367		58.7	67	
13:21	Yes	129.11	53,299	90	14.2	7.59	27.2	1,362		57.9	16	
13:26	Yes	129.11	53,370	161	14.2	7.58	27.1	1,361		55.4	8	
13:28	Yes	129.11	53,401	192	15.5	7.58	27	1,361		57.9	8	
13:30	Yes	129.11	53,421	212	10	7.59	27.1	1,369		59.8	5	
13:30	13:30	129.11	53,421	212	10	7.59	27.1	1,369		59.8	5	

Sample Information

Sample Collected Date and Time: October 12, 2024 1:35 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: E-1MA
Sample Collected Date and Time: October 12, 2024 12:15 AM
Sample ID: E-1MA
Weather: Temperature 94 °F, Pressure 29.98 inHg, Wind 5 mph SE, Humidity 16%,

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 128.05
Water Column Thickness (ft): 171.95
Initial Casing Volume (gal): 0
Casing Volume (gal): 111.76
Minimum Purge Volume (gal): 223.53
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
11:49	No		52,723									
11:50	Yes	131.27	52,731	8	8	8.25	26.9	827		8.8	76	
11:55	Yes	132.86	52,774	51	8.6	7.73	27	1,077		32.8	8	
12:00	Yes	133.37	52,830	107	11.2	7.66	27.2	1,165			8	
12:05	Yes	133.17	52,869	146	7.8	7.45	27.3	1,124		40.3	8	
12:10	Yes	133.17	52,911	188	8.4	7.55	27.2	1,126		44.5	9	
12:15	Yes	133.17	52,959	236	9.6	7.54	27.2	1,128		49.6	8	
12:15	12:15	133.17	52,959	236	9.6	7.54	27.2	1,128		49.6	8	

Sample Information

Sample Collected Date and Time: October 12, 2024 12:15 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-5LA
Sample Collected Date and Time: October 12, 2024 10:50 AM
Sample ID: M-5LA
Weather: Temperature 83 °F, Pressure 29.99 inHg, Wind 4 mph W, Humidity 22%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 748
Depth for Casing Volume Calc (ft bls): 748
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 129.27
Water Column Thickness (ft): 618.73
Initial Casing Volume (gal): 0
Casing Volume (gal): 402.17
Minimum Purge Volume (gal): 804.34
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
09:54	No		51,646									
09:55	Yes	131.66	51,662	16	16	8.55	27.9	1,303		-245.3	10	
10:05	Yes	133.15	51,820	174	15.8	8.23	27.8	1,297		-255.5	10	
10:25	Yes	133.15	52,139	493	15.95	7.5	28.1	1,578		-93.3	7	
10:45	Yes	133.15	52,445	799	15.3	7.49	28.1	1,678		-25.4	6	
10:46	Yes	133.15	52,460	814	15	7.49	28.1	1,678		-27.3	6	
10:46	10:46	133.15	52,460	814	15	7.49	28.1	1,678		-27.3	6	

Sample Information

Sample Collected Date and Time: October 12, 2024 10:50 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:

Signature: 

Field Sample Data Form - Pump

Well Name: M-5MA
Sample Collected Date and Time: October 12, 2024 9:45 AM
Sample ID: M-5MA
Weather: Temperature 78 °F, Pressure 29.87 inHg, Wind 4 mph W, Humidity 30%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 302
Depth for Casing Volume Calc (ft bls): 302
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 143.66
Water Column Thickness (ft): 158.34
Initial Casing Volume (gal): 0
Casing Volume (gal): 102.92
Minimum Purge Volume (gal): 205.84
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
09:24	No		51,437									
09:25	Yes	149.97	51,449	12	12	7.72	26.7	1,037		39.9	45	
09:31	Yes	152.77	51,510	73	10.17	7.75	26.7	1,032		42.1	21	
09:36	Yes	156.41	51,573	136	12.6	7.82	26.9	1,031		49.9	16	
09:41	Yes	156.41	51,643	206	14	7.51	27	1,035		50.2	23	
09:42	Yes	156.41	51,646	209	3	7.5	27	1,036		51.2	9	
09:42	09:42	156.41	51,646	209	3	7.5	27	1,036		51.2	9	

Sample Information

Sample Collected Date and Time: October 12, 2024 9:45 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-6MA
Sample Collected Date and Time: October 12, 2024 9:05 AM
Sample ID: M-6MA
Weather: Temperature 73 °F, Pressure 29.98 inHg, Wind 4 mph W, Humidity 31%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 302
Depth for Casing Volume Calc (ft bls): 302
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 128.06
Water Column Thickness (ft): 173.94
Initial Casing Volume (gal): 0
Casing Volume (gal): 113.06
Minimum Purge Volume (gal): 226.12
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
08:05	No		51,207									
08:06	Yes	130.4	51,211	4	4	7.79	25.1	940		-28.7	35	
08:20	Yes	131.65	51,268	61	4.07	7.65	26.2	1,074		-8.5	56	
08:34	Yes	131.65	51,315	108	3.36	7.88	26.5	1,222		11.7	23	
08:48	Yes	131.65	51,370	163	3.93	7.67	26.3	1,133		19.9	42	
09:02	Yes	131.65	51,429	222	4.21	7.61	26.3	1,118		20.7	21	
09:04	Yes	131.65	51,437	230	4	7.61	26.3	1,120		22.1	25	
09:04	09:04	131.65	51,437	230	4	7.61	26.3	1,120		22.1	25	

Sample Information

Sample Collected Date and Time: October 12, 2024 9:05 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-7MA
Sample Collected Date and Time: October 12, 2024 11:30 AM
Sample ID: M-7MA
Weather: Temperature 91 °F, Pressure 29.97 inHg, Wind 5 mph NW, Humidity 18%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 121.11
Water Column Thickness (ft): 178.89
Initial Casing Volume (gal): 0
Casing Volume (gal): 116.27
Minimum Purge Volume (gal): 232.55
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
11:05	No		52,460									
11:06	Yes	123.72	52,473	13	13	7.79	27.2	1,088		-165.4	18	
11:11	Yes	127.03	52,537	77	12.8	7.56	26.1	1,170		-65.6	10	
11:16	Yes	127.03	52,600	140	12.6	7.55	26.1	1,157		-51.5	9	
11:21	Yes	127.03	52,664	204	12.8	7.59	26.1	1,154		-49.9	9	
11:26	Yes	127.03	52,723	263	11.8	7.52	26	1,162		-40.2	6	
11:26	11:26	127.03	52,723	263	11.8	7.52	26	1,162		-40.2	6	

Sample Information

Sample Collected Date and Time: October 12, 2024 11:30 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-15MA
Sample Collected Date and Time: October 12, 2024 12:55 PM
Sample ID: M-15MA
Weather: Temperature 96 °F, Pressure 29.95 inHg, Wind 3 mph N, Humidity 14%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 125.48
Water Column Thickness (ft): 174.51
Initial Casing Volume (gal): 0
Casing Volume (gal): 113.438
Minimum Purge Volume (gal): 226.87
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
12:30	No		52,959									
12:31	Yes	128.79	52,974	15	15	7.72	26.4	1,085		-64.3	66	
12:36	Yes	134.45	53,041	82	13.4	7.71	26.7	1,170		-1.6	57	
12:41	Yes	134.45	53,119	160	15.6	7.6	26.9	1,174		31.3	7	
12:46	Yes	134.45	53,184	225	13	7.59	26.9	1,174		33.3	7	
12:50												
12:51	Yes	134.45	53,209	250	3	7.55	26.9	1,176		35.9	8	
12:51	12:51	134.45	53,209	250	3	7.55	26.9	1,176		35.9	8	

Sample Information

Sample Collected Date and Time: October 12, 2024 12:55 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-19UA
Sample Collected Date and Time: October 12, 2024 2:50 PM
Sample ID: PG-19UA
Weather: Temperature 101 °F, Pressure 29.98 inHg, Wind 4 mph SE, Humidity 14%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 158
Depth for Casing Volume Calc (ft bls): 158
Unit Casing Volume (gal/ft): 1.5
Initial Water Level (ft/bmp): 69.41
Water Column Thickness (ft): 88.59
Initial Casing Volume (gal): 0
Casing Volume (gal): 132.88
Minimum Purge Volume (gal): 265.77
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
13:50	No		53,421									
13:51	Yes	70.21	53,426	5	5	7.1	27.9	698		-30.2	55	
14:00	Yes	70.25	53,456	35	3.33	7.2	27.5	697		-21.6	86	
14:20	Yes	70.3	53,557	136	5.05	7.13	27.1	698		-14.8	55	
14:40	Yes	70.3	53,660	239	5.15	7.11	27.1	698		-12.2	51	
14:45	Yes	70.3	53,686	265	5.2	7.11	27.1	699		-10.2	116	
14:50	Yes	70.3	53,699	278	2.6	7.1	27.1	700		-9.7	170	
14:50	14:50	70.3	53,699	278	2.6	7.1	27.1	700		-9.7	170	

Sample Information

Sample Collected Date and Time: October 12, 2024 2:50 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-48MA
Sample Collected Date and Time: October 12, 2024 7:50 AM
Sample ID: PG-48MA
Weather: Temperature 69 °F, Pressure 29.97 inHg, Wind 3 mph SW, Humidity 34%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 430
Depth for Casing Volume Calc (ft bls): 430
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 114.13
Water Column Thickness (ft): 315.87
Initial Casing Volume (gal): 0
Casing Volume (gal): 205.31
Minimum Purge Volume (gal): 410.63
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
06:40	No		50,783									
06:41	Yes	116.65	50,789	6	6	7.59	25.2	974		-225.5	99	
06:51	Yes	122.23	50,848	65	5.9	7.49	25.3	972		-201.6	175	
07:01	Yes	122.23	50,909	126	6.1	7.51	25.4	965		-193.6	25	
07:21	Yes	122.23	51,030	247	6.05	8.18	27	969		-40.8	14	
07:41	Yes	122.23	51,151	368	6.05	8.15	27	970		-41.6	38	
07:50	Yes	122.23	51,207	424	6.22	8.18	27	970		-41.1	27	
07:50	07:50	122.23	51,207	424	6.22	8.18	27	970		-41.1	27	

Sample Information

Sample Collected Date and Time: October 12, 2024 7:50 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-9MA
Sample Collected Date and Time: October 14, 2024 10:15 AM
Sample ID: M-9MA
Weather: Temperature 84 °F, Pressure 29.96 inHg, Wind 4 mph NW, Humidity 22%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 302
Depth for Casing Volume Calc (ft bls): 302
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 114.96
Water Column Thickness (ft): 187.04
Initial Casing Volume (gal): 0
Casing Volume (gal): 121.57
Minimum Purge Volume (gal): 243.15
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
09:54	No		54,707									
09:55	Yes	116.89	54,722	15	15	7.74	26.8	1,129		31.9	215	
10:00	Yes	116.31	54,795	88	14.6		26.8	1,159		59	54	
10:05	Yes	116.36	54,863	156	13.6	7.65	27	1,161		65.1	17	
10:10	Yes	116.36	54,927	220	12.8	7.64	27	1,161		70.2	10	
10:10	Yes	116.36	54,953	246	5.2	7.64	27.1	1,162		72.6	10	
10:10	10:10	116.36	54,953	246	5.2	7.64	27.1	1,162		72.6	10	

Sample Information

Sample Collected Date and Time: October 14, 2024 10:15 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PA-23MA
Sample Collected Date and Time: October 14, 2024 11:30 PM
Sample ID: PA-23MA
Weather: Temperature 93 °F, Pressure 29.92 inHg, Wind 3 mph N, Humidity 15%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 250
Unit Casing Volume (gal/ft): 1.5
Initial Water Level (ft/bmp): 69.12
Water Column Thickness (ft): 180.88
Initial Casing Volume (gal): 32.5
Casing Volume (gal): 271.32
Minimum Purge Volume (gal): 542.64
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
10:30	No		54,923									
10:31	Yes	70.13	54,936	13	13	7.57	27	1,667		-29.9	67	
10:40	Yes	71.99	55,045	122	12.11	7.62	26.5	1,736		-12.7	143	
10:50	Yes	72.35	55,174	251	12.9	7.66	26.9	1,220		-32.6	165	
11:10	Yes	72.35	55,413	490	11.95	7.6	26.9	1,205		-41.1	162	
11:20	Yes	72.35	55,557	634	14.4	7.63	26.9	1,204		-39.6	160	
11:20	11:20	72.35	55,557	634	14.4	7.63	26.9	1,204		-39.6	160	

Sample Information

Sample Collected Date and Time: October 14, 2024 11:30 PM
Sample Odor: No
Sample Appearance:
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-10UA
Sample Collected Date and Time: October 14, 2024 9:35 AM
Sample ID: PG-10UA
Weather: Temperature 77 °F, Pressure 29.96 inHg, Wind 4 mph W, Humidity 27%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 154
Depth for Casing Volume Calc (ft bls): 154
Unit Casing Volume (gal/ft): 1.5
Initial Water Level (ft/bmp): 102.69
Water Column Thickness (ft): 51.31
Initial Casing Volume (gal): 0
Casing Volume (gal): 76.965
Minimum Purge Volume (gal): 153.93
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
09:19	No		54,530									
09:20	Yes	105.77	54,545	15	15	7.55	26.6	1,387		87.1	65	
09:25	Yes	105.77	54,619	89	14.8	7.47	26.2	1,358		87.3	17	
09:27	Yes	105.77	54,649	119	15	7.47	26.2	1,356		80.2	10	
09:29	Yes	105.76	54,678	148	14.5	7.46	26.4	1,357		77.6	10	
09:31	Yes	105.77	54,707	177	14.5	7.45	26.3	1,355		74.5	10	
09:31	09:31	105.77	54,707	177	14.5	7.45	26.3	1,355		74.5	10	

Sample Information

Sample Collected Date and Time: October 14, 2024 9:35 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: S-1LA
Sample Collected Date and Time: October 14, 2024 7:10 AM
Sample ID: S-1LA
Weather: Temperature 69 °F, Pressure 29.93 inHg, Wind 7 mph W, Humidity 34%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 658
Depth for Casing Volume Calc (ft bls): 658
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 207.66
Water Column Thickness (ft): 450.34
Initial Casing Volume (gal): 0
Casing Volume (gal): 292.721
Minimum Purge Volume (gal): 585.44
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
05:45	No		53,699									
05:46	Yes	211.54	53,706	7	7	7.45	29	1,329		-1.6	99	
06:06	Yes	216.78	53,844	145	6.9	7.61	29.8	1,203		-18.8	76	
06:26	Yes	216.78	53,984	285	7	7.56	28.9	1,199		-21.7	32	
06:46	Yes	216.78	54,123	424	6.95	7.58	28.9	1,198		-23.5	23	
07:06	Yes	216.78	54,262	563	6.95	7.58	28.9	1,197		-27.7	23	
07:09	Yes	126.78	54,285	586	7.67	7.58	28.9	1,199		-30.1	7	
07:09	07:09	126.78	54,285	586	7.67	7.58	28.9	1,199		-30.1	7	

Sample Information

Sample Collected Date and Time: October 14, 2024 7:10 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: Yes
Duplicate ID: BB
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: W-1MA
Sample Collected Date and Time: October 14, 2024 8:55 AM
Sample ID: W-1MA
Weather: Temperature 69 °F, Pressure 29.93 inHg, Wind 4 mph W, Humidity 34%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 290
Depth for Casing Volume Calc (ft bls): 290
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 101.96
Water Column Thickness (ft): 188.04
Initial Casing Volume (gal): 0
Casing Volume (gal): 122.23
Minimum Purge Volume (gal): 244.45
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
07:29	Yes		54,285									
07:30	Yes	102.76	54,288	3	3	7.18	24.9	1,654		49.5	248	
07:50	Yes	104.13	54,347	62	2.95	7.2	25	1,661		50.7	53	
08:10	Yes	104.13	54,409	124	3.1	7.27	25.1	1,665		64.9	23	
08:30	Yes	104.13	54,466	181	2.85	7.25	25	1,534		75.5	25	
08:50	Yes	104.13	54,520	235	2.7	7.27	25.1	1,537		77.8	10	
08:53	Yes	104.13	54,530	245	3.33	7.25	25.2	1,537		81.2	6	
08:53	08:53	104.13	54,530	245	3.33	7.25	25.2	1,537		81.2	6	

Sample Information

Sample Collected Date and Time: October 14, 2024 8:55 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: B-1MA
Sample Collected Date and Time: October 15, 2024 1:30 PM
Sample ID: B-1MAHS
Weather: Temperature 92 °F, Pressure 29.87 inHg, Wind 4 mph SW, Humidity 16%

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 79.11

HydraSleeve Information

HydraSleeve Set Date and Time: October 14, 2024 2:25 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 273.3
Tag Depth of well (ft bls): 292.6
Weight Size: Bullet weight: 8oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 2-liter

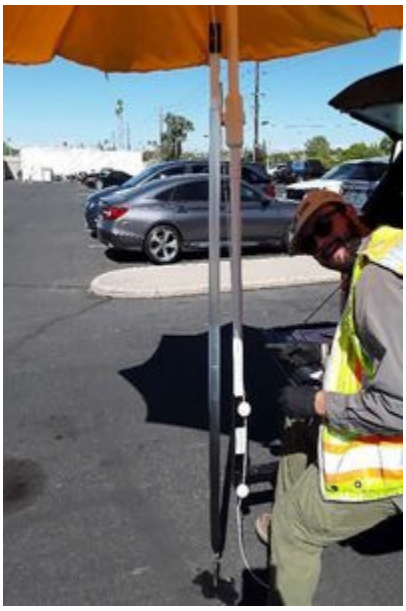
Field Parameters

Time of Collection of Stable Parameters: 13:30
Stable pH (standard units): 9.16
Stable Temperature (°C): 30.8
Stable Specific Conductance (µS/cm): 935.9
Stable ORP (mV): -54
Stable Turbidity (NTU):
Remarks: About 1 inch black seds on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 15, 2024 1:30 PM
Sample Odor: Yes
Sample Appearance: Clear
Sample ID: B-1MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations: Slight sulfur smell
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: E-12UA
Sample Collected Date and Time: October 15, 2024 10:40 AM
Sample ID: E-12UAHS
Weather: Temperature 86 °F, Pressure 29.94 inHg, Wind 5 mph S, Humidity 16%

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 63.79

HydraSleeve Information

HydraSleeve Set Date and Time: October 14, 2024 10:30 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 106.5
Tag Depth of well (ft bls): 118.9
Weight Size: Bullet weight: 5oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 2-liter

Field Parameters

Time of Collection of Stable Parameters: 10:40
Stable pH (standard units): 7.33
Stable Temperature (°C): 29
Stable Specific Conductance (µS/cm): 1,759
Stable ORP (mV): 28
Stable Turbidity (NTU):
Remarks: Less than half inch of brown sediment, little suspended

Sample Information

Sample Collected Date and Time: October 15, 2024 10:40 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: E-12UAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - Pump

Well Name: M-2LA
Sample Collected Date and Time: October 15, 2024 6:35 AM
Sample ID: M-2LA
Weather: Temperature 65 °F, Pressure 29.92 inHg, Wind 3 mph W, Humidity 32%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 710
Depth for Casing Volume Calc (ft bls): 659
Unit Casing Volume (gal/ft): 1.5
Initial Water Level (ft/bmp): 110.75
Water Column Thickness (ft): 548.25
Initial Casing Volume (gal): 33.15
Casing Volume (gal): 822.375
Minimum Purge Volume (gal): 1,644.75
Condition of Well:

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
05:00	No		55,557									
05:01	Yes	113.64	55,574	17	17	7.88	26.6	1,197		-25.8	107	
05:30	Yes	113.64	56,055	498	16.59	8.25	26.9	1,376		29.6	14	
06:00	Yes		56,533	976	15.93	7.77	26.9	1,135		29.5	22	
06:25	Yes	113.64	57,001	1,444	18.72	7.71	26.9	1,135		34.7	31	
06:35	Yes	113.64	57,205	1,648	20.4	7.78	26.9	1,140		34.7	31	
06:35	06:35	113.64	57,205	1,648	20.4	7.78	26.9	1,140		34.7	31	

Sample Information

Sample Collected Date and Time: October 15, 2024 6:35 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: M-10LA2
Sample Collected Date and Time: October 15, 2024 2:30 PM
Sample ID: M-10LA2HS
Weather: Temperature 93 °F, Pressure 29.84 inHg, Wind 6 mph S, Humidity 16%

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 122.27

HydraSleeve Information

HydraSleeve Set Date and Time: October 11, 2024 1:40 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 678.1
Tag Depth of well (ft bls): 700.07
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve
HydraSleeveTM 2-liter

Field Parameters

Time of Collection of Stable Parameters: 14:30
Stable pH (standard units): 9.17
Stable Temperature (°C): 27.9
Stable Specific Conductance (µS/cm): 1,500
Stable ORP (mV): -11
Stable Turbidity (NTU):
Remarks: Half inch black seds on bottom, little suspended

Sample Information

Sample Collected Date and Time: October 15, 2024 2:30 PM
Sample Odor: Yes
Sample Appearance: Clear
Sample ID: M-10LA2HS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations: Sulfurous odor
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: M-16LA
Sample Collected Date and Time: October 15, 2024 11:35 AM
Sample ID: M-16LAHS
Weather: Temperature 91 °F, Pressure 29.91 inHg, Wind 4 mph SW, Humidity 15%

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 140.39

HydraSleeve Information

HydraSleeve Set Date and Time: October 14, 2024 12:20 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 752.6
Tag Depth of well (ft bls): 772.2
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 2-liter

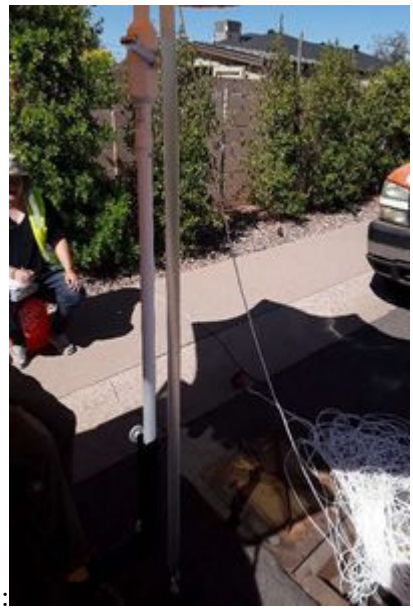
Field Parameters

Time of Collection of Stable Parameters: 11:35
Stable pH (standard units): 8.53
Stable Temperature (°C): 29.8
Stable Specific Conductance (µS/cm): 1,437
Stable ORP (mV): 88
Stable Turbidity (NTU):
Remarks: Half inch black sediment on bottom, little suspended

Sample Information

Sample Collected Date and Time: October 15, 2024 11:35 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: M-16LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations:
Photos
:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-4UA
Sample Collected Date and Time: October 15, 2024 8:35 AM
Sample ID: PG-4UAHS
Weather: Temperature 74 °F, Pressure 29.97 inHg, Wind 5 mph E, Humidity 23%

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 98.81

HydraSleeve Information

HydraSleeve Set Date and Time: October 14, 2024 8:10 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 154.4
Tag Depth of well (ft bls): 164.3
Weight Size: Bullet weight: 5oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve
HydraSleeveTM 2-liter

Field Parameters

Time of Collection of Stable Parameters: 8:35
Stable pH (standard units): 6.81
Stable Temperature (°C): 27.4
Stable Specific Conductance (µS/cm): 2,015
Stable ORP (mV): 220
Stable Turbidity (NTU):
Remarks: About half inch brown sediment on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 15, 2024 8:35 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PG-4UAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-31UA
Sample Collected Date and Time: October 15, 2024 12:30 PM
Sample ID: PG-31UAHS
Weather: Temperature 90 °F, Pressure 29.90 inHg, Wind 6 mph S, Humidity 17%

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 97.53

HydraSleeve Information

HydraSleeve Set Date and Time: October 14, 2024 1:00 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 133.1
Tag Depth of well (ft bls): 148.1
Weight Size: Bullet weight: 5oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve
HydraSleeveTM 2-liter

Field Parameters

Time of Collection of Stable Parameters: 12:30
Stable pH (standard units): 7.06
Stable Temperature (°C): 28.8
Stable Specific Conductance (µS/cm): 1,825
Stable ORP (mV): -111
Stable Turbidity (NTU):
Remarks: About 1 inch brown seds on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 15, 2024 12:30 PM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PG-31UAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-38MA/LA
Sample Collected Date and Time: October 15, 2024 9:35 AM
Sample ID: PG-38MA/LAHS
Weather: Temperature 81 °F, Sunny, Pressure 29.96 inHg, Wind 5 mph SE, Humidity 17%

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 125.74

HydraSleeve Information

HydraSleeve Set Date and Time: October 15, 2024 9:10 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 225.4
Tag Depth of well (ft bls): 246
Weight Size: Bullet weight: 8oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 2-liter

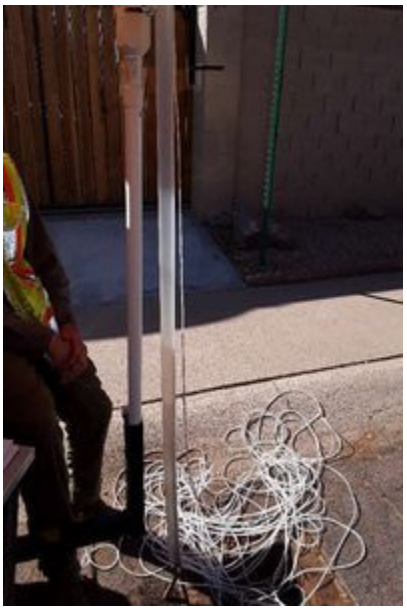
Field Parameters

Time of Collection of Stable Parameters: 9:35
Stable pH (standard units): 7.47
Stable Temperature (°C): 26.9
Stable Specific Conductance (µS/cm): 1,653
Stable ORP (mV): 45
Stable Turbidity (NTU):
Remarks: Less than half inch black sediment on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 15, 2024 9:35 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PG-38MA/LAHS
Is there a duplicate associated with this sample?: Yes
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - Pump

Well Name: PG-40LA
Sample Collected Date and Time: October 15, 2024 9:30 AM
Sample ID: PG-40LA
Weather: Temperature 69 °F, Pressure 29.95 inHg, Wind 3 mph W, Humidity 30%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 1,400
Depth for Casing Volume Calc (ft bls): 900
Unit Casing Volume (gal/ft): 2.6
Initial Water Level (ft/bmp): 255.57
Water Column Thickness (ft): 644.43
Initial Casing Volume (gal): 750
Casing Volume (gal): 1,675.52
Minimum Purge Volume (gal): 3,351.03
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
07:00	No		57,205									
07:01	Yes	255.65	57,235	30	30	7.91	29.2	1,029		-70.8	71	
08:00	Yes	255.56	59,034	1,829	30.49	7.9	29	1,020		-63.8	51	
09:00	Yes	255.56	60,830	3,625	29.93	7.72	32	1,033		34.4	5	
09:05	Yes	255.56	60,978	3,773	29.6	7.72	31.9	1,034		35.1	5	
09:10	Yes	255.56	61,120	3,915	28.4	7.72	32	1,032		36.9	5	
09:10	09:10	255.56	61,120	3,915	28.4	7.72	32	1,032		36.9	5	

Sample Information

Sample Collected Date and Time: October 15, 2024 9:30 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: Yes
Duplicate ID: BC,R
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: M-2MA
Sample Collected Date and Time: October 16, 2024 10:30 AM
Sample ID: M-2MAHS
Weather: Temperature 84 °F, Pressure 29.91 inHg, Wind 5 mph SE, Humidity 17%

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 110.54

HydraSleeve Information

HydraSleeve Set Date and Time: October 9, 2024 4:07 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 275
Tag Depth of well (ft bls): 296.82
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

Field Parameters

Time of Collection of Stable Parameters: 10:30
Stable pH (standard units): 7.79
Stable Temperature (°C): 26.7
Stable Specific Conductance (µS/cm): 1,202
Stable ORP (mV): 110
Stable Turbidity (NTU):
Remarks: About half inch brown seds on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 16, 2024 10:30 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: M-2MAHS
Is there a duplicate associated with this sample?: Yes
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: M-2UA
Sample Collected Date and Time: October 16, 2024 11:10 AM
Sample ID: M-2UAHS
Weather: Temperature 87 °F, Pressure 29.89 inHg, Wind 5 mph SE, Humidity 14%

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 70.8

HydraSleeve Information

HydraSleeve Set Date and Time: October 10, 2024 9:15 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 96.4
Tag Depth of well (ft bls): 112.54
Weight Size: Bullet weight: 5oz
Tether Type: Metered tether
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

Field Parameters

Time of Collection of Stable Parameters: 11:10
Stable pH (standard units): 7.18
Stable Temperature (°C): 26
Stable Specific Conductance (µS/cm): 2,108
Stable ORP (mV): 48
Stable Turbidity (NTU):
Remarks:

Sample Information

Sample Collected Date and Time: October 16, 2024 11:10 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: M-2UAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: M-12MA2
Sample Collected Date and Time: October 16, 2024 8:05 AM
Sample ID: M-12MA2HS
Weather: Temperature 69 °F, Pressure 29.94 inHg, Wind 4 mph E, Humidity 32%

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 137.16

HydraSleeve Information

HydraSleeve Set Date and Time: October 9, 2024 12:20 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 278.4
Tag Depth of well (ft bls): 298.85
Weight Size: Bullet weight: 8oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

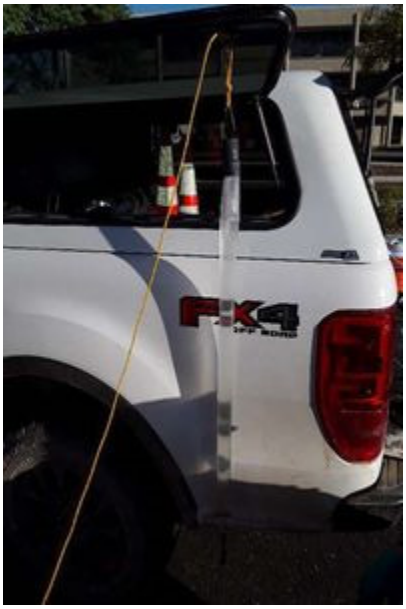
Field Parameters

Time of Collection of Stable Parameters: 8:05
Stable pH (standard units): 7.37
Stable Temperature (°C): 45
Stable Specific Conductance (µS/cm): 1,298
Stable ORP (mV): 204
Stable Turbidity (NTU):
Remarks: Less than half inch black seds on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 16, 2024 8:05 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: M-12MA2HS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: M-14LA
Sample Collected Date and Time: October 16, 2024 3:34 PM
Sample ID: M-14LAHS
Weather: Temperature 94 °F, Sunny, Pressure 29.72 inHg, Wind 9 mph SW, Humidity 16%

Sample Party

Company: M&A
Personnel: Erica BoyleLil B

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 131.72

HydraSleeve Information

HydraSleeve Set Date and Time: October 11, 2024 2:20 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 694
Tag Depth of well (ft bls): 714.9
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

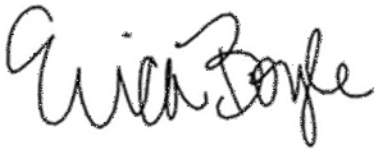
Field Parameters

Time of Collection of Stable Parameters: 15:36
Stable pH (standard units): 7.47
Stable Temperature (°C): 28.9
Stable Specific Conductance (µS/cm): 1,935
Stable ORP (mV): 138
Stable Turbidity (NTU):
Remarks: Approx 1" black sediment in bag, turbidity overranged, phx hach 2 used for turbidity

Sample Information

Sample Collected Date and Time: October 16, 2024 3:34 PM
Sample Odor: No
Sample Appearance: Clear
Sample ID: M-14LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-50MA
Sample Collected Date and Time: October 16, 2024 2:30 PM
Sample ID: PG-50MAHS
Weather: Temperature 94 °F, Pressure 29.76 inHg, Wind 9 mph S, Humidity 13%

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 104.95

HydraSleeve Information

HydraSleeve Set Date and Time: October 8, 2024 3:43 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 538
Tag Depth of well (ft bls): 547.56
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 1-liter

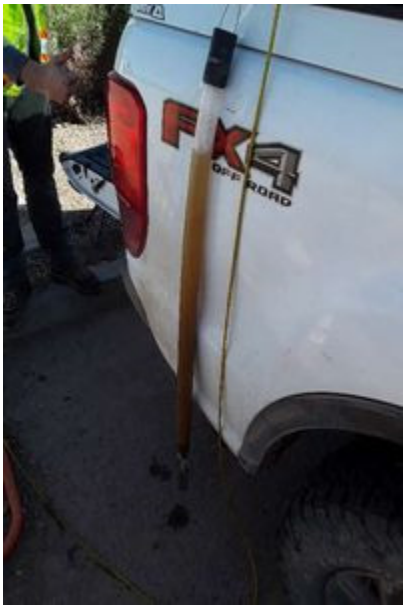
Field Parameters

Time of Collection of Stable Parameters: 14:30
Stable pH (standard units): 7.78
Stable Temperature (°C): 28.3
Stable Specific Conductance (µS/cm): 1,834
Stable ORP (mV): 17
Stable Turbidity (NTU):
Remarks: 3 inches of brown seds on bottom, a lot suspended, Turbidity is over range cc ccd

Sample Information

Sample Collected Date and Time: October 16, 2024 2:30 PM
Sample Odor: No
Sample Appearance: Murky
Sample ID: PG-50MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: E-10MA
Sample Collected Date and Time: October 17, 2024 8:35 AM
Sample ID: E-10MAHS
Weather: Temperature 72 °F, Pressure 29.81 inHg, Wind 6 mph SE, Humidity 43%

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 131.26

HydraSleeve Information

HydraSleeve Set Date and Time: October 15, 2024 3:03 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 275.3
Tag Depth of well (ft bls): 296.95
Weight Size: Compact weight: 11oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 2-liter

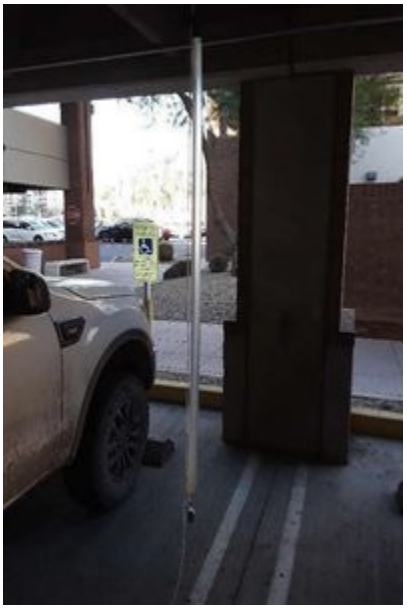
Field Parameters

Time of Collection of Stable Parameters: 8:35
Stable pH (standard units): 8.08
Stable Temperature (°C): 24.9
Stable Specific Conductance (µS/cm): 1,114
Stable ORP (mV): 192
Stable Turbidity (NTU):
Remarks: Less than half inch brown seds on bottom, little suspended

Sample Information

Sample Collected Date and Time: October 17, 2024 8:35 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: E-10MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: M-4MA
Sample Collected Date and Time: October 17, 2024 12:10 PM
Sample ID: M-4MAHS
Weather: Temperature 83 °F, Pressure 29.76 inHg, Wind 11 mph S, Humidity 26%

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 120.92

HydraSleeve Information

HydraSleeve Set Date and Time: October 16, 2024 11:16 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 272.3
Tag Depth of well (ft bls): 290.25
Weight Size: Compact weight: 11oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve
HydraSleeveTM 2-liter

Field Parameters

Time of Collection of Stable Parameters: 12:10
Stable pH (standard units): 8.57
Stable Temperature (°C): 26.5
Stable Specific Conductance (µS/cm): 1,083
Stable ORP (mV): 117
Stable Turbidity (NTU):
Remarks:

Sample Information

Sample Collected Date and Time: October 17, 2024 12:10 PM
Sample Odor: No
Sample Appearance: Clear
Sample ID: M-4MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations: Could not get photos due to bag leaking.
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: PA-6LA
Sample Collected Date and Time: October 17, 2024 9:25 AM
Sample ID: PA-6LAHS
Weather: Temperature 76 °F, Pressure 29.82 inHg, Wind 5 mph SE, Humidity 39%

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 239.53

HydraSleeve Information

HydraSleeve Set Date and Time: October 14, 2024 6:35 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 741.5
Tag Depth of well (ft bls): 758.71
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 2-liter

Field Parameters

Time of Collection of Stable Parameters: 9:25
Stable pH (standard units): 8.01
Stable Temperature (°C): 27.9
Stable Specific Conductance (µS/cm): 1,172
Stable ORP (mV): 82
Stable Turbidity (NTU):
Remarks: Half inch black seds on bottom, little suspended

Sample Information

Sample Collected Date and Time: October 17, 2024 9:25 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PA-6LAHS
Is there a duplicate associated with this sample?: Yes
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PA-9LA
Sample Collected Date and Time: October 17, 2024 2:55 PM
Sample ID: PA-9LAHS
Weather: Temperature 87 °F, Pressure 29.67 inHg, Wind 7 mph SW, Humidity 21%

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 161.07

HydraSleeve Information

HydraSleeve Set Date and Time: October 15, 2024 2:00 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 648.7
Tag Depth of well (ft bls): 673.39
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve
HydraSleeveTM 2-liter

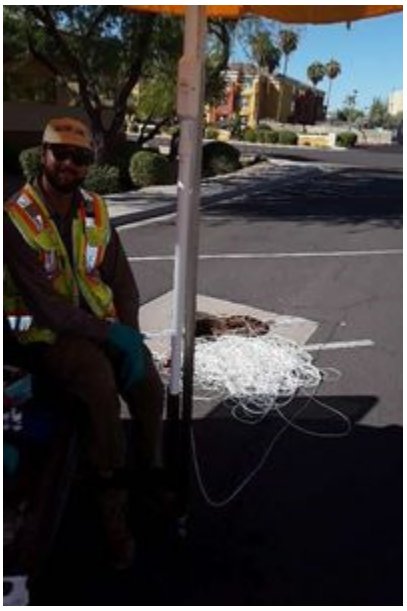
Field Parameters

Time of Collection of Stable Parameters: 14:55
Stable pH (standard units): 7.52
Stable Temperature (°C): 27.9
Stable Specific Conductance (µS/cm): 1,805
Stable ORP (mV): 9
Stable Turbidity (NTU):
Remarks: 2 inches black seds on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 17, 2024 2:55 PM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PA-9LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PA-15LA
Sample Collected Date and Time: October 17, 2024 3:03 PM
Sample ID: PA-15LAHS
Weather: Temperature 87 °F, Sunny, Pressure 29.67 inHg, Wind 6 mph SW, Humidity 26%

Sample Party

Company: M&A
Personnel: Erica BoyleLilianna Broussalian

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 90.8

HydraSleeve Information

HydraSleeve Set Date and Time: October 15, 2024 4:00 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 494.38
Tag Depth of well (ft bls): 519.7
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 2-liter

Field Parameters

Time of Collection of Stable Parameters: 15:07
Stable pH (standard units): 7.46
Stable Temperature (°C): 28.1
Stable Specific Conductance (µS/cm): 1,894
Stable ORP (mV): 202
Stable Turbidity (NTU):
Remarks: 1.5" sediment

Sample Information

Sample Collected Date and Time: October 17, 2024 3:03 PM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PA-15LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PA-18LA
Sample Collected Date and Time: October 17, 2024 1:16 PM
Sample ID: PA-18LAHS
Weather: Temperature 84 °F, Sunny, Pressure 29.72 inHg, Wind 7 mph SW, Humidity 29%

Sample Party

Company: M&A
Personnel: Erica BoyleLil Broussalian

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 186.53

HydraSleeve Information

HydraSleeve Set Date and Time: October 15, 2024 12:20 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 812.1
Tag Depth of well (ft bls): 840.44
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 2-liter

Field Parameters

Time of Collection of Stable Parameters: 13:16
Stable pH (standard units): 8.93
Stable Temperature (°C): 29.6
Stable Specific Conductance (µS/cm): 839.7
Stable ORP (mV): 201
Stable Turbidity (NTU):
Remarks: 1" black sediment

Sample Information

Sample Collected Date and Time: October 17, 2024 1:16 PM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PA-18LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-22UA
Sample Collected Date and Time: October 17, 2024 1:00 PM
Sample ID: PG-22UAHS
Weather: Temperature 84 °F, Pressure 29.73 inHg, Wind 8 mph SW, Humidity 23%

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 72.42

HydraSleeve Information

HydraSleeve Set Date and Time: October 15, 2024 7:25 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 108.5
Tag Depth of well (ft bls): 129.9
Weight Size: Bullet weight: 5oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 2-liter

Field Parameters

Time of Collection of Stable Parameters: 13:00
Stable pH (standard units): 8.53
Stable Temperature (°C): 26.6
Stable Specific Conductance (µS/cm): 1,548
Stable ORP (mV): -173
Stable Turbidity (NTU):
Remarks: Half inch brown sediment on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 17, 2024 1:00 PM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PG-22UAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations: Couldnt get photos, leak in bag
Photos:

Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-43LA
Sample Collected Date and Time: October 17, 2024 11:00 AM
Sample ID: PG-43LAHS
Weather: Temperature 84 °F, Sunny, Pressure 29.72 inHg, Wind 7 mph SW, Humidity 29%

Sample Party

Company: M&A
Personnel: Erica BoyleLil Broussalian

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 256.35

HydraSleeve Information

HydraSleeve Set Date and Time: October 14, 2024 3:52 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 791
Tag Depth of well (ft bls): 859.1
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve
HydraSleeveTM 2-liter

Field Parameters

Time of Collection of Stable Parameters: 11:03
Stable pH (standard units): 8.85
Stable Temperature (°C): 29.8
Stable Specific Conductance (µS/cm): 499.5
Stable ORP (mV): 136
Stable Turbidity (NTU):
Remarks:

Sample Information

Sample Collected Date and Time: October 17, 2024 11:00 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PG-43LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations: 2 inches of brown sediment at bottom of bag
Photos:



Signature:

Field Sample Data Form - HydraSleeve

Well Name: S-2MA
Sample Collected Date and Time: October 17, 2024 7:35 AM
Sample ID: S-2MAHS
Weather: Temperature 69 °F, Pressure 29.81 inHg, Wind 4 mph SE, Humidity 43%

Sample Party

Company: M&A
Personnel: Andrew Platt, George Rump

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 142.15

HydraSleeve Information

HydraSleeve Set Date and Time: October 15, 2024 10:48 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 251.5
Tag Depth of well (ft bls): 268.95
Weight Size: Compact weight: 11oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 2-liter

Field Parameters

Time of Collection of Stable Parameters: 7:35
Stable pH (standard units): 8.47
Stable Temperature (°C): 23.9
Stable Specific Conductance (µS/cm): 861.1
Stable ORP (mV): 222
Stable Turbidity (NTU):
Remarks: Half inch black seds on bottom, little suspended

Sample Information

Sample Collected Date and Time: October 17, 2024 7:35 AM
Sample Odor: No
Sample Appearance: Clear
Sample ID: S-2MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PA-3MA
Sample Collected Date and Time: October 22, 2024 4:18 PM
Sample ID: PA-3MAHS
Weather: Temperature 93 °F, Sunny, Pressure 29.90 inHg, Wind 3 mph NW, Humidity 14%

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 118.31

HydraSleeve Information

HydraSleeve Set Date and Time: October 21, 2024 11:20 AM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 270.2
Tag Depth of well (ft bls): 296.4
Weight Size: Bullet weight: 8oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 2-liter

Field Parameters

Time of Collection of Stable Parameters: 16:25
Stable pH (standard units): 8.23
Stable Temperature (°C): 27.9
Stable Specific Conductance (µS/cm): 1,402
Stable ORP (mV): 207
Stable Turbidity (NTU):
Remarks: Half inch black seds on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 22, 2024 4:18 PM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PA-3MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations:
Photos
:





Signature:



Field Sample Data Form - HydraSleeve

Well Name: PA-22LA
Sample Collected Date and Time: October 22, 2024 1:45 PM
Sample ID: PA-22LAHS
Weather: Temperature 90 °F, Sunny, Pressure 29.95 inHg, Wind 2 mph NW, Humidity 16%

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 73.51

HydraSleeve Information

HydraSleeve Set Date and Time: October 21, 2024 2:30 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 603.6
Tag Depth of well (ft bls): 629.2
Weight Size: Compact weight: 17oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 2-liter

Field Parameters

Time of Collection of Stable Parameters: 1350
Stable pH (standard units): 7.38
Stable Temperature (°C): 28.3
Stable Specific Conductance (µS/cm): 1,368
Stable ORP (mV): 67
Stable Turbidity (NTU):
Remarks: 2-3" sediment in bag, murky bottom 1'

Sample Information

Sample Collected Date and Time: October 22, 2024 1:45 PM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PA-22LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PA-23MA
Sample Collected Date and Time: October 22, 2024 2:15 PM
Sample ID: PA-23MAHS
Weather: Temperature 92 °F, Pressure 29.91 inHg, Wind 3 mph W, Humidity 11%

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 69.24

HydraSleeve Information

HydraSleeve Set Date and Time: October 21, 2024 3:55 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 267.7
Tag Depth of well (ft bls): 291.3
Weight Size: Compact weight: 11oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 2-liter

Field Parameters

Time of Collection of Stable Parameters: 14:21
Stable pH (standard units): 8.3
Stable Temperature (°C): 28.1
Stable Specific Conductance (µS/cm): 1,102
Stable ORP (mV): 77
Stable Turbidity (NTU):
Remarks: 1 inch of black seds on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 22, 2024 2:15 PM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PA-23MAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: PG-6UA
Sample Collected Date and Time: October 22, 2024 2:58 PM
Sample ID: PG-6UAHS
Weather: Temperature 93 °F, Pressure 29.90 inHg, Wind 3 mph W, Humidity 10%

Sample Party

Company: M&A
Personnel: Andrew Platt, Erica Boyle

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 82.06

HydraSleeve Information

HydraSleeve Set Date and Time: October 21, 2024 12:35 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 128.3
Tag Depth of well (ft bls): 145.5
Weight Size: Bullet weight: 8oz
Tether Type: Nylon rope
HydraSleeve Bag Type: High Density Polyethylene (HDPE) Super Sleeve/Skinny Sleeve HydraSleeveTM 2-liter

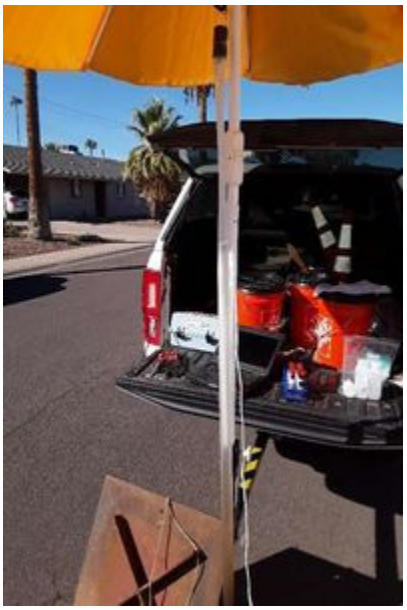
Field Parameters

Time of Collection of Stable Parameters: 14:58
Stable pH (standard units): 7.17
Stable Temperature (°C): 31.1
Stable Specific Conductance (µS/cm): 2,004
Stable ORP (mV): 124
Stable Turbidity (NTU):
Remarks: Half inch brown seds on bottom, some suspended

Sample Information

Sample Collected Date and Time: October 22, 2024 2:58 PM
Sample Odor: No
Sample Appearance: Clear
Sample ID: PG-6UAHS
Is there a duplicate associated with this sample?: Yes
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE), PFAS_(1_125_m_L_HDPE_or_Polypropylene_bottle, _____preserved;_2_500_mL_HDPE_or_Polypropylene_bottles, _____preserved);_EPA_Method_1633;_Per-_and_polyfluoroalkyl_substances
Sample Filtered: No
Field Observations: HydraSleeve bag only 3/4 full, wouldnt go down last 5 feet when setting
Photos:





Signature:

Field Sample Data Form - HydraSleeve

Well Name: M-14LA
Sample Collected Date and Time: November 19, 2024 3:00 PM
Sample ID: M-14LAHS
Weather: Temperature 69 °F, Pressure 30 inHg, Wind 5 mph NE, Humidity 22%

Sample Party

Company: M&A
Personnel: Erica Boyle, Ryan Briggs

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: HydraSleeve

Well Information

Perforated Interval:
Initial Water Level (ft bmp): 127.93

HydraSleeve Information

HydraSleeve Set Date and Time: November 18, 2024 2:56 PM
HydraSleeve Hang Depth (top of HydraSleeve - ft bls): 694
Tag Depth of well (ft bls): 714.9
Weight Size: Compact weight: 23oz
Tether Type: Nylon rope
HydraSleeve Bag Type: HS-2 (armored) - 500 mL

Field Parameters

Time of Collection of Stable Parameters: 15:05
Stable pH (standard units): 7.35
Stable Temperature (°C): 24.5
Stable Specific Conductance (µS/cm): 1,514
Stable ORP (mV): 212
Stable Turbidity (NTU):
Remarks: Approx 1" black sediment in bag, sample clear

Sample Information

Sample Collected Date and Time: November 19, 2024 3:00 PM
Sample Odor: No
Sample Appearance: Clear
Sample ID: M-14LAHS
Is there a duplicate associated with this sample?: No
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
Sample Matrix: Water

Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:





Signature:

Field Sample Data Form - Pump

Well Name: PG-10UA
Sample Collected Date and Time: November 19, 2024 2:00 PM
Sample ID: PG-10UA
Weather: Temperature 66 °F, Pressure 30.04 inHg, Wind 3 mph W

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 154
Depth for Casing Volume Calc (ft bls): 154
Unit Casing Volume (gal/ft): 1.5
Initial Water Level (ft/bmp): 102.75
Water Column Thickness (ft): 51.25
Initial Casing Volume (gal): 0
Casing Volume (gal): 76.875
Minimum Purge Volume (gal): 153.75
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
12:40	No		61,120									
12:45	Yes	104.11	61,195	75	15	7.52	24.3	1,380		89.9	56	
12:50	Yes		61,266	146	14.2	7.49	25.1	1,359		77.6	19	
12:52	Yes	105.83	61,289	169	11.5	7.41	25.1	1,350		74.5	11	
12:54	Yes	105.83	61,308	188	9.5	7.4	25.1	1,356		73.6	10	
12:56	Yes	105.83	61,338	218	15	7.41	25.1	1,351		72.1	10	
12:56	12:56	105.83	61,338	218	15	7.41	25.1	1,351		72.1	10	

Sample Information

Sample Collected Date and Time: November 19, 2024 2:00 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: Yes
Duplicate ID: S
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-19UA
Sample Collected Date and Time: November 19, 2024 3:30 PM
Sample ID: PG-19UA
Weather: Temperature 68 °F, Pressure 30.02 inHg, Wind 3 mph E, Humidity 29%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 158
Depth for Casing Volume Calc (ft bls): 158
Unit Casing Volume (gal/ft): 1.5
Initial Water Level (ft/bmp): 68.98
Water Column Thickness (ft): 89.02
Initial Casing Volume (gal): 0
Casing Volume (gal): 133.53
Minimum Purge Volume (gal): 267.06
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
13:20	No		61,338									
13:25	No	70.06	61,383	45	9	7.06	25.7	681		-41.8	68	
13:30	Yes	70.14	61,408	70	5	7.16	26	699		-19.1	83	
13:35	Yes	70.25	61,434	96	5.2	7.15	26.1	699		-14.4	156	
14:00	Yes	70.25	61,580	242	5.84	7.1	26.1	700		-10	151	
14:05	Yes	70.25	61,601	263	4.2	7.1	26.1	706		-9.5	152	
14:10	Yes	70.25	61,624	286	4.6	7.11	26.2	707		-8.2	149	
14:10	14:10	70.25	61,624	286	4.6	7.11	26.2	707		-8.2	149	

Sample Information

Sample Collected Date and Time: November 19, 2024 3:30 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered:
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-2LA
Sample Collected Date and Time: November 20, 2024 9:45 AM
Sample ID: M-2LA
Weather: Temperature 51 °F, Pressure 30.19 inHg, Wind 3 mph SW, Humidity 51%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 710
Depth for Casing Volume Calc (ft bls): 659
Unit Casing Volume (gal/ft): 1.5
Initial Water Level (ft/bmp): 110.63
Water Column Thickness (ft): 548.37
Initial Casing Volume (gal): 33.15
Casing Volume (gal): 822.555
Minimum Purge Volume (gal): 1,645.11
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
06:59	No		62,210									
07:00	Yes	111.1	62,226	16	16	7.7	26.4	1,150		10.9	76	
07:20	Yes	114.65	62,562	352	16.8	7.68	26.4	1,148		21.7	55	
07:50	Yes	114.87	63,052	842	16.33	7.71	26.4	1,149		39.6	49	
08:30	Yes	114.87	63,682	1,472	15.75	7.7	26.4	1,140		45.9	27	
08:43	Yes	114.87	63,856	1,646	13.38	7.71	26.4	1,139		49.6	25	
08:43	08:43	114.87	63,856	1,646	13.38	7.71	26.4	1,139		49.6	25	

Sample Information

Sample Collected Date and Time: November 20, 2024 9:45 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-7MA
Sample Collected Date and Time: November 20, 2024 10:25 AM
Sample ID: M-7MA
Weather: Temperature 59 °F, Pressure 30.21 inHg, Wind 3 mph W, Humidity 38%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 300
Depth for Casing Volume Calc (ft bls): 300
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 121.04
Water Column Thickness (ft): 178.95
Initial Casing Volume (gal): 0
Casing Volume (gal): 116.32
Minimum Purge Volume (gal): 232.64
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
08:59	No		63,682									
09:00	Yes	122.23	63,695	13	13	7.79	26.5	1,001		-143.8	21	
09:10	Yes	122.75	63,805	123	11	7.61	26.1	1,112		-51.7	10	
09:20	Yes	122.99	63,910	228	10.5	7.51	26	1,136		-21.6	8	
09:22	Yes	112.99	63,930	248	10	7.5	26.1	1,124		-19.6	9	
09:24	Yes	122.99	63,958	276	14	7.5	26.1	1,136		-18.3	10	
09:24	09:24	122.99	63,958	276	14	7.5	26.1	1,136		-18.3	10	

Sample Information

Sample Collected Date and Time: November 20, 2024 10:25 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered:
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: M-9MA
Sample Collected Date and Time: November 20, 2024 11:25 AM
Sample ID: M-9MA
Weather: Temperature 65 °F, Pressure 30.20 inHg, Wind 5 mph W, Humidity 22%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 302
Depth for Casing Volume Calc (ft bls): 302
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 114.63
Water Column Thickness (ft): 187.37
Initial Casing Volume (gal): 0
Casing Volume (gal): 121.79
Minimum Purge Volume (gal): 243.58
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
09:59	No		63,958									
10:00	Yes	115	63,972	14	14	7.8	26.4	1,153		61.8	199	
10:10	Yes	115.56	64,111	153	13.9	7.65	26.6	1,185		66.8	65	
10:15	Yes	116.21	64,182	224	14.2	7.62	26.6	1,175		83	20	
10:20	Yes	116.11	64,251	293	13.8	7.6	26.6	1,177		86.9	15	
10:22	Yes	116.11	64,275	317	12	7.61	26.4	1,180		88.1	23	
10:22	10:22	116.11	64,275	317	12	7.61	26.4	1,180		88.1	23	

Sample Information

Sample Collected Date and Time: November 20, 2024 11:25 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: PG-18UA
Sample Collected Date and Time: November 20, 2024 12:05 PM
Sample ID: PG-18UA
Weather: Temperature 68 °F, Pressure 30.20 inHg, Wind 3 mph W, Humidity 21%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type: Dedicated

Well Information

Total Depth (ft bls): 160
Depth for Casing Volume Calc (ft bls): 160
Unit Casing Volume (gal/ft): 1.5
Initial Water Level (ft/bmp): 74.24
Water Column Thickness (ft): 85.76
Initial Casing Volume (gal): 0
Casing Volume (gal): 128.64
Minimum Purge Volume (gal): 257.28
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
10:39	No		64,204									
10:40	Yes	75.23	64,217	13	13	7.86	26.4	1,108		61.7	39	
10:50	Yes	76.45	64,356	152	13.9	7.69	26.1	1,017		44.6	20	
10:55	Yes	76.45	64,426	222	14	7.65	26.1	1,003		28.6	17	
11:00	Yes	76.45	64,499	295	14.6	7.63	26.1	1,002		24.6	18	
11:02	Yes	76.45	64,517	313	9	7.64	26.1	1,002		23.6	18	
11:02	23:02	76.45	64,517	313	9	7.64	26.1	1,002		23.6	18	

Sample Information

Sample Collected Date and Time: November 20, 2024 12:05 PM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: No
Duplicate ID:
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered:
Field Observations:
Photos:



Signature:

Field Sample Data Form - Pump

Well Name: S-1LA
Sample Collected Date and Time: November 20, 2024 7:40 AM
Sample ID: S-1LA
Weather: Temperature 81 °F, Pressure 30.21 inHg, Wind 4 mph S, Humidity 51%

Sample Party

Company: Confluence
Personnel: Nicholas Alva

Sample Collection Type

Sample Type: Well Sample

Well Sample Information

Well Type: Monitor Well
Monitor Well Sample Method: Pump

Pump Information

Pump Type:

Well Information

Total Depth (ft bls): 658
Depth for Casing Volume Calc (ft bls): 658
Unit Casing Volume (gal/ft): 0.65
Initial Water Level (ft/bmp): 207.51
Water Column Thickness (ft): 450.49
Initial Casing Volume (gal): 0
Casing Volume (gal): 292.81
Minimum Purge Volume (gal): 585.64
Condition of Well: Okay

Field Parameters for Stabilization

Time of Collection	Pump Turned on	Pumping Water Level (ft bmp)	Flow Meter Reading (gallons)	Volume Removed (gallons)	Pumping Rate (gpm)	pH (S.U)	Temp (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Remark
05:19	No		61,624									
05:20	Yes	208.54	61,631	7	7	7.45	26.5	1,331		-8.1	136	
05:30	Yes	208.1	61,703	79	7.2	7.5	26.1	1,279		-27.8	38	
05:40	Yes	208.14	61,780	156	7.7	7.56	26	1,213		-41.9	12	
06:20	Yes	208.1	62,076	452	7.4	7.58	26.1	1,210		-44.9	10	
06:35	Yes	208.1	62,210	586	8.93	7.56	26	1,210		-49.6	9	
06:35	06:35	208.1	62,210	586	8.93	7.56	26	1,210		-49.6	9	

Sample Information

Sample Collected Date and Time: November 20, 2024 7:40 AM
Sample Odor: No
Sample Appearance: Clear
Is there a duplicate associated with this sample?: Yes
Duplicate ID: T
Is there an MS/MSD associated with this sample?:
MS/MSD ID:
GAC Treatment?: Yes
Sample Matrix: Water
Sample and Container Details: VOC (3 40ml vials, HCL preserved); EPA Method 524.2: Trichloroethylene (TCE), Trichloroethane (TCA), Dichloroethane (DCE), Tetrachloromethane (TCM), Tetrachloroethylene (PCE)
Sample Filtered: No
Field Observations:
Photos:



Signature:

APPENDIX F
HISTORICAL GROUNDWATER PUMPING AND TCE TIME-SERIES DATA FOR NIBW EXTRACTION WELLS

APPENDIX F
HISTORICAL GROUNDWATER PUMPING TABLE

TABLE F-1. SUMMARY OF HISTORICAL ANNUAL GROUNDWATER PRODUCTION FROM 1991 THROUGH 2014 NORTH INDIAN BEND WASH AREA, SCOTTSDALE, ARIZONA

Production Well ID	Gallons (x1000)																						
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
7EX-1UA [1]	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13,514	13,654	14,585	12,966	12,627	0	0
7EX-3aMA [2]	---	---	---	---	---	---	---	---	13,170	87,375	76,401	64,048	77,690	83,654	72,475	73,094	74,020	64,062	70,290	73,227	68,454	89,646	82,936	85,411
7EX-4MA [2]	---	---	---	---	---	---	---	---	12,498	57,645	50,958	29,736	35,822	27,685	19,076	22,205	12,790	12,225	19,259	24,851	30,447	46,901	51,448	35,461
7EX-5MA [3]	---	---	---	---	---	---	---	---	---	---	---	42,094	96,280	85,914	102,191	95,534	103,234	78,932	88,997	72,160	69,657	19,315	0	0
PV-11	141,681	10,008	6,048	49,440	147,437	191,702	314,834	234,419	477,245	308,005	541,897	479,842	272,363	317,251	234,580	388,303	237,616	525,273	353,453	108,631	584,592	769,961	823,065	610,793
PV-12	78,760	161,849	160,265	197,764	442,311	766,800	302,222	224,958	317,991	242,826	292,758	269,215	255,925	181,905	190,159	235,528	177,350	415,980	478,840	182,527	416,242	72,486	0	AB
PV-12B [a]	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	464,884	769,618	438,959
PV-14	697,184	578,435	747,760	670,253	556,129	387,737	203,056	584,633	575,456	512,210	487,780	593,518	632,011	677,341	771,890	387,497	632,798	232,191	149,512	451,695	854,265	930,498	696,185	1,031,782
PV-15	607,810	653,910	616,805	404,378	204,347	289,088	629,291	950,086	1,066,526	996,539	811,431	913,461	1,017,488	1,082,598	1,059,244	1,066,791	281,022	418,495	890,424	997,698	1,053,100	1,022,323	831,104	1,078,491
PV-16	1,170,129	1,019,287	1,131,036	1,048,376	981,234	1,067,411	1,051,729	583,415	423,634	541,894	699,049	475,143	414,571	319,872	341,430	246,221	567,698	831,067	704,898	842,941	314,954	253,545	184,509	89,102
PV-17	---	---	7,080	715,206	711,787	711,787	906,660	568,588	358,059	54,352	105,121	57,730	128,252	102,762	38,113	173,522	451,742	1,015,459	1,297,930	1,005,540	221,181	10,293	35,513	12,581
AVI	78,763	79,074	89,128	95,840	91,608	88,372	93,030	79,825	84,295	75,740	79,388	76,049	70,533	78,501	68,605	62,650	54,663	67,011	57,627	60,168	60,117	54,030	51,308	48,633
AWC 7A	77,412	338,402	401,431	424,251	374,819	340,712	190,891	223,939	298,585	305,173	276,139	220,294	229,397	170,813	176,534	45,049	40,934	51,903	63,065	38,430	155,622	261,554	229,121	280,630
AWC 8	363,078	418,945	410,874	417,285	233,147	341,332	270,555	370,570	319,651	292,498	138,800	279,501	212,209	321,431	293,885	254,674	365,994	353,379	326,794	313,350	311,522	323,744	153,290	129,982
AWC 8A	0	0	0	215,398	394,624	265,618	271,981	266,446	271,888	184,594	136,050	226,063	257,184	245,347	156,650	195,585	3,353	112,147	117,745	195,986	34,276	54,811	113,073	44,916
AWC 9B	434,580	128,063	97,615	136,891	210,374	226,053	236,429	180,337	166,739	214,811	323,119	213,268	168,569	159,197	133,705	278,127	403,515	221,656	259,969	304,614	280,265	275,173	308,515	263,003
AWC 12A	242,769	182,413	171,403	174,068	329,099	241,366	331,889	272,153	232,164	309,621	329,926	295,895	321,098	312,606	370,420	406,087	405,590	426,091	349,362	365,767	391,746	233,788	337,512	309,414
COS 2	250,311	366,789	246,573	32,587	0	0	0	0	0	0	0	0	0	0	0	0	0	AB	AB	AB	AB	AB	AB	AB
COS 3	226,940	237,611	371,887	410,270	406,218	322,974	386,618	363,730	260,750	91,100	156,906	142,948	129,909	95,897	162,641	2,062	0	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COS 4	42,215	39,244	47,984	95,807	56,487	28,646	84,058	146,211	159,421	328,716	411,993	310,812	347,167	308,158	445,980	17,765	0	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COS 14	116,505	71,871	214,611	317,726	343,300	265,520	238,930	229,608	306,935	396,650	91,174	0	0	0	0	0	0	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COS 25	260,701	199,541	48,721	484,574	551,724	242,256	25,618	8,730	0	0	6,482	15,627	14,628	15,460	9,442	25,372	15,728	14,472	12,850	10,148	14,398	14,801	11,768	9,929
COS 69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	AB	AB	AB	AB	AB	AB	AB
COS 70	133,678	2,553	43,066	390,067	110,774	55,201	93,123	2,709	0	0	0	0	0	0	0	0	0	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COS 71	0	0	6,480	502,719	234,943	1,126,972	958,101	946,903	631,967	787,926	1,013,550	432,044	764,771	638,982	387,740	826,102	492,646	697,198	725,001	557,523	371,970	475,775	370,408	12,211
COS 71A [c]	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	52,797
COS 72	0	0	4,991	394,796	299,685	699,937	662,468	779,085	953,964	763,436	556,347	821,780	560,773	1,028,060	1,016,259	927,729	460,529	327,703	1,087,912	820,643	1,022,055	82,907	169,017	16,847
COS 73	3,271	649,298	1,007,101	3,252	795	9,743	3,157	527	0	0	0	0	0	0	0	0	0	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COS 74	42,763	38,042	635,564	733,867	825,076	460,914	396,669	790,408	918,226	1,092,783	1,165,908	1,003,371	955,818	1,098,504	1,172,087	424,447	325,721	318,930	426,465	469,534	139,478	382,838	155,871	193,017
COS 75A	0	0	0	0	452,657	796,408	892,870	951,517	830,739	896,406	979,506	836,006	933,512	926,306	936,472	929,487	559,788	821,026	878,726	841,481	848,597	917,870	1,108,302	987,970
COS 76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
COS 77	0	3,088	1,103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	AB	AB	AB	AB	AB	AB	AB
COS 78	999,204	328	1,029	650	0	0	3,099	0	0	0	0	0	0	0	0	0	0	AB	AB	AB	AB	AB	AB	AB
COT 6	150	1,668	2,777	10,122	3,441	160,308	4,197	0	0	446,480	734,304	221,080	26,831	0	22,571	390	0	153	1,666	389,936	355,018	9	506,354	369,685
IBGC	69,987	59,242	65,845	66,839	61,266	79,697	75,740	68,887	344	28,365	64,996	69,982	62,855	65,938	59,087	63,778	63,778	69,938	59,199	60,546	56,053	37,910	68,382	119
CECIL SHAMLEY (formerly known as LAIRD 2)	8,178	1,453	1,827	964	1,655	1,655	4,650	1,573	8,432	9,857	0	0	0	0	0	3,853	3,853	322	530	357	285	365	558	412
MDWC	27,289	27,835	53,587	62,535	58,707	66,855	62,060	59,829	67,278	72,475	59,485	53,208	51,864	45,985	1,352	50,081	50,046	54,355	46,873	48,614	42,379	43,956	37,426	36,964
MEX-1MA [4]	---	---	---	---	---	---	---	---	34,348	256,586	361,409	227,273	119,380	315,708	309,919	311,978	332,752	405,260	394,010	407,090	398,980	273,270	318,740	223,710
QRIA	17,503	16,001	13,437	12,768	13,407	14,166	17,274	16,544	19,832	8,863	16,435	15,212	14,628	13,541	12,883	15,665	14,333	14,718	12,962	10,837	12,140	10,965	11,727	10,510
SRIR SCC	86,231	86,231	78,736	91,777	79,599	84,063	77,791	36,374	69,629	78,217	76,349	76,153	65,411	68,046	76,319	82,780	61,274	68,592	74,861	42,721	67,924	74,567	56,762	65,405
SRIR 4	60,580	7,771	0	31,631	3	0	248	38	0	0	0	0	0	0	0	0	0	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
SRIR 10	47,583	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.

TABLE F-1. SUMMARY OF HISTORICAL ANNUAL GROUNDWATER PRODUCTION FROM 1991 THROUGH 2014 NORTH INDIAN BEND WASH AREA, SCOTTSDALE, ARIZONA

Production Well ID	Gallons (x1000)																						
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SRP 21.5E,8N	74,479	2,829	5,090	59,887	17,536	19,600	0	1,302	213,170	454,442	247,362	160,470	166,324	254,063	28,797	0	0	0	3,397	5,321	13,803	114,214	116,117	208,382
SRP 22.1E,8.5N	147,778	103,488	14,221	78,782	3,189	21,219	25	1,051	8	488,285	214,764	3,126	0	7,299	0	0	0	0	0	0	0	0	0	0
SRP 22.3E,7N	0	0	0	0	756	22	0	0	0	0	0	0	0	0	0	0	0	N.I.S.	0	0	0	0	0	0
SRP 22.4E,9N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
SRP 22.5E,5.5N	0	0	0	0	0	0	0	0	0	0	123,673	264,377	0	0	0	0	0	0	0	0	0	0	64,101	0
SRP 22.5E,6N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N.I.S.	0	N.I.S.	N.I.S.	N.I.S.	N.I.S.	N.I.S.
SRP 22.5E,9.3N (PCX 1)[5]	---	---	---	---	---	---	744,308	1,169,490	928,957	1,094,148	709,461	1,080,881	1,032,519	1,002,262	1,003,406	1,109,259	983,481	856,322	1,012,745	1,008,500	891,933	971,762	1,000,902	478,633
SRP 22.6E,10N	195,626	9,773	4,636	184,709	22,836	99,731	0	85	261,217	613,096	583,486	699,074	935,270	828,047	97,937	103,237	289,257	79,268	62,767	30,503	66,444	290,043	68,455	228,571
SRP 22.9E,10.8N[b]	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	128,034	173,499	305,492
SRP 23E,10.8N (COS5W)	137,618	60,933	6,744	33,979	115,096	7,607	15,747	5,701	154,864	350,263	337,880	148,376	447,267	174,920	14,322	21,004	120,014	N.I.S.	AB	AB	AB	AB	AB	AB
SRP 23.3E,7.3N (COS 31)	0	1,305	21,834	1,007,196	15,974	1,222,373	973,894	493,236	916,864	748,167	983,356	1,091,407	1,019,344	516,934	826,859	560,651	309,239	655,172	5,133	118,375	454,664	713,491	257,409	489,661
SRP 23.3E,7.5N (COS 6)	156,795	24,127	3	35,527	47,921	192,207	168,263	246,769	101,318	62,194	102,249	80,341	138,380	88,935	1,638	1,769	175,013	0	0	0	0	0	0	0
SRP 23.4E,10.6N (COS5E)	507,724	565,069	578,233	658,438	663,544	757,582	723,706	779,598	832,331	566,682	392,775	278,701	470,274	576,706	30,001	0	0	N.I.S.	AB	AB	AB	AB	AB	AB
SRP 23.5E,5.3N	122,870	3,077	4,077	3,271	4,920	2,856	0	34,473	111,366	144,215	126,690	226,058	128,631	255,259	3,348	0	78,673	0	2,941	0	0	0	0	7
SRP 23.5E,8.8N	66,487	1,775	557	2,556	7,176	52	49	685	1,499	132,274	70,905	21,050	213,020	241,944	1,505	2,922	134,579	0	1,551	0	965	0	531	3
SRP 23.5E,9.5N	0	0	0	0	0	0	0	85	502	117,592	131	99,548	30,042	256,542	2,051	1,988	163,479	0	2,021	0	1,303	33	15,054	163
SRP 23.5E,10.6N[c]	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	83,907	191,216	217,193
SRP 23.6E,6N (Granite Reef)	0	0	0	0	0	0	0	0	104,439	287,660	174,199	319,110	180,870	42,938	58,781	173,699	44,516	99,160	79,599	70,470	79,880	70,110	77,410	195,150
SRP 24E,10.5N	113,065	3,151	578,233	113,496	16,493	122,709	2,124	2,397	381,364	470,577	408,894	616,127	528,528	428,180	31,260	45,701	188,758	11,621	9,319	0	411	204,488	323,257	332,586
Total Discharge (Gallons x1000)	7,807,696	6,154,481	7,898,391	10,369,940	9,092,091	11,779,250	11,417,355	11,676,917	12,887,663	14,970,743	14,519,488	13,549,998	13,527,407	13,461,492	10,741,611	9,632,587	8,679,775	9,333,593	10,142,344	9,944,770	9,698,086	9,786,891	9,770,464	8,894,575
Total Discharge (Acre-Feet)	23,961	18,887	24,239	31,824	27,903	36,149	35,039	35,835	39,551	45,943	44,559	41,583	41,514	41,312	32,965	29,561	26,637	28,644	31,126	30,519	29,762	30,035	29,984	27,296

ABBREVIATIONS:

7EX = Area 7 Extraction Wells
AB = Well Abandoned
AVI = Arcadia Vista Improvement
AWC = Arcadia Water Company
COS = City of Scottsdale
COT = City of Tempe
IBGC = Indian Bend (Rio Salado) Golf Course
CECIL = Tempe School District No. 3
SHAMLEY
MDWC = McDowell Water Company
MEX = Motorola Extraction Well
N.I.S. = Not in Service
PV = Paradise Valley
QRIA = Quail Run Irrigation Association
SRIR = Salt River Indian Reservation
SRP = Salt River Project
--- = No Data

NOTES:

(1) Extraction well 7EX-1UA went into service in 2008.
(2) Extraction wells 7EX-3MA and 7EX-4MA went into service in September 1999.
(3) Extraction well 7EX-5MA went into service in February 2002.
(4) Well MEX-1MA went into service in October 1999.
(5) Well 22.5E,9.3N (PCX-1) went into service in April 1997.

[a] Replacement well for PV-12
[b] Replacement well for SRP 23E,10.8N
[c] Replacement well for SRP 23.4E,10.6N

Included in Groundwater Pumping and TCE Time-Series Graphs

APPENDIX F
GROUNDWATER PUMPING AND TCE TIME-SERIES GRAPHS

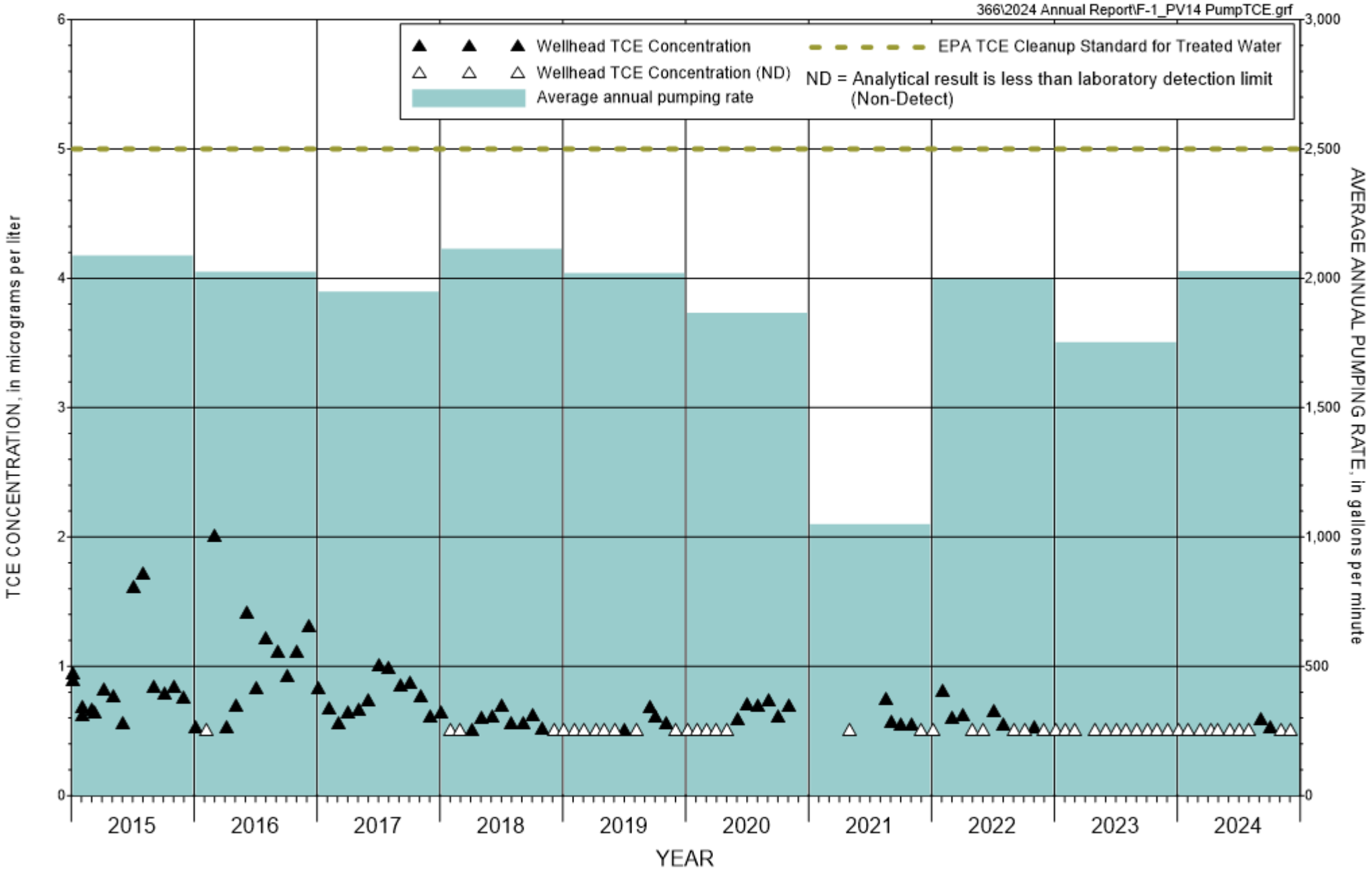


FIGURE F-1. CONCENTRATION OF TCE AND AVERAGE ANNUAL PUMPING RATE AT EXTRACTION WELL PV-14 2015 THROUGH 2024

North Indian Bend Wash Superfund Site

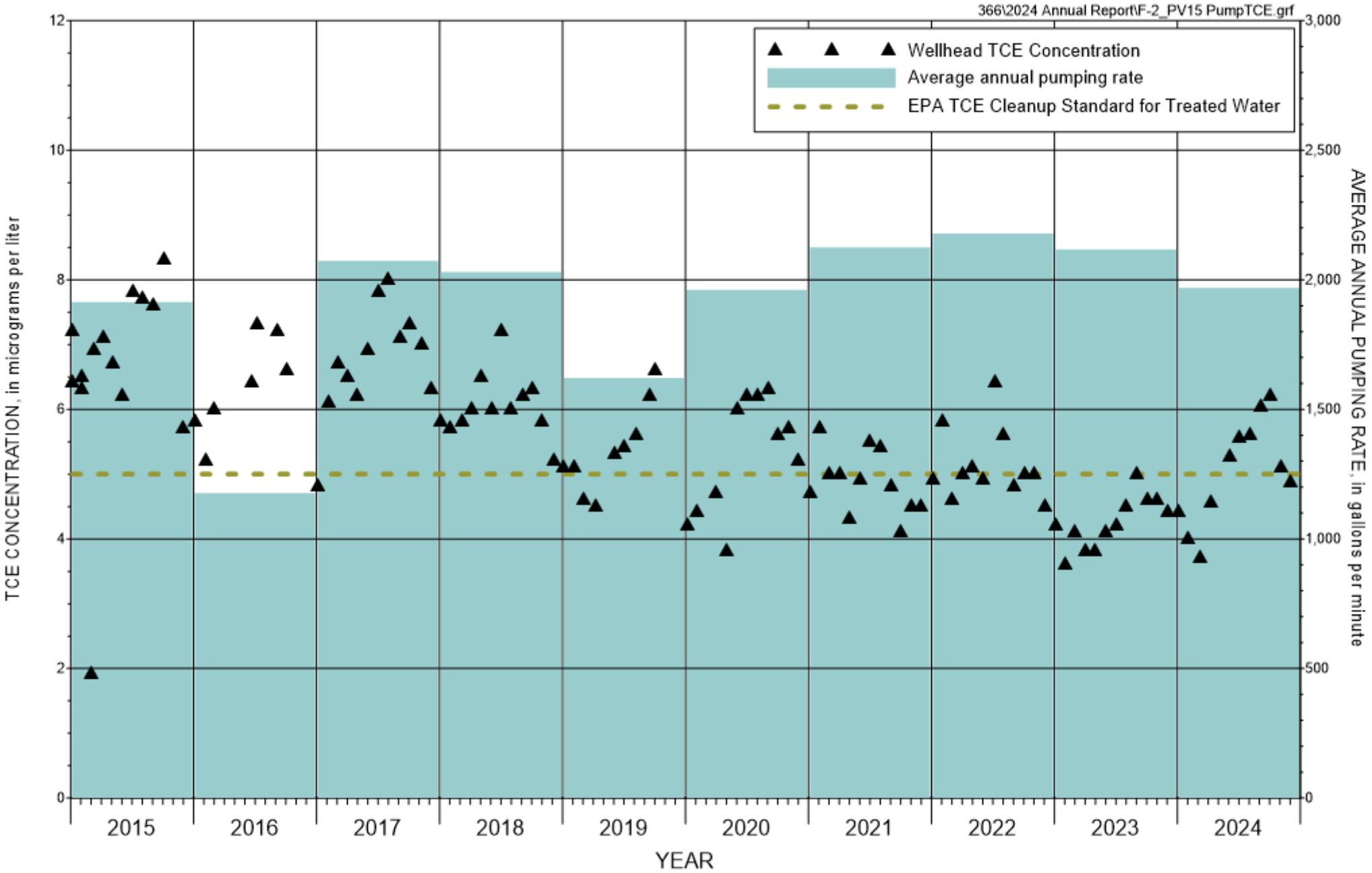


FIGURE F-2. CONCENTRATION OF TCE AND AVERAGE ANNUAL PUMPING RATE AT EXTRACTION WELL PV-15 2015 THROUGH 2024

North Indian Bend Wash Superfund Site

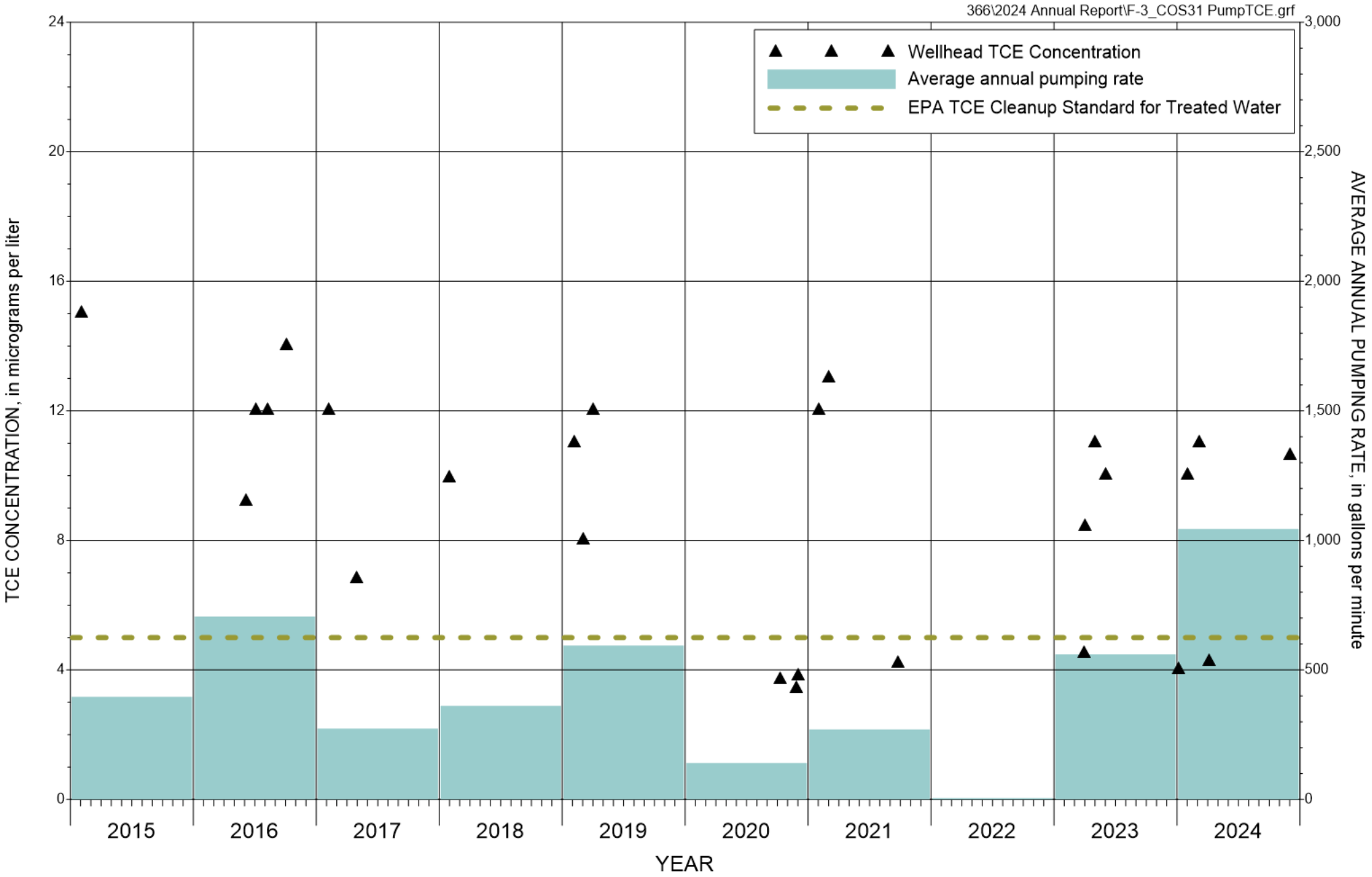


FIGURE F-3. CONCENTRATION OF TCE AND AVERAGE ANNUAL PUMPING RATE AT EXTRACTION WELL COS-31 2015 THROUGH 2024

North Indian Bend Wash Superfund Site

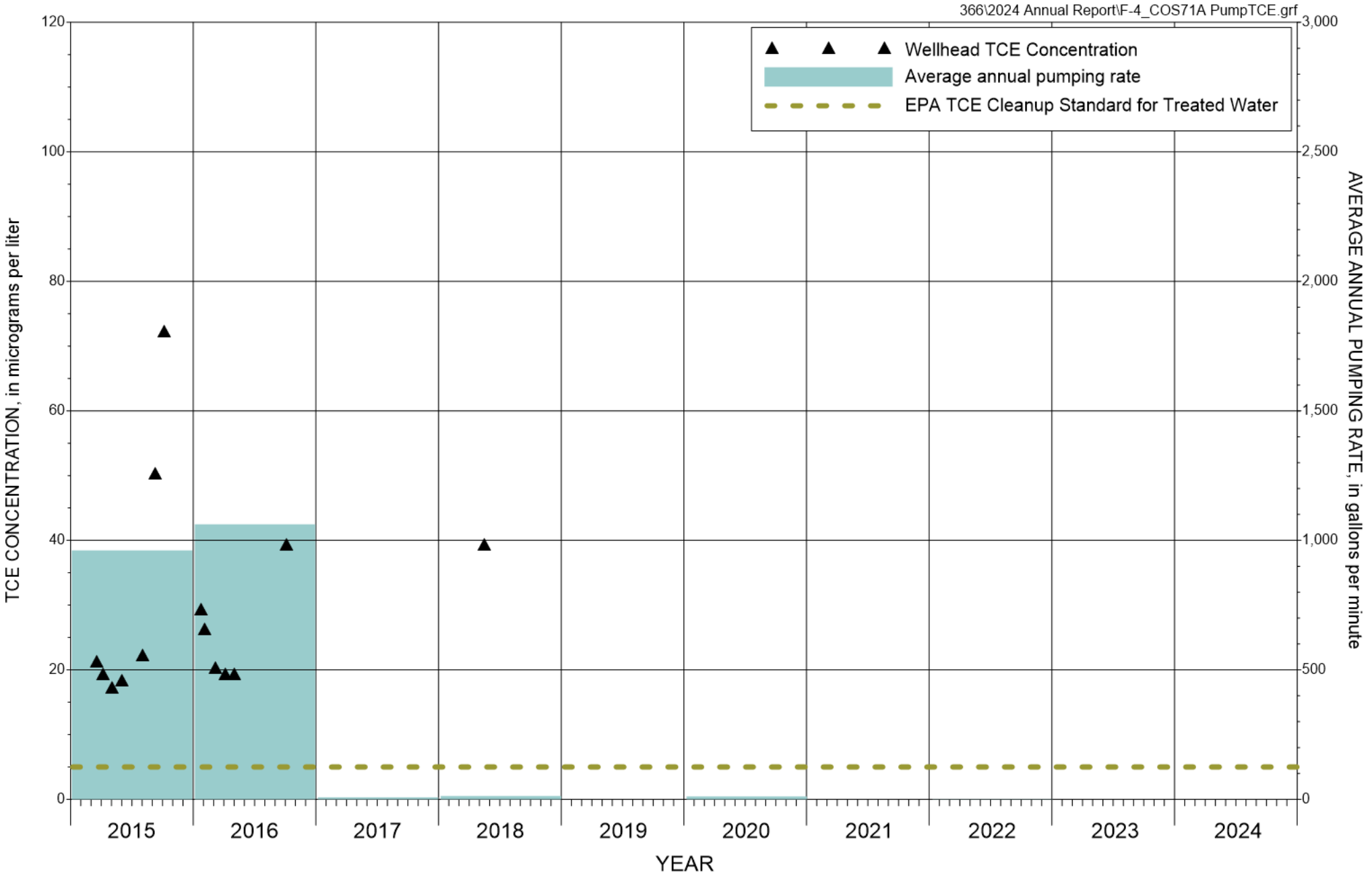


FIGURE F-4. CONCENTRATION OF TCE AND AVERAGE ANNUAL PUMPING RATE AT EXTRACTION WELL COS-71A 2015 THROUGH 2024

Note: Well COS-71A replaced Well COS-71 April 2014.

North Indian Bend Wash Superfund Site

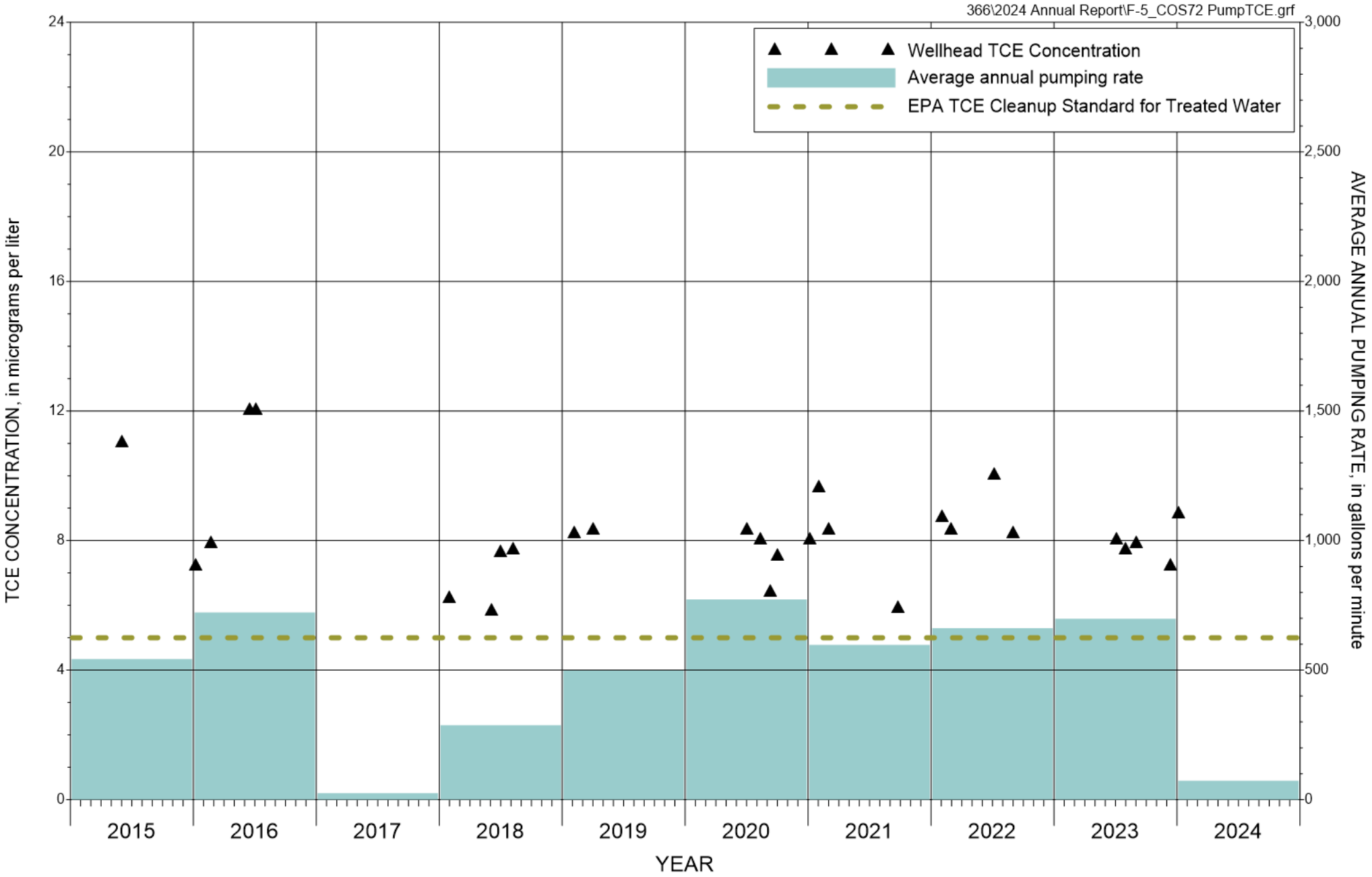


FIGURE F-5. CONCENTRATION OF TCE AND AVERAGE ANNUAL PUMPING RATE AT EXTRACTION WELL COS-72 2015 THROUGH 2024

North Indian Bend Wash Superfund Site

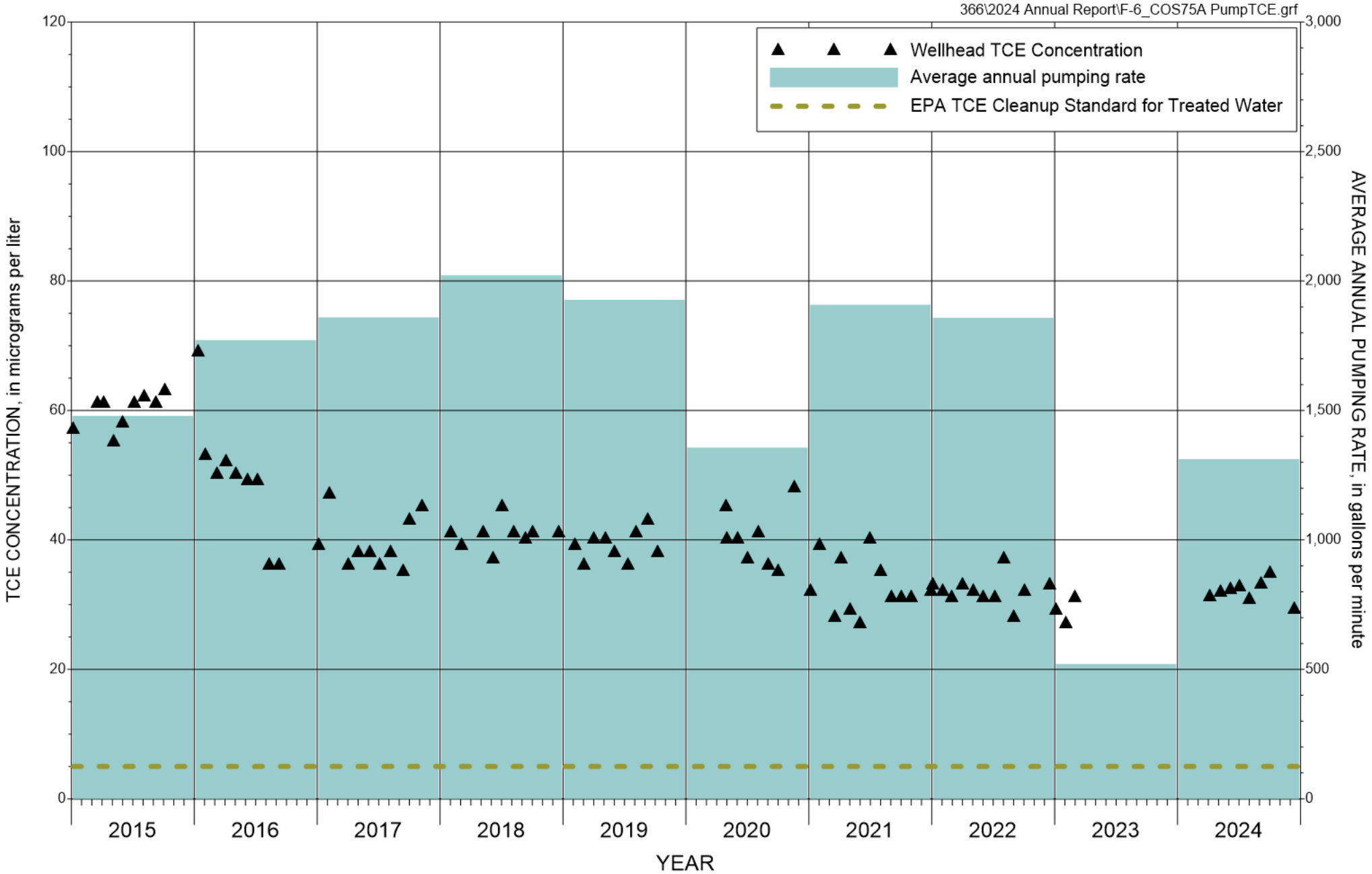


FIGURE F-6. CONCENTRATION OF TCE AND AVERAGE ANNUAL PUMPING RATE AT EXTRACTION WELL COS-75A 2015 THROUGH 2024

North Indian Bend Wash Superfund Site

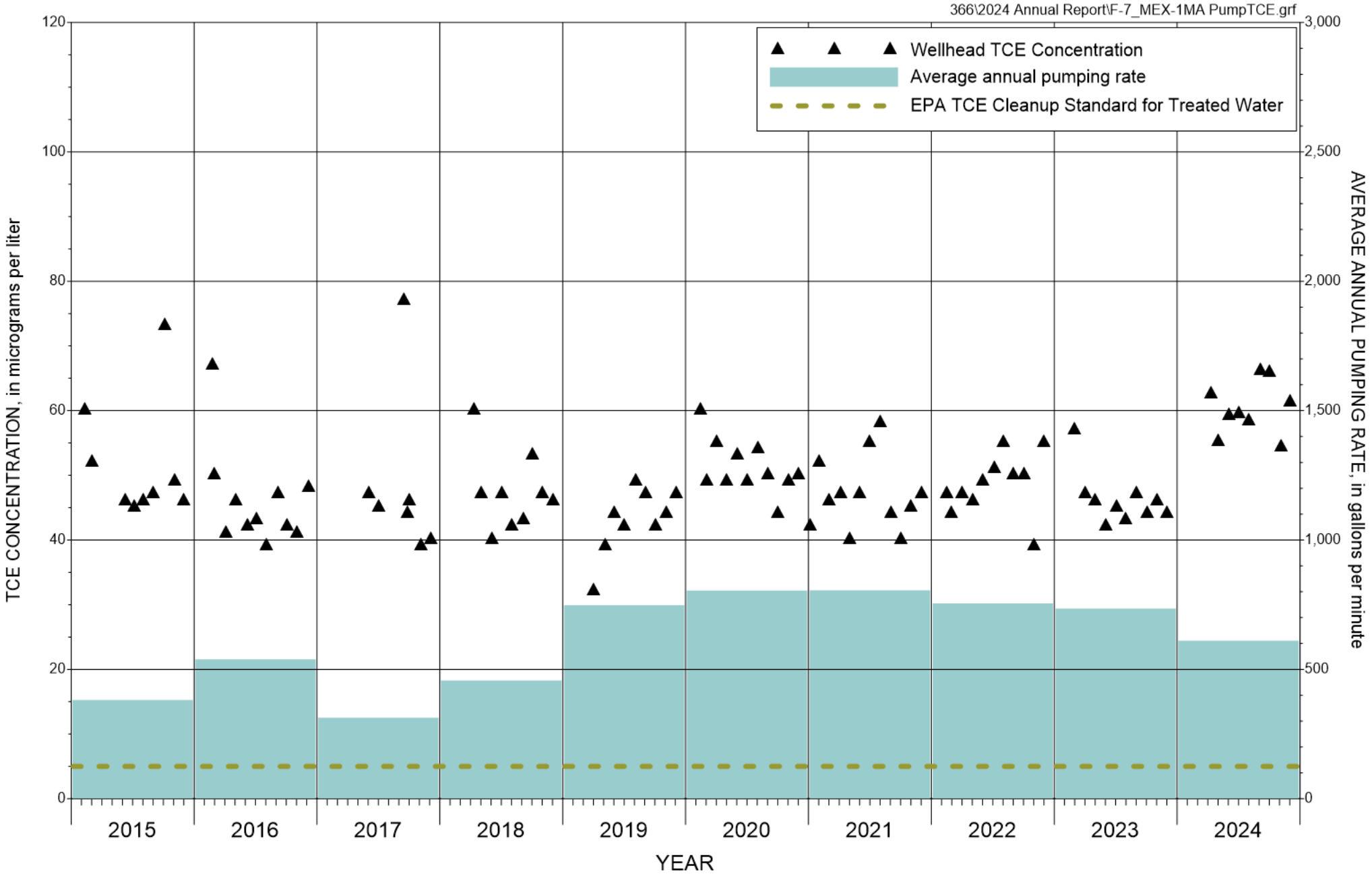


FIGURE F-7. CONCENTRATION OF TCE AND AVERAGE ANNUAL PUMPING RATE AT EXTRACTION WELL MEX-1MA 2015 THROUGH 2024

North Indian Bend Wash Superfund Site

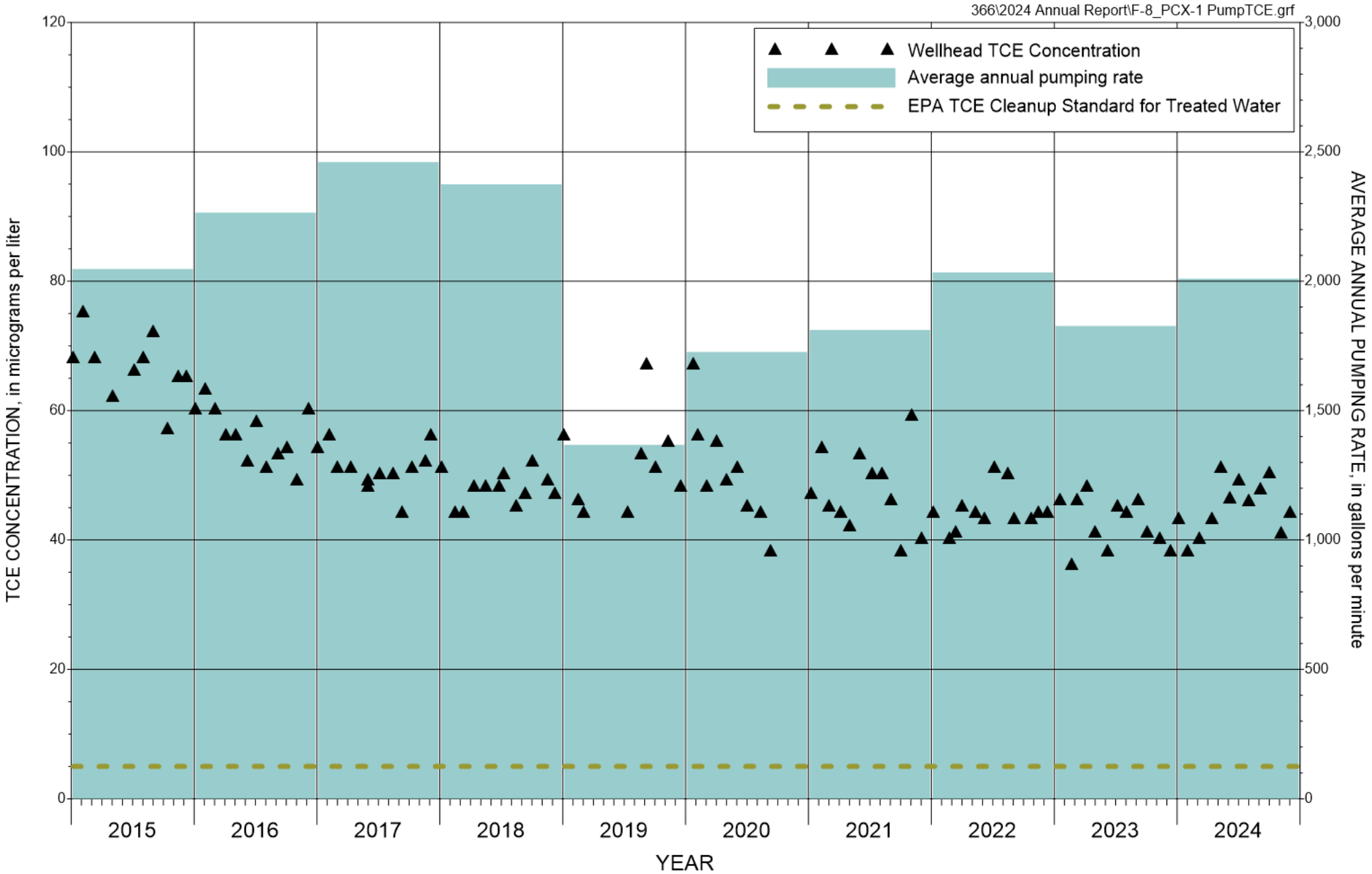


FIGURE F-8. CONCENTRATION OF TCE AND AVERAGE ANNUAL PUMPING RATE AT EXTRACTION WELL PCX-1 2015 THROUGH 2024

North Indian Bend Wash Superfund Site

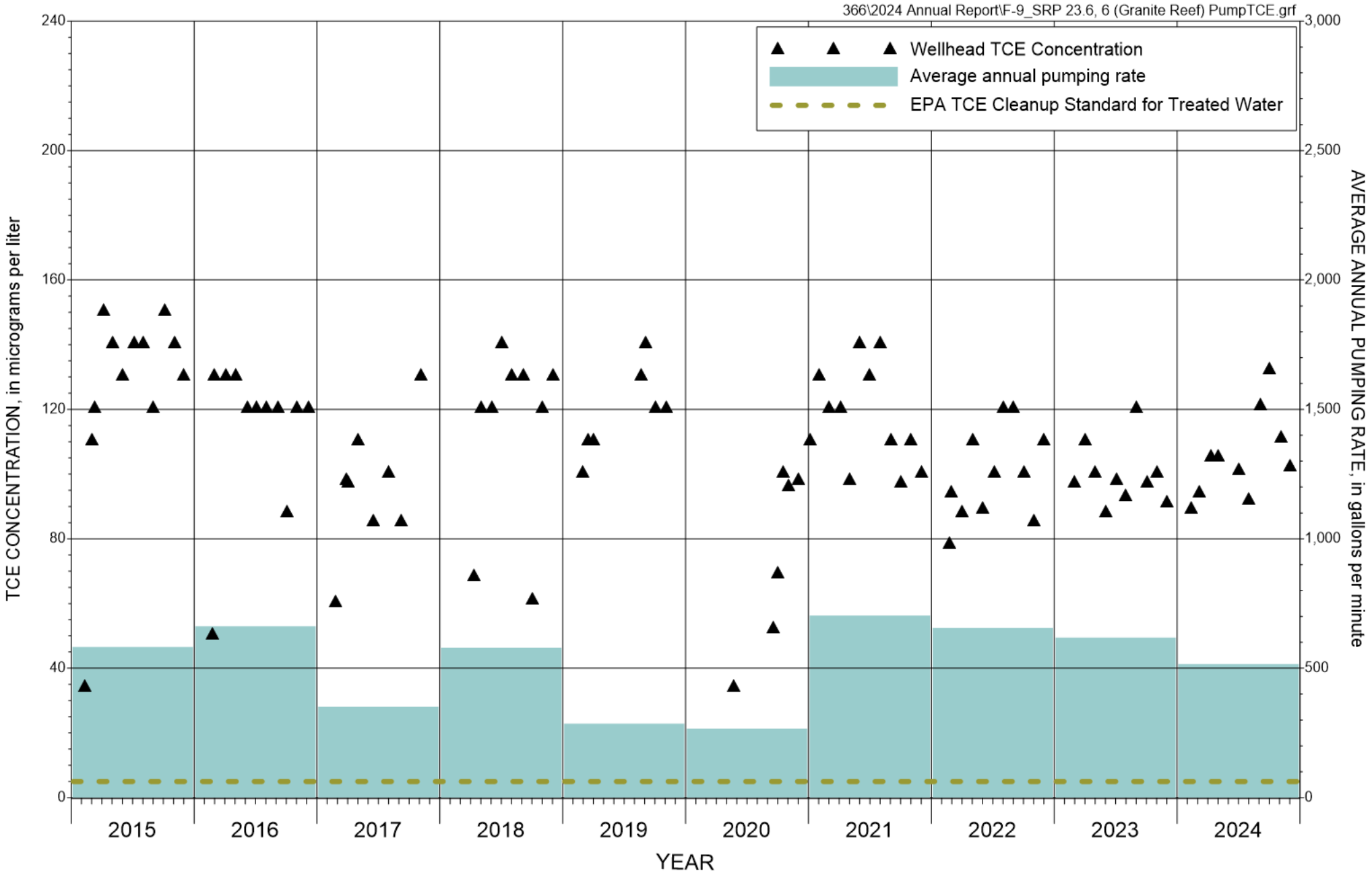


FIGURE F-9. CONCENTRATION OF TCE AND AVERAGE ANNUAL PUMPING RATE AT EXTRACTION WELL SRP 23.6E, 6N (GRANITE REEF), 2015 THROUGH 2024

North Indian Bend Wash Superfund Site

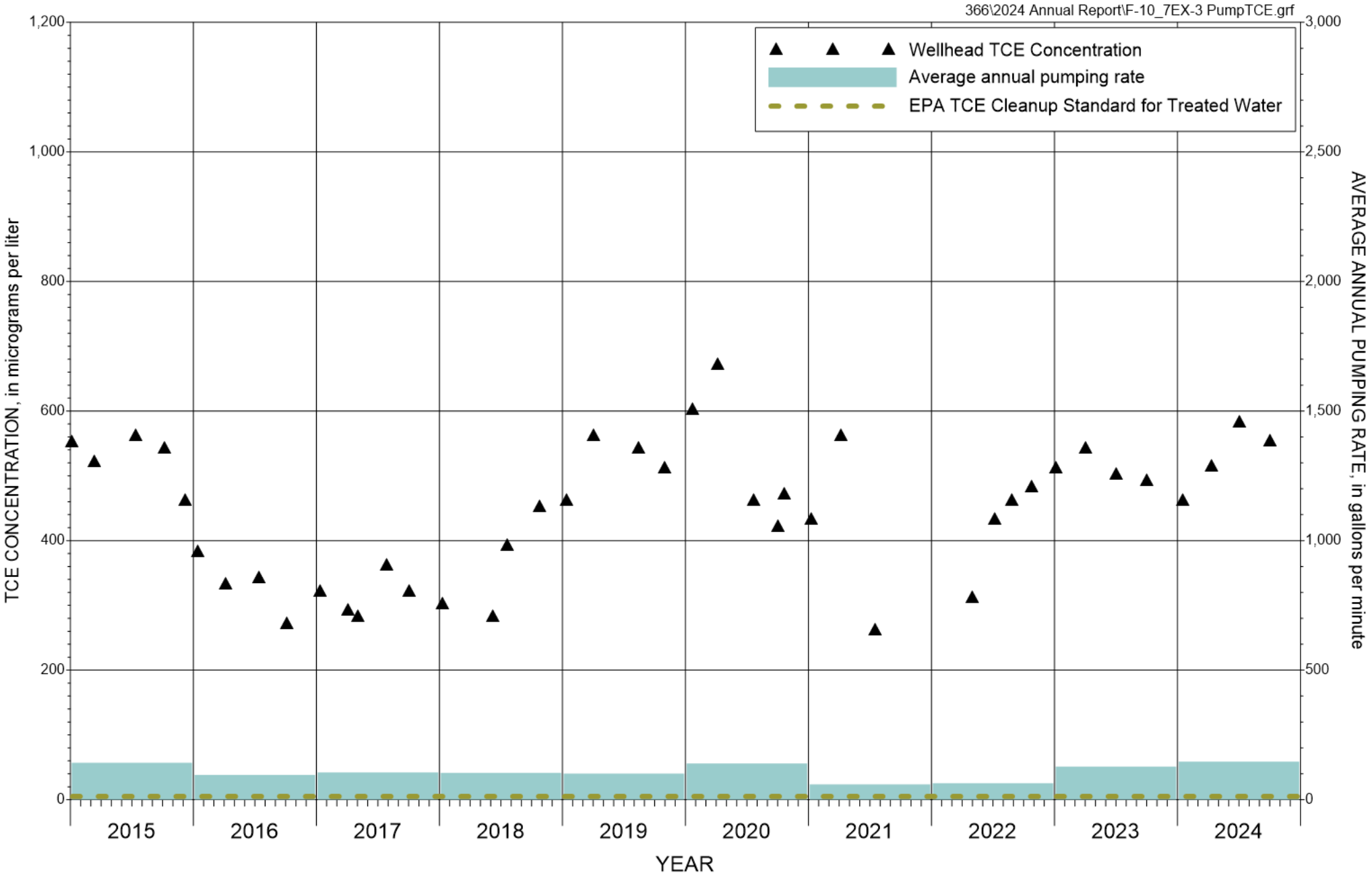


FIGURE F-10. CONCENTRATION OF TCE AND AVERAGE ANNUAL PUMPING RATE AT EXTRACTION WELL 7EX-3aMA 2015 THROUGH 2024

North Indian Bend Wash Superfund Site

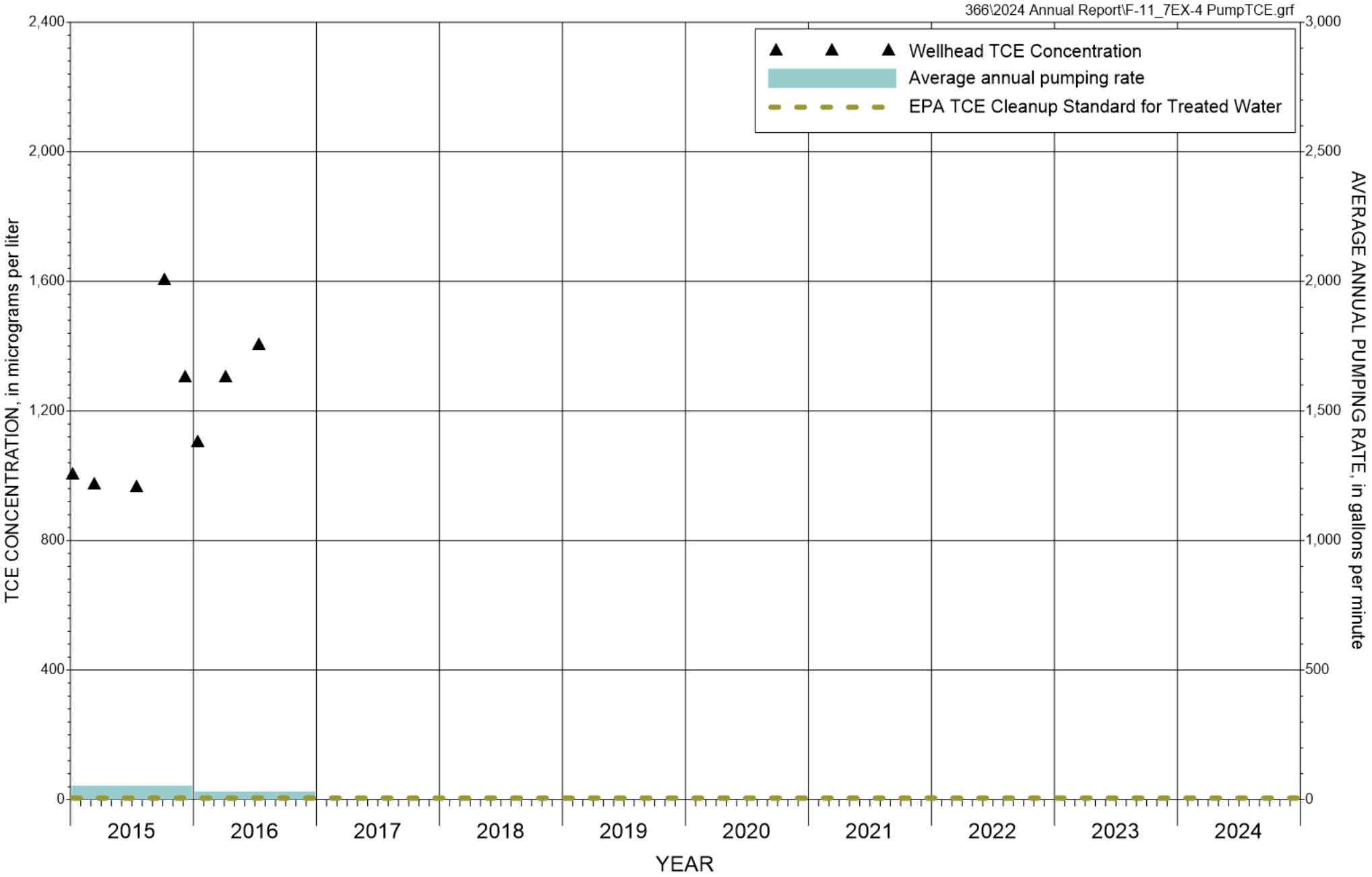


FIGURE F-11. CONCENTRATION OF TCE AND AVERAGE ANNUAL PUMPING RATE AT EXTRACTION WELL 7EX-4MA 2015 THROUGH 2024

North Indian Bend Wash Superfund Site

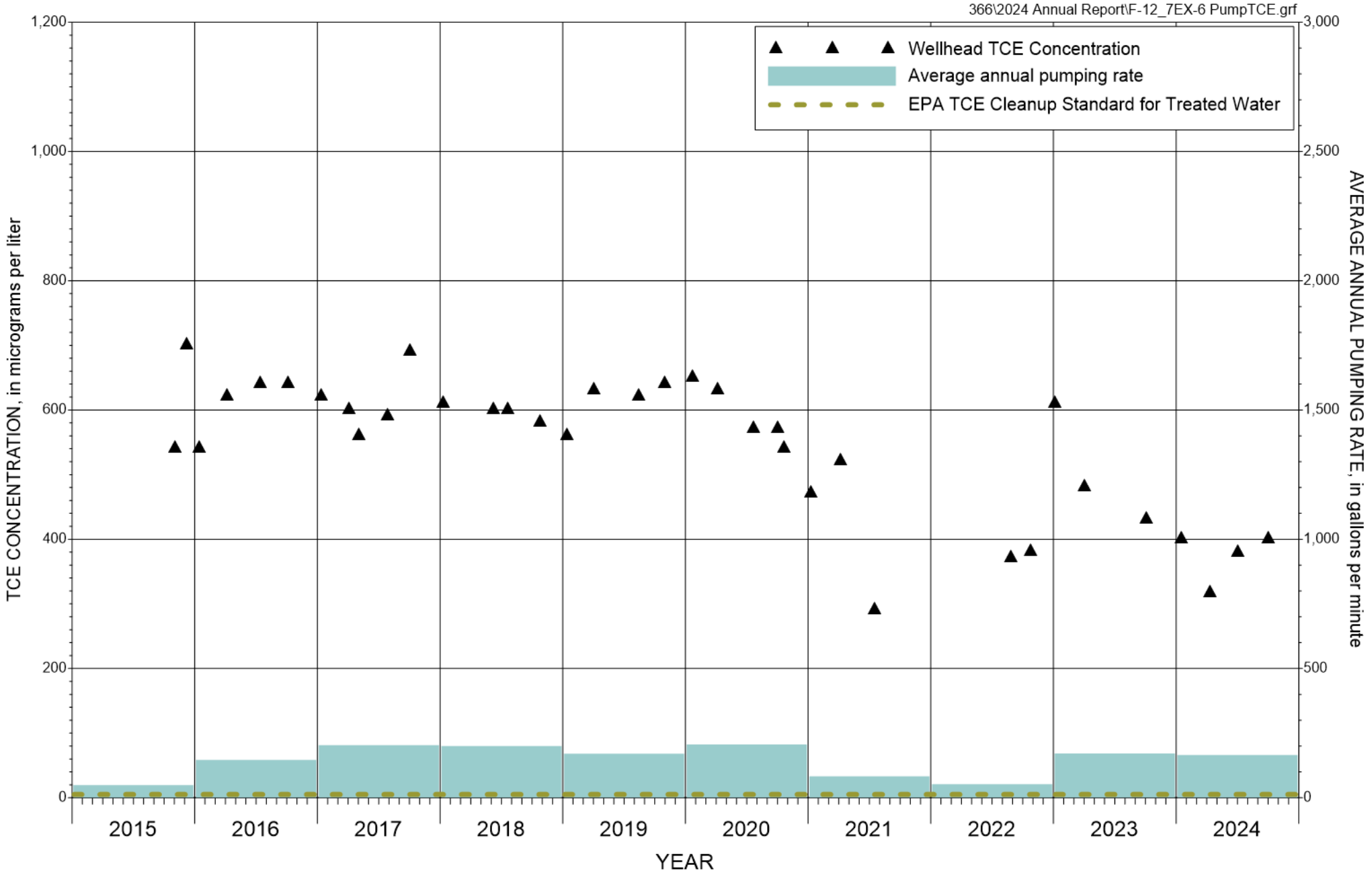


FIGURE F-12. CONCENTRATION OF TCE AND AVERAGE ANNUAL PUMPING RATE AT EXTRACTION WELL 7EX-6MA 2015 THROUGH 2024

North Indian Bend Wash Superfund Site

APPENDIX G
MANAGEMENT OF UNTREATED GROUNDWATER

APPENDIX G. MANAGEMENT OF UNTREATED GROUNDWATER

Section VI.B.4.n of the SOW requires the NIBW PCs, City of Scottsdale, and SRP to provide a report describing the creation and maintenance of records to document compliance with Section VI.B.4.a through VI.B.4.m of the SOW. Section VI.B.4 specifies provisions for managing untreated groundwater extracted from NIBW wells as part of the remedy. The NIBW PCs, City of Scottsdale, and SRP are submitting the following information to fulfill the requirements for annual reporting of compliance with Section VI.B.4 of the SOW. For ease of reference, information regarding the management practices of the NIBW PCs, City of Scottsdale, and SRP pertaining to applicable requirements of Section VI.B.4 are referenced in the order listed in the SOW.

Section VI.B.4.a and b – Normal Operation, Maintenance, and Monitoring Activities:

The NIBW PCs have specified procedures for management of untreated groundwater associated with sampling activities at the MRTF, NGTF, Area 7 GWETS, and Area 12 GWETS and well equipment maintenance in O&M Plans and Responses to Comments. These documents were submitted to EPA and ADEQ and are pending EPA approval:

- MRTF O&M Plan on June 19, 2020.
- NGTF O&M Plan on June 19, 2020.
- Area 7 GWETS O&M Plan on June 19, 2020.
- Area 12 GWETS O&M Plan on June 19, 2020.
- Groundwater Extraction Well O&M Plan on February 2, 2021.
- Groundwater Monitoring Well O&M Plan on March 11, 2021.

The NIBW PCs followed procedures described in the Phase 1 SAP for managing untreated groundwater during monitoring well sampling. The City of Scottsdale has specified procedures for management of untreated groundwater associated with sampling activities at the CGTF and well equipment maintenance in the most recent O&M Plan (submitted on June 19, 2020).

During the 2024 reporting period, no accidental releases of untreated groundwater from NIBW extraction wells or treatment systems occurred at the Site.

Section VI.B.4.c – Well Access:

The Final Remedial Design/Remedial Action (RD/RA) Work Plan, prepared by the NIBW PCs and dated July 11, 2007, provides information concerning access at the treatment facilities and extraction well sites.

Section VI.B.4.d – Annual Treatment Facility Inspections:

As part of normal O&M procedures, each NIBW groundwater treatment facility is inspected on a routine basis for equipment malfunction and deterioration that could result in the release of untreated groundwater.

As explained in Section 2 and **Appendix H** of the SMR, to which this document is also an appendix, the NIBW PCs coordinated the annual inspections of the MRTF, Area 7, and Area 12 GWETS on December 10, 2024, and NGTF and CGTF inspections were conducted on December 11, 2024, in accordance with Section VI.B.4.d of the SOW. The treatment facilities were inspected for malfunctions, deterioration, and operator practices or errors that could result in a release of untreated groundwater.

No hazardous waste is generated, handled, or stored at the NIBW groundwater treatment plants. A report documenting the site inspection for each facility is provided in **Appendix H**.

Section VI.B.4.e – Training for Responding to Releases of Untreated Groundwater:

The NIBW PCs submitted a plan for health and safety training of GWETS Operators and Emergency Coordinators to EPA as part of materials included in the "Submittal of Information Required, Section VI of the Statement of Work," dated August 1, 2003, and provided to EPA and ADEQ. The plan specified steps to be conducted for personnel at all groundwater treatment facilities so that they will have appropriate health and safety training to respond to releases of untreated groundwater in a manner to protect public health and the environment. All operators of the NIBW groundwater treatment facilities and emergency coordinators are trained (with appropriate refresher) in compliance with OSHA standard 29CFR 1910.120. The NIBW PCs and treatment system supervisors and operators maintain training records in compliance with OSHA standard 29CFR 1910.120 and the SOW.

Additionally, in 2024, the City of Scottsdale provided training to its appropriate staff for emergency response and incident management for an untreated groundwater release for CGTF and NGTF. EPCOR supervisors and operators reviewed emergency response procedures and incident management specific to the MRTF, associated extraction wells, and raw water pipelines. Similarly, Arcadis and EnSolutions supervisors and operators reviewed the procedures outlined in the respective Area 7 and Area 12 GWETS Contingency and Emergency Response Plans (CERPs).

Prepared by SRP, the CERP for Accidental Releases of Untreated Groundwater from SRP North Indian Bend Wash Site Extraction Wells, originally dated January 2007 and updated most recently in January 2024, describes the training to be conducted for personnel responding to an

accidental release of untreated groundwater from an SRP facility. SRP maintains its employee training records.

Section VI.B.4.f and g – Land Disposal of Untreated Groundwater:

The NIBW PCs, SRP, and City of Scottsdale have not placed untreated groundwater in any salt dome formation, salt bed formation, underground mine or cave, surface impoundments, waste piles, land treatment units, incinerators, or landfills.

Section VI.B.4.h – Emergency and Contingency Response Plans:

The NIBW PCs, City of Scottsdale, and SRP prepared updated CERPs and Responses to Comments. These documents are pending EPA approval:

- MRTF on December 31, 2020.
- NGTF on December 31, 2020.
- Area 7 GWETS on December 31, 2020.
- Area 12 GWETS on December 31, 2020.
- CGTF in August 2020.

The CERPs describe the procedures for handling an accidental release of untreated groundwater from an extraction well on the NIBW site.

Section VI.B.4.i – Emergency Coordinators:

The NIBW PCs, City of Scottsdale, and SRP maintain a list of designated emergency response coordinators for the groundwater treatment facilities and the extraction well network. Currently identified personnel responsible for emergency response at the NIBW groundwater treatment facilities and extraction well sites are listed in each O&M Plan and CERP.

Section VI.B.4.j – Evidence of Holocene Faults:

The NIBW PCs (August 2003), SRP (September 2003), and the City of Scottsdale (July 2003) provided written verification to EPA and ADEQ indicating the existing NIBW extraction wells and treatment facilities are not located within 200 feet of a fault that has exhibited displacement in Holocene time. There are no recognized Holocene faults in the metropolitan Phoenix area.

Section VI.B.4.k – Floodplains:

City of Scottsdale (July 2003), NIBW PCs (August 2003), and SRP (September 2003) provided information to EPA and ADEQ to confirm that four NIBW extraction wells are in locations that would be inundated by a 100-year flood. According to maps produced by the Maricopa County Flood Control District, the following remedial extraction wells are located within 100-year floodplains:

- COS-72 and COS-75A - Indian Bend Wash.
- Granite Reef well - Granite Reef Wash.
- PV-14 – unnamed wash (current Maricopa County Flood Control District 100-year flood map shows PV-14 outside the 100-year floodplain).

The NIBW PCs described measures for operating the wells in the Groundwater Extraction Well Network O&M Plan to minimize a release of untreated groundwater during a 100-year storm.

Section VI.B.4.l – Closure:

NIBW PCs, SRP, and the City of Scottsdale did not abandon any extraction or production wells associated with the NIBW project in 2024. There were no facility closure activities in 2024.

Section VI.B.4.m – Containment:

The Remedial Design/Remedial Action (RD/RA) Work Plan provides information concerning containment at treatment facilities and the extraction well sites.

APPENDIX H
DOCUMENTS SUBMITTED IN 2024

APPENDIX H. DOCUMENTS SUBMITTED IN 2024

During the period January through December 2024, the NIBW PCs provided the following documents to EPA and ADEQ:

NIBW Indoor Air and VI Mitigation Reports to EPA - 2023 Results, electronic mail submitted by NIBW PCs on January 22, 2024.

NIBW Quarterly Report – October through December 2023, submitted by NIBW PCs via electronic mail on March 18, 2024.

NIBW PCs' Response to EPA Comments on 2022 Site Monitoring Report, electronic mail submittal by NIBW PCs on April 23, 2024.

2023 Site Monitoring Report, North Indian Bend Wash Superfund Site, technical report submitted via CloudShare on April 30, 2024.

Groundwater Monitoring Program Supplemental Data, North Indian Bend Wash Superfund Site, electronic mail data submittal by NIBW PCs on April 30, 2024.

Groundwater Extraction and Treatment System Supplemental Data, North Indian Bend Wash Superfund Site, electronic mail data submittal by NIBW PCs on April 30, 2024.

Summary of 2023 Air Sampling Data, North Indian Bend Wash Superfund Site, electronic mail data submittal by NIBW PCs on April 30, 2024.

Supplemental Data Collection at the Area 7 GWETS During October 2023, NIBW Superfund Site, data submitted on April 30, 2024.

Supplemental Data Collection Not Required for Compliance During 2023, North Indian Bend Wash Superfund Site, electronic mail data submittal by NIBW PCs on April 30, 2024.

NIBW Quarterly Report – January through March 2024, electronic mail submitted by NIBW PCs on May 30, 2024.

PFAS Sampling Update, Tech Committee Meeting – Preliminary Discussion, presentation delivered to Technical Committee on June 12, 2024 for discussion purposes, submitted as requested on June 13, 2024.

Final NIBW Conceptual Site Model Update Report, electronic mail submitted by NIBW PCs on July 14, 2024.

NIBW PCs Response to EPA and HGL Comments on the Draft NIBW Groundwater Flow and Particle Tracking Model Report Update, electronic mail submitted by NIBW PCs on July 31, 2024.

Evaluation of Impacts of City of Tempe Wells COT-6 and COT-6R on the North Indian Bend Wash (NIBW) Middle Alluvium Unit (MAU) Trichloroethene (TCE) Plume, Technical Memorandum submitted by NIBW PCs via electronic email on August 2, 2024.

NIBW Quarterly Report – April through June 2024, electronic mail submitted by NIBW PCs on August 28, 2024.

NIBW Quality Assurance Project Plan and Field Sampling Plan Addendum for October 2024 PFAS Sampling, electronic mail submitted by NIBW PCs on September 25, 2024.

Summary of Principal Points for NIBW Participating Companies Comments on EPA Draft Final Optimization Review, August 23, 2024, memorandum sent via electronic mail submitted by NIBW PCs on October 31, 2024.

GM&EP Update Presentation, presentation delivered to Technical Committee regarding GM&EP updates, submitted via electronic mail on November 13, 2024.

NIBW Technical Committee Meeting Minutes – October 22, 2024, electronic mail submitted by NIBW PCs on November 13, 2024.

Deviations to NIBW Field Sampling Plan – November 18, 2024, submitted by NIBW PCs via electronic mail on November 18, 2024.

NIBW Quarterly Report – July through September 2024, electronic mail submitted by NIBW PCs on November 26, 2024.

Working Group Meeting #1: UAU Metrics – Pre-Meeting Materials, submitted to Working Group via electronic mail on December 3, 2024.

Draft Area 7 VI RI/FS Work Plan, electronic mail submitted by NIBW PCs on December 20, 2024.

2024 NIBW Technical Committee Meeting Minutes

NIBW Technical Committee Meeting Minutes – November 27, 2023, electronic mail submitted by NIBW PCs on January 3, 2024.

NIBW Technical Committee Meeting Minutes – January 4, 2024, electronic mail submitted by NIBW PCs on February 10, 2024.

NIBW Technical Committee Meeting Minutes – February 14, 2024, electronic mail submitted by NIBW PCs on May 23, 2024.

NIBW Technical Committee Meeting Minutes – March 18, 2024, electronic mail submitted by NIBW PCs on May 23, 2024.

NIBW Technical Committee Meeting Minutes – April 16, 2024, electronic mail submitted by NIBW PCs on May 23, 2024.

NIBW Technical Committee Meeting Minutes – May 14, 2024, electronic mail submitted by NIBW PCs on June 6, 2024.

NIBW Technical Committee Meeting Minutes – June 12 and July 9, 2024, electronic mail submitted by NIBW PCs on August 8, 2024.

NIBW Technical Committee Meeting Minutes – August 14, 2024, electronic mail submitted by NIBW PCs on August 30, 2024.

NIBW Technical Committee Meeting Minutes – September 17, 2024, electronic mail submitted by NIBW PCs on September 26, 2024.

NIBW Technical Committee Meeting Minutes – October 22, 2024, electronic mail submitted by NIBW PCs on November 13, 2024.

APPENDIX I
2024 SITE INSPECTION REPORT

2024 INSPECTION REPORT

GROUNDWATER TREATMENT FACILITIES

North Indian Bend Wash Superfund Site

Prepared for:

U.S. Environmental Protection Agency

Region IX

Prepared by:

NIBW Participating Companies

February 28, 2025

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1 INTRODUCTION

This report documents the activities and findings for the North Indian Bend Wash (NIBW) groundwater treatment plant inspections conducted in accordance with Section VI.B.4.d of the NIBW Statement of Work (SOW). As described in the SOW, the purpose of the inspections is to identify "malfunctions, deterioration, operator practices or errors, and discharges that may be causing or could result in a release of untreated groundwater." The inspections were coordinated and conducted by the NIBW Participating Companies (PCs) and attended by representatives of the U.S. Environmental Protection Agency (EPA).

2 OVERVIEW

The groundwater remedy for the North Indian Bend Wash (NIBW) Superfund Site addresses aquifer restoration by monitoring, extracting, and treating groundwater affected by volatile organic compounds (VOCs), including the following five NIBW contaminants of concern (COCs): trichloroethene (TCE), tetrachloroethene (PCE), 1,1-dichloroethene (1,1-DCE), 1,1,1-trichloroethane (1,1,1-TCA), and chloroform (TCM). The NIBW COCs are treated to levels set forth in the Amended Consent Decree (Amended CD). Five separate groundwater extraction and treatment systems are used to extract and treat NIBW COC-affected groundwater at the Site. These systems are referred to as the Central Groundwater Treatment Facility (CGTF), Miller Road Treatment Facility (MRTF), North Indian Bend Wash Granular Activated Carbon Treatment Facility (NGTF), Area 7 Groundwater Extraction and Treatment System (GWETS), and Area 12 GWETS.

Complete descriptions of the CGTF, MRTF, Area 7 GWETS and Area 12 GWETS and associated operation and maintenance (O&M) activities are presented in the following documents:

- "*Feasibility Study Addendum, North Indian Bend Wash Superfund Site*," dated November 15, 2000 (FSA),
- "*Record of Decision Amendment – Final Operable Unit, Indian Bend Wash Area*," dated September 27, 2002 (Amended ROD), and
- "*Sitewide Operation and Maintenance Plan*," dated June 5, 2006 (Sitewide O&M Plan), with individual treatment plant O&M plan updates prepared in 2012, 2014, and 2020.

Detailed design and operational information for the NGTF is included in:

- "*Design Report, PCX-1 Granular Activated Carbon Treatment Facility*," dated August 2012, and "*Operation and Maintenance Plan, North Indian Bend Wash GAC Treatment Facility*," dated June 19, 2020.

All five groundwater treatment systems were designed to reduce NIBW COCs to below concentrations specified in Table 3 of the Amended ROD (Treatment Standards).

3 INSPECTION PROCEDURES

3.1 Routine Inspections

The operators routinely inspect the treatment facilities, either daily (the CGTF, MRTF, and NGTF) or weekly (the Area 7 GWETS and Area 12 GWETS). General operating parameters such as totalized flow, local pressures, and equipment state are logged manually during periodic site visits. Logging of more critical parameters such as air and water flow rates is conducted by the computer control system at each facility on an hourly basis, at a minimum. The operators review the data for trends and anomalies to evaluate the overall operation of the treatment systems.

Due to the size of the treatment plants and the drinking water end-use, the NIBW Participating Companies (PCs) coordinate and conduct regular operational review meetings on an approximate monthly basis with the operators for the CGTF and the NGTF. The NIBW PCs also visit all the treatment facilities frequently to conduct walk-throughs and to meet with the operators. These meetings include discussions of current operations issues, routine maintenance, and planning for upcoming non-routine maintenance such as column cleaning and equipment and/or systems upgrades.

Weekly, monthly, and/or quarterly data and reports are submitted by the facility operators. This information is reviewed by the NIBW PCs to identify O&M issues and confirm treatment effectiveness of each plant. Updates are provided during monthly meetings of the NIBW Technical Committee.

The project team routinely reviews treatment system discharge monitoring data and laboratory reports as they become available to verify the treatment systems are operating effectively. This process ensures that the treatment systems comply with applicable discharge requirements and the Amended CD.

3.2 Annual Inspections

Inspections are conducted annually in accordance with the Statement of Work (SOW) and Amended CD. The field inspections for the MRTF, Area 7 GWETS, and Area 12 GWETS were conducted on December 10, 2024. The field inspections for NGTF and CGTF were conducted on December 11, 2024.

In accordance with the SOW, the schedule of site inspections was coordinated at least 2 weeks in advance with U.S. Environmental Protection Agency (EPA) and Arizona Department of Environmental Quality (ADEQ) to provide an opportunity for regulatory agency participation.

EPA and HydroGeoLogic, Inc. (HGL), on behalf of EPA, participated in the field inspections along with the respective treatment system operators, managers, and the NIBW PCs. The inspections included a facility walk-through, an interview with the primary operator, visual inspections of the treatment equipment and groundwater containment systems, and review of operating and maintenance data. Detailed operating data and maintenance logs for routine operation and non-routine projects are maintained and available for review at each treatment facility in accordance with the SOW. Additionally, documents such as the facility O&M Plans, O&M Manuals, Contingency and Emergency Response Plans (CERPs), and Health and Safety Plan are maintained at each respective facility. A description of each facility inspection and associated results are provided in the following section.

4 FACILITY INSPECTIONS

4.1 Area 7 Groundwater Extraction and Treatment System

NIBW Area 7 is located at the southeast corner of 75th Street and 2nd Street in Scottsdale. The groundwater treatment system is located in the southeast corner of Area 7 in an area approximately 56 feet by 75 feet. The facility includes the treatment system and control equipment. Groundwater extraction is performed using two remote Middle Alluvial Unit (MAU) groundwater extraction wells (7EX-3aMA and 7EX-6MA). The Area 7 GWETS is operated and maintained by Arcadis, Inc. (Arcadis), an engineering consultant working on behalf of the NIBW PCs.

The major components of the Area 7 GWETS include submersible groundwater pumps, wellhead equipment, piping from the wellheads to the treatment plant, a 5,000-gallon equalization tank, an ultraviolet oxidation (UV/Ox) system, a low-profile air stripper, and a vapor-phase granular activated carbon (GAC) treatment system.

The groundwater treatment plant includes a building, which houses the UV/Ox and air stripper systems. A control room is integrated into the building and is equipped with the motor control center (MCC) and human machine interface (HMI), main control center including the main programmable logic controller (PLC), and motor drives.

The equalization tank and GAC adsorbers are located outside the building on the north side of the treatment plant area.

Chemical systems in use at Area 7 include hydrogen peroxide storage and injection for the UV/Ox and storage and injection of poly-phosphate scale inhibitor to minimize calcium carbonate scale in the air stripper. A double-contained 1,800-gallon crosslink polyethylene storage tank located outside the south side of the treatment building in a recessed area within a 6-inch berm is used to store up to approximately 32% of hydrogen peroxide solution prior to injection immediately upstream of the UV/Ox system. The poly-phosphate chemical is a food-grade scale inhibitor stored in a 50-gallon polyethylene tank located inside the treatment room at the Area 7 GWETS.

The entire treatment plant area is paved with concrete and surrounded by a 2-inch berm for containment. The treatment plant is surrounded by a block wall for security. Access to the plant is provided through three steel gates, two located on the west wall and one on the south wall.

In its current configuration, the groundwater treatment system is capable of treating up to approximately 450 gallons per minute (gpm) of NIBW COC-affected groundwater. Treated

water is delivered to one of two remote groundwater injection wells (7IN-1UA and 7IN-2UA) for recharge to the Upper Alluvial Unit (UAU).

Typical groundwater extraction rates ranged from approximately 175 gpm at well 7EX-3aMA to approximately 210 gpm at well 7EX-6MA. The typical water flow rate to the Area 7 GWETS ranged from approximately 325 to 425 gpm. The typical air flow rate through the shallow-tray air stripper at Area 7 was approximately 2,700 cubic feet per minute (cfm).

During normal operation, treated groundwater is injected into the UAU upgradient of Area 7 via wells 7IN-1UA and 7IN-2UA. The GWETS is also equipped to discharge treated groundwater, under limited circumstances, to the City of Scottsdale sanitary sewer during maintenance on the system. Combined, the injection wells can accept approximately 450 gpm.

4.1.1 Area 7 Maintenance and Condition

Arcadis makes daily remote checks on the system via computer link and makes weekly site inspections of the equipment and grounds at Area 7. When operating, the process pumps are inspected weekly and serviced monthly. The operator also maintains operations logs and data spreadsheets at Area 7. The logs, spreadsheets, and media and chemical service records were presented for review during the site inspection. Equipment maintenance records, including task and date, are kept on a separate log. Other site and operational information kept in a logbook includes daily inspection observations and any other data collected by the operator. Treatment system data is also automatically logged by the control system and accessed through the HMI. Arcadis made operation and maintenance records available for review during the inspection.

At the time of the inspection, the facility appeared clean with no apparent leaks or significant deterioration. The equipment was clean, labeled, and well maintained. The UV/Ox system appeared in good condition during the inspection.

The blower is direct drive and operated via a variable frequency drive (VFD) which maintains fan speed. During the inspection, the operator indicated that the blower has performed well, and no non-routine service has been required. All dampers are checked quarterly for operability.

Visual inspections through the viewports of the trays are performed monthly. Enhanced visual inspections using an insertable camera are performed as necessary. With the use of the scale inhibitor, only minor amounts of calcium carbonate scale accumulate on the air stripper trays. Descaling of the air stripper internals was performed in June 2024.

The exterior of the building and outdoor equipment such as the chemical tank, equalization tank and GAC system appeared in order without significant deterioration.

The bulkhead fittings between the double walls of the chemical storage tank were replaced to minimize leakage of the hydrogen peroxide from the interior tank. The chemical pump was replaced with a peristaltic pump in July 2024.

Treated water from Area 7 is injected into the underlying UAU aquifer using wells 7IN-1UA and 7IN-2UA. The injection wells are equipped with monitoring devices that will shut down discharge if water in the wells rises to pre-determined levels. At the time of the inspection, no operational issues were apparent with either injection well.

A new digital cellular communication system protocol was installed between well 7EX-6MA and the main control system during the summer of 2024. The new system provides increased security and reliability for communication and operation of the remote well site with the main control system at Area 7.

Upgrades to the HMI program were completed in January 2024. The main control system alarms and interlocks were tested and validated at that time. No programming changes to the interlocks in the control system were made in 2024. Control system testing was performed during the HMI upgrades that occurred in May 2024.

4.1.2 Results

Based on the 2024 annual inspection and a review of operating and monitoring data, the Area 7 GWETS has consistently met performance criteria set forth in the Amended CD. No treatment performance issues, hazards, or significant deterioration were apparent at the Area 7 GWETS in 2024.

4.2 Area 12 Groundwater Extraction and Treatment System

The Area 12 GWETS is located at the General Dynamics facility at 8201 East McDowell Road in Scottsdale, Arizona. At this site, the air stripping tower is located just west of General Dynamics' Chemical Operations Building. The Area 12 GWETS is designed to treat up to 1,850 gpm of groundwater. Groundwater is extracted from two wells: MEX-1MA and Salt River Project (SRP) well 23.6E-6.0N, also known as the Granite Reef well, located at historical source Area 5B. MEX-1MA is owned by Motorola Solutions, Inc. (MSI) and the Granite Reef well is owned by SRP. Both wells are operated by SRP.

The Area 12 GWETS provides treatment using an air stripping treatment system with GAC air treatment for the off-gas. Groundwater is pumped from the extraction wells in individual pipes to a common manifold near the air stripper. The air stripper is a counter-current, forced-draft, packed column which removes COCs as groundwater passes through the column. The treated groundwater is delivered to SRP's irrigation distribution system through a connection to an SRP

lateral pipeline located along Granite Reef Road and is discharged at McKellips Lake under an agreement between SRP and MSI.

The main control panel containing the system PLC is located at the Area 12 treatment plant. Each well pump system is connected to the PLC using an ethernet connection with signals traveling via a fiber optic pathway. Each well site also contains a PLC to control the individual wells remotely. The remote well pump PLCs also interface with SRP systems to monitor and control well operation.

A small control room located at the treatment plant houses the HMI and various plant-specific records. The HMI consists of a computer that supports a graphical user interface, logs operational data, and allows remote operation and data transfer using a telephone modem.

Typical groundwater extraction rates in 2024 ranged from a low of approximately 750 gpm at the Granite Reef well to 950 gpm at MEX-1MA. The average flow rate through the treatment system ranged between 1,600 and 1,700 gpm. In 2024, the typical air flow rate through the air stripper was approximately 5,400 cfm.

4.2.1 Area 12 Maintenance and Condition

The Area 12 GWETS is operated and maintained by EnSolutions, an engineering consultant working on behalf of the NIBW PCs. When in operation, EnSolutions makes daily remote checks on the system via computer and visits to the GWETS approximately twice per week. During the visits, the operator conducts inspections of the equipment and grounds at Area 12. A safety coordinator for the General Dynamics facility makes daily walk-throughs at the Area 12 GWETS. The operator also maintains operations logs and data spreadsheets at the facility. The logs, spreadsheets, and media service records were presented for review by the inspection team during the site inspection.

The Area 12 system was shut down for the annual SRP dry-up on December 31, 2023. The system was restarted on February 10, 2024, following disposal of the spent cleaning wash water from the column sump. During start-up of the system, the smaller of the two blowers failed. The replacement blower had a vibration issue upon its start-up and required service. Due to the lower air flow rate, water from only the Granite Reef well was treated at MRTF to ensure proper reduction of TCE in the effluent. The system was fully operational by April 9, 2024. Annual maintenance activities at Area 12 during dry-up included air stripper blower inspections for performance, balancing, and vibration and column cleaning to remove calcium carbonate scale on the air stripper packing.

The facility appeared clean with no apparent leaks or significant deterioration during the inspection. The equipment was clean, labeled, and well maintained. At the time of the inspection,

the blowers appeared to run smoothly. The operator indicated that the blowers have performed well since installation, and no other non-routine service has been required.

The process control system is monitored continuously by computer. The system must be in auto mode for start-up and operation. The system cannot start with an active shutdown alarm. The primary control system alarms were tested during the maintenance period in January 2024. All of the interlocks were tested during the annual maintenance activities. Additionally, the operator reported that the alarms are routinely tested when the system is shut down. When forced to shut down for maintenance, a control parameter was used to initiate the alarm and subsequent shutdown. In each case, the treatment system responded according to the design.

4.2.2 Results

Based on the 2024 inspection and a review of operating and monitoring data, the Area 12 GWETS has consistently met performance criteria set forth in the Amended CD. No treatment performance problems, hazards, significant deterioration, or equipment malfunctions were apparent at the Area 12 GWETS in 2024.

4.3 Miller Road Treatment Facility

The MRTF is located at 5975 North Cattletrack Road, south of the intersection of Cattletrack Road and McDonald Drive in Scottsdale, Arizona. The facility is owned and operated by EPCOR Water USA (EPCOR). The MRTF is used to treat water from EPCOR production wells PV-14 and PV-15.

The MRTF consists of three individual air stripping treatment trains. Each treatment train includes a counter-current, forced-draft air stripper with appurtenant equipment, such as an air blower. The off-gas from each air stripper passes through a mist eliminator, then through ducting to one of three GAC adsorbers before discharge to the atmosphere. Each air stripper column treats groundwater at flow rates up to approximately 2,150 gpm, with a minimum air flow rate of approximately 5,650 cfm.

Water produced from wells PV-14 and PV-15 is treated by EPCOR and delivered to the clearwell at the MRTF, where it is then pumped to EPCOR’s Paradise Valley Arsenic Removal Facility. If not required for use in EPCOR’s system, treated water may be delivered to SRP via the Arizona Canal outfall. The treatment system is configured such that water from each of the two wells is treated through a specific column. Each well produces approximately 2,100 gpm. EPCOR wells PV-14 and PV-15 are operated based on demand from EPCOR’s system. The treatment piping allows water from PV-14 to be treated through Towers 2 or 3 and water from PV-15 to be treated through Towers 1 or 2. EPCOR periodically switches treatment of water from the wells between the towers. During low demand periods, typically between December

and March, EPCOR prioritizes pumping of PV-15. Well PV-14 is used between 12 and 20 hours a day during the low demand winter months to make up production for demand as necessary. At the time of the inspection, water from both PV-14 and PV-15 was being treated at the MRTF.

All MRTF groundwater treatment equipment is located inside the treatment building. The treatment building consists of several rooms including the air stripper room, which houses the air stripper columns, blowers, and distribution pumps; the electrical room, which supports the MCCs, starters, Remote Terminal Units (RTUs), Remote Input/Output (RIO) cabinets, transformers, and other electrical equipment; and the control room, where the HMI, laboratory, and records are located. For security and aesthetics, the facility is surrounded by a masonry wall with locking access gates.

4.3.1 MRTF Maintenance and Condition

EPCOR made available during the inspection relevant operating, monitoring, and safety documents, as well as operating data and maintenance logs for the MRTF. Additionally, the operator was interviewed, and a walk-through of the facility was conducted.

EPCOR has an operator onsite at the MRTF for several hours a day, 7 days a week. The operator makes daily inspections of the equipment and grounds at the MRTF. EPCOR also maintains operations logs and data spreadsheets on its servers. The logs, spreadsheets, and equipment, chemical, and media service records were available for review at MRTF by the inspection team during the site inspection.

Column cleaning to remove calcium carbonate scale from the air strippers was performed in March and April 2024. The treatment system can be operated during column cleaning activities since a third column is available and the column being cleaned can be isolated from the system.

A gate valve at the discharge manifold seized due to calcium carbonate scale build-up in late 2023. That discharge valve was replaced in early 2024. Each of the distributive pumps were removed and cleaned of calcium carbonate scale and placed back into service in 2024. These maintenance tasks did not affect the availability of MRTF to treat groundwater.

The blowers and treatment area are inspected daily by the operator. Maintenance, such as balancing and belt alignment on the blowers, is performed by EPCOR technicians on an as needed basis in accordance with the O&M instructions provided by the manufacturer. EPCOR uses a system-wide preventative maintenance program that automatically schedules the appropriate maintenance on each piece of equipment in accordance with manufacturers' instructions.

The equipment and work areas at the MRTF appeared clean and well maintained during the inspection. The piping, valves, and instruments were labeled and appeared in good condition. EPCOR indicated that the automated valves are tested and calibrated once per year. The manual valves are exercised approximately three to four times a year. Process instruments are checked and calibrated and/or tested once per year. Control system interlocks are tested once per year and were last checked in mid-December 2024.

The air handling system appeared tight and in good condition during the inspection. EPCOR indicated that the dampers are exercised periodically to maintain operability.

The facility was idle only for short periods of time during system maintenance or when electrical power to the facility was interrupted.

A facility-wide rehabilitation is planned for 2025. The purpose of the rehabilitation project is to perform non-routine maintenance so that the system will be available for the next 10 to 15 years without major interruption. The rehabilitation project includes air stripper over-haul, internal coatings, packing replacement, upgrades to certain mechanical and electrical systems, removal of the GAC vessels, and building and site maintenance. The system will remain online and available for treatment of groundwater extracted from PV-14 and PV-15 during the rehabilitation project. The last rehabilitation was performed in 2009 and 2010.

4.3.2 Results

Based on the 2024 inspection and a review of operating and monitoring data, the MRTF has consistently met performance criteria set forth in the Amended CD. No treatment performance issues, hazards, significant deterioration, or equipment malfunctions were apparent at the MRTF in 2024.

4.4 Central Groundwater Treatment Facility

The CGTF is located at 8650 East Thomas Road in Scottsdale, Arizona at the northeast corner of Pima Park. Other related facilities include the CGTF extraction wells and Reservoir 80, into which treated water from the CGTF is discharged (following further treatment by the City of Scottsdale) for beneficial use as a supply to City of Scottsdale’s potable water system.

Background and details on the CGTF are provided in the O&M Plan developed for this facility. EPA approved the CGTF O&M Plan dated March 2006, and it is included in the Sitewide O&M Plan. The City of Scottsdale has completed several CGTF O&M Plan updates since that time, with the most recent in June 2020. The O&M Plan describes the facility, major pieces of equipment, control strategies, and performance monitoring of the treatment plant. Design

parameters and performance of the CGTF have been validated and documented in the O&M Plan, quarterly Compliance Monitoring Reports, and annual data reports for the NIBW Site.

The CGTF uses air stripping to remove NIBW COCs, primarily TCE, from groundwater. The CGTF includes three separate, parallel treatment trains. Each treatment train consists of a packed column, a process air fan, and an off-gas vapor treatment system that removes NIBW COCs prior to discharge to the atmosphere. Each column has a design capacity of 3,150 gpm. The overall capacity of the CGTF is approximately 9,450 gpm. The separate treatment trains allow for one or more columns to be removed from service while the other column(s) continue to operate.

Groundwater can be pumped from City of Scottsdale wells COS-75A, COS-71A, COS-72, and COS-31 through transmission pipelines to the CGTF. Currently, production of groundwater for treatment at CGTF is primarily from COS-75A and COS-31. Due to inorganic water quality, the City of Scottsdale has removed COS-71A from service. The PCs modified this well to pump only from the MAU in 2023. The City of Scottsdale is planning to bring this well back online after completion of the PG-41MA/LA Site Development. The pump in COS-72 failed in January 2024. This well is currently inactive and the City of Scottsdale has not determined if this well will come back online. Typical flow rates range from approximately 1,900 gpm at COS-75A to approximately 2,600 gpm at COS-31.

Influent water combines in a common raw water header and is evenly distributed into the available columns, where it flows top to bottom through the column packing while airflow is pulled through the tower in a counter-current direction.

In 2024, the minimum air-to-water ratio (A/W) was reduced from 29:1 to 24:1. The A/W reduction program was implemented since the TCE concentration in the CGTF wells has decreased considerably since the system was designed.

Previously, the air blowers were operated at constant speed ranging from approximately 11,500 cfm to 14,000 cfm depending on the magnitude of calcium carbonate scaling in the column packing and the amount of water treated in each column. Upon implementation of the A/W reduction program, the air flow rate is varied respective to the column water flow rate using the VFDs on the blower drives. For example, while treating 1,960 gpm from well 75A, the minimum air flow rate would be maintained at approximately 6,300 cfm. The system may operate at higher A/W ratios at the operator's discretion. The reduction in the A/W ratio implemented in 2024 has resulted in decreased noise in the treatment system building and decreased electricity and natural gas usage at CGTF while maintaining effective treatment of groundwater.

Since water from the wells is delivered to the CGTF in a common header, the flow rate through each column can vary depending on the number of wells and columns in service at any given time. Typically, the flow rate through the columns ranges between approximately 1,500 and 3,000 gpm depending on the number of wells operating.

The treated water gravity flows to Scottsdale's potable water system or is pumped to the SRP irrigation system. The capacity of the connection to the SRP irrigation system varies based on several factors, with a current maximum of approximately 4,000 gpm. Blending of the CGTF treated water with other water supplies occurs in the potable water storage facility, Reservoir 80, just south of the site.

For each column, a process air fan is used to pull air through an intake filter then upward through the packed column, counter-current to the water flow. The off-gas is directed through a mist eliminator, a natural gas-fired duct heater, and then to a GAC contactor prior to discharge to the atmosphere. The duct heater heats the air which reduces relative humidity to enhance VOC adsorption in the GAC contactors.

The majority of the treatment equipment, except the duct heaters, GAC contactors, and disinfection equipment, is located inside the CGTF treatment building. The treatment building consists of several rooms including the air stripper room, which houses the packed columns and process air fans; the electrical equipment room, which supports the MCCs, starters, RTUs, RIO cabinets, transformers, and other electrical equipment; and the laboratory. Equipment used for disinfection is located in a separate building at the Reservoir 80 booster station and is part of the drinking water system operated by City of Scottsdale. For security and aesthetics, the facility is surrounded by a masonry wall with locking access gates.

4.4.1 CGTF Maintenance and Condition

The CGTF is operated and maintained by a City of Scottsdale water treatment operator. The City of Scottsdale operations personnel also monitor the status of the CGTF remotely. Operators make minimum daily inspections of the equipment and grounds at the CGTF. They maintain operations logs and data spreadsheets on the facility's server. The logs, spreadsheets, and equipment, chemical, and media service records were available for review at the CGTF by the inspection team during the site inspection. Technical staff from City of Scottsdale Water Operations such as mechanics, electricians, and instrumentation technicians also provide maintenance support, as needed.

The City of Scottsdale Water Resources Department uses a city-wide preventative maintenance program for all equipment operated by the water operations staff. This program maintains a service record database for each piece of equipment and prompts the technicians to perform routine preventative maintenance in accordance with manufacturers' instructions or as necessary.

At the time of the inspection, the facility appeared clean with no apparent leaks or significant deterioration. The equipment is clean, labeled, and well maintained. All piping appeared in good condition without leaks or corrosion during the inspection. All valves in the plant are turned at least once per year to verify proper working order.

All blowers in operation at the time of the inspection appeared to run smoothly. Service is performed on the blowers as needed, as well as during each GAC service event on the associated treatment train, or at a minimum on a quarterly basis. Service activities may include alignment, bearing repacking, and inspection and tightening of the drive belts. The air handling and treatment system appeared tight and in good condition during the inspection.

Visual inspection through the viewports on the air stripper column during the inspection indicated relatively clean packing material. The trays at the top of each column are visually inspected by the operator on a monthly basis for even water distribution and for accumulation of debris produced from the wells. Column cleaning was performed beginning on October 21, 2024, and was completed by November 25, 2024. Column cleaning activities at the CGTF require the system to be offline.

The process control system is monitored continuously. The City of Scottsdale has implemented a program to test all switches and alarms on a routine basis when a treatment train is offline for GAC service. Results of the control tests are maintained in a notebook at the CGTF. Additionally, instruments are checked and calibrated during the GAC service events by City of Scottsdale instrument technicians.

4.4.2 Results

Based on the 2024 inspection and a review of operating and monitoring data, the CGTF has consistently met performance criteria set forth in the Amended CD. No treatment performance problems, hazards, significant deterioration, or equipment malfunctions were apparent in 2024.

4.5 NIBW GAC Treatment Facility

The NGTF is located at 5985 North Cattletrack Road in Scottsdale, Arizona, at the southwest corner of Cattletrack Road and McDonald Drive. The NGTF is owned by MSI and is operated under contract by City of Scottsdale Water Resources. Treated water from NGTF is delivered to the City of Scottsdale's Chaparral Water Treatment Plant (CWTP), located approximately one-half mile east of NGTF, or to SRP's Arizona Canal through a dedicated outfall immediately east of the facility.

The NGTF treats water from extraction well PCX-1. The typical production rate from PCX-1 in 2024 was approximately 2,100 gpm. Treatment of water from PCX-1 at the NGTF is

accomplished using liquid-phase GAC. The GAC system is composed of four separate, parallel treatment trains. Each treatment train consists of two contactors, each containing approximately 20,000 pounds of GAC with interconnecting piping and valves. Each treatment train has a design capacity of approximately 1,050 gpm. All treatment trains are used for treatment of groundwater from PCX-1. The flow of water from PCX-1 is typically split across three treatment trains, while the remaining treatment train is in standby mode. Service rotates among the four treatment trains. This arrangement allows the system to remain operating while the GAC media is serviced. GAC service is accomplished on the standby treatment train while the other three trains remain in service treating groundwater. Currently, the service life of the carbon in the *lead*contactors is approximately 6 weeks.

Groundwater enters the treatment train through the *lead* contactor, which provides the required NIBW COC treatment. Treated groundwater then flows through the *lag* contactor. The configuration of the treatment train allows for each of the two GAC contactors in the treatment train to operate in either *lead* or *lag* position and also supports reverse flow through the contactors for backwashing the media.

Following GAC treatment, water is disinfected by the City of Scottsdale and delivered to the CWTP finished water reservoir through a dedicated 16-inch pipeline between the facilities. Chlorination is required by the City of Scottsdale to meet drinking water standards associated with the CWTP. The disinfection system at the NGTF is owned and operated by the City of Scottsdale Water Resources Department and is not considered part of the treatment system for NIBW COCs in groundwater.

After GAC replacement or during normal operation, the media may require backwashing to remove fines and sediment build-up in the bed. Backwash water is collected in the backwash storage tank and discharged to the sanitary sewer under a permit issued by the City of Scottsdale.

The control building at the NGTF supports the control console with HMI, appurtenant mechanical equipment, electrical equipment, and the RTU containing the main PLC. The system is linked with the City of Scottsdale's city-wide supervisory control and data acquisition (SCADA) system. The program logic associated with the SCADA system is secure and only accessible by authorized personnel. Changes to the program can only be made after authorization is provided by the City of Scottsdale and the NIBW PCs. The City of Scottsdale Water Resources Department uses a city-wide preventative maintenance program for all equipment operated by the water operations staff. This program maintains a service record database for each piece of equipment and alerts the technicians when routine preventative maintenance is necessary. Service records for all the primary equipment at the NGTF were available for review at the time of the inspection.

The NGTF site comprises approximately 1 ½ acres surrounded by a masonry block wall, with a main vehicle entry gate and two walk-through gates. The NGTF has a maximum hydraulic capacity of approximately 4,400 gpm.

4.5.1 NGTF Maintenance and Condition

The NGTF is maintained by City of Scottsdale water treatment operators. City of Scottsdale operations personnel also monitor the status of the NGTF remotely. Operators make minimum daily inspections of the equipment and grounds at the NGTF and maintain operations logs and data spreadsheets on the facility's servers. The logs, spreadsheets, and equipment, chemical, and media service records were available for review at NGTF by the inspection team during the site inspection.

During the inspection, the facility appeared clean and well maintained with no apparent leaks or deterioration. The equipment was clean and in good condition. The piping, valves, and instrumentation labeling appeared complete and intact. All piping appeared in good condition without leaks or corrosion.

The process control system is monitored continuously. Instruments are checked and calibrated in accordance with the manufacturers' instructions by City of Scottsdale instrument technicians. Maintenance is scheduled and performed through the City of Scottsdale's city-wide preventive maintenance system.

The main PLC hardware was upgraded in 2024. The system was offline for only few days while the equipment was installed. The system was tested for proper operation and restarted. No changes were made to the control program during this equipment upgrade.

4.5.2 Results

Based on the 2024 inspection and a review of operating and monitoring data, the NGTF has consistently met performance criteria set forth in the Amended CD. No treatment performance problems, hazards, significant deterioration, or equipment malfunctions were apparent in 2024.

5 ACRONYMS & ABBREVIATIONS

1,1,1-TCA 1,1,1-trichloroethane
1,1-DCE 1,1-dichloroethene
ADEQ ..... Arizona Department of Environmental Quality
CD ..... Consent Decree
CERP ..... Contingency and Emergency Response Plan
cfm ..... cubic feet per minute
CGTF ..... Central Groundwater Treatment Facility
COCs ..... constituents of concern
CWTP ..... Chaparral Water Treatment Plant
EPA ..... United States Environmental Protection Agency
EPCOR ..... EPCOR Water USA
FSA ..... Feasibility Study Addendum
GAC ..... granular activated carbon
gpm ..... gallons per minute
GWETS ..... Groundwater Extraction and Treatment System
HGL ..... HydroGeoLogic, Inc.
HMI ..... human machine interface
MAU ..... Middle Alluvial Unit
MCC ..... motor control center
MRTF ..... Miller Road Treatment Facility
MSI ..... Motorola Solutions, Inc.
NGTF ..... North Indian Bend Wash Groundwater Activated Carbon Treatment Facility
NIBW ..... North Indian Bend Wash
O&M ..... Operation & Maintenance
PCs ..... Participating Companies
PCE ..... tetrachloroethene
PLC ..... programmable logic controller
RIO ..... Remote Input/Output
ROD ..... Record of Decision
RTU ..... Remote Terminal Unit
SCADA ..... supervisory control and data acquisition
SOW ..... Statement of Work
SRP ..... Salt River Project
TCE ..... trichloroethene
TCM ..... chloroform
UAU ..... Upper Alluvial Unit
UV/Ox ..... Ultraviolet Oxidation

VFD..... variable frequency drive
VOCs..... volatile organic compounds

APPENDIX J
4TH QUARTER MONITORING REPORT

QUARTERLY REPORT

October through December 2024

North Indian Bend Wash Superfund Site

Prepared for:

U.S. Environmental Protection Agency

Region IX

Prepared by:

NIBW Participating Companies

February 28, 2024

North Indian Bend Wash Superfund Site

QUARTERLY REPORT

October – December 2024

North Indian Bend Wash Superfund Site

Scottsdale, Arizona

February 28, 2024

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Appendix A. Matrix and Laboratory Results

1 INTRODUCTION

This Quarterly Report (Report) summarizes the remedial activities performed and data collected at the North Indian Bend Wash (NIBW) Superfund Site (Site) from October through December 2024 (the reporting period) by the NIBW Participating Companies (PCs) pursuant to the Amended Consent Decree, CV-91-1835-PHX-FJM (Amended CD), entered by the U.S. District Court on June 5, 2003. A detailed summary of the components and work requirements of the remedial action program can be found in the Record of Decision Amendment – Final Operable Unit, Indian Bend Wash Area, dated September 27, 2001, and the Statement of Work (SOW), Appendix A to the Amended CD. Remedial activities are conducted to address constituents of concern (COCs) in groundwater at the Site.

2 GROUNDWATER MONITORING AND EVALUATION PROGRAM

During the reporting period, the NIBW PCs conducted sampling and analysis of monitoring and extraction wells according to requirements specified in the Groundwater Monitoring and Evaluation Plan (GM&EP), dated October 8, 2002. The U.S. Environmental Protection Agency (EPA) approved the GM&EP on the same date. The GM&EP and associated Phase I Sampling and Analysis Plan supersede all previous groundwater monitoring requirements in the Operable Unit-1 (OU-1) and OU-2 Consent Decrees. The PCs are committed to evaluating and updating the GM&EP metrics based on new data and using new tools, including the groundwater flow model and three-dimensional (3D) visualization model. Until there is consensus around updated metrics, the PCs will continue to use the structure laid out in the 2002 GM&EP to evaluate progress and performance of the various remedy components.

During the reporting period, NIBW PCs' contractors collected groundwater samples from monitoring wells and remedial extraction wells, as shown in **Table 1**. Wells that were sampled during the reporting period are shown on **Figure 1**. The NIBW COCs are: trichloroethene (TCE), tetrachloroethene (PCE), 1,1,1-trichloroethane (TCA), 1,1-dichloroethene (DCE), and chloroform. All samples were analyzed by PACE Analytical National Center for Testing & Innovation (PACE) per EPA method 524.2 for drinking water. Results for all COCs are included in the tables in **Appendix A**. TCE is the principal COC for NIBW; results for TCE are given in the tables included in the report.

Sample counts for monitoring wells (by hydrologic unit) and extraction wells (by treatment system) are summarized in **Table 1**. Sampling details for the reporting period are summarized in **Appendix A**. **Table A-1** lists all wells scheduled for sampling during the reporting period as part of the NIBW monitoring program and indicates which aquifer unit(s) the wells are designed to monitor, the sampling frequency for each well, and comments regarding why some wells may not have been sampled as planned. A summary of results for groundwater samples collected from monitoring wells, pursuant to the GM&EP, during the reporting period is provided in **Table A-2**. A summary of results for groundwater samples collected during the reporting period from extraction wells—pursuant to the GM&EP—is provided in **Table A-3**.

Table 1. Groundwater Monitoring Summary

Number of Wells Sampled	Well Type	Hydrologic Unit	Treatment System	Contractor
22	Monitoring Well	UAU	---	Confluence / M&A
35	Monitoring Well	MAU	---	Confluence / M&A
24	Monitoring Well	LAU	---	Confluence / M&A
3	Monitoring Well	MAU/LAU	---	M&A
2	Extraction Well	---	Area 7 GWETS	EnSolutions
2	Extraction Well	---	Area 12 GWETS	EnSolutions
2	Extraction Well	---	MRTF	EnSolutions
1	Extraction Well	---	NGTF	EnSolutions
2	Extraction Well	---	CGTF	EnSolutions
93	All Wells			

Notes:
CGTF = Central Groundwater Treatment Facility
Confluence = Confluence Environmental, Inc.
GWETS = Groundwater Extraction and Treatment System
LAU = Lower Alluvial Unit
M&A = Montgomery & Associates
MAU = Middle Alluvial Unit
MRTF = Miller Road Treatment Facility
NGTF = NIBW Granular Activated Carbon (GAC) Treatment Facility
UAU = Upper Alluvial Unit



Figure 1. Location Map

3 GROUNDWATER REMEDIATION PROGRAM

The NIBW remedy provides for containment of the Middle Alluvial Unit (MAU) / Lower Alluvial Unit (LAU) plumes through a groundwater extraction and treatment program. Treatment occurs at the Miller Road Treatment Facility (MRTF), NIBW Granular Activated Carbon Treatment Facility (NGTF), Central Groundwater Treatment Facility (CGTF), Area 7 Groundwater Extraction and Treatment System (GWETS), and Area 12 GWETS. Locations of the groundwater treatment facilities and their corresponding extraction wells are shown on **Figure 1**. The NIBW PCs are responsible for compliance monitoring and reporting for the MRTF, NGTF, Area 7 GWETS, and Area 12 GWETS. This Report provides a summary of operations and data collected for these four facilities during the reporting period. The City of Scottsdale owns and operates CGTF and reports the results of compliance testing and plant operations for this facility directly to EPA and Arizona Department of Environmental Quality (ADEQ). EPCOR Water USA (EPCOR) owns and operates the MRTF. A summary of the treatment system monitoring data for the MRTF, NGTF, Area 7, and Area 12 facilities for October through December 2024 is provided in **Table A-4**.

3.1 Groundwater Remediation at MRTF

The MRTF achieved performance standards specified in the SOW during the reporting period by consistently treating groundwater to reduce NIBW COC concentrations safely below Treatment Standards. During the reporting period, groundwater from wells PV-14 and PV-15 was treated at the MRTF by EPCOR and primarily delivered to the Paradise Valley Arsenic Removal Facility (PVARF) for subsequent distribution by EPCOR for drinking water use. If operating on the scheduled monitoring dates, monthly samples of groundwater from wells PV-14 and PV-15 were collected by EnSolutions and analyzed by PACE. Treatment system samples were collected monthly by EnSolutions and submitted to PACE for analysis of NIBW COCs. The results of TCE analyses of samples obtained by the NIBW PCs for groundwater and process water monitoring are included in **Table 2**.

Table 2. MRTF Groundwater & Treatment System Monitoring
(TCE in µg/L)

Sample Date	PV-14	PV-15	Tower 1 Effluent	Tower 2 Effluent	Tower 3 Effluent
10/01/2024	0.516	6.19	<0.500	<0.500	---
11/04/2024	<0.500	5.09	<0.500	<0.500	---
12/02/2024	<0.500	4.87	<0.500	<0.500	---

Notes:
All samples collected by EnSolutions.
Tower 3 was not sampled during the quarter because it was not in use at the time of sampling.

In addition to the routine monitoring of extraction wells conducted pursuant to the GM&EP, the NIBW PCs ordinarily conduct supplemental sampling at wells PV-11 and PV-12B (if operating on the scheduled monthly sampling date). During the quarter, results of laboratory analyses indicated no detectable concentrations of COCs in the samples obtained from wells PV-11 on October 1, November 4, and December 2, 2024; and PV-12B on October 1 and November 1, 2024. When the NIBW PCs visited well PV-12B in December, no sample was obtained because it was offline.

The MRTF was available for treatment the entire reporting period. The total volume of groundwater extracted and treated at the MRTF during the reporting period was approximately 568.2 million gallons (MG). Of this total, 277.6 MG was produced from well PV-14 and approximately 290.6 MG was produced from well PV-15. None of the treated water was discharged to the Salt River Project (SRP) Arizona Canal during the reporting period. An estimated 14 pounds of TCE were removed from groundwater treated at the MRTF during the reporting period.

3.2 Groundwater Remediation at NGTF

The NGTF achieved performance standards specified in the SOW during the reporting period by consistently treating groundwater to reduce NIBW COC concentrations below Treatment Standards. Treated water from the treatment system can be discharged to the City of Scottsdale Chaparral Water Treatment Plant (CWTP) and/or the Arizona Canal under the NGTF Arizona Pollutant Discharge Elimination System (AZPDES) permit. For the reporting period, about 213.8 MG of treated water was discharged to the CWTP and 53.7 MG of treated water was discharged to the Arizona Canal. For treated water discharged to the Arizona Canal, samples were collected at the outfall for analyses required by the AZPDES permit. The results of sample analyses were summarized in monthly Discharge Monitoring Reports (DMRs) and submitted to ADEQ under separate cover.

During the reporting period, samples were collected monthly from NGTF extraction well PCX-1 by EnSolutions and analyzed for NIBW COCs by PACE.

Compliance monitoring was performed in accordance with the SOW to verify removal of volatile organic compounds (VOCs) from the extracted groundwater and assure Treatment Standards were achieved. Treatment system samples were collected weekly by the operator (City of Scottsdale) and submitted to Pace for analysis of NIBW COCs.

The results of TCE analyses of samples obtained by the NIBW PCs for groundwater and process water monitoring are included in **Table 3** and **Table 4**.

Table 3. NGTF Groundwater Monitoring

(TCE in µg/L)

Date	PCX-1
10/01/2024	50.2
11/04/2024	40.9
12/02/2024	44.0

Table 4. NGTF Treatment System Monitoring

(TCE in µg/L)

Week of:	Influent	Effluent
	NGTF-INF[a]	AZCO[b] or CHAP-CP[c]
Oct 07 – 11	NS	<0.500
Oct 14 – 18	NS	<0.500
Oct 21 – 25	NS	<0.500
Oct 28 – Nov 01	NS	<0.500
Nov 04 –08	NS	<0.500
Nov 11 – 15	NS	<0.500
Nov 18 – 22	NS	<0.500
Nov 25 – 29	NS	<0.500
Dec 02 – 06[d]	NS	<0.500
Dec 09 – 13[d]	NS	<0.500
Dec 16 – 20[d]	NS	<0.500
Dec 23 – 27[d]	NS	<0.500
Dec 30 – Jan 3, 2025[d]	NS	<0.500

Notes:
NS = Not sampled

[a] If obtained, results for influent samples from NGTF are not compliance data; however, they are included here for completeness when obtained. Extraction well PCX-1 is not accessible for wellhead sampling. Samples for the well are obtained at the NGTF pipeline, just a few feet away from the sample port for the NGTF influent. These samples (PCX-1) meet the compliance requirements for monitoring influent to the treatment plant, therefore, beginning in July 2018, the redundant NGTF influent samples are no longer regularly obtained.

[b] AZCO = Discharge to Arizona Canal

[c] CHAP-CP = Discharge to City of Scottsdale Chaparral Water Treatment Plant

The NGTF was available for treatment of groundwater the entire reporting period. The total volume of groundwater extracted from well PCX-1 and treated at the NGTF during the reporting period was approximately 269.3 MG, and an estimated 101 pounds of TCE were removed.

3.3 Groundwater Remediation at Area 7 GWETS

The NIBW Area 7 GWETS achieved performance standards specified in the SOW during the reporting period by consistently treating groundwater to reduce NIBW COC concentrations safely below Treatment Standards prior to injection into the Upper Alluvial Unit (UAU) near the GWETS. Compliance monitoring was performed in accordance with the SOW to verify removal

of VOCs from the extracted groundwater and assure groundwater Treatment Standards were achieved.

During the reporting period, samples were collected quarterly from Area 7 extraction wells 7EX-3aMA and 7EX-6MA by EnSolutions and analyzed for NIBW COCs by PACE. Also, during the reporting period, treatment system samples were collected monthly by EnSolutions and submitted to PACE for analysis of NIBW COCs. Samples were collected from the combined influent to the GWETS at sample port SP-102, from the ultraviolet/oxidation (UV/Ox) reactor effluent at sample port SP-103, and from the air stripper effluent at sample port SP-105. The results of TCE analyses of samples obtained by the NIBW PCs for groundwater and process water monitoring are included in **Table 5** and **Table 6**.

Table 5. Area 7 Groundwater Monitoring
(TCE in µg/L)

Date	7EX-3aMA	7EX-6MA
10/01/2024	551[a,c] / 566[b,c]	400[a] / 441[b,c]

Notes:
[a] Diluted sample results (past holding time)
[b] Undiluted sample results (within holding time); estimated value
[c] Estimated and diluted results are within 20% relative percent difference (project acceptance criteria) of each other and are consistent with historical data. Results are therefore deemed valid with qualification.

Table 6. Area 7 Treatment System Monitoring
(TCE in µg/L)

Date	GWETS Influent @ SP-102	UV/Ox Effluent @ SP-103	Air/Stripper Effluent @ SP-105
10/01/2024	500[a,c] / 521[a,c]* 513[b,c] / 539[b,c]*	153[a,c] / 167[b,c]	0.629
11/04/2024	435 / 450*	133	0.558
12/02/2024	434 / 438*	64.9	<0.500

Notes:
UV/Ox = Ultraviolet/Oxidation Reactor
* Indicates field duplicate sample result
[a] Diluted sample results (past holding time)
[b] Undiluted sample results (within holding time); estimated value
[c] Estimated and diluted results are within 20% relative percent difference (project acceptance criteria) of each other and are consistent with historical data. Results are therefore deemed valid with qualification.

The Area 7 GWETS was available for treatment of groundwater most of the reporting period except during periods of routine maintenance, chemical deliveries, and lamp replacement on the UV/Ox system.

The total volume of groundwater extracted, treated, and injected during the reporting period was approximately 41.6 MG. Of this total, approximately 18.8 MG was produced from well 7EX-3aMA and approximately 22.8 MG was produced from 7EX-6MA. Performance data provided by the Area 7 GWETS operator indicates an estimated 173 pounds of TCE were removed from the extracted groundwater during the reporting period.

3.4 Groundwater Remediation at Area 12 GWETS

The NIBW Area 12 GWETS achieved performance standards specified in the SOW during the reporting period by consistently treating groundwater to reduce NIBW COC concentrations below Treatment Standards prior to discharge to an SRP lateral. Compliance monitoring was performed in accordance with the SOW to verify removal of VOCs from the extracted groundwater and assure groundwater Treatment Standards were achieved.

During the reporting period, treatment system samples were collected monthly by EnSolutions and submitted to PACE for analysis of NIBW COCs. Treatment system samples included combined influent to the Area 12 GWETS at sample port WSP-1 and effluent from the Area 12 GWETS at sample port WSP-2. Area 12 extraction well samples were collected by EnSolutions on a monthly basis when the wells were operational and submitted to PACE for analysis. The results of TCE analysis of samples obtained by the NIBW PCs for groundwater and process water monitoring are included in **Table 7**.

Table 7. Area 12 Groundwater and Treatment System Monitoring
(TCE in µg/L)

Date	MEX-1MA (SRP 23.1E6N)	Granite Reef Well (SRP 23.6E6N)	GWETS Influent	GWETS Effluent
			WSP-1	WSP-2
10/01/2024	65.8	132	92.8 [a,c] / 95.4 [a,c] * 101 [b,c] / 101 [b,c] *	<0.500
11/04/2024	54.3	111	78.5 / 80.7*	<0.500
12/02/2024	61.3	102	86.0 / 85.9*	<0.500

Notes:
* Indicates duplicate sample result

[a] Diluted sample results (past holding time)
[b] Undiluted sample results (within holding time); estimated value
[c] Estimated and diluted results are within 20% relative percent difference (project acceptance criteria) of each other and are consistent with historical data. Results are therefore deemed valid with qualification.

Treated groundwater from Area 12 discharges to the SRP distribution system, and the discharge is regulated by an AZPDES permit. Samples were collected at the outfall to the SRP lateral for analyses required by the permit. The results of the sample analyses were summarized in monthly DMRs and submitted to ADEQ under separate cover.

The Area 12 GWETS was available for treatment of groundwater nearly the entire reporting period. The Area 12 treatment system was shut down for annual maintenance and SRP Dry-Up on December 31. The total volume of groundwater extracted and treated at the Area 12 GWETS during the reporting period was approximately 207.9 MG. Of this total, approximately 110.5 MG was produced from well MEX-1MA and approximately 97.4 MG was produced from the Granite Reef Well. Performance data provided by the Area 12 GWETS operator indicated an estimated 150 pounds of TCE were removed from the treated groundwater.

3.5 Groundwater Remediation Summary

Table 8 presents the volume of groundwater treated at each facility, as well as the estimated pounds of TCE removed from groundwater via treatment, both for the reporting period and cumulatively for the year (i.e., year-to-date).

Table 8. Summary of Groundwater Treatment and TCE Removal

Treatment System	Volume of Groundwater Treated (MG)	Estimated Pounds of TCE Removed (4Q24)	Cumulative Pounds of TCE Removed (YTD 2024)
MRTF	568.2	14	48
NGTF	269.3	101	396
Area 7 GWETS	41.6	173	634
Area 12 GWETS	207.9	150	402

Notes:
MG = million gallons
4Q24 = fourth quarter (October through December) 2024
YTD = year to date

4 MEETINGS AND OTHER EVENTS

Representatives of the NIBW Technical Committee held meetings by teleconference on October 22 and November 18 to coordinate ongoing NIBW remedial action efforts.

5 DOCUMENTS SUBMITTED BY NIBW PCS DURING THE REPORTING PERIOD

During the reporting period, from October through December 2024, the NIBW PCs provided EPA with the following documents.

Summary of Principal Points for NIBW Participating Companies Comments on EPA Draft Final Optimization Review, August 23, 2024, memorandum sent via electronic mail submitted by NIBW PCs on October 31, 2024.

GM&EP Update Presentation, presentation delivered to Technical Committee regarding GM&EP updates, submitted via electronic mail on November 13, 2024.

NIBW Technical Committee Meeting Minutes – October 22, 2024, electronic mail submitted by NIBW PCs on November 13, 2024.

Deviations to NIBW Field Sampling Plan – November 18, 2024, submitted by NIBW PCs via electronic mail on November 18, 2024.

NIBW Quarterly Report – July through September 2024, electronic mail submitted by NIBW PCs on November 26, 2024.

Working Group Meeting #1: UAU Metrics – Pre-Meeting Materials, submitted to Working Group via electronic mail on December 3, 2024.

Draft Area 7 VI RI/FS Work Plan, electronic mail submitted by NIBW PCs on December 20, 2024.

APPENDIX K
CONTACT LIST FOR NIBW SUPERFUND SITE AND REMEDIAL ACTIONS

TABLE K-1. CONTACT LIST FOR NIBW SUPERFUND SITE REMEDIAL ACTIONS

NAME	ROLE	ORGANIZATION	ADDRESS	OFFICE TELEPHONE	MOBILE TELEPHONE	EMAIL
NIBW Participating Companies						
John Pekala	NIBW Program Manager	Motorola Solutions, Inc.	3332 E. Broadway Road, Phoenix, AZ 85040	602-353-5547	602-859-9294	john.pekala@motorolasolutions.com
Leslie Katz	NIBW Project Coordinator	Montgomery & Associates	1550 E. Prince Road, Tucson, AZ 85719	520-881-4912	520-245-4802	lkatz@elmontgomery.com
James Lutton	NIBW Project Engineer	NIBW Participating Companies	4222 E. Thomas Road, Suite 320, Phoenix, AZ 85018	480-442-9234	480-442-9234	james.lutton@jalpe.net
Amanda Beam	Project Manager	Montgomery & Associates	4222 E. Thomas Road, Suite 320, Phoenix, AZ 85018	480-948-7747	619-254-8749	abeam@elmontgomery.com
Alyssa Kirk	Senior Hydrologist	Montgomery & Associates	1550 E. Prince Road, Tucson, AZ 85719	520-881-4912	928-699-6405	akirk@elmontgomery.com
Marla Odom	Data Manager	Montgomery & Associates	1550 E. Prince Road, Tucson, AZ 85719	520-881-4912		modom@elmontgomery.com
Brady Nock	Groundwater Modeler	Montgomery & Associates	1550 E. Prince Road, Tucson, AZ 85719	520-881-4912	713-992-0452	bnock@elmontgomery.com
Oversight Agencies						
Vicky Wiraatmadja	EPA Project Coordinator	U.S. Environmental Protection Agency	SFD-8-1, 75 Hawthorne Street, San Francisco, CA 94105	415-972-3178		wiraatmadja.vicky@epa.gov
Katelyn Kane-DeVries	ADEQ Project Manager	Arizona Department of Environmental Quality	1110 West Washington Street, Phoenix, AZ 85007	602-771-0167		kane-devries.katelyn@azdeq.gov
Wayne Miller	ADEQ Senior Technical Advisor	Arizona Department of Environmental Quality	1110 West Washington Street, Phoenix, AZ 85007	602-771-4121		miller.wayne@azdeq.gov
City of Scottsdale						
Suzanne Grendahl	Water Quality Director	City of Scottsdale	P.O. Box 25089, 8787 East Hualapai Drive, Scottsdale, AZ 85255	480-312-8719	623-640-1474	sgrendahl@scottsdaleaz.gov
Krystal Heyer	Water Quality Supervisor	City of Scottsdale	P.O. Box 25089, 8787 East Hualapai Drive, Scottsdale, AZ 85255	480-312-8712		kheyer@Scottsdaleaz.gov
Salt River Project						
Karol Wolf	Aquifer Management Specialist	Salt River Project	P.O. Box 52025, Mail Station PAB 38W, Phoenix, AZ 85072-2025	602-236-5767	602-236-3407	karol.wolf@srpnet.com
Michael Kraus	Senior Environmental Scientist	Salt River Project	P.O. Box 52025, Mail Station PAB 359, Phoenix, AZ 85072-2025	602-236-5849	480-980-2530	michael.kraus@srpnet.com
Treatment Systems						
NGTF and CGTF						
Taylor Shudde	Water Operations Supervisor	City of Scottsdale	8650 East Thomas Road, Scottsdale, AZ 85251	480-312-0390	480-737-5932	tshudde@scottsdaleaz.gov
Daniel Rivas	Water Production Manager	City of Scottsdale	8650 East Thomas Road, Scottsdale, AZ 85251		480-312-5664	drivas@scottsdaleaz.gov
Water Operations Staff	Control Room Operator	City of Scottsdale		480-312-8708		
Area 7 GWETS						
Ryan O'Keefe	Area 7 GWETS and Incident Coordinator	Arcadis U.S., Inc.	410 N. 44th Street, Suite 1000, Phoenix, AZ 85008	480-535-1698	602-295-6708	ryan.okeefe@arcadis.com
Francisco Brown-Muñoz	Area 7 GWETS and Incident Coordinator	Arcadis U.S., Inc.	410 N. 44th Street, Suite 1000, Phoenix, AZ 85008	602-797-4557	480-468-0222	francisco.brownmunoz@arcadis.com
Area 12 GWETS						
Larry Lynch	Area 12 GWETS and Incident Coordinator	EnSolutions, Inc.	7620 E. McKellips Road, Suite 4-71, Scottsdale, AZ 85257	561-762-7690	561-762-7690	larry@ensolutions.us
MRTF						
Todd Farrell	MRTF Operations Manager, Incident Coordinator	EPCOR	6215 North Cattletrack Road, Scottsdale, AZ 85250	623-445-2463	602-388-7170	tfarrell@epcor.com

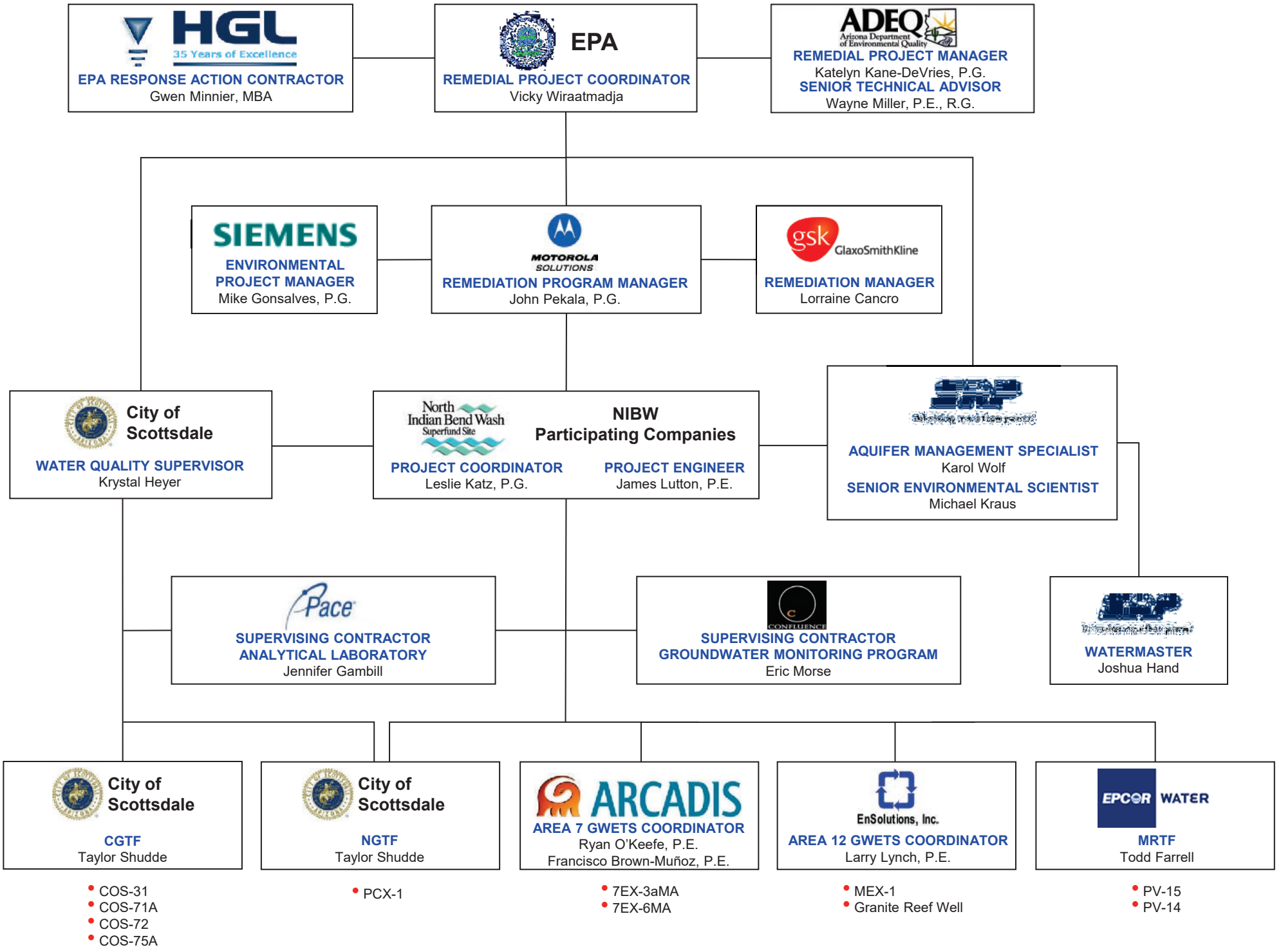


FIGURE K-1. NORTH INDIAN BEND WASH PROJECT ORGANIZATIONAL CHART