

**Fourth Quarter 2025 and Annual 2025
Remedial Progress Evaluation Report for
Former Circle K 1461 Site
Seattle, Washington**

February 2026

ERRG Project No. 20230065

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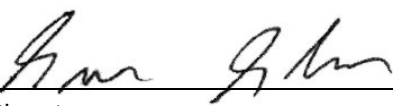
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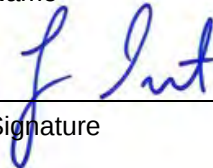
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Table of Contents

1. INTRODUCTION	1-1
1.1. Site Information.....	1-1
1.2. Site History.....	1-1
1.3. Site Use	1-2
2. SITE BACKGROUND.....	2-1
2.1. Geology	2-1
2.2. Hydrogeology.....	2-1
2.3. Previous Investigations and Remedial Activities	2-2
2.3.1. 1989–1990 UST Removal and Remediation (GeoEngineers).....	2-2
2.3.2. 1992–1999 Groundwater Monitoring and Operation and Maintenance (Glacier)	2-4
2.3.3. 2005 Enhanced Fluid Recovery (EcoVac Services, Inc.).....	2-4
2.3.4. 2005–2006 Groundwater Monitoring (EA Engineering, Science, and Technology, Inc.)	2-5
2.3.5. 2016–2017 Remedial Investigation/Feasibility Study (Kennedy Jenks).....	2-5
2.4. System Design, Installation, and Testing	2-6
2.4.1. System Design.....	2-6
2.4.2. System Installation	2-6
2.4.3. System Commissioning and Testing	2-6
3. SYSTEM OPERATION, MONITORING, SAMPLING, AND MAINTENANCE	3-1
3.1. System Details.....	3-1
3.1.1. General Conveyance and Monitoring Infrastructure	3-1
3.1.2. Vapor Treatment System.....	3-2
3.1.3. Water Treatment System	3-2
3.1.4. Continuous Operation Phases.....	3-2
3.2. System Operation and Maintenance	3-3
3.2.1. Monthly O&M.....	3-3
3.3. System Monitoring.....	3-4
3.3.1. Well VOCs, Vacuum, and Flow.....	3-4
3.3.2. System VOCs, Vacuum, and Flow.....	3-5
3.3.3. System Liquid Discharge	3-5
3.4. System Sampling.....	3-5
3.4.1. Vapor Pin Sampling	3-5
3.4.2. VTS Sampling	3-5
3.4.3. WTS Sampling	3-5
3.5. Field Quality Control.....	3-6

Table of Contents *(continued)*

3.6.	Investigation-Derived Waste	3-6
3.7.	Deviations.....	3-6
4.	GROUNDWATER MONITORING ACTIVITIES	4-1
4.1.	Groundwater Measurements And Inspections.....	4-1
4.2.	Groundwater Sampling.....	4-1
4.3.	Equipment Decontamination	4-2
4.4.	Investigation-Derived Waste	4-2
4.5.	Field Quality Control.....	4-2
4.6.	Deviations.....	4-2
5.	RESULTS.....	5-1
5.1.	System Monitoring.....	5-1
5.2.	System Vapor and Water Samples	5-2
5.2.1.	As-Needed Vapor Sampling.....	5-2
5.2.2.	VTs Sampling	5-2
5.2.3.	WTS Sampling	5-3
5.3.	Fourth Quarter 2025 Groundwater Results	5-3
5.3.1.	Groundwater Elevations Results	5-3
5.3.2.	Groundwater Sampling Results.....	5-3
6.	CONCLUSIONS AND RECOMMENDATIONS	6-1
6.1.	Fourth Quarter 2025 Conclusions	6-1
6.1.1.	Vapor Monitoring and Sampling.....	6-2
6.1.2.	System Vapor and Water Treatment	6-2
6.1.3.	Fourth Quarter 2025 Groundwater Monitoring and Sampling.....	6-2
6.2.	Annual 2025 Conclusions	6-4
6.2.1.	2025 System Performance Summary	6-4
6.2.2.	2025 Groundwater Concentration Trends	6-4
6.2.3.	Recommendations	6-5
6.2.4.	Upcoming Work.....	6-5
6.2.5.	Identified Problems and Proposed Solutions.....	6-6
7.	REFERENCES	7-1

List of Figures

Figure 1.	Site Location and Vicinity
Figure 2.	Site Layout with System and Wells
Figure 3.	System Process Flow Diagram
Figure 4.	GRO and Benzene Concentrations in System Vapor Influent and Effluent
Figure 5.	GRO and Benzene Concentrations in System Water Influent and Effluent
Figure 6.	Groundwater Elevation Contours, March 2025
Figure 7.	Groundwater Elevation Contours, May 2025
Figure 8.	Groundwater Elevation Contours, August 2025
Figure 9.	Groundwater Elevation Contours, November 2025
Figure 10.	Groundwater GRO Concentration Contours, March 2025
Figure 11.	Groundwater GRO Concentration Contours, May 2025
Figure 12.	Groundwater GRO Concentration Contours, August 2025
Figure 13.	Groundwater GRO Concentration Contours, November 2025
Figure 14.	Groundwater Benzene Concentration Contours, March 2025
Figure 15.	Groundwater Benzene Concentration Contours, May 2025
Figure 16.	Groundwater Benzene Concentration Contours, August 2025
Figure 17.	Groundwater Benzene Concentration Contours, November 2025
Figure 18.	Groundwater GRO Concentration Trends (1 of 2), October 2024 to November 2025
Figure 19.	Groundwater GRO Concentration Trends (2 of 2), October 2024 to November 2025
Figure 20.	Groundwater Benzene Concentration Trends (1 of 2), October 2024 to November 2025
Figure 21.	Groundwater Benzene Concentration Trends (2 of 2), October 2024 to November 2025
Figure 22.	Extraction Well Vacuum Rates, January 2025 to December 2025

List of Tables

Table 1.	Well Construction Information
Table 2.	MPE System Performance and Recorded Field Measurements
Table 3.	Vapor Analytical Results – Fourth Quarter 2025
Table 4.	MPE System Vapor Performance, Estimated Emissions and Limits
Table 5.	MPE System Liquid Performance and Volume Discharged and Injected – Fourth Quarter 2025
Table 6.	Water Treatment System Analytical Results – Fourth Quarter 2025
Table 7.	Depth to Groundwater and Elevation – Fourth Quarter 2025
Table 8.	Groundwater Analytical Results – Fourth Quarter 2025

List of Appendices

- Appendix A. Field Data During Reporting Period
- Appendix B. Laboratory Reports During Reporting Period
- Appendix C. Data Validation Reports During Reporting Period
- Appendix D. Spent Carbon Certificate of Reactivation

Acronyms and Abbreviations

amsl	above mean sea level
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and total xylenes
CAP	Cleanup Action Plan
cfm	cubic feet per minute
COCs	chemicals of concern
CULs	cleanup levels
CVOCs	chlorinated volatile organic compounds
DRO	diesel-range organics
EA	EA Engineering, Science, and Technology, Inc.
Ecology	Washington State Department of Ecology
EFR	enhanced fluid recovery
EIWs	extraction/injection wells
ERRG	Engineering/Remediation Resources Group, Inc.
FOG	fats, oils, and grease
FS	Feasibility Study
GAC	granular activated carbon
Glacier	Glacier Environmental Services
GRO	gasoline-range organics
IDW	investigation-derived waste
inHg	inches of mercury
inH ₂ O	inches of water
Kennedy Jenks	Kennedy Jenks Consultants, Inc.
KCIW	King County Industrial Waste
lbs/hr	pounds per hour
LNAPL	light nonaqueous-phase liquid
mg/kg	milligrams per kilogram
MPE	multiphase extraction
MTCA	Model Toxics Control Act
O&M	Operation and Maintenance

Acronyms and Abbreviations *(continued)*

PID	photoionization detector
ppb	parts per billion
ppm	parts per million
PSCAA	Puget Sound Clean Air Agency
PVC	polyvinyl chloride
QAPP	Quality Assurance Project Plan
RI	remedial investigation
SAP	Sampling and Analysis Plan
SOG	Standard Operating Guideline
SSD	sub-slab depressurization
SVE	soil vapor extraction
TPH	total petroleum hydrocarbons
USTs	underground storage tanks
VOC	volatile organic compound
VTs	vapor treatment system
WAC	Washington Administrative Code
WTS	water treatment system
yd ³	cubic yards
µg/L	micrograms per liter
µg/m ³	micrograms per cubic meter

1. Introduction

Engineering/Remediation Resources Group, Inc. (ERRG) has prepared this Quarterly and Annual Remedial Progress Evaluation Report to document the operations, monitoring, and maintenance activities performed for the remedial system at the Former Circle K 1641 Site during Fourth Quarter 2025 under Phase 1 and summarizing annual groundwater concentration trends and system performance. The requirements for system sampling and operations are detailed in the Operations and Maintenance (O&M) Manual (Kennedy Jenks Consultants, Inc. [Kennedy Jenks], 2024b).

1.1. SITE INFORMATION

The site is located at 2350 24th Avenue East in Seattle, Washington (Figure 1). The site is a former gasoline service station located in an area of primarily commercial and residential mixed-use development. The former service station operated from 1968 to 1990. Four gasoline underground storage tanks (USTs), one pump island, one waste oil UST, and one heating oil UST were located at the site. The site is managed by the Washington State Department of Ecology (Ecology), Facility Site ID No. 92-2-08095-8.

1.2. SITE HISTORY

The site was operated as a retail gasoline station from 1968 to mid-1990. In 1989, a leak was discovered in one of the four gasoline USTs. It was estimated that approximately 4,000 to 6,000 gallons of gasoline was released to the subsurface. Following the discovery of the release, all six USTs and the pump island were removed along with about 900 cubic yards (yd³) of petroleum hydrocarbon-impacted soil. Follow-up investigative and remedial activities were performed between 1989 and 2006, including groundwater monitoring, light nonaqueous-phase liquid (LNAPL) recovery, groundwater extraction and treatment, soil vapor extraction (SVE), and enhanced fluid recovery (EFR). The site was redeveloped in 1990 and 1991 and currently includes a single one-story building operated as a retail dry cleaning store (Jay's Cleaners) and a convenience store (Mont's Market) (Kennedy Jenks, 2017a).

In February 1992, the site owner entered into Consent Decree No. 92-2-08095-8 with Ecology to perform additional investigation and remediation of petroleum contamination at the site. Ecology's lien on the property for the sum of \$50,000 was released in January 2008, after Ecology received the full payment for past costs from mixed funding sources (Kennedy Jenks, 2017a).

In 1994, Ecology conducted a Site Hazard Assessment for the site. The site ranked a 3 out of 5, with 1 being the highest risk and 5 being the lowest risk (Ecology, 1994).

A health investigation of the site was reportedly performed by the Washington State Department of Health in 1995, although the investigation report was not available for review in Ecology's files. The health department

noted that, while the site posed a potential for adverse impact to public health, it was not of immediate concern because of the lack of any completed human exposure pathway ([Kennedy Jenks, 2017a](#)).

1.3. SITE USE

Two businesses currently operate at the site, including a dry cleaner (Jay's Cleaners) and a general store (Mont's Market). Jay's Cleaners is operated by the property owner, and Mont's Market is operated independently under a lease agreement. The site is located in an approximately two-block-long area of commercial and residential mixed-use development within the Montlake neighborhood of the city of Seattle (a primarily residential neighborhood) ([Kennedy Jenks, 2017a](#)).

Jay's Cleaners has a Resource Conservation and Recovery Act Site ID (WAD988515458) as a hazardous waste generator, but is listed as inactive as a hazardous waste generator since 31 December 1994. The site is also listed in Ecology's Hazardous Waste program (Program ID No. CRK000003160). The start date for this interaction is listed as 1 January 1988 and the end date is listed in Ecology's database as 1 March 1989 ([Kennedy Jenks, 2017a](#)).

2. Site Background

The following sections summarize the geology and hydrogeology at the Site.

2.1. GEOLOGY

Based on a review of boring logs generated during remedial investigation (RI) activities performed in 2016 and 2017 and previous investigations, three generalized stratigraphic units are identified at the Site, as summarized below ([Kennedy Jenks, 2021](#)).

- **Silt** – Typically encountered from the ground surface (i.e., beneath pavement and subgrade fill) to depths of approximately 2 to 8 feet below ground surface (bgs), but extends to greater depths (up to approximately 13 feet bgs) in the northern portion of the site. The unit is generally described as soft to stiff, brown to gray, silt to sandy silt, locally with gravel and/or organics.
- **Sand/Silt** – Typically encountered below the silt layer to depths of approximately 17 to 22 feet bgs. The unit is generally described as gray to brown, fine sand, silty fine sand, or sandy silt locally containing cobbles. The unit is also described as loose, medium dense, dense, and very dense with vertical and lateral variation. This unit may locally include the uppermost, possibly weathered, portion of the underlying glacial till unit.
- **Till** – Typically encountered below the sand/silt starting at approximately 17 to 22 feet bgs. The unit is generally described as gray silt, silty sand, or sandy silt with sand and gravel. The till unit is also described as dense to very dense, hard to very hard, or stiff to very stiff, as indicated during drilling by increased drilling pressure and significant increases in blow counts required to drive split-spoon soil samplers.

Fill has also been encountered at the site, including pea gravel that was placed within the former excavation area to depths of approximately 17 feet bgs ([Kennedy Jenks, 2021](#)).

2.2. HYDROGEOLOGY

The depth to groundwater at the site ranges from 3 to 12 feet bgs, based on water levels measured from April to December 2016. This zone of shallow groundwater occurs under unconfined conditions, is perched on top of the till unit, and is interpreted to represent the local water table aquifer. Although a seasonal fluctuation of 1 foot or less in the aquifer was generally observed near the former UST area during the April and December 2016 monitoring events, a fluctuation of nearly 6 feet was recorded at the northernmost monitoring well MW-11 ([Kennedy Jenks, 2021](#)). It should be noted that wells MW-17 through MW-21 were completed in August and September 2016; therefore, they were only included in the December 2016 monitoring event.

Groundwater level data collected from wells located at the site in April and December 2016 (within the property parking lot) show a flow direction to the southeast, with a localized area of depression in the

vicinity of well MW-6. The potentiometric low around well MW-6 (located in East McGraw Street) is likely attributable to utility corridors located in the center of the street right-of-way ([Kennedy Jenks, 2017a](#)).

Previous reports have indicated that the general direction of groundwater flow was toward the northeast, and that while the onsite LNAPL recovery and remediation system was operating (December 1989 through May 2000), a stable cone of depression developed near the recovery well ([Kennedy Jenks, 2017a](#)).

2.3. PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIVITIES

This section summarizes the previous site investigations and remedial activities. Unless indicated otherwise, the information provided in this section is from the 2017 RI/Feasibility Study (FS) Report ([Kennedy Jenks, 2017a](#)).

2.3.1. 1989–1990 UST Removal and Remediation (GeoEngineers)

On 7 August 1989, a leak was detected in one of the gasoline USTs at the site. Upon discovery of the release, the remaining product was removed from the leaking UST, and a release notification was made to Ecology ([GeoEngineers, 1990a](#)). The capacity of the leaking UST was reportedly 4,000 gallons and it is unknown whether the tank stored leaded or unleaded gasoline. (Note: Leaded gasoline was not completely phased out in Washington until 1996.) Based on a review of tank inventory records, the release occurred between 22 June and 7 August 1989.

In late 1989, 16 groundwater monitoring wells (MW-1 through MW-16) were constructed at the site. During drilling, a petroleum-like odor was reportedly observed at several well locations (MW-2, MW-3, MW-4, MW-6, MW-10, MW-13, and MW-15) ([GeoEngineers, 1990a](#)). Soil samples were collected from each of the monitoring well borings for analysis of petroleum hydrocarbons (gasoline-range organics [GRO] and diesel-range organics [DRO]); benzene, toluene, ethylbenzene, and xylenes (BTEX); and other gasoline-related compounds. The highest detected concentration of GRO was in a soil sample collected from well MW-4 at 8.5 feet bgs (1,200 milligrams per kilogram [mg/kg]).

All six USTs and the pump island were removed from the site in October 1989. In addition to the UST removals, approximately 900 yd³ of petroleum hydrocarbon-impacted soil was excavated and removed. The four gasoline USTs were removed from one excavation, and the waste oil and heating oil USTs were each removed from separate excavations ([GeoEngineers, 1990a](#)). Monitoring wells MW-2 and MW-3 were abandoned during excavation activities because they were located within the footprint of the main UST excavation. Following excavation activities, the excavation was backfilled with pea gravel with a crushed gravel top course.

Following removal of the gasoline USTs, approximately 80 to 100 gallons of LNAPL was removed from the excavation. Petroleum hydrocarbon-impacted soil was removed from the UST excavation to a depth of approximately 14 to 16 feet bgs. Eight confirmation soil samples were collected from the sidewalls and

base of the excavation. The confirmation soil sample results indicated GRO and/or DRO and BTEX were present at concentrations exceeding the Model Toxics Control Act (MTCA) Method A cleanup levels (CULs), except in the sample collected from the eastern sidewall. The GRO concentrations ranged from not detected (samples EW-1 and ET-3, eastern sidewall) to 1,700 mg/kg (sample NW-1 along the northern sidewall). The highest benzene concentration (31 mg/kg) was also detected in sample NW-1, while other detected concentrations ranged from 0.11 to 1.3 mg/kg.

The waste oil and heating oil USTs reportedly contained residual product, which was removed prior to excavation ([GeoEngineers, 1990a](#)). No perforations were observed in either tank; however, field screening of soil samples surrounding each tank indicated that some petroleum hydrocarbon-impacted soil was present. Approximately 10 yd³ of impacted soil was removed from the area surrounding the heating oil UST, and approximately 80 yd³ of impacted soil was removed from the waste oil UST excavation, primarily from the base and the eastern sidewall ([GeoEngineers, 1990a](#)). Following excavation of petroleum hydrocarbon-impacted soil, confirmation soil samples were collected from each excavation sidewall and bottom and analyzed for total petroleum hydrocarbons (TPH). TPH concentrations in all samples were less than the MTCA Method A CULs for diesel and oil in soil.

The former pump island was reportedly removed from the site in March 1990 ([Ecology, 2009](#)); however, no information on confirmation sampling, if any, was available.

In late 1989, an LNAPL recovery system, groundwater treatment system, and SVE system were also installed at the site within the former gasoline tanks excavation area. The remediation systems consisted of a 30-inch-diameter steel recovery well along the northern edge of the excavation and a dual-pumping system consisting of an LNAPL (free product) recovery pump and a water table depression pump ([Ecology, 2009](#)). Three groundwater and LNAPL recovery trenches were also constructed within the excavation along the northern sidewall.

Approximately 538 gallons of LNAPL was recovered from December 1989 through September 1990 ([GeoEngineers, 1990b](#)). In addition, measurable LNAPL was bailed from the monitoring wells on a monthly basis. The groundwater treatment system was operated until May 2000, at which time Ecology decided to discontinue operation of the system and evaluate other cleanup alternatives (Glacier Environmental Services [[Glacier](#)], 2001).

The SVE system was installed in the excavation and consisted of horizontal slotted polyvinyl chloride (PVC) vapor extraction piping connected to a blower. Soil vapors were routed through a condensate trap, particulate filter, and a series of granular activated carbon (GAC) filters for treatment. Although the SVE system was installed at the same time as the LNAPL recovery and groundwater treatment systems were installed, it was operated from the early 1990s until 1997, at which time it was shut down because no

significant hydrocarbons were detected in the extracted soil vapor for 2 consecutive months (Ecology, 2009).

2.3.2. 1992–1999 Groundwater Monitoring and Operation and Maintenance (Glacier)

From 1992 through 1999, Glacier performed two groundwater monitoring events and O&M of the groundwater treatment system at the site. Groundwater monitoring activities consisted of collecting groundwater samples and measuring LNAPL in the Third Quarter 1992 and Third Quarter 1999.

2.3.3. 2005 Enhanced Fluid Recovery (EcoVac Services, Inc.)

In June 2005, EcoVac Services, Inc. performed a pilot test to evaluate use of an EFR mobile dual-phase extraction technology to remediate petroleum hydrocarbons at the site. The EFR technology uses a combination of a specially designed truck-mounted vacuum and liquid handling system integrated with a mobile hydrocarbon vapor treatment system (VTS). High vacuum is applied to one or more monitoring or recovery wells with down-hole apparatuses to control the fluid elevation in each well. EFR simultaneously removes multiple phases of hydrocarbons (liquid, dissolved, adsorbed, and vapor phase) by extracting free product, soil vapors, and groundwater from the selected monitoring and/or recovery wells. The purpose of the 8-hour EFR pilot test was to evaluate the technology as a method for removing LNAPL, impacted groundwater, and hydrocarbon vapors from monitoring wells MW-4, MW-8, MW-9, and MW-13 located near the former UST excavation area. The results of the EFR pilot test are summarized below.

- Approximately 18 gallons of gasoline was removed during the test.
- Vapor-phase hydrocarbon removal rates ranged from 1.9 pounds per hour (lbs/hr) when extracting from monitoring well MW-13 located farthest from the former UST excavation area to 38 lbs/hr when simultaneously extracting from multiple monitoring wells (i.e., MW-4, MW-8, and MW-9) located nearer to the former UST excavation area.
- The groundwater drawdown measured in the observation monitoring wells ranged from 0.08 foot to 2.75 feet when extracting from monitoring well MW-9 and generally correlated with the distance from the point of applied vacuum. The groundwater drawdown measured in three observation wells when extracting from monitoring well MW-4 was approximately the same, regardless of distance.
- Pre-test LNAPL measurements ranged from a sheen in monitoring well MW-8 to 0.42 foot in monitoring well MW-4. LNAPL was not present in measurable thicknesses in measurements taken approximately 3 weeks after the pilot test. Measurements of LNAPL collected during the three subsequent quarters indicated that LNAPL was measurable on the groundwater but did not return to the pre-test thickness in monitoring well MW-4.

2.3.4. 2005–2006 Groundwater Monitoring (EA Engineering, Science, and Technology, Inc.)

In 2005 and 2006, EA Engineering, Science, and Technology, Inc. (EA) performed groundwater monitoring activities at the site (EA, 2006). The monitoring activities during this period consisted of collecting groundwater samples from select monitoring wells and measuring for LNAPL approximately 1 week prior to the EFR pilot test described in Section 2.3.3 and approximately 1 week after the pilot test. EA performed three additional rounds of groundwater monitoring in 2006. The groundwater monitoring results during this period indicated that GRO and benzene remained in groundwater at concentrations exceeding the MTCA Method A CULs to the north of the former gasoline UST area (EA, 2006). In addition, the LNAPL thickness in monitoring wells located in the former gasoline UST area slowly rebounded following the EFR pilot test but did not return to pre-test thicknesses in the monitoring well (MW-4) located adjacent to the former USTs, where the greatest thickness had been observed prior to the test. Follow-up monitoring performed in February 2008 indicated that LNAPL remained as film (i.e., no measurable thickness) in monitoring wells MW-4 and MW-13 and a hydrocarbon sheen was present in monitoring wells (MW-8, MW-9, and MW-15) to the north, and that the extent of LNAPL-impacted groundwater was relatively stable.

2.3.5. 2016–2017 Remedial Investigation/Feasibility Study (Kennedy Jenks)

The RI was performed to address identified data gaps and evaluate the nature and extent of contamination at the site. The RI included constructing 3 new groundwater monitoring wells (MW-17, MW-18, and MW-19) and 9 new multipurpose wells (MW-20, MW-21, and RW-1 through RW-7); advancing 16 reconnaissance soil borings; collecting soil samples for laboratory analyses; and performing additional rounds of groundwater monitoring.

GRO and benzene were identified as the primary chemicals of concern (COCs) at the site. Concentrations of GRO and benzene in soil and groundwater appeared to be highest in the western-central portion of the site and appeared to extend off-property to the north and east. The vertical extent of GRO and benzene concentrations in soil exceeding the MTCA Method A CULs appeared to be generally limited to depths from about 8 to 20 feet bgs. No LNAPL was observed in the monitoring wells during the 2016–2017 RI activities. Potentially complete pathways for human exposure to contaminated soil, groundwater, and soil vapors were identified.

The FS evaluated remedial alternatives for the site, with the goal of identifying the most effective remedial strategy that is protective of human health and the environment and meets the requirements of Ecology's MTCA regulations (Washington Administrative Code [WAC] 173-340). The recommended remedial alternative for the site included a combination in-situ bioremediation to address impacted saturated soil and groundwater at the site and SVE to support remediation of the vadose zone and to mitigate the vapor intrusion pathway into on-property buildings.

2.4. SYSTEM DESIGN, INSTALLATION, AND TESTING

This section summarizes the design, installation, and testing of the remedial system at the site.

2.4.1. System Design

An Engineering Design Report was prepared in December 2021 detailing the specific criteria and design requirements for implementing the remedial alternative selected during the RI/FS and Cleanup Action Plan (CAP) process (Kennedy Jenks, 2021). The remedial alternative chosen in the RI/FS and CAP included an SVE system for remediation of residual soil impacts and implementation of a groundwater recirculation system with injection of bioaugmentation reagents. Kennedy Jenks prepared the design drawings and specifications, which were provided in the bid package for the construction bidding process in December 2022.

2.4.2. System Installation

Glacier was awarded the contract to construct and install the proposed remedial system in February 2023, but permit approvals delayed the start of work. After obtaining approved permits, Glacier completed the work elements described below between June 2024 and November 2024.

- Installed three new vertical and three new slant remediation wells.
- Installed four vapor pins and three horizontal sub-slab depressurization wells.
- Trenched and backfilled piping from each wellhead to the treatment shed.
- Procured and delivered the treatment system shed, GAC vessels, catalytic oxidizer, security fencing, and other treatment system components.
- Commissioned the system and performed functionality testing.

2.4.3. System Commissioning and Testing

Glacier and Kennedy Jenks performed commissioning and testing of system components in October and November 2024. System commissioning and testing included, but was not limited to:

- confirming functionality of system components (pumps, gauges, flowmeters, etc.);
- testing well performance to estimate extraction flow rates;
- testing alarms and notification;
- performing treatment batching and obtaining discharge rates; and
- obtaining baseline vapor measurements of vapor pins and sub-slab depressurization wells.

During testing, the system discharge outlet overflowed after only 300 gallons had been discharged between 4 November and 6 November 2024. After troubleshooting and scoping the drainpipe, a blockage was identified between the outlet and the sanitary sewer main. An alternate discharge outlet was selected, and

temporary piping was installed in December 2024 to allow for system operation. Extraction and injection lines were removed from the wells to minimize groundwater extraction and focus on SVE. After successful operation using the temporary piping for batch discharges, the extraction and injection lines were reinstalled at the wells to increase groundwater extraction on 05 February 2025. The installation of the permanent discharge pipeline was completed on 04 March 2025.

[Section 3.1](#) further discusses the system components. Glacier submitted system commissioning and testing documentation, troubleshooting discussion, and as-built drawings under their Construction Completion Report to Ecology ([Glacier, 2025](#)).

3. System Operation, Monitoring, Sampling, and Maintenance

The remedial system consists of a multiphase extraction (MPE) component and a surfactant/nutrient/oxygen injection component to reduce concentrations of GRO and BTEX in the site soil and groundwater in accordance with the CAP (Kennedy Jenks, 2017b). Groundwater, soil, and vapor samples are collected to monitor treatment progress in accordance with the Sampling and Analysis Plan/Quality Assurance Project Plan ([SAP/QAPP]; Kennedy Jenks, 2024a). Monthly, quarterly, semiannual, and annual inspections, monitoring, maintenance, and sampling are performed on the MPE system to ensure it remains operational and the site is progressing toward achieving the remedial action objectives. Section 3.1 provides details on the system components. The system will be monitored to confirm compliance with the permitted discharge limit of 4,500 gallons per day and airflow rate restriction of 200 cubic feet per minute (cfm). Sections 3.2, 3.3, and 3.4 describe the specific maintenance, monitoring, and system sampling activities performed during this event, respectively. Sections 3.5 and 3.6 describe field quality control activities and management of investigation-derived waste (IDW). Section 3.7 discusses deviations from the O&M Manual and SAP/QAPP. Section 4 describes the Fourth Quarter 2025 groundwater monitoring activities, and Section 5 summarizes the Fourth Quarter 2025 monitoring results.

3.1. SYSTEM DETAILS

The MPE system was designed to incorporate three new vertical wells and three new slant wells along with seven existing wells into a single extraction/injection system for a total of 13 remediation wells (Figure 2 and Table 1). Each well within the network of remediation wells is individually connected to both the extraction and injection manifolds in the treatment system enclosure (i.e., the Treatment Shed) located on site. Figure 2 shows the location of the Treatment Shed, and Figure 3 provides the system process flow diagram. The vapor and water extracted from the wells is piped to the treatment system. The treatment train splits at a knock-out tank to a water treatment train and a vapor treatment train.

3.1.1. General Conveyance and Monitoring Infrastructure

The extraction/injection wells (EIWs) consist of 13 remediation wells, including 1 existing monitoring well (MW-4), as follows (Figure 2):

- Seven existing remediation wells (RW-2, RW-3, RW-4, RW-5, RW-6, RW-7, and MW-4)
- Three new remediation wells (RW-8, RW-9, and RW-10)
- Three new slant remediation wells (SW-1, SW-2, and SW-3)

The wells are organized into four groups of either three or four remediation wells.

Three 4-foot-long sub-slab depressurization (SSD) horizontal wells constructed of 3-inch-diameter PVC slotted pipes are installed below grade in gravel. Four vapor pin monitoring points are also installed through

the floor slab inside of the onsite building. [Figure 2](#) shows the locations of the SSD wells and the vapor monitoring pins.

Extracted soil vapor from the three SSD wells are manually controlled at Manifold A. Extracted vapor/water from each well group is controlled at Manifold B located within the Treatment Shed at the southwest corner of the onsite building. Treated water for recirculation back into the individual EIWs is controlled at Manifold C, also located within the Treatment Shed.

3.1.2. Vapor Treatment System

The VTS begins with a liquid ring vacuum pump (B-301) installed downstream of the 40-gallon steel moisture separator/knockout tank (T-300) and connecting piping to pull vapor and groundwater from active EIWs ([Figure 3](#)). B-301 pulls vapor from T-300 into the system. A heat exchanger reduces the exit temperature on the discharge side of the liquid ring pump. A temporary catalytic oxidizer (FALCO-300) was installed downstream from B-301 for use during the first several months of operation (December 2024 to April 2025) to treat vapor concentrations to satisfy Puget Sound Clean Air Agency (PSCAA) requirements. Two 2,000-pound vapor GAC vessels are connected downstream from B-301, parallel to the catalytic oxidizer, and have been in use since April 2025 following the removal of the catalytic oxidizer.

3.1.3. Water Treatment System

The water treatment system (WTS) begins at T-300 located upstream of B-301 ([Figure 3](#)). A transfer pump (P-300) is located adjacent to T-300 to transfer water from T-300 to a 400-gallon storage tank (T-301). A second transfer pump (P-400) is located adjacent to T-301 to transfer untreated water through the filtration and treatment process. The filtration and treatment process consists of an inline bag filter and four 200-pound liquid GAC vessels which are plumbed for operation in a lead-lag arrangement downstream of the bag filter (two sets of lead-lag trains). A 300-gallon storage tank (T-400) is connected downstream of the liquid GAC vessels to collect treated groundwater. Treated groundwater is discharged by gravity into the sanitary sewer from the storage tank until COC concentrations are amenable to bioremediation. Once COC concentrations are amendable, treated groundwater will then be pumped to a 300-gallon mixing tank (T-500) where amendments will be added. An inline oxygen generator is connected to the injection piping downstream of the transfer pump, which is connected to the mixing tank.

3.1.4. Continuous Operation Phases

After completion of the startup testing discussed in [Section 2.4.3](#), the remedial system began continuous operation. The remedial system is expected to operate in three phases throughout the life of the system. [Sections 3.1.4.1, 3.1.4.2, and 3.1.4.3](#) describe each operational phase.

3.1.4.1. Phase 1 – Multiphase Extraction

The EIWs will be operated to extract groundwater and vapor for treatment. Extraction occurs at active wells and all sub-slab depressurization locations based on system capabilities. Vapors were treated with the temporary catalytic oxidizer until transitioning to Vapor GAC in April 2025. Vapor GAC will be used until groundwater concentrations stabilize and approach asymptotic levels, approximately 14 to 16 months, after which Phase 2 will begin. Treated groundwater will be discharged to the sanitary sewer under an approved King County Industrial Waste (KCIW) permit.

3.1.4.2. Phase 2 – Surfactant Reinjection

When groundwater concentrations stabilize and approach asymptotic levels, the system will begin reinjection with surfactant addition. Surfactants in the reinjected water will act to liberate hydrocarbons adsorbed in the soil. Reinjection will occur until the liquid-phase concentrations have dropped to a level indicative of asymptotic performance of the surfactant reinjection. The duration of Phase 2 is estimated to be 6 months.

3.1.4.3. Phase 3 – Enhanced Bioremediation

Once Phase 2 is complete, the surfactant reinjection will be replaced by adding oxygen/nutrients to the reinjected water. Operation will be rotated between the four sets of wells monthly to quarterly based on the monitoring results. Enhanced bioremediation will be performed until the site COCs have been reduced significantly in the wells or site CULs have been reached. The duration of Phase 3 is estimated to be 24 to 48 months.

3.2. SYSTEM OPERATION AND MAINTENANCE

System O&M activities were performed in accordance with the O&M Manual ([Kennedy Jenks, 2024b](#)). [Sections 3.2.1 and 3.2.2](#) describe the monthly O&M activities. In Fourth Quarter 2025, the remedial system continued to operate under Phase 1 conditions.

3.2.1. Monthly O&M

Monthly general inspections were performed of the following items:

- Equipment piping
- Manifold piping
- Gas and electrical lines
- Programmable logic controller
- Treatment shed
- Vapor pins (located on the VTS)

- Liquid ring pump (located on the VTS)
- Heat exchanger (located on the VTS)
- Transfer pumps (located on the WTS)
- Bag filter (located on the WTS)
- Liquid GAC vessels (located on the WTS)
- Oxygen generator and air compressor (located on the WTS)

The system was observed to be operational and in good working condition; no deficiencies of the above system components were noted during the inspections, with the exception of alarm conditions discussed in [Section 6.1](#). Site inspections are documented in the System Monitoring Forms ([Appendix A](#)).

3.3. SYSTEM MONITORING

The following system parameters were monitored during this event:

- Ambient air temperature
- Ambient barometric pressure
- Vacuum and flow of EIW and SSD wells
- Vacuum and flow of the VTS
- Vacuum of vapor pins
- Temperature of the catalytic oxidizer
- Volatile organic compound (VOC) concentrations at the EIWs, SSD wells, vapor pins, and VTS
- pH and turbidity of the WTS
- Volume discharged to sewer by WTS

[Sections 3.3.1, 3.3.2, and 3.3.3](#) provide additional details on system monitoring activities. All monitoring data are logged on the System Monitoring Forms ([Appendix A](#)).

3.3.1. Well VOCs, Vacuum, and Flow

VOC concentrations, vacuum, and flow are measured monthly at the well manifold. A photoionization device (PID) is used to measure VOC concentration at each active EIW and SSD, as well as the monitoring four vapor pins located inside the adjacent buildings. Vacuum is measured based on the pressure gauge readings along the well manifold for each active EIW and SSD well. Flow at each active EIW and SSD is measured using an anemometer. SSD and vapor pins are monitored for additional gas measurements, such as carbon dioxide, hydrogen sulfide, methane, and oxygen. VOC measurements from inactive EIWs are collected quarterly.

3.3.2. System VOCs, Vacuum, and Flow

VOC concentrations, vacuum, and flow are measured monthly at VTS. VOC concentrations in influent and effluent are measured with a PID. VTS vacuum and flow are recorded based on the readings on the system status panel.

3.3.3. System Liquid Discharge

The total volume discharged from the WTS to the sewer is currently measured calculating the change between totalizer measurements collected from the permanent flowmeter on the discharge pipeline. A digital totalizer is also visible on the system status panel. [Table 5](#) presents the system's monthly and cumulative discharge totals.

3.4. SYSTEM SAMPLING

This section describes the as-needed vapor sampling, as well as system compliance vapor and water samples, which were collected monthly during Phase 1 and submitted for laboratory analysis in accordance with the SAP/QAPP ([Kennedy Jenks, 2024a](#)). [Table 2](#) summarizes system performance and recorded field measurements.

3.4.1. Vapor Pin Sampling

Vapor samples were collected during on 14 November 2025 at vapor pins VP-3 and VP-4 using Summa canisters. Sampling was performed in response to PID measurements exceeding 425 parts per billion (ppb) at VP-3 and VP-4 on 21 October 2025. Samples were submitted to an offsite laboratory for analysis of VOCs (including GRO and BTEX) by Method TO-15. Results are presented in [Table 3](#) and discussed in [Section 5.2.1](#).

3.4.2. VTS Sampling

Quarterly VTS samples were collected from two locations (influent and effluent of the vapor GAC) using 1-liter Summa canisters on 14 November 2025. Samples were submitted to an offsite laboratory for analysis of VOCs (including GRO and BTEX) by Method TO-15. Results are presented in [Table 4](#), shown on [Figure 4](#), and discussed in [Section 5.2.2](#).

3.4.3. WTS Sampling

Quarterly WTS samples were collected on 14 November 2025 from the following three locations throughout the system: influent to the lead liquid GAC vessel (LG-401), midpoint between the lead and lag liquid GAC vessel (LG-402/LG-403), and effluent of the lag liquid GAC vessel (LG-404). Samples were submitted to an offsite laboratory for analysis of GRO, BTEX, and nonpolar fats, oil, and grease (FOG).

Samples were also analyzed for selected chlorinated VOCs, as required per the KCIW permit. Field instruments were used to measure pH and turbidity. Results are presented in [Table 6](#), shown on [Figure 5](#), and discussed in [Section 5.2.3](#).

3.5. FIELD QUALITY CONTROL

During the November 2025 WTS sampling event, two duplicates were collected at LG-404 (DUP-1 and DUP-2). DUP-1 sample was analyzed for GRO, BTEX, chlorinated VOCs, and FOG for each event, while DUP-2 sample was analyzed for FOG only. A trip blank was also submitted and analyzed for GRO and BTEX.

3.6. INVESTIGATION-DERIVED WASTE

System operations generated the following IDW during the reporting period:

- Used WTS filter bags, which were placed inside a 55-gallon drum within the WTS containment area
- Treated and untreated system water during sample collection, which was placed into T-301 for processing
- Spent carbon was removed from the vapor GAC vessels and reactivated off the site by ERRG's vendor (Pacific Coast Carbon)

3.7. DEVIATIONS

No deviations from the SAP/QAPP with system monitoring or sampling were observed during the reporting period.

4. Groundwater Monitoring Activities

Groundwater monitoring is performed during remedial system operation for compliance and performance monitoring, as well as during confirmation monitoring after remedy implementation (Kennedy Jenks, 2024a). Each groundwater monitoring and sampling event includes measuring groundwater levels (and LNAPL levels, if applicable) (collectively known as “liquid levels”) in site monitoring wells and EIWs (as accessible) and collecting groundwater samples from select monitoring wells for laboratory analysis. Although LNAPL has not been observed in the site monitoring wells since October 2006 (EA, 2006), its presence will be monitored during the groundwater monitoring events.

4.1. GROUNDWATER MEASUREMENTS AND INSPECTIONS

Liquid-level measurements were obtained from all wells prior to collecting groundwater samples in accordance with Standard Operating Guideline (SOG)-005 in the O&M Manual (Kennedy Jenks, 2024b). Fourth Quarter 2025 groundwater measurements were taken on 14 November 2025 at 24 monitoring, compliance, and remediation wells. Table 7 and Figures 6 through 9 show the groundwater elevation results for all 2025 events. Section 5.3.1 summarizes the results for the Fourth Quarter 2025 event. An electronic oil/water interface probe was used to measure the depth-to-product and depth-to-water levels. Measurements were referenced to the top of the well casing on the north side.

4.2. GROUNDWATER SAMPLING

Groundwater samples were collected on the 14 November 2025 using low-flow purging methodology in accordance with SOG-006 (Kennedy Jenks, 2024b). Table 8 and Figures 10 through 17 show the groundwater analytical results. Sections 5.3.2 and 5.3.3 summarize the results for the Fourth Quarter 2025 monitoring event. The concentration trends for GRO and benzene in groundwater are presented in Figures 18 through 21 and are summarized in Section 6.2.2.

Upon arrival, the condition of the well was noted, head space within the well casing is screened with a PID, and then an oil-water interface probe was used to measure the depth to water and total well depth to the nearest 0.01 foot from the top of the well casing to establish the appropriate purge volumes. Dedicated polyethylene tubing was used at each well prior to purging the well, and the tubing inlet was placed within the screened interval. Groundwater wells were purged using a portable peristaltic pump. Field parameters were monitored during the purging process using a multi-parameter water quality meter, equipped with a flow-through cell, to continuously monitor the following parameters: temperature, pH, specific conductivity, oxidation-reduction potential, and dissolved oxygen. Turbidity was measured using a separate turbidity meter. Meter readings were recorded at 5-minute intervals during the purging process, including a final reading taken at the completion of purging each well location.

The monitoring wells were purged at low-flow rates (100–200 milliliters per minute) and adjusted, as necessary, to minimize drawdown in the well until water quality parameters stabilized within ranges

established in SOG-006 ([Kennedy Jenks, 2024b](#)). Parameter readings, as well as olfactory and visual observations, obtained during the purging and sampling process were recorded on groundwater purge forms ([Appendix A](#)). Purged groundwater was containerized and managed as discussed in [Section 4.4](#).

4.3. EQUIPMENT DECONTAMINATION

All non-dedicated equipment used during sampling (oil-water interface probe, water quality meter, turbidity meter, and flow-through cell) were decontaminated in accordance with the SOG-008 ([Kennedy Jenks, 2024b](#)).

All disposable personal protective equipment (i.e., gloves) and sampling equipment (i.e., tubing, paper towels, etc.) were placed in trash bags on the site during sampling and were disposed of as municipal solid waste at the end of the day.

4.4. INVESTIGATION-DERIVED WASTE

IDW generated during groundwater monitoring was purge water and equipment decontamination water. IDW was stored in 5-gallon buckets during sampling activities and then transferred into T-301 for treatment.

4.5. FIELD QUALITY CONTROL

In November 2025, a blind field duplicate was collected from well MW-13 and submitted for analysis of GRO and BTEX, as well as select chlorinated VOCs (CVOCs). Two trip blanks were also submitted and analyzed for GRO and BTEX. [Appendix A](#) includes field documentation, and [Appendix B](#) includes the analytical laboratory reports.

4.6. DEVIATIONS

No deviations from the SAP/QAPP were observed during the reporting period, with the exception of the following:

- During the Fourth Quarter 2025 monitoring event, monitoring well MW-18 was observed to be dry on 14 November 2025. As a result, no groundwater level measurement could be recorded and no groundwater sample was collected.

5. Results

This section summarizes the system monitoring and sampling results.

5.1. SYSTEM MONITORING

[Table 2](#) presents the system monitoring measurements recorded during the reporting period. [Table 5](#) presents the total volume discharged per month during the reporting period.

System monitoring was performed monthly with additional measurements collected to assess VTS control efficiency. System influent flow rates ranged between 48.6 cfm and 134.8 cfm. System influent vacuum ranged from 13.3 inches of mercury (inHg) to 19.6 inHg. VOC concentrations in vapor influent ranged from 84.9 parts per million (ppm) to 351 ppm. VOC concentrations in vapor effluent ranged from 0.0 ppm to 8.4 ppm.

EIW monitoring was performed monthly at active EIWs and quarterly at non-active EIWs (VOC measurements only). EIW vacuum measurements ranged from 4.0 inHg at RW-10 to 12.5 inHg at well RW-6 and MW-4. EIW flow rates ranged from 12.43 cfm at well RW-10 to 32.11 cfm at well RW-6. Measured VOC concentrations at EIWs ranged from 4.8 ppm at SW-2 to 354.7 ppm at RW-8. Some VOC and flow measurements may have skewed due to excess water being extracted from EIW.

Vapor pins monitoring was performed on 21 October 2025. Vapor pin vacuum measurements ranged from 0.01 inches of water (inH₂O) at vapor pin VP-1 and VP-4 to 0.005 inH₂O at vapor pin VP-3. VOC concentrations at vapor pins ranged from 52 ppb at VP-2 to 16 ppm at VP-4. Methane, oxygen, carbon dioxide, and hydrogen sulfide measurements were also collected at all vapor pins. Oxygen measurements ranged from 19.9% at VP-4 to 20.9% at the remaining vapor pins, while carbon dioxide measurements ranged from 0.08% at VP-1 and 0.76% at VP-4. Methane and hydrogen sulfide were not observed in vapor pin measurements.

SSD monitoring was performed on 21 October 2025. SSD vacuum measurements ranged from 0.186 inH₂O at SSD-2 to 1.434 inH₂O at SSD-3. SSD flow rates ranged from 5.53 cfm at SSD-2 to 14.55 cfm at SSD-3. VOC concentrations at SSD locations ranged from 78 ppb at SSD-2 to 322 ppb at SSD-3. Methane, oxygen, carbon dioxide, and hydrogen sulfide measurements were also collected at all vapor pins. Oxygen was measured at 20.9% at all SSD locations, while carbon dioxide measurements ranged from 0.04% at SSD-2 and 0.26% at SSD-1. Methane and hydrogen sulfide were not observed in SSD measurements.

During Fourth Quarter 2025 reporting period, approximately 39,620 gallons of treated water was discharged to the sewer ([Table 5](#)).

5.2. SYSTEM VAPOR AND WATER SAMPLES

Table 3 presents the analytical results for the as-needed vapor sampling event. Table 4 and Figure 4 present the analytical results from sampling VTS influent and effluent. Table 6 and Figure 5 present the analytical results from sampling WTS influent and effluent.

Appendix B includes the analytical laboratory reports for system vapor and water samples. ERRG completed Stage 2A validation of the data in accordance with the SAP/QAPP (Kennedy Jenks, 2024a). Appendix C includes the data validation reports.

Sections 5.2.1, 5.2.2, and 5.2.3 summarize vapor pin, VTS, and WTS sample results, respectively.

5.2.1. As-Needed Vapor Sampling

Vapor pin samples (VP-3, VP-4) were analyzed for VOCs, including GRO and BTEX; however, only GRO was detected at concentrations exceeding the sub-slab soil gas screening levels, as summarized below.

- GRO concentrations exceeded the screening level of 1,500 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in VP-4 with a concentration of 6,160 $\mu\text{g}/\text{m}^3$.
- Benzene, toluene, ethylbenzene, and total xylenes concentrations detected in VP-3 and VP-4, did not exceed the screening levels of 460 $\mu\text{g}/\text{m}^3$, 76,000 $\mu\text{g}/\text{m}^3$, 15,000 $\mu\text{g}/\text{m}^3$, and 1,500 $\mu\text{g}/\text{m}^3$, respectively.

Additional VOCs that were detected in the vapor pin samples are provided in the laboratory analytical reports (Appendix B).

5.2.2. VTS Sampling

GRO and BTEX were detected in influent and effluent samples, as summarized below.

- GRO concentrations were 240,000 $\mu\text{g}/\text{m}^3$ (influent) and 826 U $\mu\text{g}/\text{m}^3$ (effluent) in November 2025.
- Benzene concentrations were 2,150 $\mu\text{g}/\text{m}^3$ (influent) and 3.32 $\mu\text{g}/\text{m}^3$ (effluent) in November 2025.
- Toluene concentrations were 3,470 $\mu\text{g}/\text{m}^3$ (influent) and 10.8 $\mu\text{g}/\text{m}^3$ (effluent) in November 2025.
- Ethylbenzene concentrations were 1,580 $\mu\text{g}/\text{m}^3$ (influent) and 2.89 $\mu\text{g}/\text{m}^3$ (effluent) in November 2025.
- Total xylenes concentrations were 19,000 $\mu\text{g}/\text{m}^3$ (influent) and 31 $\mu\text{g}/\text{m}^3$ (effluent) in November 2025.

Additional VOCs that were detected in the VTS samples are provided in the laboratory analytical reports ([Appendix B](#)). VOC concentrations in effluent vapor were less than the analyte's respective De Minimis and small quantity emission rate limit during the reporting period.

5.2.3. WTS Sampling

During the November 2025 sampling event, FOG was detected below the screening level concentration at 7.67 milligrams per liter in influent sample LG-401-INF (influent to lead liquid GAC vessel). All other analyte concentrations were below their respective laboratory detection limit for influent, midpoint, and effluent samples collected.

Field instrument measurements for pH and turbidity were within permitted ranges. Measurements for pH ranged from 7.44 to 7.81, and turbidity measurements ranged from 5.6 to 34 nephelometric turbidity units.

5.3. FOURTH QUARTER 2025 GROUNDWATER RESULTS

This section summarizes the groundwater elevation results and groundwater sample results for November 2025. [Section 6.2.2](#) discusses the annual groundwater concentration trends.

[Appendix B](#) includes the analytical laboratory reports for the groundwater samples, which underwent Stage 2A validation in accordance with the SAP/QAPP ([Kennedy Jenks, 2024a](#)). [Appendix C](#) includes the data validation reports prepared by ERRG.

5.3.1. Groundwater Elevations Results

In November 2025, depth-to-water measurements indicated continued seasonal and operational fluctuations in groundwater elevations across the monitoring well network. Groundwater elevations ranged from 51.45 feet above mean sea level (amsl) at well MW-6 to 62.39 feet amsl at MW-11. These variations are consistent with the effects of ongoing groundwater extraction and seasonal recharge patterns. No LNAPL was observed during the November 2025 monitoring event.

[Figure 9](#) shows the depth-to-water measurements and groundwater elevation contours for November 2025, and [Table 7](#) summarizes the calculations for the November 2025 monitoring event.

5.3.2. Groundwater Sampling Results

During the November 2025 sampling event, GRO and/or BTEX analytes were detected at concentrations exceeding their respective CULs in several monitoring wells. [Table 8](#) presents the groundwater analytical results for November 2025, which are summarized below.

- GRO was detected at concentrations ranging from 143 micrograms per liter (µg/L) to 35,300 µg/L in wells RW-1, MW-8, MW-9, MW-13, MW-17, MW-19, MW-20, and MW-21, respectively. GRO concentrations exceeding the CUL of 800 µg/L were reported in wells MW-8, MW-9, MW-13, MW-19, MW-20, and MW-21.
- Benzene was detected at concentrations ranging from 6.21 µg/L to 4,800 µg/L in wells MW-6, MW-13, MW-19, MW-20, and MW-21, respectively. Benzene concentrations exceeded the CUL of 5 µg/L in wells MW-6, MW-13, MW-19, MW-20, and MW-21.
- Toluene was detected at concentrations ranging from 2.21 J µg/L to 4,850 µg/L in wells MW-13, MW-19, MW-20, and MW-21, respectively. Toluene concentrations exceeded the CUL of 1,000 µg/L in wells MW-20 and MW-21.
- Ethylbenzene was detected at concentrations ranging from 5.95 J µg/L to 1,590 µg/L in wells MW-8, MW-9, MW-13, MW-19, MW-20, and MW-21, respectively. Ethylbenzene concentrations exceeded the CUL of 700 µg/L in wells MW-20 and MW-21.
- Total xylenes were detected at concentrations ranging from 22.8 µg/L to 8,110 µg/L in wells MW-8, MW-9, MW-13, MW-19, MW-20, and MW-21, respectively. Concentrations exceeding the CUL of 1,000 µg/L were reported in wells MW-8, MW-19, MW-20, and MW-21.

Due to high concentrations of analytes, dilutions were required for certain samples to obtain results within the instrument's calibration range, which increased laboratory limit of detection for all analytes. In samples with elevated concentrations of detected analytes, some analytes may be reported as not detected due to the increased limit of detection. These non-detects may still contain concentrations greater than the CUL for site COCs that are less than the elevated limit of detection. Dilution impacts to limit of detections are expected to be mitigated as site concentrations decrease.

6. Conclusions and Recommendations

This section summarizes the conclusions and recommendations for the site based on the system operation, monitoring, sampling, and maintenance activities completed during the Fourth Quarter 2025 reporting period. Additionally, this section summarizes annual groundwater system performance and groundwater concentration trends.

6.1. FOURTH QUARTER 2025 CONCLUSIONS

The remedial system operated under Phase 1 conditions from 01 October 2025 through 31 December 2025. The system extracted and discharged to the sewer approximately 39,620 gallons of treated groundwater. The EIWs that were active during Fourth Quarter 2025 include MW-4, RW-6, RW-7, RW-8, and SW-2. Extraction periods for each EIW are listed in [Table 2](#).

To ensure compliance with the control efficiency requirements, carbon change-outs were completed on 17 October 2025 and 11 December 2025. Approximately 2,000 pounds of 4x10 virgin coconut carbon was installed in each vapor GAC vessel during both carbon change-outs. Spent carbon was removed from the vapor GAC vessels and hauled offsite for reactivation. [Appendix D](#) includes the certificates of reactivation for the spent carbon.

During this quarter, two unplanned shutdowns were observed. The system experienced the first shutdown during the afternoon of 9 December 2025 due to a high level alarm in the moisture separator tank and storage tank. The system was inspected on 10 December 2025 and restarted. No mechanical issues were observed and the alarm was attributed to increase in extraction flow due to recent storms, as well as potential blockage from sewer discharge. The system's daily discharge flow approximately doubled from previous averages prior to December 2025. The system was further assessed during the carbon change-out on 11 December 2025 and the bag filter was replaced and inspected. Excessive build up and fouling was observed and attributed to changes in extraction wells. Extraction well adjustments were made on 1 December 2025 to open RW-7, MW-4 and close RW-6, SW-2).

The system experienced the second shutdown during the morning of 23 December 2025 due to a high level alarm in the moisture separator tank and storage tank. The system was inspected on 23 December 2025 and the bag filter was replaced to improve the flow through the system. Moderate buildup and fouling was observed with minimal operation time between the previous filter replacement. The pipe fittings to liquid GAC vessels were removed to inspect for obstructions. Inspection of liquid GAC vessels revealed buildup and fouling along the lid and filter cap. The fittings were cleaned to allow for improved flow. Additionally, vacuum on extractions wells was reduced to lower the flow rate into the moisture separator and storage tank to prevent alarm conditions. No additional shutdowns associated with any system alarm conditions were observed after 23 December.

6.1.1. Vapor Monitoring and Sampling

VOC PID readings exceeded 100 ppm at three EIWs (RW-6, RW-7, and RW-8) and exceeded 425 ppb at two vapor pins (VP-3 and VP-4), as shown in Table 2. Two vapor pins were sampled with Summa canisters for laboratory analysis by TO-15. Sample results from one vapor pin (VP-4) exhibited GRO concentrations exceeding the 1,500 $\mu\text{g}/\text{m}^3$ screening level¹ (Table 3). BTEX concentrations were detected in both samples; however, all BTEX concentrations were less than their respective screening levels¹ (Appendix B).

6.1.2. System Vapor and Water Treatment

The VTS operated as intended during the reporting period operating with the vapor GAC vessels. Carbon change-outs were completed on 17 October 2025 and 11 December 2025. GRO and benzene concentrations in effluent vapor were less than the PSCAA emission limits during the reporting period.

The WTS continued to operate as intended during the reporting period. All analyte concentrations for the WTS effluent samples were below their respective KCIW permit discharge limits. Additionally, WTS influent samples continue to exhibit concentrations well below the KCIW permit discharge limits.

Figures 4 and 5 show the GRO and benzene concentrations in vapor effluent and liquid effluent samples across each event.

6.1.3. Fourth Quarter 2025 Groundwater Monitoring and Sampling

Figure 9 shows the groundwater elevation contours for November 2025. Groundwater elevations from November 2025 show offsite groundwater flow in an east to southeast direction from wells MW-2 and MW-11 toward the localized area of depression in the vicinity of well MW-6 (Table 7). Groundwater from MW-17 flows north-northwest, while influence from groundwater extraction can be observed at wells MW-8, MW-9, MW-13, MW-20, and MW-21 as groundwater elevations exhibit signs of drawdown relative to wells MW-14, MW-15, MW-16, and MW-17.

Figures 13 and 17 present the GRO and benzene concentration contours detected at the site during the November 2025 event, respectively. The benzene and GRO plume extents are mainly bounded within the site property boundaries, with the northern portion extending into E McGraw Street. The plume area with the highest concentrations is delineated by MW-19, MW-20, and MW-21. These concentrations decrease rapidly in all directions, with elevated GRO concentrations above the CUL extending north to MW-8. GRO and/or BTEX concentrations exceeding the CULs² were observed in seven monitoring wells in November

¹ Screening levels are based on MTCA Method B, “Noncancer Sub-Slab Soil Gas Screening Level – Cleanup Levels and Risk Calculation Vapor Intrusion Method B Table, February 2025” (Kennedy Jenks, 2024a), which is also available online at: <https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/contamination-cleanup-tools/clarc/data-tables>.

² Cleanup levels are based on MTCA Method A Groundwater CULs in WAC 173-340-720, Table 720-1.

2025. Moderate decreases from Third Quarter 2025 in GRO/BTEX analyte concentrations were observed in monitoring wells MW-9, MW-13, MW-19, and MW-21, as described below and presented in [Table 8](#).

GRO concentrations exceeded the CUL of 800 µg/L in six wells (MW-8, MW-9, MW-13, MW-19, MW-20, and MW-21) during November 2025. GRO concentrations did not decrease to less than CULs in any wells. Concentrations decreased in six wells (MW-8, MW-9, MW-13, MW-17, MW-19, and MW-21) and increased in two wells (RW-1 and MW-20) between August 2025 and November 2025 monitoring events.

Benzene concentrations exceeded the CUL of 5 µg/L in five wells (MW-6, MW-13, MW-19, MW-20, and MW-21) during November 2025. Benzene did not decrease to less than CULs in any wells. Concentrations decreased in three wells (MW-13, MW-19, and MW-21) and increased in two wells (MW-6 and MW-20) between August 2025 and November 2025 monitoring events.

Toluene concentrations exceeded the CUL of 1,000 µg/L in two wells (MW-20 and MW-21) during November 2025. Toluene concentrations decreased to less than CULs in well MW-19 from 1,640 µg/L to 725 µg/L between August 2025 and November 2025 monitoring events. Concentrations decreased in four additional wells (MW-9, MW-13, MW-14, and MW-21) and increased in one well (MW-20) between August 2025 and November 2025 monitoring events.

Ethylbenzene concentrations exceeded the CUL of 700 µg/L in two wells (MW-20 and MW-21) during November 2025. Ethylbenzene concentrations decreased to less than CULs in well MW-19 from 929 µg/L to 529 µg/L between August 2025 and November 2025 monitoring events. Concentrations decreased in three additional wells (MW-8, MW-9, and MW-21) and increased in two wells (MW-13 and MW-20) between August 2025 and November 2025 monitoring events.

Total xylenes concentrations exceeded the CUL of 1,000 µg/L in four wells (MW-8, MW-19, MW-20, and MW-21) during November 2025. Concentrations decreased in five wells (MW-8, MW-9, MW-13, MW-19, and MW-21) and increased in one well (MW-20) between August 2025 and November 2025 monitoring events.

Comparisons of groundwater concentrations between previous contour maps show minimal change in the overall extents of the GRO and BTEX plumes. However, moderate decreases in concentrations at wells MW-8, MW-9, and MW-13 for GRO were observed. Furthermore, concentrations of GRO and BTEX at the wells exhibiting the highest GRO and benzene concentrations (MW-19, MW-20, and MW-21) continue to exhibit fluctuations between the initial October 2024 and November 2025.

6.2. ANNUAL 2025 CONCLUSIONS

This section summarizes the system performance and groundwater concentrations trends for the 2025 reporting period.

6.2.1. 2025 System Performance Summary

The remedial system operated under Phase 1 conditions for the duration of the 2025 reporting period, with multiphase extraction starting on 05 February 2025. Between 17 December 2024 and 5 February 2025, the system was operating in “soil vapor extraction” mode.

Figure 22 displays the vacuum rates for the active extraction wells throughout the operating year. When offline, the extraction wells are plotted as 0 inHg. The four extraction wells that were online for the most time in 2025 were MW-4, RW-6, RW-7, and RW-8. Daily discharge flow rates averaged between 100 to 1,100 gallons per day, depending on the well configuration and seasonal fluctuations.

In 2025, the remedial system extracted 167,484 gallons of groundwater from the site and discharged it to the sewer after being treated with liquid GAC. All system water effluent samples collected during 2025 were below KCIW permit limits. Vapor emissions were within compliance requirements throughout 2025, except for 30 May 2025 and 16 July 2025, determined by VOC PID measurements to calculate control efficiency, as well as vapor samples on 30 May 2025. Carbon change-outs were completed on 13 June 2025 and 18 July 2025 to return the system to operation.

Overall the remedial system experienced minimal downtime during 2025 and did not exceed the permitted 4,500 gallons per day discharge limits or the 200 cfm system air flow restrictions.

6.2.2. 2025 Groundwater Concentration Trends

Figures 18 and 19 present the GRO concentration trend graphs for groundwater monitoring wells. Since system startup, several wells with GRO concentrations that previously exceeded the CUL of 800 µg/L have shown moderate downward trends in GRO concentrations. Most notably wells MW-8, MW-9, and MW-13 have exhibited decreases across several events. The maximum GRO concentrations for wells MW-8, MW-9, and MW-13 in 2025 were 23,500 µg/L, 12,700 µg/L, and 16,100 µg/L, respectively. The lowest GRO concentrations were observed during the November 2025 event for all three wells (MW-8: 8,640 µg/L; MW-9: 1,770 µg/L; MW-13: 1,170 µg/L). Monitoring wells MW-15 and MW-16 had immediate responses to the remedial system, with concentrations falling below the CUL by February 2025 and March 2025, respectively. Monitoring wells MW-19, MW-20, and MW-21 have not established steady downward trends across the 2025 monitoring events. All GRO concentrations in three wells exceeded 10,000 µg/L during each event and continue to demonstrate fluctuation between events.

Figure 20 and 21 present the benzene concentration trend graphs for groundwater monitoring wells. Similar to GRO concentration, benzene concentrations have shown downward trends since system startup in a few wells. Well MW-6 has shown a stable downward trend from a maximum concentration in January 2025 of 46 µg/L to below the CUL of 5 µg/L in April 2025 and August 2025. Well MW-13 has shown a steady decrease, with an order of magnitude in reduction from January 2025 to November 2025 (380 µg/L to 38.7 µg/L, respectively). Benzene concentrations in monitoring wells MW-20 and MW-21 consistently exceeded the CUL at concentrations greater than 1,000 µg/L. Benzene concentrations in well MW-19 fluctuated throughout 2025, but displayed a sharp decline in November 2025 compared to previous results. Trends in wells MW-8 and MW-9 are unable to be properly defined because laboratory dilutions elevated the limit of detection during most of the 2025 events. Wells MW-17 and RW-1 have also had dilutions in recent events due to CVOC concentrations. The elevated limit of detections are not increasing concentration trends in these wells. It is assumed that benzene is at or below the CUL at each of these wells based on historical results.

6.2.3. Recommendations

The recommendations listed below are based on the results of monitoring and sampling.

- Continue to operate the remedial system under Phase 1 conditions with multiphase extraction only.
- Evaluate groundwater GRO and BTEX concentrations from February 2026 event to identify the transition into Phase 2 with multiphase extraction and injection operation.
- Extend Phase 1 operations past the initial one-year duration if needed.

6.2.4. Upcoming Work

The upcoming work is expected to be completed between the end of this reporting period through the subsequent reporting period, as summarized below.

- ERRG will continue O&M of remedial system under Phase 1 operations.
- Monthly vapor monitoring of EIWs and VTS will continue in 2026.
- Quarterly vapor pins and SSD well monitoring will continue in 2026.
- Quarterly vapor sampling at VTS influent and effluent will continue in 2026.
- Quarterly water sampling at WTS influent, midpoint, and effluent will continue in 2026.
- Quarterly groundwater monitoring and sampling will occur in 2026 and will transition into monthly for 3 months when system operation shifts to Phase 2 operations.
- Perform carbon change-outs as needed.
- As-needed vapor or water sampling.

6.2.5. Identified Problems and Proposed Solutions

The problems and proposed solutions summarized below were identified during the reporting period.

- Excessive buildup and fouling in bag filters prior to liquid GAC vessels potentially reducing flow rate and creating high level alarm conditions in storage tank and moisture separator tank.
 - **Solution:** Increase bag filter replacement frequency and continue to monitor alarm conditions for high levels in tanks.
- Vapor GAC treatment requiring higher frequency of change-outs than anticipated.
 - **Solution:** Schedule and coordinate carbon change-outs prior to collecting PID measurements/vapor samples that indicate non-compliance in order to minimize system downtime.
- Groundwater samples collected in November 2025 were analyzed for select CVOCs and detections for various CVOCs were observed in several wells. Groundwater and vapor extracted by the remedial system contain concentrations of CVOCs. The system is treating CVOCs along with site COCs ([Appendix C](#)), which may impact the schedule for the remediation of GRO and BTEX.
 - **Solution:** Groundwater impacts due to CVOCs will be resolved under separate Consent Decree or Agreed Order.
- The system design assumed that all wells would be online; however, sufficient vacuum can only be maintained with one-third of the wells online,
 - **Solution:** The Phase 1 schedule has been extended.

7. References

- EA Engineering, Science, and Technology, Inc. (EA), 2006. "Circle K Station #1461, Groundwater Summary for August 2006, Recommendations for Additional Cleanup Action Tests." November.
- GeoEngineers, 1990a. "Report of Geotechnical Services Subsurface Contamination Study and Remedial Action Monitoring Circle K Facility 1461 Seattle, Washington." March.
- , 1990b. "Progress Report No. 2 Remedial Monitoring Program Circle K Facility 1461 Seattle, Washington." November.
- Glacier Environmental Services (Glacier), 2001. "Major Discharge Authorization No. 192-01, Jin's Enterprises, 2350 24th Avenue East, Seattle, Washington." January.
- , 2025. "Construction Completion Report, Environmental Remediation System Installation, Former Circle K 1461, Seattle, Washington." May.
- Kennedy Jenks Consultants, Inc. (Kennedy Jenks), 2017a. "Remedial Investigation/Feasibility Study (RI/FS) Report, Former Circle K Site." December 14.
- , 2017b. "Cleanup Action Plan, Former Circle K 1461, Seattle, Washington." December 18.
- , 2021. "Engineering Design Report, Former Circle K Site 1461, Seattle, Washington." December 10.
- , 2024a. "Revised Draft Sampling and Analysis Plan/Quality Assurance Project Plan, Former Circle K 1461, Seattle, Washington." August 8.
- , 2024b. "Revised Draft Operations and Maintenance Manual, Environmental Remediation System, Former Circle K 1461, Seattle, Washington." November.
- Washington State Department of Ecology (Ecology), 1994. "Site Hazard Assessment Report, Circle K Station #1461." June.
- , 2009. "Draft Remedial Investigation/Feasibility Study, Circle K Station #1461, Seattle, WA." September.

Figures

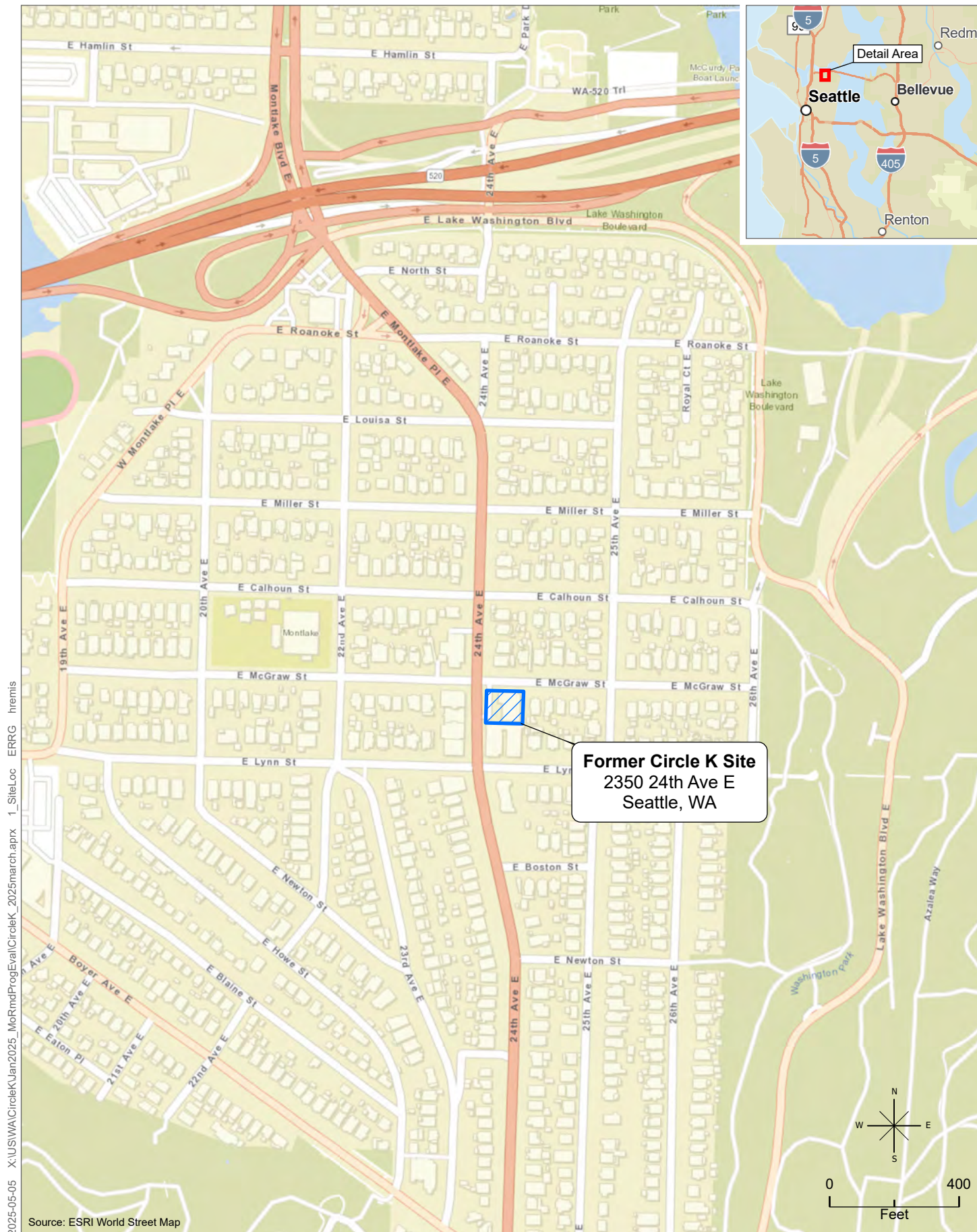


Figure 1. Site Location and Vicinity

Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA



Figure 2. Site Layout with System and Wells
 Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
 Seattle, WA

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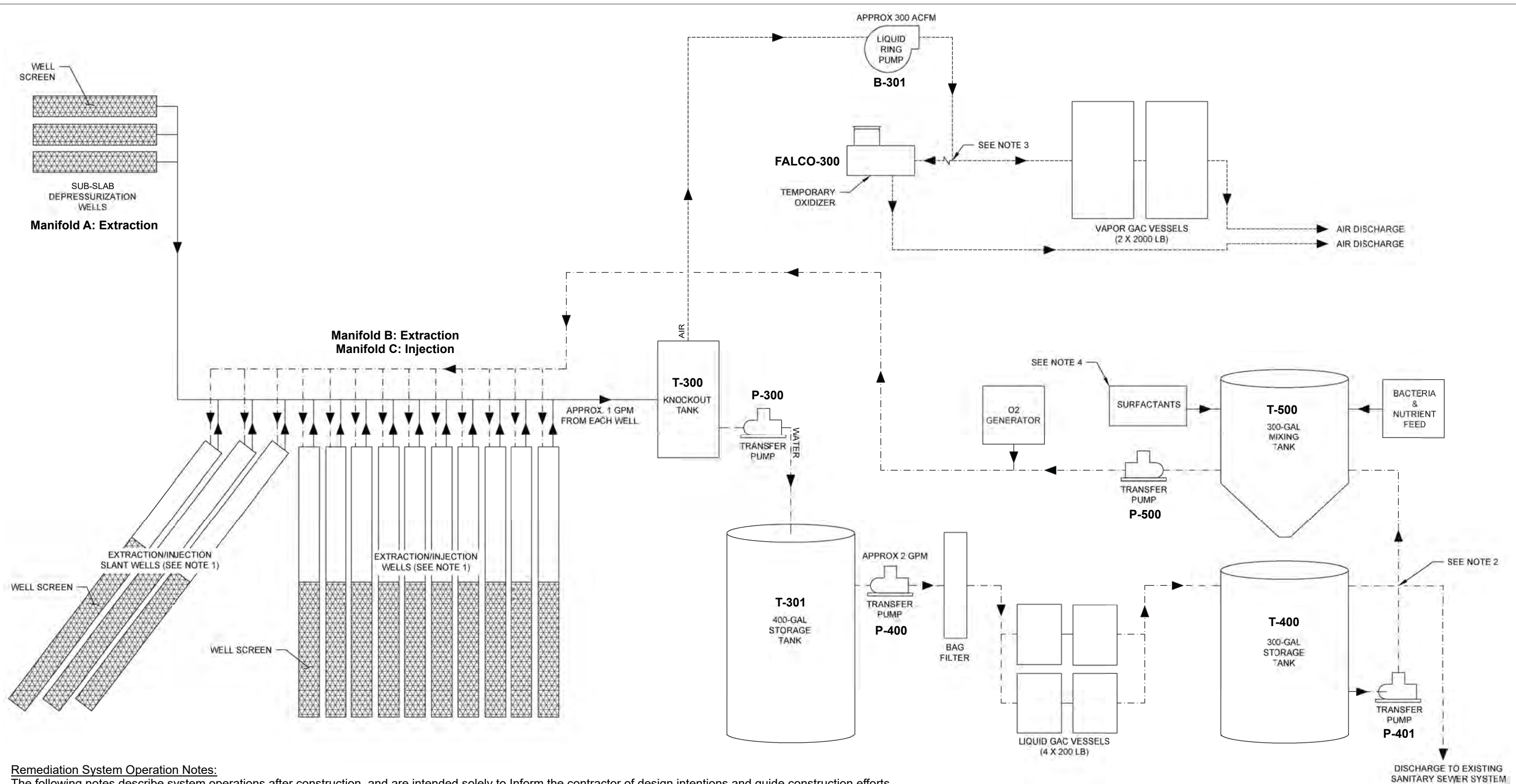


Figure 3. System Process Flow Diagram

Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA

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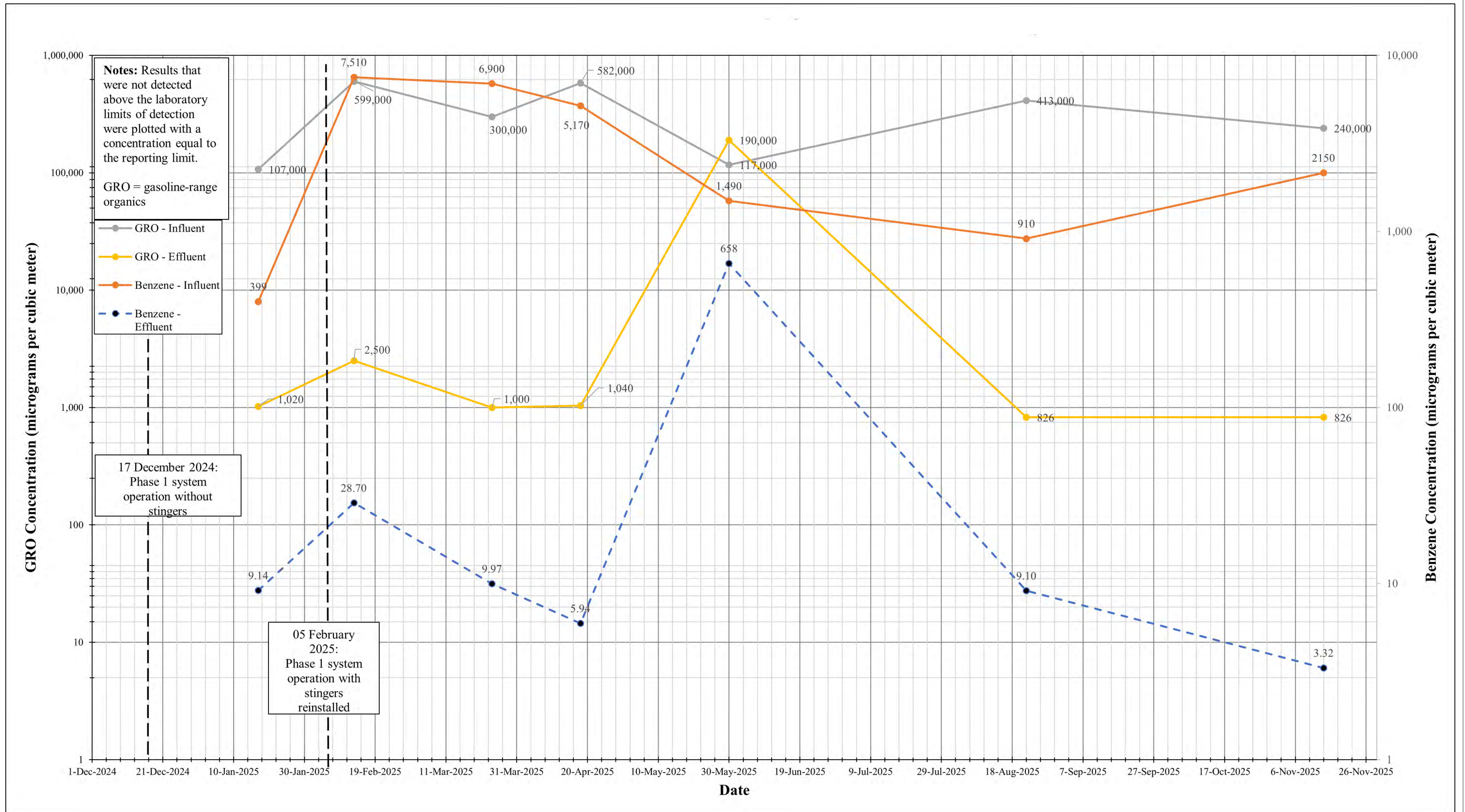


Figure 4. GRO and Benzene Concentrations in System Vapor Influent and Effluent
Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA

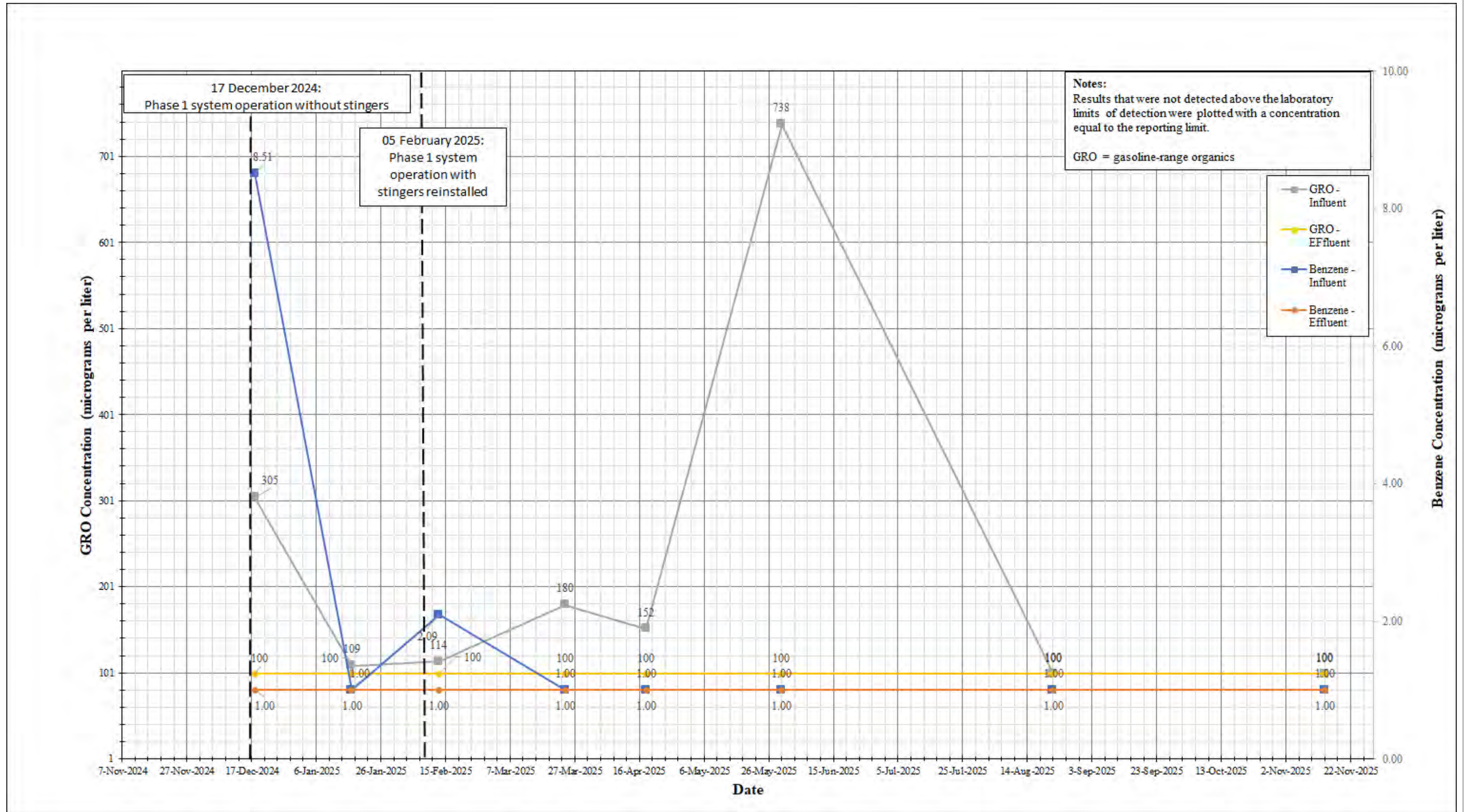
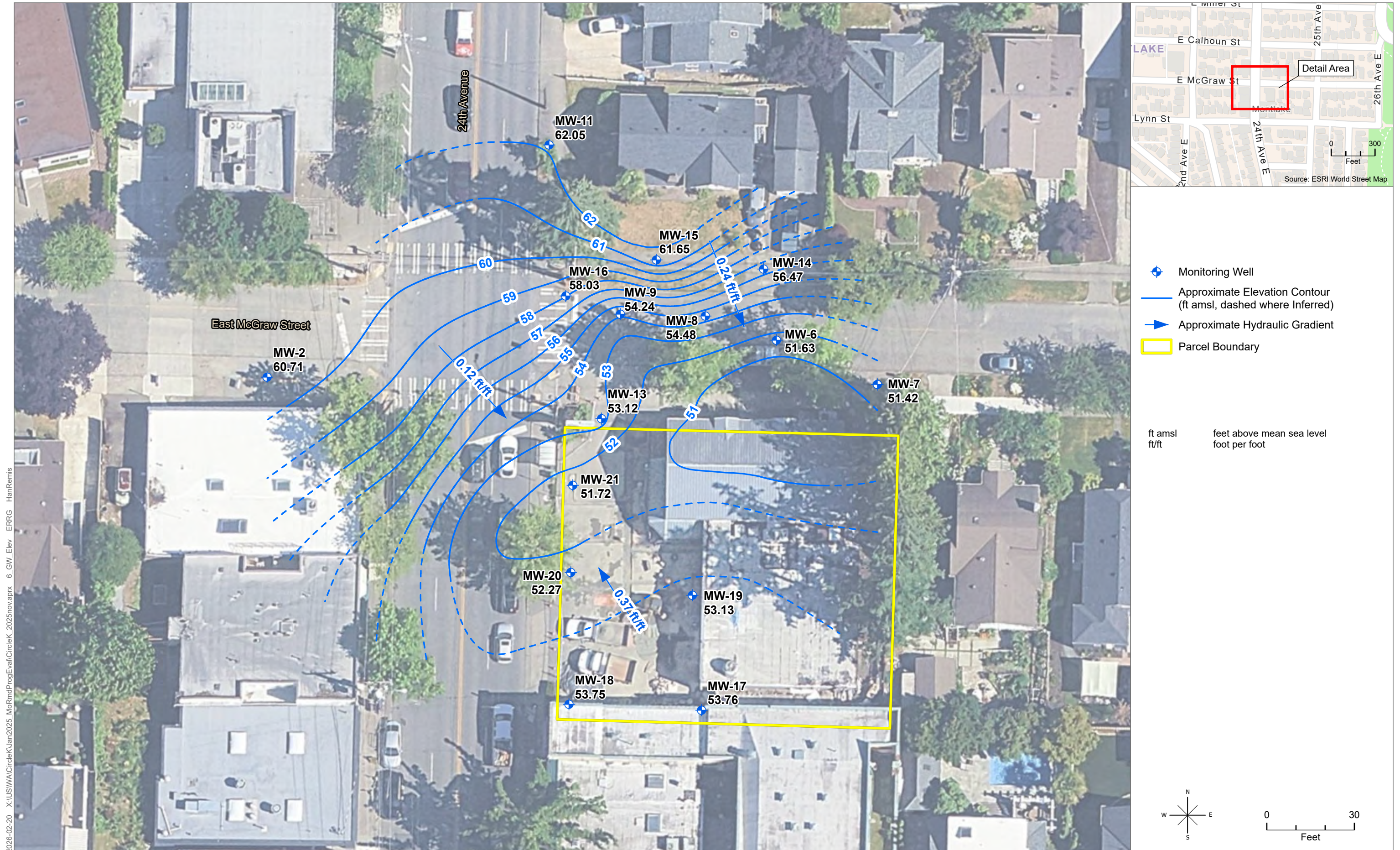


Figure 5. GRO and Benzene Concentrations System Water Influent and Effluent
Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA



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Figure 6. Groundwater Elevation Contours, March 2025
 Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
 Seattle, WA

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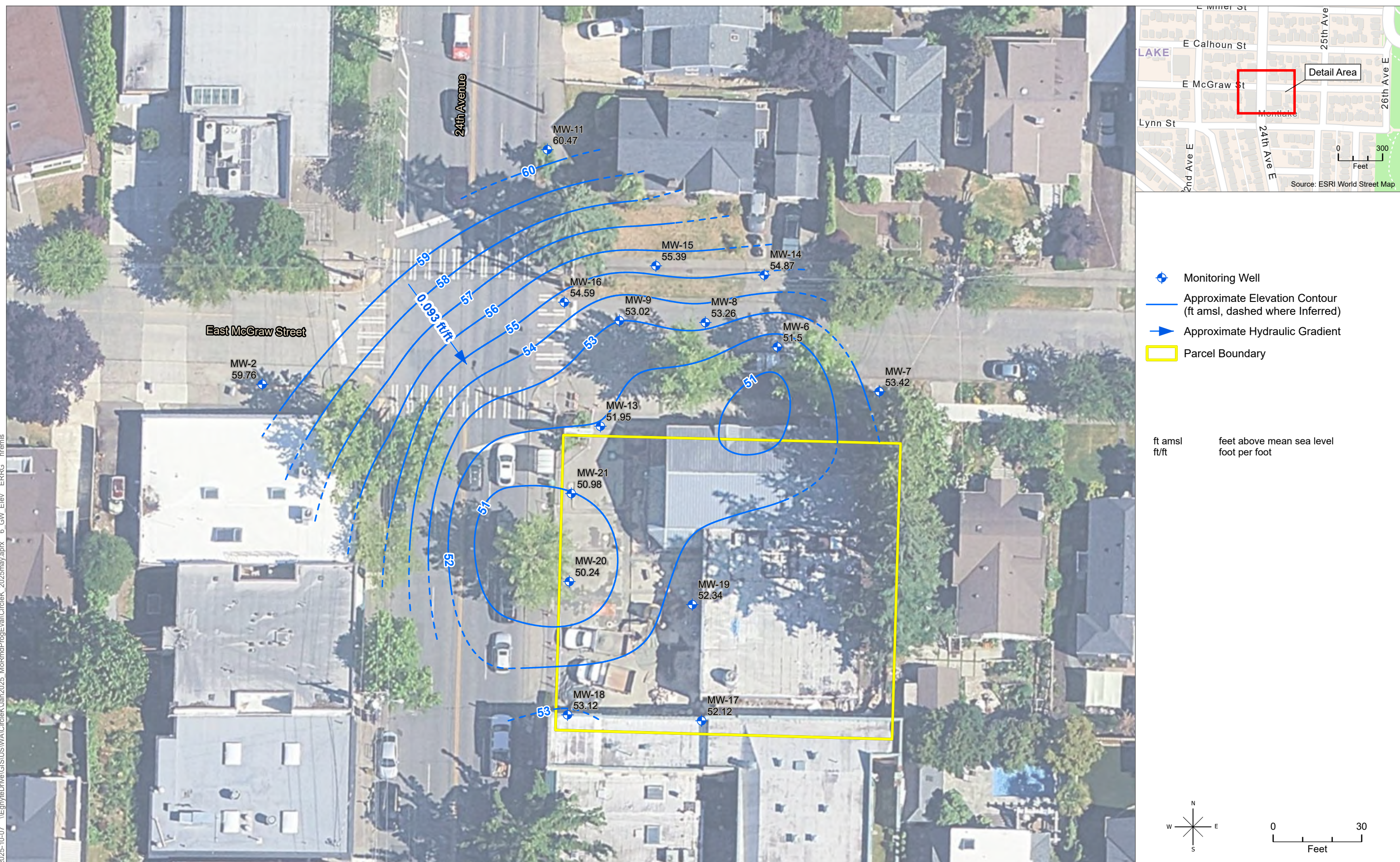
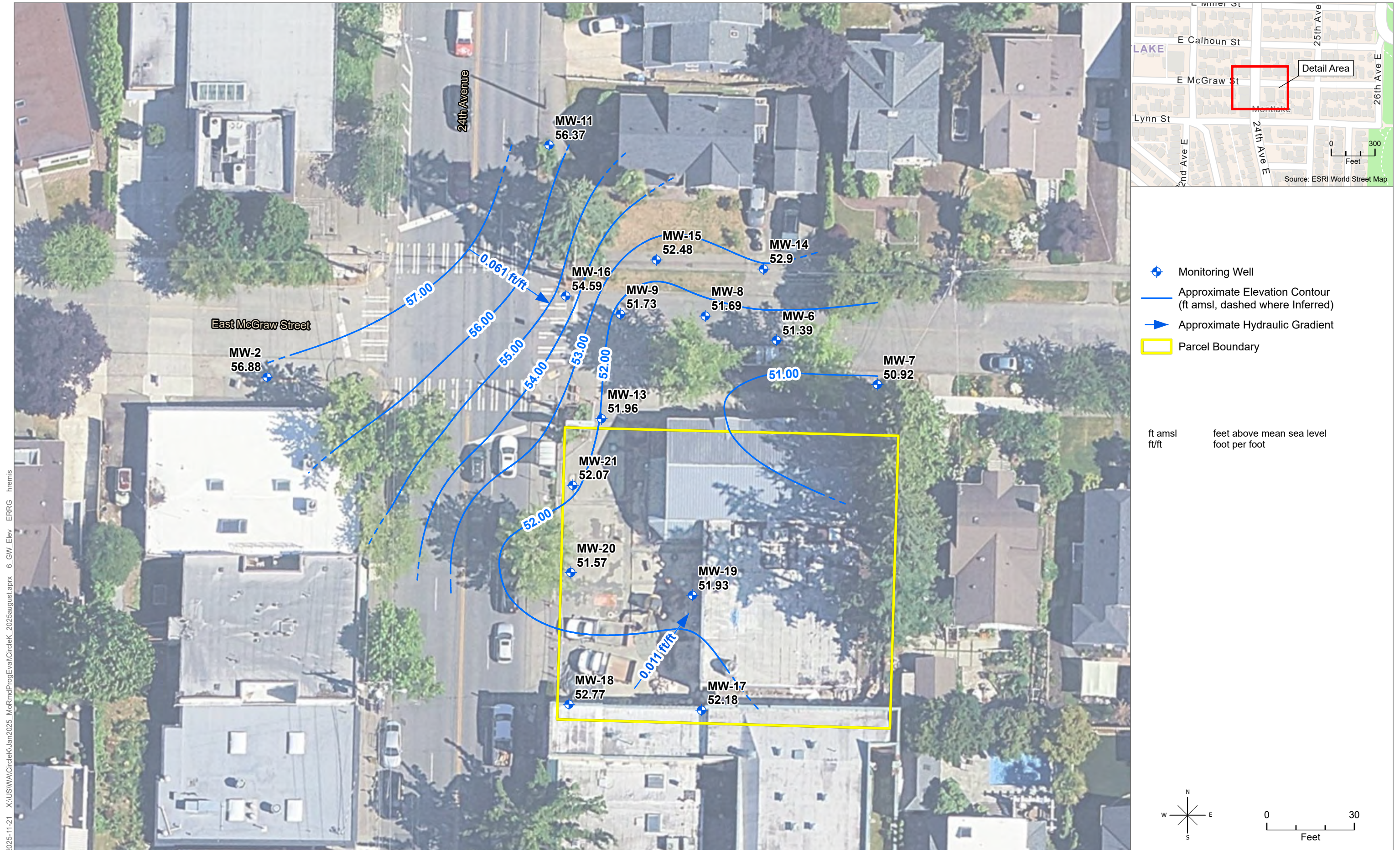
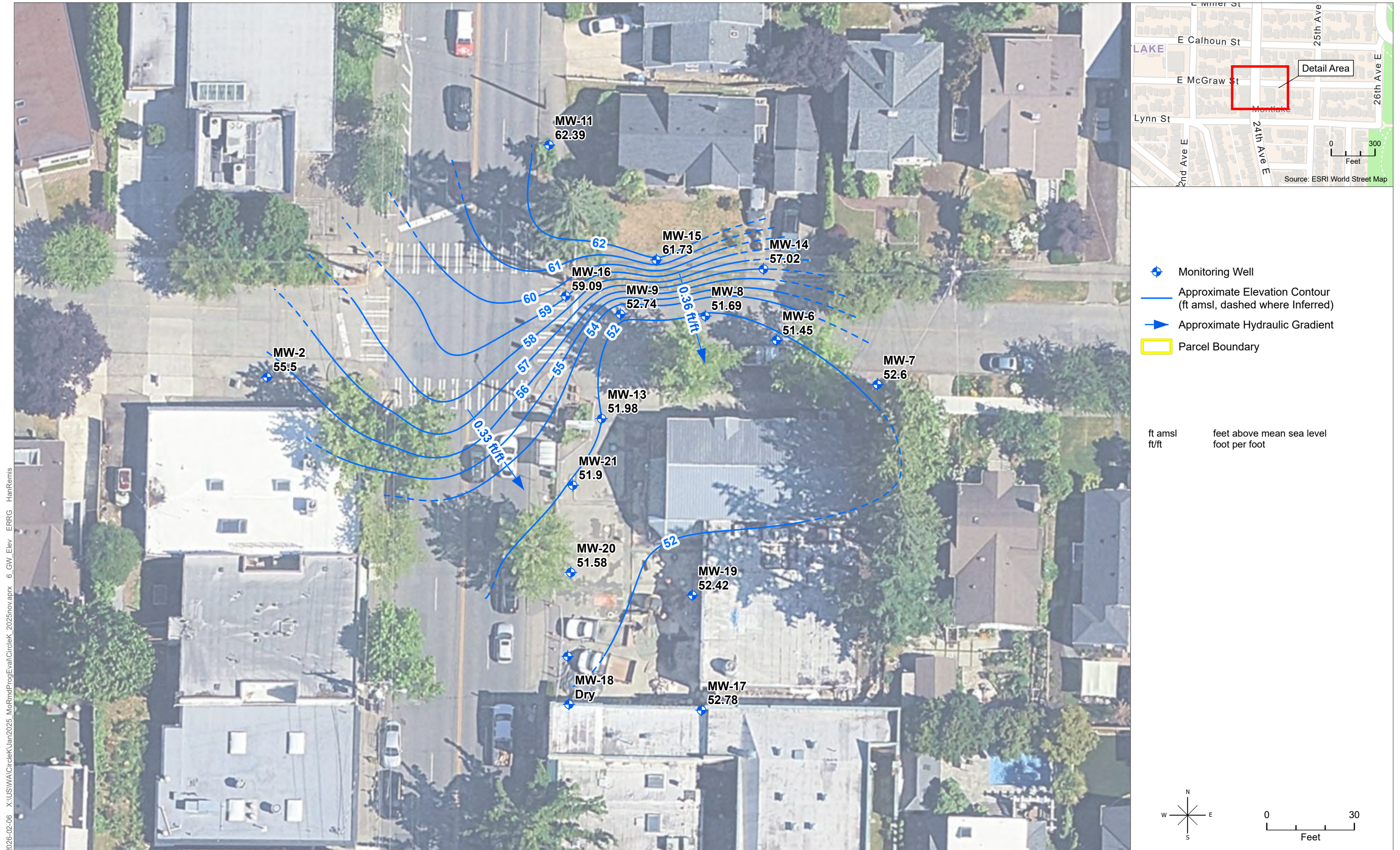


Figure 7. Groundwater Elevation Contours, May 2025
Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA



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Figure 8. Groundwater Elevation Contours, August 2025
 Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
 Seattle, WA



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Figure 9. Groundwater Elevation Contours, November 2025
 Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
 Seattle, WA



Figure 10. Groundwater Gasoline-Range Organics Contours, March 2025
Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA

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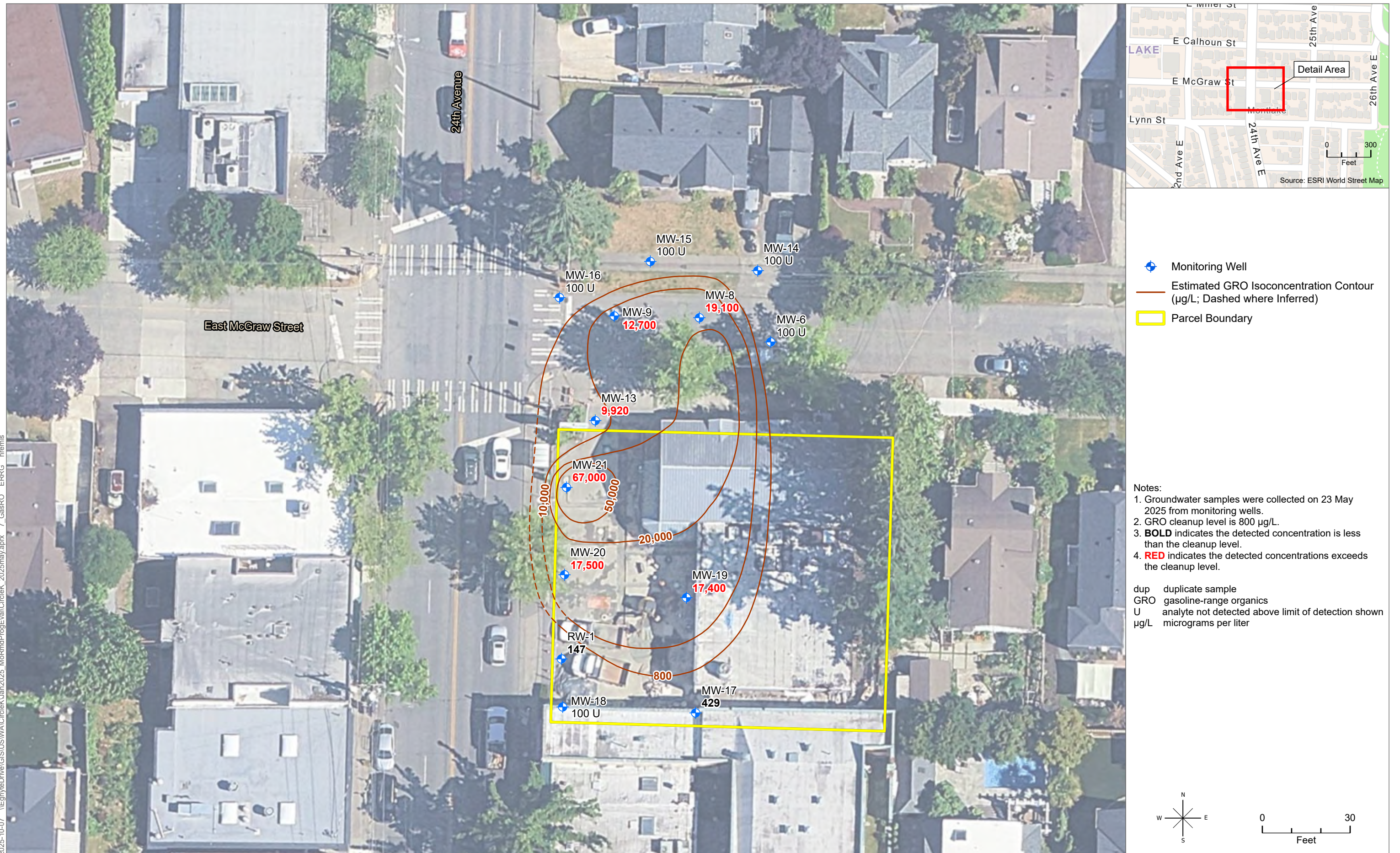


Figure 11. Groundwater Gasoline-Range Organics Contours, May 2025
Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA

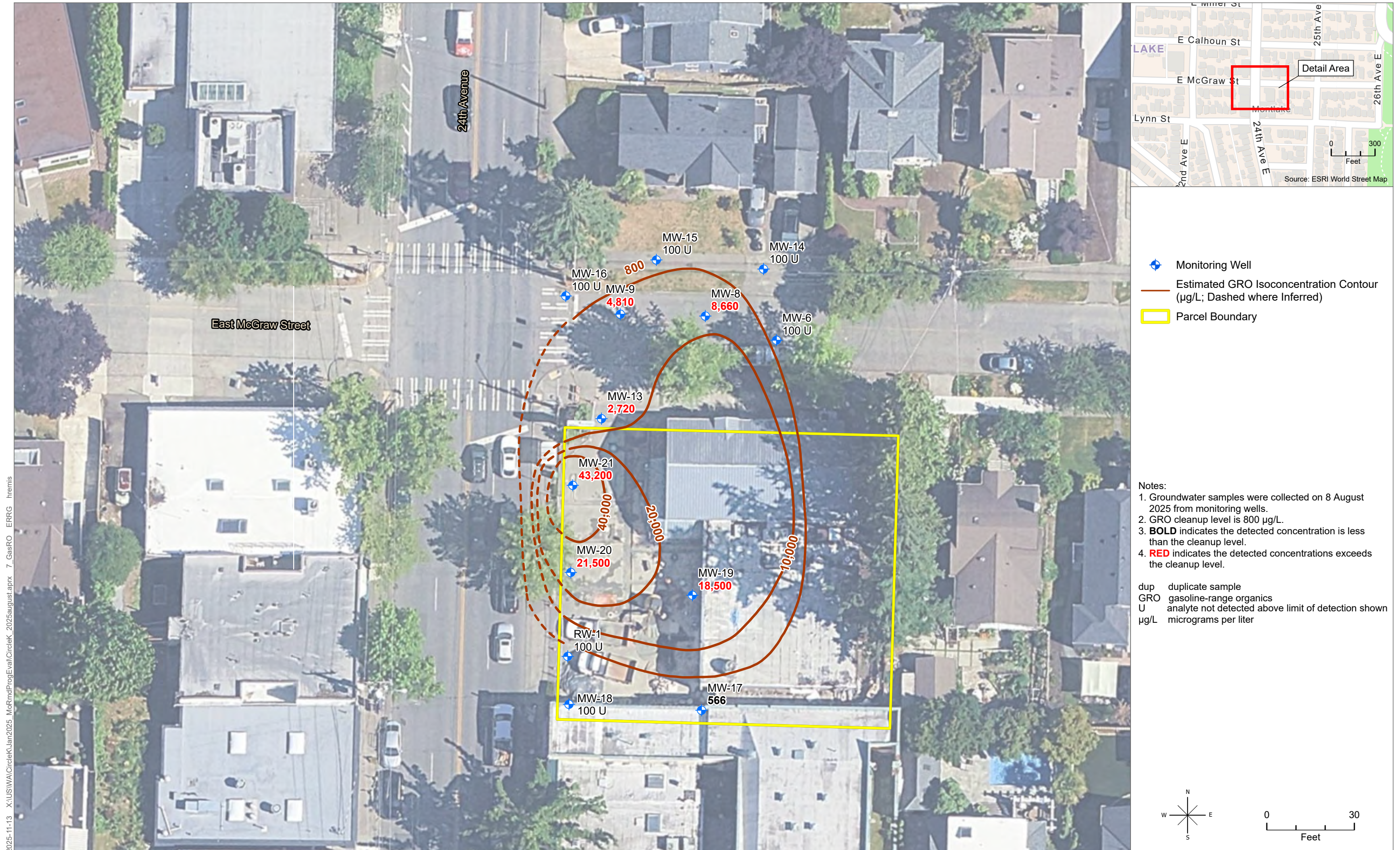


Figure 12. Groundwater Gasoline-Range Organics Contours, August 2025
 Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
 Seattle, WA

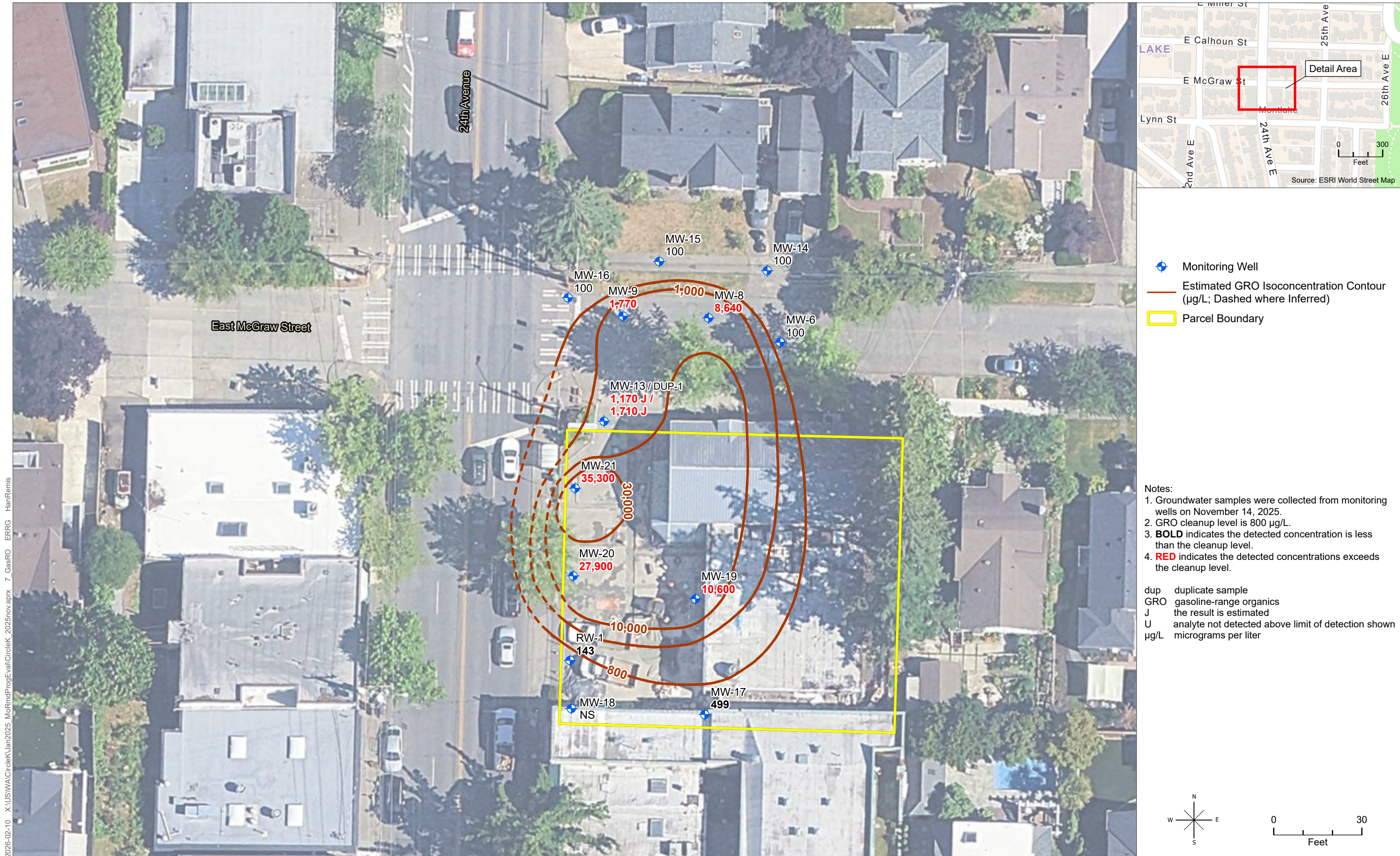


Figure 13. Groundwater Gasoline-Range Organics Contours, November 2025
Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA



Figure 14. Groundwater Benzene Concentration Contours, March 2025
Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA

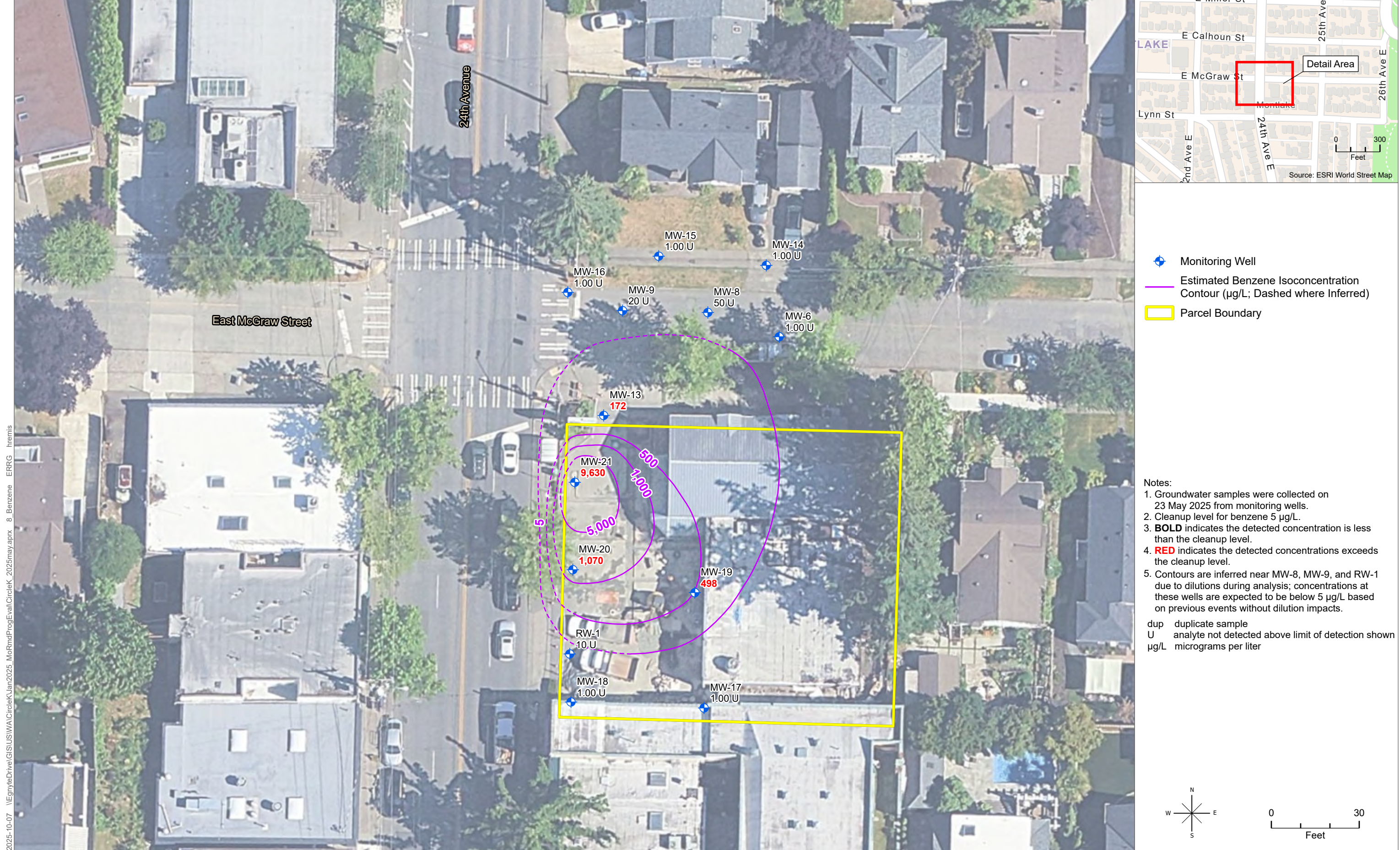


Figure 15. Groundwater Benzene Concentration Contours, May 2025
Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA

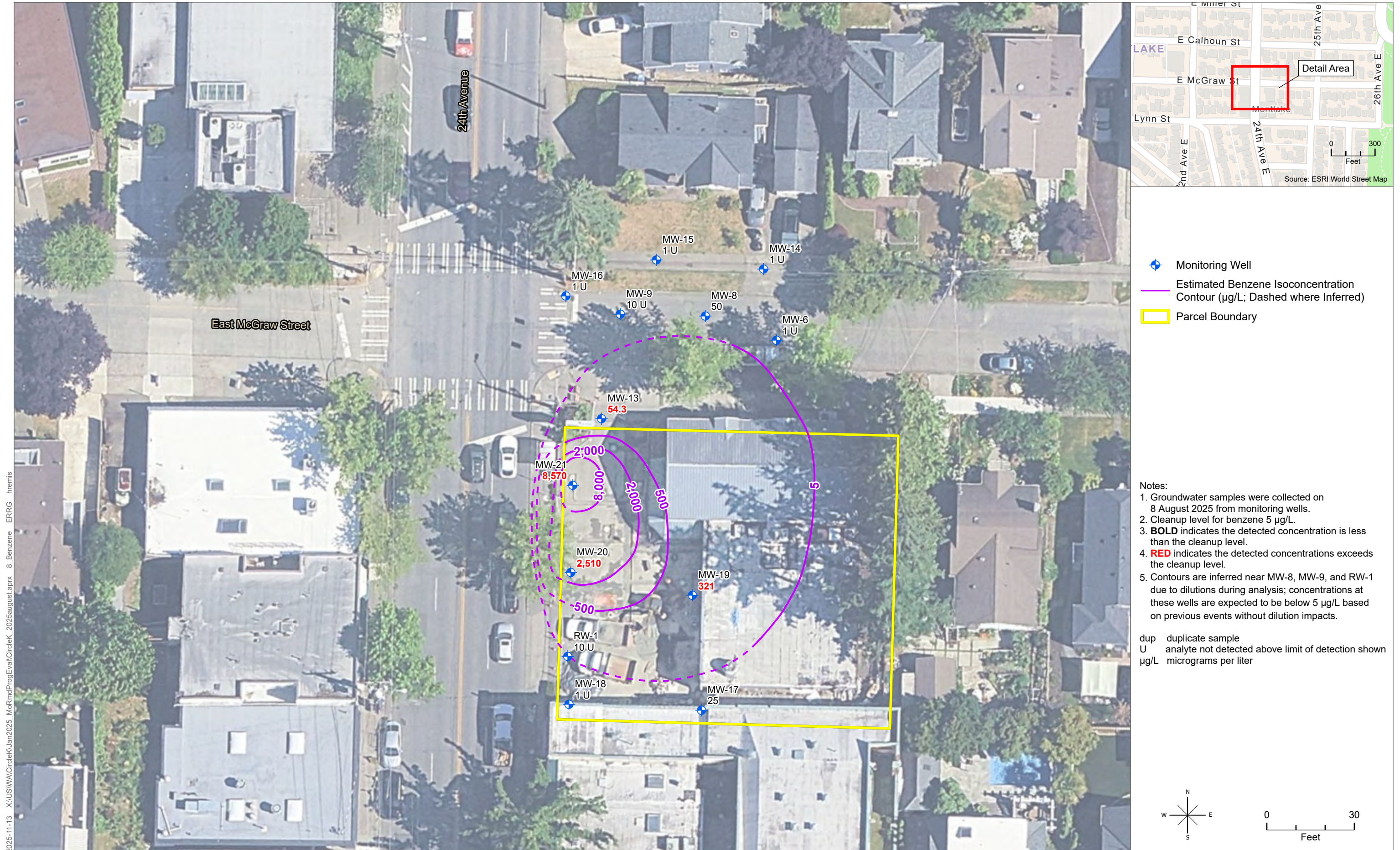


Figure 16. Groundwater Benzene Concentration Contours, August 2025
Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA

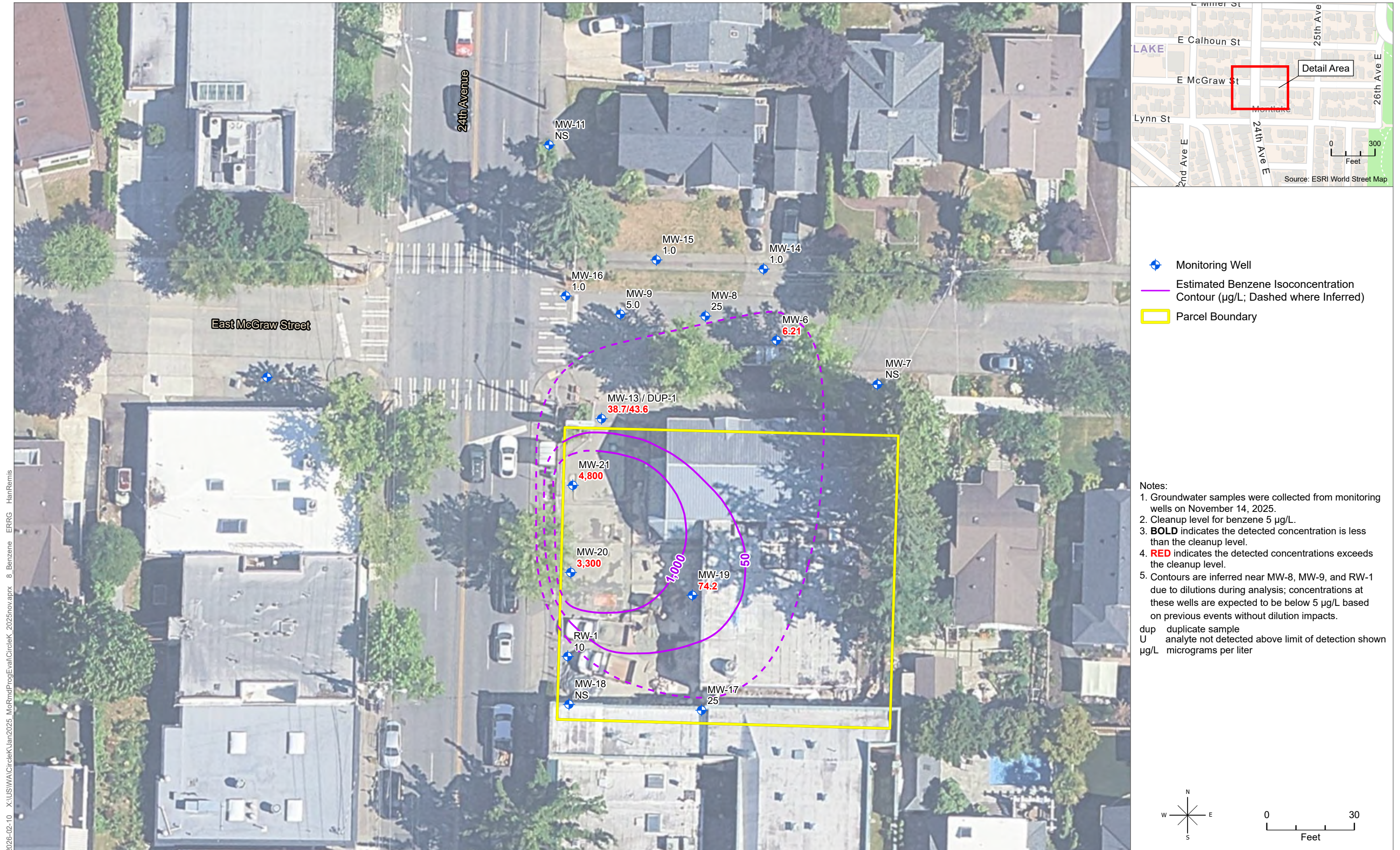


Figure 17. Groundwater Benzene Concentration Contours, November 2025
 Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
 Seattle, WA

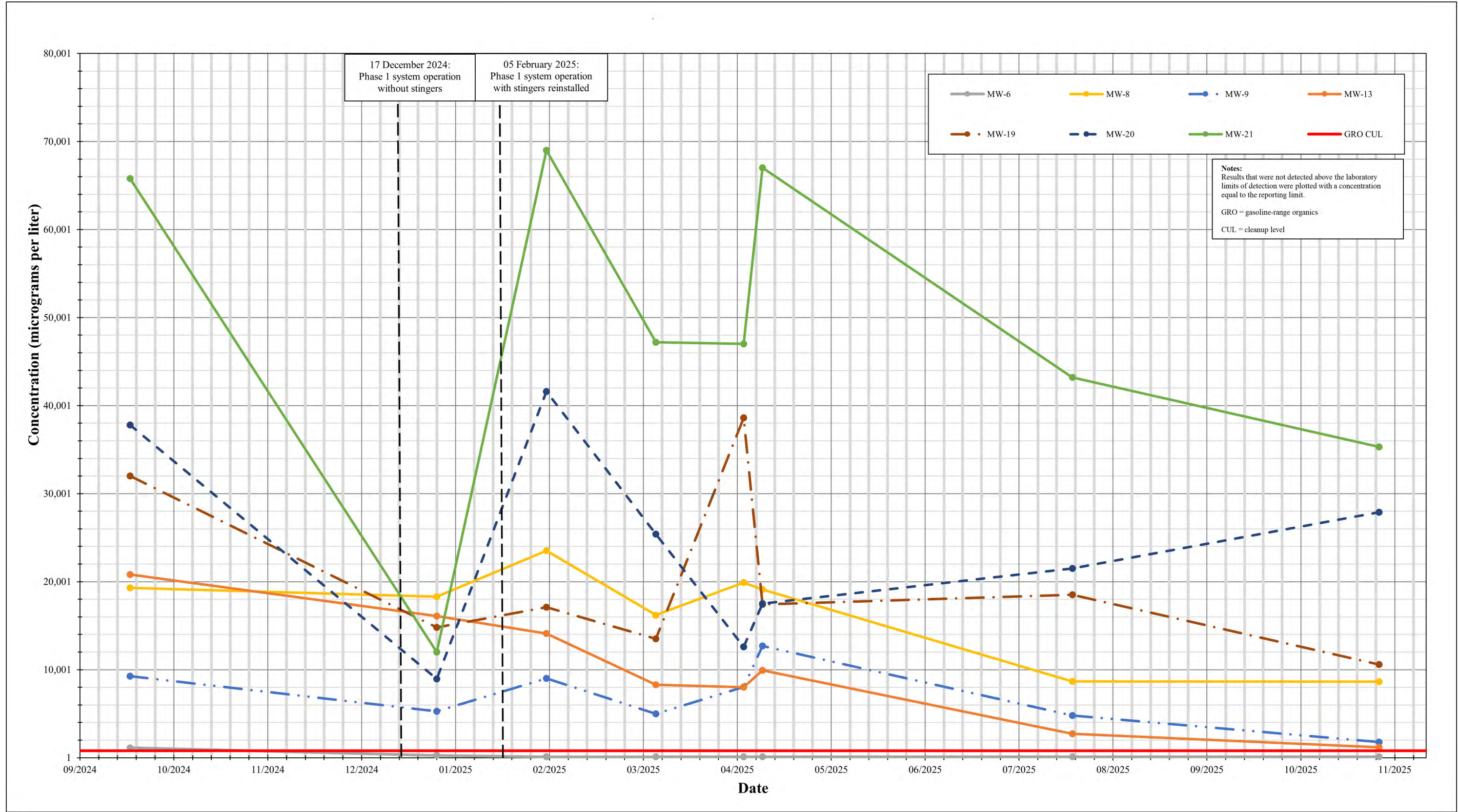


Figure 18. Groundwater GRO Concentration Trends (1 of 2), October 2024 to November 2025
Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA

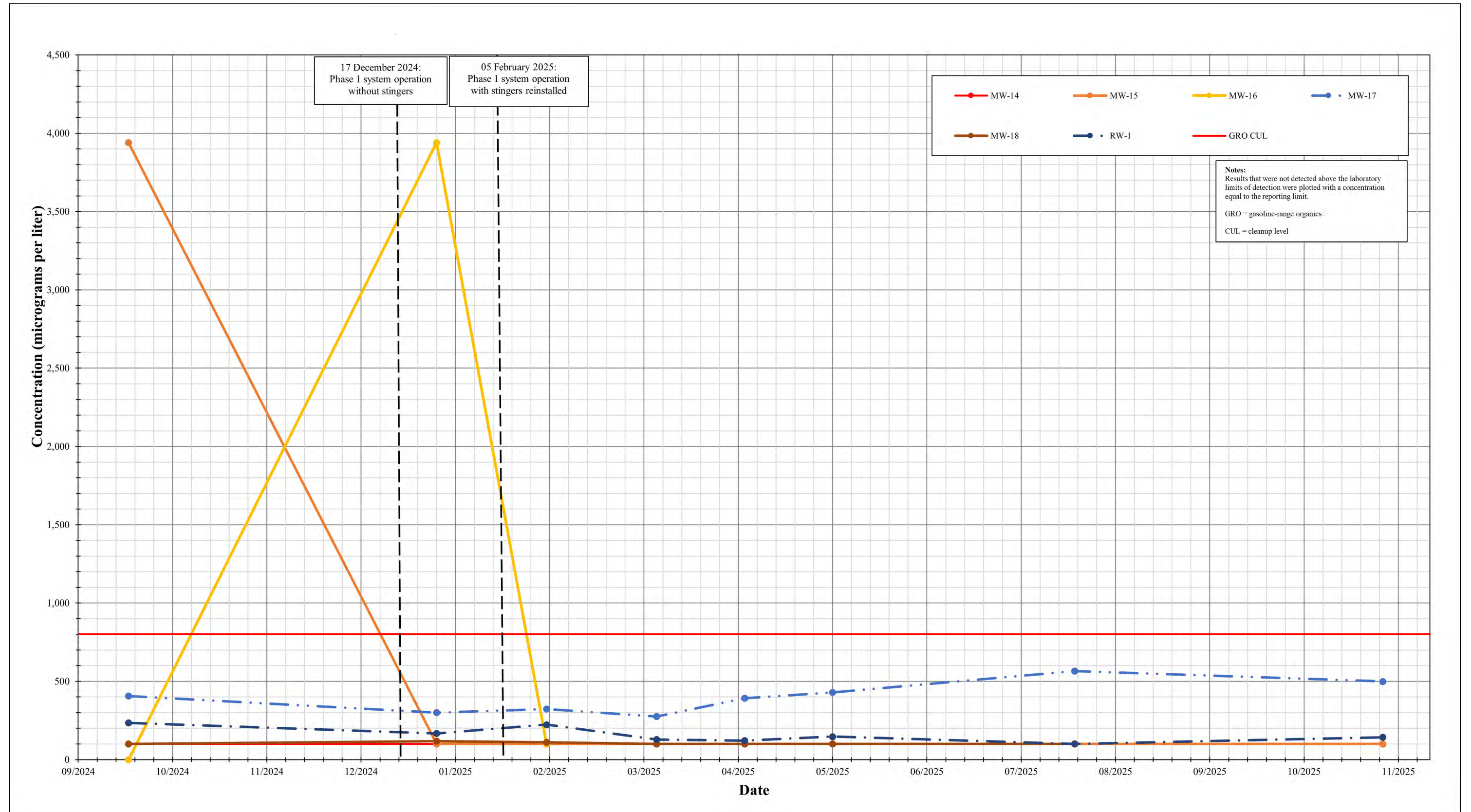


Figure 19. Groundwater GRO Concentrations Trends (2 of 2), October 2024 to November 2025
 Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
 Seattle, WA

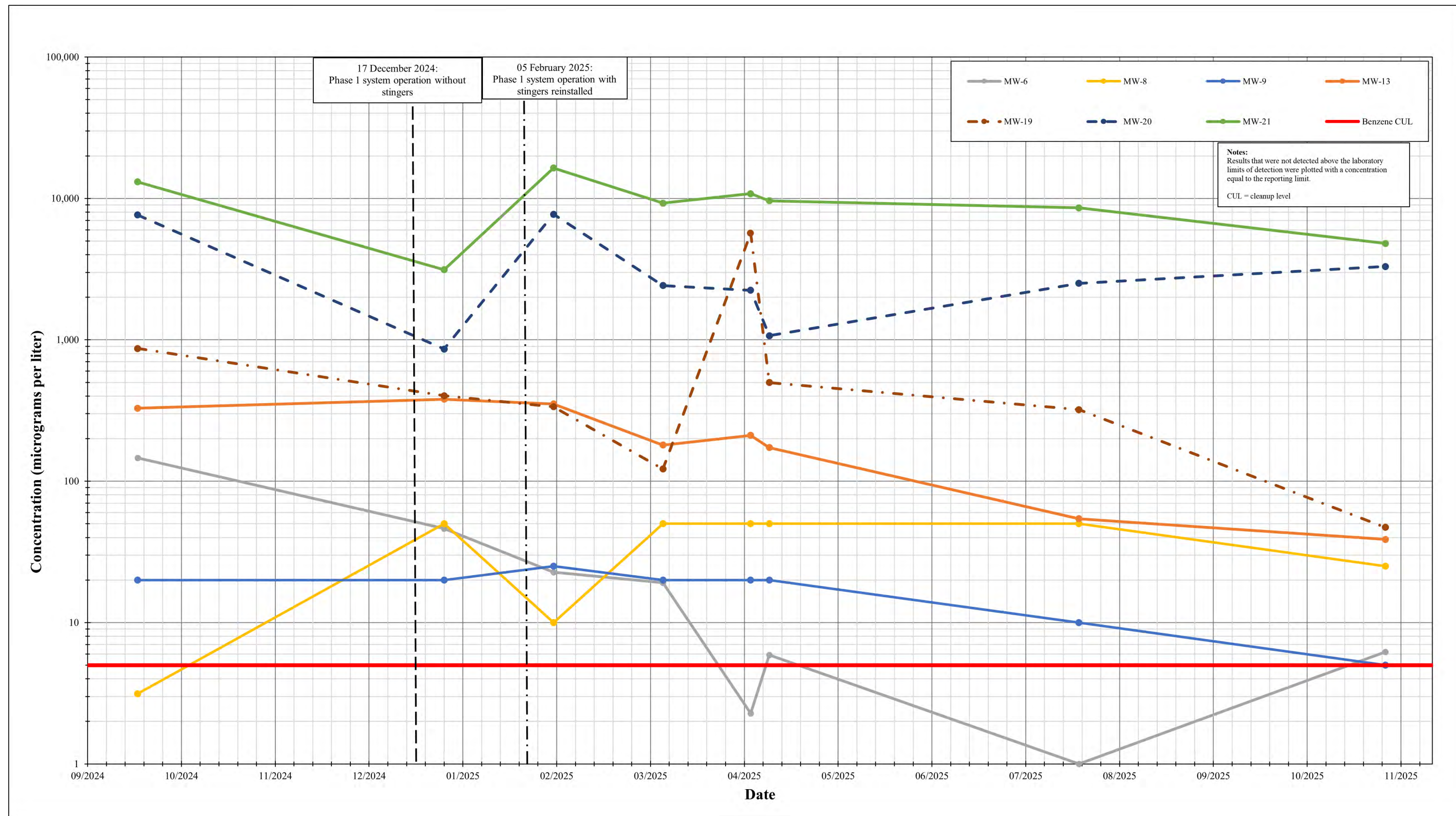


Figure 20. Groundwater Benzene Concentration Trends (1 of 2), October 2024 to November 2025

Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA

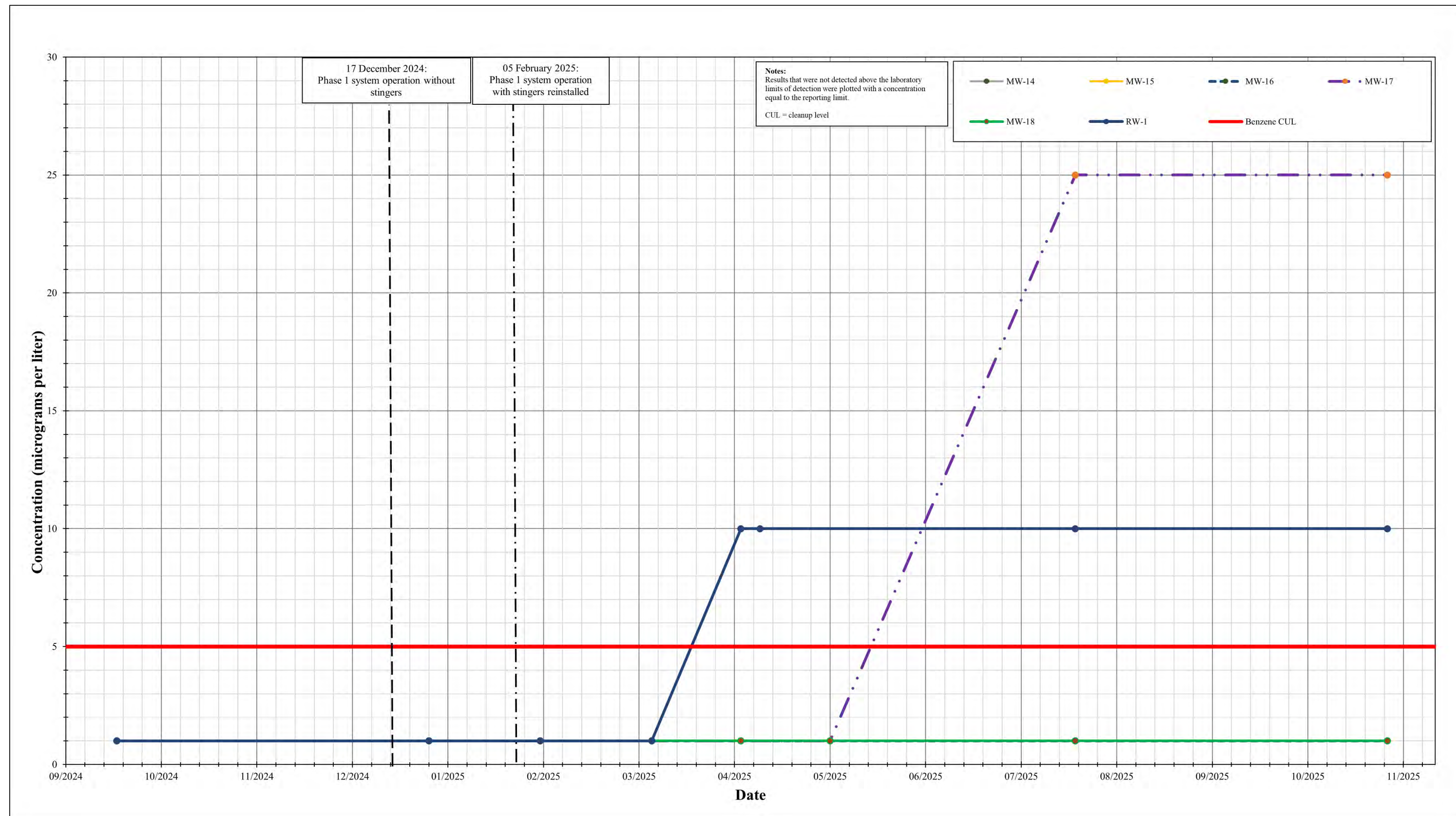


Figure 21. Groundwater Benzene Concentration Trends (2 of 2), October 2024 to November 2025

Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA

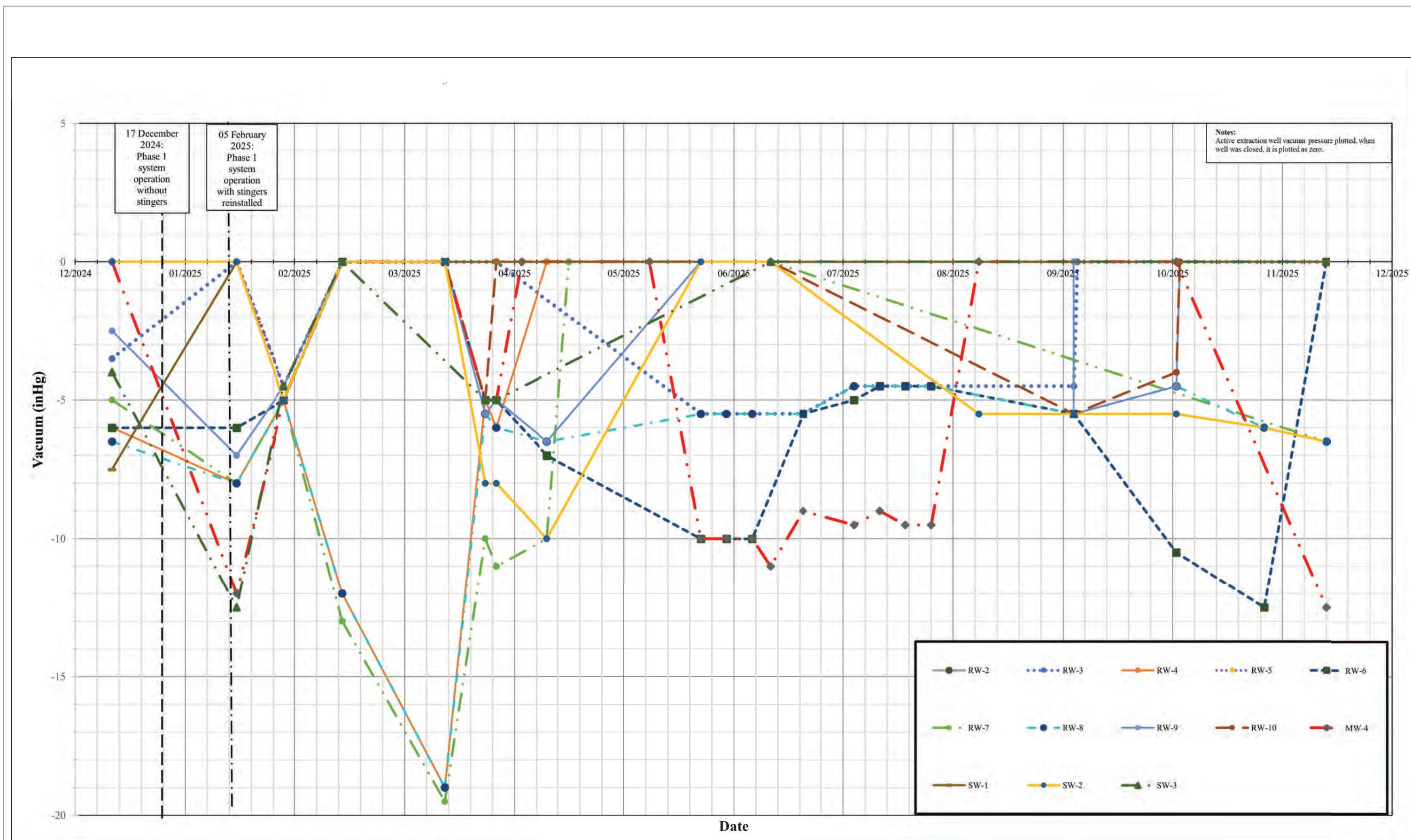


Figure 22. Extraction Well Vacuum Rates, January 2025 to December 2025
 Fourth Quarter 2025 and Annual 2025 Remedial Progress Evaluation Report for Former Circle K 1461
 Seattle, WA

Tables

Table 1. Well Construction Information

Monitoring Well ID No.	Date Installed	Easting (feet)	Northing (feet)	MPE Well Group	Well Diameter (inches)	Screened Interval (feet bgs)	Top of Casing Elevation (feet amsl)	Well Use
MW-2	09/11/1989	1278287.96	236985.88	MW	2	5.5–20.9	69.79	Monitoring Well
MW-4	09/12/1989	1278447.91	236985.00	1	2	4–18.8	63.62	Remediation Well
MW-6	10/02/1989	1278462.46	236998.42	MW	2	5–20.4	63.13	Compliance Well
MW-7	10/02/1989	1278497.04	236983.26	MW	2	5–20.2	62.66	Monitoring Well
MW-8	10/03/1989	1278438.10	237006.82	MW	2	5–20.3	63.59	Compliance Well
MW-9	10/03/1989	1278408.96	237007.40	MW	2	5–21.2	64.3	Compliance Well
MW-10	10/03/1989	1278488.93	236997.48	MW	2	5–20.4	62.86	Monitoring Well
MW-11	10/04/1989	1278384.53	237065.31	MW	2	5–20	63.59	Monitoring Well
MW-13	12/20/1989	1278402.55	236971.66	MW	2	4–19	65.08	Compliance Well
MW-14	12/20/1989	1278458.03	237022.92	MW	2	4–19.3	63.3	Compliance Well
MW-15	12/21/1989	1278421.35	237026.01	MW	2	4–18.7	64.18	Compliance Well
MW-16	12/21/1989	1278390.29	237013.58	MW	2	4–19.2	64	Compliance Well
MW-17	08/01/2016	1278436.82	236871.78	MW	2	4–19	65.98	Compliance Well
MW-18	08/01/2016	1278391.36	236873.73	MW	2	5–15	66.73	Compliance Well
MW-19	09/23/2016	1278433.66	236911.07	MW	2	5–20	66.36	Compliance Well
MW-20	09/23/2016	1278392.00	236918.95	MW	4	5–20	66.17	Compliance Well
MW-21	09/23/2016	1278392.68	236948.84	MW	4	5–20	65.89	Compliance Well
RW-1	02/07/2017	1278390.95	236890.20	MW	4	5.5–20.5	--	Compliance Well
RW-2	02/09/2017	1278404.38	236970.10	4	4	5–20	--	Remediation Well
RW-3	02/09/2017	1278409.31	236960.04	1	4	5–20	--	Remediation Well
RW-4	02/08/2017	1278418.32	236947.52	2	4	5–20	--	Remediation Well

Table 1. Well Construction Information (*continued*)

Monitoring Well ID No.	Date Installed	Easting (feet)	Northing (feet)	MPE Well Group	Well Diameter (inches)	Screened Interval (feet bgs)	Top of Casing Elevation (feet amsl)	Well Use
RW-5	02/08/2017	1278407.00	236932.47	3	4	5–20	--	Remediation Well
RW-6	02/10/2017	1278425.63	236982.51	1	4	5–20	--	Remediation Well
RW-7	02/07/2017	1278432.90	236913.61	4	4	5–20	--	Remediation Well
RW-8	02/07/2017	1278394.71	236950.38	2	4	5–20	--	Remediation Well
RW-9	02/08/2024	1278403.54	236904.78	1	4	5–20	--	Remediation Well
RW-10	02/08/2024	1278422.51	236924.38	3	4	25–30	--	Remediation Well
SW-1	02/10/2024	1278385.44	236943.23	2	4	5–18	--	Slant Remediation Well
SW-2	02/12/2024	1278397.11	236929.86	3	4	5–18	--	Slant Remediation Well
SW-3	02/09/2024	1278392.00	236913.40	4	4	5–18	--	Slant Remediation Well

Notes:

Monitoring Well = Existing monitoring well for groundwater level measurements only

Compliance Well = Existing monitoring well for groundwater compliance monitoring

Remediation Well = Existing injection/extraction remediation well

Slant Remediation Well = New slanted remediation well

amsl = above mean sea level

bgs= below ground surface

MPE = multiphase

-- = data were not available

Table 2. MPE System Performance and Recorded Field Measurements

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted otherwise)	Flow (cfm)	VOCs ¹ (ppm, unless noted otherwise)	CH ₄ (% LEL)	O ₂ (%)	CO ₂ (%)	H ₂ S (ppm)
Falco 300 Influent (Liquid Ring Pump for Pressure)	01/03/2025 ²	24.7	42	119.8				
	01/06/2025 ²	24.7	67	--				
	01/16/2025 ²	21.6	76.4	--				
	01/17/2025	--	--	61.6				
	01/23/2025 ²	20.6	76.4	--				
	02/06/2025 ²	16.3	112.4	254.9				
	02/17/2025 ²	16.3	98.2	--				
	02/19/2025 ²	15.2	112.8	160.9				
	03/07/2025	15.2	98	212				
	03/14/2025	14.2	102	--				
	03/16/2025	18	87.5	--				
	03/21/2025	17.6	83.8	--				
	03/24/2025	17.6	82.9	153				
	03/28/2025	16.5	86.4	--				
	04/04/2025	16.9	87.4	252				
	04/11/2025	15.1	98.5	244.1				
	04/15/2025	13.6	115.2	--				
	04/18/2025	13.3	101.5	164.8				
	04/25/2025	10.4	89.6	--				
	05/02/2025	13.8	66.5	206				

Table 2. MPE System Performance and Recorded Field Measurements *(continued)*

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted otherwise)	Flow (cfm)	VOCs ¹ (ppm, unless noted otherwise)	CH ₄ (% LEL)	O ₂ (%)	CO ₂ (%)	H ₂ S (ppm)
Falco 300 Influent (Liquid Ring Pump for Pressure) <i>(cont.)</i>	05/08/2025	13.1	66.3	376				
	05/16/2025	12.4	64.1	537				
	05/23/2025	12.8	60.7	--				
	05/30/2025	12.3	59.8	560 / 168.4				
	06/13/2025	12.4	86.2	303				
	06/20/2025	12.6	83.6	261.2 / 298.2				
	06/27/2025	12	88.3	294				
	07/02/2025	11.5	88.2	303.8				
	07/11/2025	12.4	82.6	404				
	07/18/2025	14.2	88.5	226.2				
	07/25/2025	13	98.7	128.6				
	08/01/2025	10.4	88.5	146.2				
	08/08/2025	12.6	72.1	143.6				
	08/15/2025	13.4	71.8	161.8				
	08/22/2025	12.9	68.4	153				
	08/28/2025	11.2	82.4	150.9				
	09/10/2025			135				
	09/23/2025	9.9	76.4	129.8				
	10/01/2025			351				
	10/08/2025			274				

Table 2. MPE System Performance and Recorded Field Measurements *(continued)*

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted otherwise)	Flow (cfm)	VOCs ¹ (ppm, unless noted otherwise)	CH ₄ (% LEL)	O ₂ (%)	CO ₂ (%)	H ₂ S (ppm)
Falco 300 Influent (Liquid Ring Pump for Pressure) <i>(cont.)</i>	10/21/2025	13.3–15.9	48.6–58.5	326.4				
	10/30/2025			158.4				
	11/07/2025			117.3				
	11/14/2025	16	52.8	119.8				
	11/20/2025			117.3				
	11/28/2025			84.9				
	12/01/2025			68.5–141.3				
	12/18/2025	16	98.4	126.1				
	12/22/2025			116.8				
Falco 300 Effluent	01/03/2025 ²			33.4				
	01/17/2025			198 ppb				
	02/19/2025 ²			11.4				
	03/7/2025			1.6				
	03/24/2025			0.9				
	04/04/2025			3.3				
	04/11/2025			2.3				
	04/15/2025			--				
	04/18/2025			0				
	04/25/2025			--				
	05/02/2025			0.8				

Table 2. MPE System Performance and Recorded Field Measurements *(continued)*

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted otherwise)	Flow (cfm)	VOCs ¹ (ppm, unless noted otherwise)	CH ₄ (% LEL)	O ₂ (%)	CO ₂ (%)	H ₂ S (ppm)
Falco 300 Effluent <i>(cont.)</i>	05/08/2025			3.3				
	05/16/2025			6.4				
	05/23/2025			--				
	05/30/2025			72.1 / 43.2				
	06/13/2025			1.4				
	06/20/2025			0				
	06/27/2025			0				
	07/02/2025			1.1				
	07/11/2025			2.6				
	07/18/2025			30.8				
	07/25/2025			0.3				
	08/01/2025			0.0				
	08/08/2025			0.5				
	08/15/2025			0.6				
	08/22/2025			0.8				
	08/28/2025			1.3				
	09/10/2025			0.2				
	09/23/2025			0.2				
	10/1/2025			0.9				
	10/08/2025			8.4				

Table 2. MPE System Performance and Recorded Field Measurements *(continued)*

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted otherwise)	Flow (cfm)	VOCs ¹ (ppm, unless noted otherwise)	CH ₄ (% LEL)	O ₂ (%)	CO ₂ (%)	H ₂ S (ppm)
Falco 300 Effluent <i>(cont.)</i>	10/21/2025			0.68				
	10/30/2025			1.02				
	11/07/2025			0.0				
	11/14/2025			0.3				
	11/20/2025			0.0				
	11/28/2025			0.0				
	12/01/2025			0.2–0.9				
	12/18/2025			0.0				
	12/22/2025			0.0				
RW-2	01/03/2025 ²	-8	9.7	2				
	02/06/2025 ²	-8	17.6	0.9				
	02/19/2025 ²	-2	--	32.8				
	03/07/2025	Offline	--	--				
	04/04/2025	Offline	--	--				
	04/18/2025	Offline	--	2.8				
	06/13/2025	-5.5	--	--				
	06/20/2025	Offline	--	--				
	07/02/2025	Offline	--	23				
	08/28/2025	Online; opened	--	--				
	09/23/2025	-4.5	44.6	--				

Table 2. MPE System Performance and Recorded Field Measurements *(continued)*

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted otherwise)	Flow (cfm)	VOCs ¹ (ppm, unless noted otherwise)	CH ₄ (% LEL)	O ₂ (%)	CO ₂ (%)	H ₂ S (ppm)
RW-2 (cont.)	09/23/2025	Offline	--	--				
	11/14/2025	Offline	--	21.3				
RW-3	01/03/2025 ²	-3.5	7.5	8.1				
	02/06/2025 ²	Offline	--	--				
	02/19/2025 ²	-4.5	--	14.5				
	03/07/2025	Offline	--	--				
	04/04/2025	Offline	--	--				
	04/18/2025	Offline	--	20.1				
	06/13/2025	-5.5	--					
	06/20/2025	-5.5	--	32–340.9 (water in tubing)				
	06/27/2025	-5.5	31.9	--				
	07/02/2025	Online	--	34.6				
	07/11/2025	-5.5	31.3	--				
	07/25/2025	-4.5	--	--				
	08/01/2025	-4.5	--	--				
	08/08/2025	-4.5	--	--				
	08/15/2025	Online	21.1	192.1				
	09/23/2025	-4.5	31.3	--				
	09/23/2025	Closed; offline	--	--				
	11/14/2025	Offline	--	30.4				

Table 2. MPE System Performance and Recorded Field Measurements *(continued)*

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted otherwise)	Flow (cfm)	VOCs ¹ (ppm, unless noted otherwise)	CH ₄ (% LEL)	O ₂ (%)	CO ₂ (%)	H ₂ S (ppm)
RW-4	01/03/2025 ²	-6	7.5	8.1				
	02/06/2025 ²	-8	0	151.3				
	02/19/2025 ²	-5	--	233.5				
	03/07/2025	-12	63	137				
	04/04/2025	-19	48.3	90.6				
	04/15/2025	-5	--	--				
	04/18/2025	-6	--	82.8				
	05/02/2025	Closed; offline	--	66.9				
	05/08/2025	Offline	--	--				
	07/02/2025	Offline	--	537				
	11/14/2025	Offline	--	68.4				
RW-5	01/03/2025 ²	Offline	--	--				
	02/06/2025 ²	Offline	--	--				
	02/19/2025 ²	Opened; online -4.5	--	32.7				
	03/07/2025	Closed; offline	--	--				
	04/04/2025	Offline	--	--				
	04/18/2025	Offline	--	19.5				
	07/02/2025	Offline	--	28.1				
	11/14/2025	Offline	--	29.7				

Table 2. MPE System Performance and Recorded Field Measurements *(continued)*

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted otherwise)	Flow (cfm)	VOCs ¹ (ppm, unless noted otherwise)	CH ₄ (% LEL)	O ₂ (%)	CO ₂ (%)	H ₂ S (ppm)
RW-6	01/03/2025 ²	-6	9.3	1.3				
	02/06/2025 ²	-6	7.55	24.2				
	02/19/2025 ²	-5	--	23.4				
	03/07/2025	Closed; offline	--	--				
	04/04/2025	Offline	--	--				
	04/15/2025	Opened; online -5	--	--				
	04/18/2025	-5	--	3.6				
	05/2/2025	-7	46.2	178				
	06/13/2025	-10	--	--				
	06/20/2025	-10	--	641				
	06/27/2025	-10	43.2	--				
	07/02/2025	Online	--	648				
	07/11/2025	-5.5	42.8	--				
	07/25/2025	-5.0	--	--				
	08/01/2025	-4.5	--	--				
	08/08/2025	-4.5	--	--				
	08/15/2025	-4.5	18.6	250.6				
	09/23/2025	-5.5	45.7	234.2				
	10/21/2025	-10.5	32.11	257.4				

Table 2. MPE System Performance and Recorded Field Measurements *(continued)*

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted otherwise)	Flow (cfm)	VOCs ¹ (ppm, unless noted otherwise)	CH ₄ (% LEL)	O ₂ (%)	CO ₂ (%)	H ₂ S (ppm)
RW-6 <i>(cont.)</i>	11/14/2025	-12.5	34.8	100.7				
	12/1/2025	-12.5 Closed; offline	--	--				
RW-7	01/03/2025 ²	-5	24.7	18.3				
	02/06/2025 ²	-8	0	56.1				
	02/19/2025 ²	-5	--	698.2				
	03/07/2025	-13	40	624				
	04/04/2025	-19.5	64.2	685				
	04/15/2025	-10	--	--				
	04/18/2025	-11	--	483				
	05/02/2025	-10	58.3	381.5 (water in tubing)				
	05/08/2025	Offline	--	--				
	07/02/2025	Offline	--	537				
	09/23/2025	Offline	--	--				
	10/21/2025	Offline	--	--				
	11/14/2025	Offline	--	178				
	12/1/2025	Open; online -6.5	--	--				
	12/18/2025	Online	17.3	245.1				

Table 2. MPE System Performance and Recorded Field Measurements *(continued)*

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted otherwise)	Flow (cfm)	VOCs ¹ (ppm, unless noted otherwise)	CH ₄ (% LEL)	O ₂ (%)	CO ₂ (%)	H ₂ S (ppm)
RW-8	01/03/2025 ²	-5	27	9.5				
	02/08/2025 ²	-8	3	334				
	02/19/2025 ²	-5	--	559.8				
	03/07/2025	-12	43	242				
	04/04/2025	-19	55.1	125.1				
	04/15/2025	-5.5	--	--				
	04/18/2025	-6	--	94.5				
	05/02/2025	-6.5	30.6	103.7				
	06/13/2025	-5.5	--	--				
	06/20/2025	-5.5	--	432				
	06/27/2025	-5.5	23.6	--				
	07/02/2025	Online	--	215				
	07/11/2025	-5.5	23.9	--				
	07/25/2025	-4.5	--	--				
	08/01/2025	-4.5	--	--				
	08/08/2025	-4.5	--	--				
	08/15/2025	-4.5	27.2	351.3				
	09/23/2025	-5.5	39.83	334.6				
	10/21/2025	-5.5	20.72	354.7				
	11/14/2025	-6	29.3	240.6				

Table 2. MPE System Performance and Recorded Field Measurements *(continued)*

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted otherwise)	Flow (cfm)	VOCs ¹ (ppm, unless noted otherwise)	CH ₄ (% LEL)	O ₂ (%)	CO ₂ (%)	H ₂ S (ppm)
RW-8 <i>(cont.)</i>	12/1/2025	-6.5	--	--				
	12/18/2025	Online	26.8	75.6				
RW-9	01/03/2025 ²	-2.5	133.1	3.1				
	02/06/2025 ²	-7	0	27.5				
	02/19/2025 ²	-4.5	--	39.9				
	03/07/2025	Offline	--	--				
	04/04/2025	Offline	--	--				
	04/15/2025	-5.5	--	--				
	04/18/2025	-5	--	60.8				
	05/02/2025	-6.5	40.3	38.6				
	06/13/2025	Offline	--	--				
	07/02/2025	Offline	--	172.1				
	09/23/2025	Offline	--	--				
	09/23/2025	-5.5	68.84	5.1				
	10/21/2025	-4.5 Closed; Offline	21.30	12.1				
	11/14/2025	Offline	--	14.9				
RW-10	01/03/2025 ²	Offline	--	--				
	02/06/2025 ²	Offline	--	--				
	02/19/2025 ²	Opened; online -5	0	39.5				

Table 2. MPE System Performance and Recorded Field Measurements *(continued)*

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted otherwise)	Flow (cfm)	VOCs ¹ (ppm, unless noted otherwise)	CH ₄ (% LEL)	O ₂ (%)	CO ₂ (%)	H ₂ S (ppm)
RW-10 <i>(cont.)</i>	03/07/2025	Closed; offline	--	--				
	04/04/2025	Offline	--	--				
	04/15/2025	Opened; online -5	--	--				
	04/18/2025	Closed; offline	--	0.3				
	07/02/2025	Offline	--	27.3				
	09/23/2025	Opened; online -5.5	34.62	10.9				
	10/21/2025	-4.5 Closed; offline	12.43	4.8				
	11/14/2025	Offline	--	6.2				
MW-4	01/03/2025 ²	Offline	--	--				
	02/06/2025 ²	-12	5.46	0				
	02/19/2025 ²	-5	--	25.9				
	03/07/2025	Offline	--	--				
	04/04/2025	Offline	--	--				
	04/15/2025	-5	--	--				
	04/18/2025	-5	--	31				
	04/25/2025	Offline	--	--				
	05/30/2025	Offline	--	--				
	06/13/2025	-10	--	--				

Table 2. MPE System Performance and Recorded Field Measurements *(continued)*

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted otherwise)	Flow (cfm)	VOCs ¹ (ppm, unless noted otherwise)	CH ₄ (% LEL)	O ₂ (%)	CO ₂ (%)	H ₂ S (ppm)
MW-4 <i>(cont.)</i>	06/20/2025	-10	--	31.6				
	06/27/2025	-10	53.4	--				
	07/02/2025	-11	--	39.2				
	07/11/2025	-9	56.1	--				
	07/25/2025	-9.5	--	--				
	08/01/2025	-9	--	--				
	08/08/2025	-9.5	--	--				
	08/15/2025	-9.5	--	--				
	08/28/2025	Offline	--	--				
	9/23/2025	Offline	--	--				
	10/21/2025	Offline	--	--				
	11/14/2025	Offline	--	18.9				
	12/1/2025	Open; online -12.5	--	--				
	12/18/2025	Online	46.2	17.6				
SW-1	01/03/2025 ²	-7.5	38.7	11.6				
	02/06/2025 ²	Closed; offline	--	--				
	02/19/2025 ²	Opened; online -5	--	52				
	03/07/2025	Closed; offline	--	--				
	04/04/2025	Offline	--	--				

Table 2. MPE System Performance and Recorded Field Measurements *(continued)*

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted otherwise)	Flow (cfm)	VOCs ¹ (ppm, unless noted otherwise)	CH ₄ (% LEL)	O ₂ (%)	CO ₂ (%)	H ₂ S (ppm)
SW-1 <i>(cont.)</i>	04/18/2025	Offline	--	0				
	07/02/2025	Offline	--	56.8				
	11/14/2025	Offline	--	33.4				
SW-2	01/03/2025 ²	Offline	--	--				
	02/06/2025 ²	Offline	--	--				
	02/19/2025 ²	Opened; online -5	--	51.5				
	03/07/2025	Closed; offline	--	--				
	04/04/2025	Offline	--	--				
	04/15/2025	Opened; online -8	--	--				
	04/18/2025	-8	--	29.3				
	05/02/2025	-10	42.1	11.9 (water in tubing)				
	06/13/2025	Closed; offline	--	--				
	07/02/2025	Offline	--	29.7				
	08/28/2025	Opened; online	--	--				
	09/23/2025	-5.5	20.66	30.6				
	10/21/2025	-5.5	19.59	33.1				
	11/14/2025	-6.0	20.56	15.0				
	12/1/2025	-6.5 closed; offline	--	--				

Table 2. MPE System Performance and Recorded Field Measurements *(continued)*

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted otherwise)	Flow (cfm)	VOCs ¹ (ppm, unless noted otherwise)	CH ₄ (% LEL)	O ₂ (%)	CO ₂ (%)	H ₂ S (ppm)
SW-3	01/03/2025 ²	-4	67.8	--				
	02/06/2025 ²	-12.5	--	1				
	02/19/2025 ²	-4.5	--	20.82				
	03/07/2025	Closed; offline	--	--				
	04/15/2025	Opened; online -5	--	--				
	04/18/2025	Closed; offline	--	2.8				
	07/02/2025	Offline	--	11.2				
	9/23/2025	Offline	--	--				
	11/14/2025	Offline	--	10.5				
VP-1	01/03/2025 ²	-0.001 (inH ₂ O)		0.8	--	--	--	--
	01/31/2025	--		133 ppb	0	20.4	0.28	0.0
	02/06/2025 ²	-0.14 (inH ₂ O)		2.6	--	--	--	--
	05/08/2025	-0.009 (inH ₂ O)		60 ppb	0	19.2	0.92	0
	08/01/2025	-0.046		20 ppb	0	20.5	0.80	0
	10/21/2025	-0.01		81 ppb	0	20.9	0.08	0
VP-2	01/03/2025 ²	-0.001 (inH ₂ O)		0.6	--	--	--	--
	01/31/2025	--		108 ppb	0	20.5	0.04	0.0
	02/06/2025 ²	-0.1 (inH ₂ O)		6.6	--	--	--	--
	05/08/2025	-0.006 (inH ₂ O)		78 ppb	0	20.9	0.10	0

Table 2. MPE System Performance and Recorded Field Measurements *(continued)*

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted otherwise)	Flow (cfm)	VOCs ¹ (ppm, unless noted otherwise)	CH ₄ (% LEL)	O ₂ (%)	CO ₂ (%)	H ₂ S (ppm)
VP-2 (cont.)	08/01/2025	-0.024		37 ppb	0	20.9	0.18	0
	10/21/2025	-0.02		78 ppb	0	20.1	0.74	0
VP-3	01/03/2025 ²	-0.002 (inH ₂ O)		3.5	--	--	--	--
	01/31/2025	--		1.282	0	20.3	0.26	0.0
	02/06/2025 ²	-0.049 (inH ₂ O)		6.6	--	--	--	--
	05/08/2025 ²	-0.012 (inH ₂ O)		135 ppb	0	20.9	0.06	0
	08/01/2025	-0.015		418 ppb	0	20.7	0.24	0
	10/21/2025	-0.05		471 ppb	0	20.9	0.18	0
VP-4	01/03/2025 ²	-0.003 (inH ₂ O)		38.1	--	--	--	--
	01/31/2025 ²	--		18.7	0	19.0	1.06	0.0
	02/6/2025 ²	-0.013 (inH ₂ O)		137.7	--	--	--	--
	02/19/2025 ²	-0.05 (inH ₂ O)		122	--	--	--	--
	05/08/2025	-0.007 (inH ₂ O)		11.6	0	20.9	0.42	0
	08/01/2025	-0.01		19.8	0	19.3	1.08	0
	10/21/2025	-0.01		16	0	19.9	0.76	0
SSD-1	02/06/2025 ²	-5 (inH ₂ O)	--	--	--	--	--	--
	02/19/2025 ²	-1.5 (inH ₂ O)	--	--	--	--	--	--
	03/07/2025	-0.661 (inH ₂ O)	4.2	20 ppb	0	20.9	0.08	0
	04/04/2025	-0.557 (inH ₂ O)	7.6	0.1	0	20.9	0.08	0
	07/02/2025	-0.526	6.8	0.1	0	20.9	0.20	0
	10/21/2025	-0.525	9.41	90	0	20.9	0.26	0

Table 2. MPE System Performance and Recorded Field Measurements *(continued)*

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted otherwise)	Flow (cfm)	VOCs ¹ (ppm, unless noted otherwise)	CH ₄ (% LEL)	O ₂ (%)	CO ₂ (%)	H ₂ S (ppm)
SSD-2	02/06/2025 ²	-5 (inH ₂ O)	--	--	--	--	--	--
	02/19/2025 ²	-1.5 (inH ₂ O)	--	--	--	--	--	--
	03/07/2025	-1.006 (inH ₂ O)	6.8	118 ppb	0	20.9	0.02	0
	04/04/2025	-0.201 (inH ₂ O)	5.4	0.2	0	20.9	0.02	0
	07/02/2025	-0.35	4.7	0.3	0	20.9	0.06	0
	10/21/2025	-0.186	5.63	78	0	20.9	0.04	0
SSD-3	02/06/2025	-18 (inH ₂ O)	--	--	--	--	--	--
	02/19/2025 ²	-4.9 (inH ₂ O)	--	--	--	--	--	--
	03/07/2025	-3.308 (inH ₂ O)	22.8	2.3	0	20.9	0.09	0
	04/04/2025	-3.171 (inH ₂ O)	28.2	2.2	0	20.9	0.09	0
	07/02/2025	-1.456	26.4	2.8	0	20.9	0.10	0
	10/21/2025	-1.434	14.55	322	0	20.9	0.10	0

Notes:

1 = VOCs reading taken with low range sensor if concentrations for measurements <1.0 ppm.

2 = Measurement collected by Glacier

Gray Cell = measurement not required at location

cfm = cubic foot per minute

CH₄ = methane

CO₂ = carbon dioxide

H₂S = hydrogen sulfide

inHg = inch of mercury

inH₂O = inch of water

MPE = multiphase extraction

O₂ = oxygen

ppm = parts per million

ppb = parts per billion

VOC = volatile organic compounds

-- = not measured

%LEL = percentage of the lower explosive limit

Table 3. Vapor Analytical Results – Fourth Quarter 2025

Monitoring Well ID No.	Sample Date	VOCs by Method TO-15				
		GRO ¹	Benzene ¹	Toluene ¹	Ethylbenzene ¹	Total Xylenes ¹
Screening Level (µg/m³):		1,500	460	76,000	15,000	1,500
SSD-3	08/22/2025	3,220	0.639 U	2.15	0.867 U	2.61 U
VP-3	02/13/2025	1,920	5.30	31.6	24.5	306
VP-3	06/20/2025	9,290	0.639	117	48.1	443
VP-3	08/22/2025	1,230	0.639 U	1.97	0.867 U	5.30
VP-3	11/14/2025	826 U	0.853	24.3	1.06	6.08
VP-4	02/13/2025	158,000	4.73	31.8	23.2	227
VP-4	06/20/2025	6,030	0.639	8.02	3.42	8.29
VP-4	08/22/2025	8,510	1.49	10	4.08	11.6
VP-4	11/14/2025	6,160	0.639 U	9	4.19	10.6

Notes:

1 = Screening levels are based on updated MTCA Method B, "Noncancer Sub-Slab Soil Gas Screening Level – Cleanup Levels and Risk Calculation Vapor Intrusion Method B Table, February 2025" (Kennedy Jenks, 2024a). Also available online at: <https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/contamination-cleanup-tools/clarc/data-tables>.

Bold = sample result was detected

Yellow = sample result exceeds the screening level

GRO = gasoline-range organics (as total petroleum hydrocarbons)

µg/m³ = micrograms per cubic meter

U = not detected above the reported detection limit

Table 4. MPE System Vapor Performance, Estimated Emissions and Limits

Analyte of Concern	Date	Vapor Treatment System Results ($\mu\text{g}/\text{m}^3$) ¹		Estimated Emissions with System Flow of 100 cfm		WAC 173-460-150 De Minimis and SQER Values ²			
		Influent	Effluent	Treated Outlet Concentration Rate (lbs/24hr)	Outlet Concentration Rate (lbs/yr)	De Minimis ¹ (lbs/24hr)	De Minimis ¹ (lbs/yr)	SQER ¹ (lbs/24hr)	SQER ¹ (lbs/yr)
GRO	01/17/2025	107,000	1,020	0.0092	3.4	--	--	--	--
	02/13/2025	599,000	2,500	0.022	8.2	--	--	--	--
	03/24/2025	300,000	1,000	0.0090	3.3	--	--	--	--
	04/18/2025	582,000	1,040	0.0093	3.4	--	--	--	--
	05/30/2025	117,000	190,000	1.7	623	--	--	--	--
	06/20/2025	727,000	826 U	0.0074	2.7	--	--	--	--
	08/08/2025	413,000 U	826 U	0.0074	2.7	--	--	--	--
	11/14/2025	240,000	826 U	0.0074	2.7	--	--	--	--
Benzene	01/17/2025	399	9.14	0.000082	0.030	--	1.0	--	21
	02/13/2025	7,510	28.7	0.00026	0.094	--	1.0	--	21
	03/24/2025	6,900	9.97	0.000090	0.033	--	1.0	--	21
	04/18/2025	5,170	5.94	0.000053	0.019	--	1.0	--	21
	05/30/2025	1,490	658	0.0059	2.2	--	1.0	--	21
	06/20/2025	1,970	1.03	0.0000093	0.0034	--	1.0	--	21
	08/08/2025	910	9.1	0.000082	0.030	--	1.0	--	21
	11/14/2025	2,150	3.32	0.000030	0.011	--	1.0	--	21
Toluene	01/17/2025	618	1.17 U	0.000011	0.0038	19	--	370	--
	02/13/2025	12,200	28	0.00025	0.092	19	--	370	--

Table 4. MPE System Vapor Performance, Estimated Emissions and Limits *(continued)*

Analyte of Concern	Date	Vapor Treatment System Results ($\mu\text{g}/\text{m}^3$) ¹		Estimated Emissions with System Flow of 100 cfm		WAC 173-460-150 De Minimis and SQER Values ²			
		Influent	Effluent	Treated Outlet Concentration Rate (lbs/24hr)	Outlet Concentration Rate (lbs/yr)	De Minimis ¹ (lbs/24hr)	De Minimis ¹ (lbs/yr)	SQER ¹ (lbs/24hr)	SQER ¹ (lbs/yr)
Toluene (cont.)	03/24/2025	13,100	1.88 U	0.000017	0.0062	19	--	370	--
	04/18/2025	9,910	36.5	0.00033	0.12	19	--	370	--
	05/30/2025	18.8 U	2,970	0.027	9.7	19	--	370	--
	06/20/2025	10,000	1.88 U	0.000017	0.0062	19	--	370	--
	08/08/2025	2,320	2.12	0.000019	0.070	19	--	370	--
	11/14/2025	3,470	10.8	0.000097	0.035	19	--	370	--
Ethylbenzene	01/17/2025	1,040	0.542 J	0.0000049	0.0018	--	3.2	--	65
	02/13/2025	3,680	9.19	0.000083	0.030	--	3.2	--	65
	03/24/2025	3,030	0.867 U	0.0000078	0.0028	--	3.2	--	65
	04/18/2025	2,350	15.5	0.00014	0.051	--	3.2	--	65
	05/30/2025	8.67 U	2,010	0.018	6.6	--	3.2	--	65
	06/20/2025	4,160	0.867 U	0.0000078	0.0028	--	3.2	--	65
	08/08/2025	2,940	0.867 U	0.0000078	0.0028	--	3.2	--	65
	11/14/2025	1,580	2.89	0.000026	0.0095	--	3.2	--	65
Total Xylenes	01/17/2025	8,770	0.808 J	0.0000073	0.0027	0.82	--	16	--
	02/13/2025	37,100	40.9	0.00037	0.13	0.82	--	16	--
	03/24/2025	30,500	4.60	0.000041	0.015	0.82	--	16	--
	04/18/2025	28,200	434	0.0039	1.4	0.82	--	16	--

Table 4. MPE System Vapor Performance, Estimated Emissions and Limits *(continued)*

Analyte of Concern	Date	Vapor Treatment System Results ($\mu\text{g}/\text{m}^3$) ¹		Estimated Emissions with System Flow of 100 cfm		WAC 173-460-150 De Minimis and SQER Values ²			
		Influent	Effluent	Treated Outlet Concentration Rate (lbs/24hr)	Outlet Concentration Rate (lbs/yr)	De Minimis ¹ (lbs/24hr)	De Minimis ¹ (lbs/yr)	SQER ¹ (lbs/24hr)	SQER ¹ (lbs/yr)
Total Xylenes (cont.)	05/30/2025	26.1 U	23,000	0.21	75	0.82	--	16	--
	06/20/2025	39,700	2.61 U	0.000023	0.0086	0.82	--	16	--
	08/08/2025	17,200	12.6	0.00011	0.041	0.82	--	16	--
	11/14/2025	19,000	31	0.0000052	0.0074	0.82	--	16	--
Additional Analytes									
PCE	01/17/2025	1.29 U	66.2	0.00060	0.22	--	1.3	--	27
	02/13/2025	1,910	37.3	0.00034	0.12	--	1.3	--	27
	03/24/2025	136 U	13.8	0.00012	0.045	--	1.3	--	27
	04/18/2025	5,210	15.1	0.00014	0.050	--	1.3	--	27
	05/30/2025	151	233	0.0021	0.76	--	1.3	--	27
	06/20/2025	136	1.36 U	0.000012	0.0045	--	1.3	--	27
	08/08/2025	13.6 U	1.36 U	0.000012	0.0045	--	1.3	--	27
	11/14/2025	277	4.53	0.000041	0.015	--	1.3	--	27
Vinyl Chloride	01/17/2025	1.33	0.486 U	0.0000044	0.0016	--	0.92	--	18
	02/13/2025	51.1 U	0.667	0.0000060	0.0022	--	0.92	--	18
	03/24/2025	51.1 U	0.511 U	0.0000046	0.0017	--	0.92	--	18
	04/18/2025	22.4	0.511 U	0.0000046	0.0017	--	0.92	--	18
	05/30/2025	8.33	10.2 U	0.000092	0.033	--	0.92	--	18

Table 4. MPE System Vapor Performance, Estimated Emissions and Limits *(continued)*

Analyte of Concern	Date	Vapor Treatment System Results (µg/m³) ¹		Estimated Emissions with System Flow of 100 cfm		WAC 173-460-150 De Minimis and SQER Values ²			
		Influent	Effluent	Treated Outlet Concentration Rate (lbs/24hr)	Outlet Concentration Rate (lbs/yr)	De Minimis ¹ (lbs/24hr)	De Minimis ¹ (lbs/yr)	SQER ¹ (lbs/24hr)	SQER ¹ (lbs/yr)
Additional Analytes (continued)									
Vinyl Chloride (cont.)	06/20/2025	51.1 U	0.511 U	0.0000046	0.0017	--	0.92	--	18
	08/08/2025	27.7	7.29	0.000065	0.024	--	0.92	--	18
	11/14/2025	33.7	0.511 U	0.0000046	0.0017	--	0.92	--	18
Chloroethane	01/17/2025	0.501	0.427 J	0.0000038	0.0014	110	--	2,200	--
	02/13/2025	52.8 U	2.06	0.000019	0.0068	110	--	2,200	--
	03/24/2025	52.8 U	0.615	0.0000055	0.0020	110	--	2,200	--
	04/18/2025	10.6 U	0.528 U	0.0000047	0.0017	110	--	2,200	--
	05/30/2025	5.28 U	10.6 U	0.000095	0.035	110	--	2,200	--
	06/20/2025	52.8 U	0.528 U	0.0000047	0.0017	110	--	2,200	--
	08/22/2025	5.28 U	0.528 U	0.0000047	0.0017	110	--	2,200	--
	11/14/2025	10.6 U	0.528 U	0.0000047	0.0017	110	--	2,200	--
Chloromethane	01/17/2025	0.392	10.1	0.000091	0.033	0.33	--	6.7	--
	02/13/2025	41.3 U	45.2	0.00041	0.15	0.33	--	6.7	--
	03/24/2025	41.3 U	13.8	0.00012	0.045	0.33	--	6.7	--
	04/18/2025	8.26 U	0.706	0.0000063	0.0023	0.33	--	6.7	--
	05/30/2025	4.13 U	8.26 U	0.000074	0.027	0.33	--	6.7	--
	06/20/2025	41.3 U	0.626 U	0.0000056	0.0021	0.33	--	6.7	--

Table 4. MPE System Vapor Performance, Estimated Emissions and Limits *(continued)*

Analyte of Concern	Date	Vapor Treatment System Results (µg/m³) ¹		Estimated Emissions with System Flow of 100 cfm		WAC 173-460-150 De Minimis and SQER Values ²			
		Influent	Effluent	Treated Outlet Concentration Rate (lbs/24hr)	Outlet Concentration Rate (lbs/yr)	De Minimis ¹ (lbs/24hr)	De Minimis ¹ (lbs/yr)	SQER ¹ (lbs/24hr)	SQER ¹ (lbs/yr)
Additional Analytes (continued)									
Chloromethane (cont.)	08/22/2025	4.13 U	0.413 U	0.0000037	0.0014	0.33	--	6.7	--
	11/14/2025	8.26 U	0.646	0.0000058	0.0021	0.33	--	6.7	--
Methylene Chloride	01/17/2025	0.660	3.58	0.000032	0.012	--	490	--	9,800
	02/13/2025	69.4 U	24.0	0.00022	0.079	--	490	--	9,800
	03/24/2025	767	4.72	0.000042	0.015	--	490	--	9,800
	04/18/2025	13.9 U	0.694 U	0.0000062	0.0023	--	490	--	9,800
	05/30/2025	6.94 U	13.9 U	0.00012	0.046	--	490	--	9,800
	06/20/2025	69.4 U	0.694 U	0.0000062	0.0023	--	490	--	9,800
	08/08/2025	6.94 U	0.833	0.0000075	0.0027	--	490	--	9,800
	11/14/2025	13.9 U	2	0.000018	0.0066	--	490	--	9,800

Notes:

1 = Emissions were calculated using the limit of detection for effluent results not detected above

2 = Washington Administrative Code 173-460-150 De Minimis and Small Quantity Emission Rate limits.

Green = emission below the analyte's respective De Minimis and SQER limit

Yellow = emission above the analyte's respective De Minimis and/or SQER limit

cfm = cubic feet per minute

GRO = gasoline-range organics

lbs/24hr = pounds per 24 hours

lbs/yr = pounds per year

MPE = multiphase extraction

N/A = not applicable

PCE = tetrachloroethylene

SQER = Small Quantity Emission Rate

WAC = Washington Administrative Code

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter

U = not detected above the reported detection limit

-- = no value available

Table 5. MPE System Liquid Performance and Volume Discharged and Injected – Fourth Quarter 2025

Month	Approximate Volume Extracted (gallons) ¹	Cumulative Volume Discharged (gallons)	Maximum Daily Discharge Flow Rate (gpd)	Cumulative Volume Injected (gallons)	Maximum Injection Rate (gpd)	Notes
January 2025	7,920	9,090	561	0	0	Continued Phase 1 operations without stingers; last meter reading 24 January 2025.
February 2025	20,081	29,171	1,160	0	0	Stingers reinstalled on 05 February 2025; continued Phase 1 operations.
March 2025	21,150	50,321	1,020	0	0	Continued Phase 1 operations.
April 2025	20,999	71,320	972	0	0	Continued Phase 1 operations.
May 2025	21,506	92,826	856	0	0	Continued Phase 1 operations; system offline on 30 May 2025 due to vapor GAC not meeting removal efficiency requirements.
June 2025	11,521	104,347	739	0	0	Continued Phase 1 operations; system restarted on 13 June 2025 after carbon change-out.
July 2025	9,412	113,759	569	0	0	Continued Phase 1 operations; system outage on 16 July 2025 due to power disruption; restarted on 18 July 2025; shut back down due to loss of VTS removal efficiency; carbon change-out completed on 24 July 2025 and system restarted.
August 2025	8,541	122,300	329	0	0	Continued Phase 1 operations; system alarm/outage on 12 August 2025; system restarted on 13 August 2025

Table 5. MPE System Liquid Performance and Volume Discharged and Injected – Fourth Quarter 2025 *(continued)*

Month	Approximate Volume Extracted (gallons) ¹	Cumulative Volume Discharged (gallons)	Maximum Daily Discharge Flow Rate (gpd)	Cumulative Volume Injected (gallons)	Maximum Injection Rate (gpd)	Notes
September 2025	5,564	127,864	262	0	0	Continued Phase 1 operations; carbon change-out completed on 2 September 2025.
October 2025	6,945	134,809	325	0	0	Continued Phase 1 operations; carbon change-out completed on 17 October 2025.
November 2025	12,920	147,729	550	0	0	Continued Phase 1 operations; carbon change-out.
December 2025	19,755	167,484	1,042	0	0	Continued Phase 1 operations; carbon change-out completed on 11 December 2025; alarm conditions on 9 December 2025; system returned to undisrupted operation on 11 December 2025; alarm condition on 23 December 2025 and system returned to operation same day.

Notes: Wastewater Discharge Authorization No. 4614-01.0

1 = Volume estimated based on average daily flows between totalizer measurements.

gpd = gallons per day

MPE = multiphase extraction

Table 6. Water Treatment System Analytical Results – Fourth Quarter 2025

Sample Location	Sample Date	Water Quality Parameters		Nonpolar FOG by EPA Method 1664B	Chemical of Concern									
					VOCs by Method NWTPHGX									
		pH	Turbidity (NTU)	Oil and Grease	GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	TCE	Cis-1,2-DCE	PCE	Trans-1-2-DCE	Vinyl Chloride
Screening Level ¹ (mg/L):		5.0–12.0	25	100	0.25	0.07	1.4	1.7	2.2	0.5	1	0.24	1	0.012
LG-401-INF	01/17/2025	6.49	21	5.88 U	0.109	0.001 U	0.001 U	0.001 U	0.003 U	--	--	--	--	--
	02/27/2025	6.61	48	11.9 J-	0.114	0.00209	0.00183	0.001 U	0.003 U	0.001 U	0.001 U	0.00336	0.001 U	0.001 U
	03/21/2025	7.23	4.63	6.31	0.180 J+	0.001 U	0.001 U	0.001 U	0.00604	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
	04/25/2025	8.18	43	63.9	0.152	0.001	0.001 U	0.001 U	0.003	0.001 U	0.001 U	0.0159	0.001 U	0.001 U
	05/23/2025	7.48	26	6.1	0.738	0.001 U	0.001 U	0.001 U	0.00794	0.00125	0.0012	0.016	0.001 U	0.001 U
	06/27/2025	7.66	45	6.17	0.107	0.001 U	0.001 U	0.001 U	0.00362	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
	08/22/2025	7.64	29	5.95 UJ	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.000113	0.001 U	0.001 U
	11/14/2025	7.81	34	7.67	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
LG-402-MID/ LG-403-MID	01/17/2025	6.75	19	5.88 U	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	--	--	--	--	--
	02/27/2025	6.55	36	5.62 UJ	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
	03/21/2025	7.22	2.84	5.81 U	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
	04/25/2025	8.24	18	5.8 U	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
	05/23/2025	7.41	3.4	6.7	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
	06/27/2025	7.53	22	5.38	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
	08/22/2025	7.68	12	5.88 UJ	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
	11/14/2025	7.59	9.8	5.81 U	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
LG-404-EFF	01/17/2025	6.82	23NJ	5.49 U	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
DUP-1	01/17/2025 ²	--	--	5.81 U	--	--	--	--	--	--	--	--	--	--
DUP-2	01/17/2025 ²	--	--	5.95 U	--	--	--	--	--	--	--	--	--	--
DUP-3	01/17/2025 ²	6.82	22	5.75 U	0.119	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
LG-404-EFF	02/27/2025 ³	6.56	19	5.88 UJ	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
DUP-1	02/27/2025 ³	6.58	23	6.1 UJ	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
DUP-2	02/27/2025 ³	--	--	6.33 UJ	--	--	--	--	--	--	--	--	--	--
LG-404-EFF	03/21/2025 ⁴	7.23	2.91	5.95 U	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
DUP-1	03/21/2025 ⁴	7.23	2.89	5.26 U	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
DUP-2	03/21/2025 ⁴	--	--	5.26 U	--	--	--	--	--	--	--	--	--	--
LG-404-EFF	04/25/2025 ⁵	8.22	15	6 U	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ



Table 6. Water Treatment System Analytical Results – Fourth Quarter 2025 (continued)

Sample Location	Sample Date	Water Quality Parameters		Nonpolar FOG by EPA Method 1664B	Chemical of Concern									
					VOCs by Method NWTPHGX	VOCs by EPA Method 8260D								
		pH	Turbidity (NTU)	Oil and Grease	GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	TCE	Cis-1,2-DCE	PCE	Trans-1-2-DCE	Vinyl Chloride
Screening Level ¹ (mg/L):		5.0–12.0	25	100	0.25	0.07	1.4	1.7	2.2	0.5	1	0.24	1	0.012
DUP-1	04/25/2025 ⁵	8.20	11	5.8 U	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 UJ
DUP-2	04/25/2025 ⁵	--	--	5.9 U	--	--	--	--	--	--	--	--	--	--
LG-404-EFF	05/23/2025 ⁶	7.32	2.5	6.0 U	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
DUP-1	05/23/2025 ⁶	7.34	4.6	6.0 U	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
DUP-2	05/23/2025 ⁶	--	--	6.0 U	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
LG-404-EFF	06/27/2025 ⁶	7.50	5.6	5.68 U	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
DUP-1	06/27/2025 ⁶	7.50	4.8	5.75 U	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
DUP-2	06/27/2025 ⁶	--	--	6.1 U	--	--	--	--	--	--	--	--	--	--
LG-404-EFF	08/22/2025 ⁷	7.60	8.7	5.75 UJ	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
DUP-1	08/22/2025 ⁷	7.58	6.3	5.56 UJ	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
DUP-2	08/22/2025 ⁷	--	--	5.81 UJ	--	--	--	--	--	--	--	--	--	--
LG-404-EFF	11/14/2025 ⁸	7.46	5.6	5.81 U	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
DUP-1	11/14/2025 ⁸	7.44	8.4	5.81 U	0.1 U	0.001 U	0.001 U	0.001 U	0.003 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U
DUP-2	11/14/2025 ⁸	--	--	5.56 U	--	--	--	--	--	--	--	--	--	--

Notes:
1 = Screening levels are based on effluent limits in the KCIW Discharge Permit No. 4614-01.
2 = Samples DUP-1, DUP-2, and DUP-3, collected on 17 January 2025 are field duplicates of LG-404-EFF.
3 = Samples DUP-1, and DUP-2, collected on 27 February 2025 are field duplicates of LG-404-EFF.
4 = Samples DUP-1, and DUP-2, collected on 21 March 2025 are field duplicates of LG-404-EFF.
5 = Sample DUP-1, collected on 24 April 2025 is a field duplicate of LG-404-EFF.
6 = Sample DUP-1, collected on 23 May 2025 is a field duplicate of LG-404-EFF.
7 = Sample DUP-1, collected on 15 August 2025 is a field duplicate of LG-404-EFF.
8 = Samples DUP-1 and DUP-2, collected on 14 November 2025 are field duplicates of LG-404-EFF.

Bold = sample result was detected
DCE = dichloroethene
EPA = U.S. Environmental Protection Agency
FOG = fats, oils, and grease
GRO = gasoline-range organics

KCIW = King County Industrial Waste
mg/L = milligrams per liter
NTU = nephelometric turbidity unit
NWTPHGX = Northwest Total Petroleum Hydrocarbons as Gasoline

PCE = tetrachloroethene
TCE = trichloroethene
VOCs = volatile organic compounds
-- = sample was not analyzed for the water quality parameter, analyte, and/or chemical of concern

Laboratory Qualifiers:
J = Estimated: The analyte was positively identified; the quantitation is an estimation.
J- = Estimated, Low Bias: The result was an estimated quantity, but the result may be biased low.
J+ = Estimated, High Bias: The result was an estimated quantity, but the result may be biased high.
U = Not detected at the reported detection limit.
UJ = Not detected at the reported detection limit, but the limit is an estimation.



Table 7. Depth to Groundwater and Elevation – Fourth Quarter 2025

Monitoring Well ID No. ¹	Date of Measurement	Depth to Water (feet bgs)	Top of Casing Elevation (feet amsl)	Groundwater Elevation (feet amsl)
MW-2	01/17/2025	9.68	69.79	60.11
	02/21/2025	9.49	69.79	60.30
	03/28/2025	9.08	69.79	60.71
	04/25/2025	9.23	69.79	60.56
	05/23/2025	10.03	69.79	59.76
	08/08/2025	12.91	69.79	56.88
	11/14/2025	14.29	69.79	55.50
MW-6	01/17/2025	11.64	63.13	51.49
	02/21/2025	11.70	63.13	51.43
	03/28/2025	11.50	63.13	51.63
	04/25/2025	11.71	63.13	51.42
	05/23/2025	11.63	63.13	51.50
	08/08/2025	11.74	63.13	51.39
	11/14/2025	11.68	63.13	51.45
MW-7	01/17/2025	7.50	62.66	55.16
	02/21/2025	7.27	62.66	55.39
	03/28/2025	11.24	62.66	51.42
	04/25/2025	8.35	62.66	54.31
	05/23/2025	9.24	62.66	53.42
	08/08/2025	11.74	62.66	50.92
	11/14/2025	10.06	62.66	52.60
MW-8	01/17/2025	9.13	63.59	54.46
	02/21/2025	9.53	63.59	54.06
	03/28/2025	9.10	63.59	54.49
	04/25/2025	9.80	63.59	53.79
	05/23/2025	10.33	63.59	53.26
	08/08/2025	11.90	63.59	51.69
	11/14/2025	11.90	63.59	51.69
MW-9	01/17/2025	9.20	64.30	55.10
	02/21/2025	10.12	64.30	54.18

Table 7. Depth to Groundwater and Elevation – Fourth Quarter 2025 *(continued)*

Monitoring Well ID No. ¹	Date of Measurement	Depth to Water (feet bgs)	Top of Casing Elevation (feet amsl)	Groundwater Elevation (feet amsl)
MW-9 <i>(cont.)</i>	03/28/2025	10.06	64.30	54.24
	04/25/2025	10.58	64.30	53.72
	05/23/2025	11.28	64.30	53.02
	08/08/2025	12.57	64.30	51.73
	11/14/2025	11.56	64.30	52.74
MW-11	01/17/2025	2.67	63.59	60.92
	02/21/2025	2.85	63.59	60.74
	03/28/2025	1.54	63.59	62.05
	04/25/2025	3.3	63.59	60.29
	05/23/2025	3.12	63.59	60.47
	08/08/2025	7.22	63.59	56.37
	11/14/2025	1.20	63.59	62.39
MW-13	01/17/2025	10.21	65.08	54.87
	02/21/2025	11.26	65.08	53.82
	03/28/2025	11.96	65.08	53.12
	04/25/2025	12.2	65.08	52.88
	05/23/2025	13.13	65.08	51.95
	08/08/2025	13.12	65.08	51.96
	11/14/2025	13.10	65.08	51.98
MW-14	01/17/2025	7.57	63.30	55.73
	02/21/2025	7.51	63.30	55.79
	03/28/2025	6.83	63.30	56.47
	04/25/2025	8.11	63.30	55.19
	05/23/2025	8.43	63.30	54.87
	08/08/2025	10.40	63.30	52.90
	11/14/2025	6.28	63.30	57.02
MW-15	01/17/2025	6.50	64.18	57.68
	02/21/2025	4.52	64.18	59.66
	03/28/2025	2.53	64.18	61.65
	04/25/2025	8.34	64.18	55.84
	05/23/2025	8.79	64.18	55.39

Table 7. Depth to Groundwater and Elevation – Fourth Quarter 2025 *(continued)*

Monitoring Well ID No. ¹	Date of Measurement	Depth to Water (feet bgs)	Top of Casing Elevation (feet amsl)	Groundwater Elevation (feet amsl)
MW-15 (cont.)	08/08/2025	11.70	64.18	52.48
	11/14/2025	2.45	64.18	61.73
MW-16	01/17/2025	8.11	64.00	55.89
	02/21/2025	8.37	64.00	55.63
	03/28/2025	5.97	64.00	58.03
	04/25/2025	9.01	64.00	54.99
	05/23/2025	9.41	64.00	54.59
	08/08/2025	9.41	64.00	54.59
	11/14/2025	4.91	64.00	59.09
MW-17	01/17/2025	10.77	65.98	55.21
	02/21/2025	12.23	65.98	53.75
	03/28/2025	12.22	65.98	53.76
	04/25/2025	13.34	65.98	52.64
	05/23/2025	13.86	65.98	52.12
	08/08/2025	13.80	65.98	52.18
	11/14/2025	13.20	65.98	52.78
MW-18	01/17/2025	11.79	66.73	54.94
	02/21/2025	12.71	66.73	54.02
	03/28/2025	12.98	66.73	53.75
	04/25/2025	13.28	66.73	53.45
	05/23/2025	13.61	66.73	53.12
	08/08/2025	13.96	66.73	52.77
	11/14/2025	Dry	66.73	--
MW-19	01/17/2025	10.74	66.36	55.62
	02/21/2025	13.35	66.36	53.01
	03/28/2025	13.23	66.36	53.13
	04/25/2025	14.39	66.36	51.97
	05/23/2025	14.02	66.36	52.34
	08/08/2025	14.43	66.36	51.93
	11/14/2025	13.94	66.36	52.42

Table 7. Depth to Groundwater and Elevation – Fourth Quarter 2025 *(continued)*

Monitoring Well ID No. ¹	Date of Measurement	Depth to Water (feet bgs)	Top of Casing Elevation (feet amsl)	Groundwater Elevation (feet amsl)
MW-20	01/17/2025	10.53	66.17	55.64
	02/21/2025	13.29	66.17	52.88
	03/28/2025	13.90	66.17	52.27
	04/25/2025	14.53	66.17	51.64
	05/23/2025	15.93	66.17	50.24
	08/08/2025	14.60	66.17	51.57
	11/14/2025	14.59	66.17	51.58
MW-21	01/17/2025	9.64	65.89	56.25
	02/21/2025	13.39	65.89	52.20
	03/28/2025	14.17	65.89	51.72
	04/25/2025	14.6	65.89	51.29
	05/23/2025	14.91	65.89	50.98
	08/08/2025	13.82	65.89	52.07
	11/14/2025	13.99	65.89	51.90
RW-1	01/17/2025	11.14	--	--
	02/21/2025	12.70	--	--
	03/28/2025	13.19	--	--
	04/25/2025	13.66	--	--
	05/23/2025	14.55	--	--
	08/08/2025	14.23	--	--
	11/14/2025	13.74	--	--
RW-2	01/17/2025	7.75	--	--
	02/21/2025	11.40	--	--
	03/28/2025	11.92	--	--
	04/25/2025	12.15	--	--
	05/23/2025	13.09	--	--
	08/08/2025	13.05	--	--
	11/14/2025	12.96	--	--
RW-3	01/17/2025	6.85	--	--
	02/21/2025	11.65	--	--
	03/28/2025	12.10	--	--

Table 7. Depth to Groundwater and Elevation – Fourth Quarter 2025 *(continued)*

Monitoring Well ID No. ¹	Date of Measurement	Depth to Water (feet bgs)	Top of Casing Elevation (feet amsl)	Groundwater Elevation (feet amsl)
RW-3 (cont.)	04/25/2025	12.11	--	--
	05/23/2025	13.10	--	--
	08/08/2025	12.63	--	--
	11/14/2025	13.10	--	--
RW-4	01/17/2025	9.83	--	--
	02/21/2025	12.65	--	--
	03/28/2025	12.70	--	--
	04/25/2025	12.72	--	--
	05/23/2025	13.70	--	--
	08/08/2025	14.09	--	--
	11/14/2025	13.29	--	--
RW-5	01/17/2025	11.31	--	--
	02/21/2025	12.76	--	--
	03/28/2025	13.81	--	--
	04/25/2025	14.31	--	--
	05/23/2025	15.6	--	--
	08/08/2025	14.48	--	--
	11/14/2025	13.30	--	--
RW-6	01/17/2025	8.16	--	--
	02/21/2025	9.30	--	--
	03/28/2025	10.06	--	--
	04/25/2025	8.05	--	--
	05/23/2025	11.3	--	--
	08/08/2025	12.46	--	--
	11/14/2025	13.07	--	--
RW-7	01/17/2025	7.71	--	--
	02/21/2025	12.39	--	--
	03/28/2025	12.97	--	--
	04/25/2025	12.13	--	--
	05/23/2025	12.94	--	--

Table 7. Depth to Groundwater and Elevation – Fourth Quarter 2025 *(continued)*

Monitoring Well ID No. ¹	Date of Measurement	Depth to Water (feet bgs)	Top of Casing Elevation (feet amsl)	Groundwater Elevation (feet amsl)
RW-7 (cont.)	08/08/2025	14.25	--	--
	11/14/2025	13.44	--	--
RW-8	01/17/2025	7.36	--	--
	02/21/2025	12.04	--	--
	03/28/2025	13.21	--	--
	04/25/2025	13.03	--	--
	05/23/2025	13.78	--	--
	08/08/2025	12.97	--	--
	11/14/2025	12.44	--	--
RW-9	01/17/2025	10.55	--	--
	02/21/2025	14.17	--	--
	03/28/2025	13.81	--	--
	04/25/2025	12.26	--	--
	05/23/2025	12.37	--	--
	08/08/2025	13.97	--	--
	11/14/2025	13.71	--	--
RW-10	01/17/2025	11.36	--	--
	02/21/2025	12.78	--	--
	03/28/2025	13.08	--	--
	04/25/2025	14.84	--	--
	05/23/2025	12.89	--	--
	08/08/2025	14.48	--	--
	11/14/2025	14.05	--	--

Notes:

1 = MW-4 excluded from the table because the wellhead is not fitted with a removable well cap to allow for measurements.

MW-10 excluded from the table because it has remained obstructed, rendering it inaccessible.

amsl = above mean sea level

bgs = below ground surface

-- = information not available

Table 8. Groundwater Analytical Results – Fourth Quarter 2025

Monitoring Well ID No.	Sample Date	Chemicals of Concern				
		GRO by Method NWTPHGX	VOCs by EPA Method 8260D			
		GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes
Cleanup Level ¹ (µg/L):		800	5	1,000	700	1,000
RW-1	01/17/2025	167 J+	1 U	1 U	1 U	3 U
	02/21/2025	223	1 U	1 U	1 U	3 U
	03/28/2025	128 J+	1 U	1 U	1 U	3 U
	04/25/2025	122 J+	10 U	10 U	10 U	30 U
	05/23/2025	147	10 U	10 U	10 U	30 U
	08/08/2025	100 U	10 U	10 U	10 U	30 U
	11/14/2025	143	10 U	10 U	10 U	30 U
MW-6 ²	01/17/2025	263 J+	46.2	1.67	5.28	3 U
	02/21/2025	109 U	22.7	1 U	1.38	3 U
	03/28/2025	100 U	19.1	1 U	1.22	3 U
	03/28/2025	100 U	10 U	10 U	10 U	30 U
	04/25/2025	100 U	2.28	1 U	1 U	3 U
	04/25/2025	100 U	5.91	1 U	1 U	3 U
	05/23/2025	100 U	1 U	1 U	1 U	3 U
	08/08/2025	100 U	1 U	1 U	1 U	3 U
	11/14/2025	100 U	6.21	1 U	1 U	3 U
MW-8	01/17/2025	18,300	50 U	188	1,270	4,920
	02/21/2025	23,400	50 U	178	1,070	4,060
	02/21/2025	23,500	10 U	1,140	186	4,210

Table 8. Groundwater Analytical Results – Fourth Quarter 2025 (*continued*)

Monitoring Well ID No.	Sample Date	Chemicals of Concern				
		GRO by Method NWTPHGX	VOCs by EPA Method 8260D			
		GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes
Cleanup Level ¹ (µg/L):		800	5	1,000	700	1,000
MW-8 (cont.)	03/28/2025	16,200	50 U	72.5	570	2,440
	04/25/2025	19,900 J+	50 UJ	210	1,390	4,880
	05/23/2025	19,100	50 U	143	1,130	3,490
	08/08/2025	8,660 J+	50 U	50 U	546	1,340
	11/14/2025	8,640	25 U	25 U	96.3	1,120
MW-9 ⁴	01/17/2025	3,850	20 U	20 U	156	203
	01/17/2025	5,270	25 U	25 U	198	247
	02/21/2025	9,020	20 U	32.5	351	665
	03/28/2025	5,000	20 U	20.4	271	508
	04/25/2025	8,030 J+	20 U	44.1	530	1,110
	05/23/2025	12,700	20 U	35.1	607	1,450
	08/08/2025	4,810	10 U	10 U	184	288
	08/08/2025	6,160 J-	1 UJ	4.78 J-	198 J-	338 J-
	11/14/2025	1,770	5 U	5 U	55.4	92.9
MW-13 ⁵	01/17/2025	16,100	380	847	712	7,430
	02/21/2025	14,100	352	580	409	5,140
	03/28/2025	8,290	180	138	61.3	1,360
	04/25/2025	8,000	211	1,160	252	3,690
	05/23/2025	9,920	173	973	121	2,840

Table 8. Groundwater Analytical Results – Fourth Quarter 2025 *(continued)*

Monitoring Well ID No.	Sample Date	Chemicals of Concern				
		GRO by Method NWTPHGX	VOCs by EPA Method 8260D			
		GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes
Cleanup Level ¹ (µg/L):		800	5	1,000	700	1,000
MW-13 ⁵ (cont.)	08/08/2025	2,720 J+	54.3	2.30	1 U	187
	11/14/2025	1,170 J	38.7	1.39 J	3.01 J	30.2
	11/14/2025	1,710 J	43.6	2.21 J	5.95 J	22.8
MW-14	01/17/2025	100 U	1 U	1 U	1 U	3 U
	02/21/2025	100 U	1 U	1 U	1 U	3 U
	03/28/2025	100 U	1 U	1 U	1 U	3 U
	04/25/2025	100 U	1 U	5.02	1 U	3 U
	05/23/2025	100 U	1 U	21.3	1 U	3 U
	08/08/2025	100 U	1 U	3.79	1 U	3 U
	11/14/2025	100 U	1 U	1 U	1 U	3 U
MW-15 ³	01/17/2025	100 U	1 U	1 U	1 U	3 U
	02/21/2025	100 U	1 U	1 U	1 U	3 U
	03/28/2025	100 U	1 U	1 U	1 U	3 U
	04/25/2025	100 U	1 U	1 U	1 U	3 U
	05/23/2025	100 U	1 U	1 U	1 U	3 U
	05/23/2025	100 U	1 U	1 U	1 U	3 U
	08/08/2025	100 U	1 U	1 U	1 U	3 U
	11/14/2025	100 U	1 U	1 U	1 U	3 U

Table 8. Groundwater Analytical Results – Fourth Quarter 2025 *(continued)*

Monitoring Well ID No.	Sample Date	Chemicals of Concern				
		GRO by Method NWTPHGX	VOCs by EPA Method 8260D			
		GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes
Cleanup Level ¹ (µg/L):		800	5	1,000	700	1,000
MW-16	01/17/2025	100 U	1 U	1 U	1 U	3 U
	02/21/2025	112	1 U	1 U	1 U	3 U
	03/28/2025	100 U	1 U	1 U	1 U	3 U
	04/25/2025	100 U	1 U	1 U	1 U	3 U
	05/23/2025	100 U	1 U	1 U	1 U	3 U
	08/08/2025	100 U	1 U	1 U	1 U	3 U
	11/14/2025	100 U	1 U	1 U	1 U	3 U
MW-17	01/17/2025	300 J+	1 U	1 U	1 U	3 U
	02/21/2025	323	1 U	1 U	1 U	3 U
	03/28/2025	276	1 U	1 U	1 U	3 U
	04/25/2025	392 J+	1 U	1 U	1 U	3 U
	05/23/2025	429	1 U	1 U	1 U	3 U
	08/08/2025	566 J+	25 U	25 U	25 U	25 U
	11/14/2025	499	25 U	25 U	25 U	75 U
MW-18	01/17/2025	117 J+	1 U	1 U	1 U	3 U
	02/21/2025	110	1 U	1 U	1 U	3 U
	03/28/2025	100 U	1 U	1 U	1 U	3 U
	04/25/2025	100 U	1 U	1 U	1 U	3 U

Table 8. Groundwater Analytical Results – Fourth Quarter 2025 *(continued)*

Monitoring Well ID No.	Sample Date	Chemicals of Concern				
		GRO by Method NWTPHGX	VOCs by EPA Method 8260D			
		GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes
Cleanup Level ¹ (µg/L):		800	5	1,000	700	1,000
MW-18 (cont.)	05/23/2025	100 U	1 U	1 U	1 U	3 U
	08/08/2025	100 U	1 U	1 U	1 U	3 U
MW-19	01/17/2025	14,800	402	669	684	4,490
	02/21/2025	17,100	336	933	718	3,820
	03/28/2025	13,500	122	802	725	3,430
	04/25/2025	38,600 J+	5,670	8,970	1,080	5,780
	05/23/2025	17,400	498	2,220	511	2,670
	08/08/2025	18,500 J+	321	1,640	929	3,650
	11/14/2025	10,600	74.2	725	527	1,990
MW-20	01/17/2025	8,950	861	250 U	712	2,880
	02/21/2025	41,600	7,730	7,970	920	4,940
	03/28/2025	25,400	2,420	3,070	886	4,620
	04/25/2025	12,600	2,240	828	859	4,360
	05/23/2025	17,500	1,070	781	657	3,400
	08/08/2025	21,500 J+	2,510	811	918	5,040
	11/14/2025	27,900	3,300	1,340	1,590	8,110
MW-21	01/17/2025	12,000	3,130	1,780	500 U	2,820
	02/21/2025	69,000	16,400	14,700	970	6,390
	03/28/2025	47,200	9,270	8,460	1,540	7,400

Table 8. Groundwater Analytical Results – Fourth Quarter 2025 *(continued)*

Monitoring Well ID No.	Sample Date	Chemicals of Concern				
		GRO by Method NWTPHGX	VOCs by EPA Method 8260D			
		GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes
Cleanup Level ¹ (µg/L):		800	5	1,000	700	1,000
MW-21 (cont.)	04/25/2025	47,000 J+	10,800	9,830	1,450	8,030
	05/23/2025	67,000	9,630	15,200	1,660	10,200
	08/08/2025	43,200 J+	8,570	6,520	1,340	7,090
	11/14/2025	35,300	4,800	4,850	827	6,830

Notes:

1 = Screening levels are based on MTCA Method A Groundwater CULs (WAC 173-340-720, Table 720-1).

2 = Samples for MW-6 were field duplicated as DUP-1 on 4/25/2025.

3 = Samples for MW-15 were field duplicated as DUP-1 on 05/21/2025.

4 = Samples for MW-9 were field duplicated as DUP-1 on 08/08/2025.

5 = Samples for MW-13 were field duplicated as DUP-1 on 11/14/2025.

Bold = sample result was detected

Yellow = sample result exceeds the cleanup level

Orange = elevated reported detection limit, due to sample dilution, exceeds cleanup level

CULs = cleanup levels

EPA = U.S. Environmental Protection Agency

GRO = gasoline-range organics

MTCA = Model Toxics Control Act

NWTPHGX = Northwest Total Petroleum Hydrocarbons as Gasoline

VOCs = volatile organic compounds

WAC = Washington Administrative Code

µg/L = micrograms per liter

Qualifiers:

J, J+ = Estimated, Estimated High Bias: The result was an estimated quantity (J), the result may be biased high (J+).

U= Not detected at the reported detection limit.

Appendix A.

Field Data During Reporting Period

WELL GAUGING DATA

Project # 25114-D01 Date 11/14/25 Client ERRG

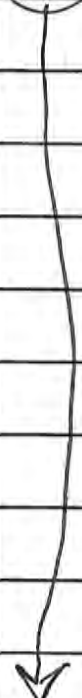
Site 2350 24th Ave E Seattle

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-2	0849	2	-	-	-	-	14.29	16.32		
MW-4	—	2	odor	told	not	to Access	—	—		
MW-6	0937	2	-	-	-	-	11.68	20.26		
MW-7	0917	2	-	-	-	-	10.06	20.39		
MW-8	0932	2	-	-	-	-	11.90	19.39		
MW-9	0932	2	-	-	-	-	11.56	20.27		
MW-10	—	2	-	obstructed	at	9.22ft	—	—		
MW-11	0855	2	-	-	-	-	1.20	19.97		
MW-13	0903	2	odor	-	-	-	13.10	18.60		
MW-14	0906	2	-	-	-	-	6.28	18.90		
MW-15	0858	2	-	-	-	-	2.45	17.29		
MW-16	0902	2	-	-	-	-	4.91	16.94		
MW-17	0901	2	-	-	-	-	13.20	19.77		
MW-18	0904	2	-	-	-	-	^{dry} 14.84	14.84		
MW-19	0917	2	odor	-	-	-	13.94	20.04		
MW-20	0937	4	odor	-	-	-	14.59	19.51		
MW-21	0924	4	-	-	-	-	13.99	18.83	✓	

WELL GAUGING DATA

Project # 251114-D01 Date 11/14/25 Client ERRG

Site 2350 24th Ave E Seattle

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
Rw-1	0912	4	-	-	-	-	13.74	19.98		
Rw-2	0907	4	-	-	-	-	12.96	19.30		
Rw-3	0911	4	-	-	-	-	13.10	19.70		
Rw-4	0914	4	odor	-	-	-	13.29	19.82		
Rw-5	0929	4	-	-	-	-	13.30	19.51		
Rw-6	0945	4	-	-	-	-	13.07	19.88		
Rw-7	0921	4	-	-	-	-	13.44	18.83		
Rw-8	0919	4	-	-	-	-	12.44	20.26		
Rw-9	0932	4	-	-	-	-	13.71	20.21		
Rw-10	0913	4	-	-	-	-	14.05	30.38		

LOW FLOW WELL MONITORING DATA SHEET

Project #: 251114-D01	Client: EPRG
Sampler: SM.	Gauging Date: 11/14/25
Well I.D.: MW-6.	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 20.26.	Depth to Water (ft.): 11.68.
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: Hanna.

Bladder Pump

Other

Pump Depth: 16'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or μS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1231	12.68	6.38	280	64	1.54	156.2	600	11.81.
1234	12.51	6.41	281	66	1.49	149.1	1200	11.84.
1237	12.38	6.49	282	65	1.47	145.5	1800	11.88.
1240	12.45	6.50	283	66	1.46	141.4	2400	11.91
1243	12.41	6.48	284	65	1.44	138.2	3000	11.94.

Duplicate I.D.: _____

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

LOW FLOW WELL MONITORING DATA SHEET

Project #: 251114-001.	Client: ERRC.
Sampler: SM	Gauging Date: 11/14/25.
Well I.D.: MW-8.	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 19.39.	Depth to Water (ft.): 11.90
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: Hanna.

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
Sampling Method: Dedicated Tubing New Tubing Other _____
Start Purge Time: 1127 Flow Rate: 200 ml/min Pump Depth: 15.5'

[illegible]

Did well dewater? Yes <u>No</u>	Amount actually evacuated: <u>3000ml.</u>
Sampling Time: <u>1145</u>	Sampling Date: <u>11/14/25</u>
Sample I.D.: <u>MW-8</u>	Laboratory: <u>Pace.</u>
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>See coc</u>
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.: <u>—</u>

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

LOW FLOW WELL MONITORING DATA SHEET

Project #: 751114-001	Client: ERRG.
Sampler: SM.	Gauging Date: 11/14/25
Well I.D.: MW-9. (odor)	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 20.27	Depth to Water (ft.): 11.56
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVO Grade	Flow Cell Type: Hanna.

Purge Method: 2" Grundfos Pump

Peristaltic Pump

Bladder Pump

Sampling Method: Dedicated Tubing

New Tubing

Other _____

Start Purge Time: 1026 Flow Rate: 200ml/min.

Pump Depth: 16'

[illegible]

Did well dewater? Yes ☒ No

Amount actually evacuated: 3000ml.

Sampling Time: 1044

Sampling Date: 11/14/25

Sample I.D.: nw-9

Laboratory: Pace

Analyzed for:	TPH-G	BTEX	MTBE	TPH-D
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Other: See col

Equipment Blank I.D.: _____ @ _____ Time

Duplicate I.D.: —

LOW FLOW WELL MONITORING DATA SHEET

Project #: 25114-D01	Client: EPLG
Sampler: D0	Gauging Date: 11/14/25
Well I.D.: MW-13	Well Diameter (in.): (2) 3 4 6 8
Total Well Depth (ft.): 18.60	Depth to Water (ft.): 13.10
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: Hanna

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Start Purge Time: 1141 Flow Rate: 200 mL/min Pump Depth: 16'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1144	15.06	6.94	1006	46	1.29	144.1	600	13.18
1147	15.12	6.91	1000	40	1.18	143.5	1200	13.21
1150	14.95	6.86	996	38	1.20	142.2	1800	13.29
1153	15.17	6.83	998	36	1.19	140.9	2400	13.32
1156	15.06	6.82	992	35	1.18	138.9	3000	13.36

Did well dewater? Yes (No)	Amount actually evacuated: 3000
Sampling Time: 1200	Sampling Date: 11/14/25
Sample I.D.: MW-13	Laboratory: Pace
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See COL
Equipment Blank I.D.: @ Time	Duplicate I.D.: Dup - 1

LOW FLOW WELL MONITORING DATA SHEET

Project #: 251114-001	Client: EPRG
Sampler: SM.	Gauging Date: 11/14/25
Well I.D.: MW-14.	Well Diameter (in.): ② 3 4 6 8
Total Well Depth (ft.): 18.90	Depth to Water (ft.): 6.28.
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: Hanna.

[illegible]

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

LOW FLOW WELL MONITORING DATA SHEET

Project #: 251114-D01	Client: ERPG
Sampler: SM	Gauging Date: 11/14/25
Well I.D.: MW-15	Well Diameter (in.): 2 3 4 6 8
Total Well Depth (ft.): 17.029	Depth to Water (ft.): 2.45
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: Hanna

Purge Method: 2" Grundfos Pump

Peristaltic Pump

Bladder Pump

Sampling Method: Dedicated Tubing

New Tubing

Other

Start Purge Time: 1056.

Flow Rate: 200 ml/min.

Pump Depth: 9.5'

[illegible]

Did well dewater? Yes ☐ No ☒

Amount actually evacuated: 3000ml.

Sampling Time: 1114

Sampling Date: 11/14/25

Sample I.D.: MW-15

Laboratory: Page

Analyzed for:	TPH-G	BTEX	MTBE	TPH-D
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Other: See rcc.

Equipment Blank I.D.: _____ @ _____ Time

Duplicate I.D.: 1

Project #: 251114-D01	Client: ERPG.
Sampler: SM	Gauging Date: 11/14/25
Well I.D.: MW-16	Well Diameter (in.): (2) 3 4 6 8
Total Well Depth (ft.): 16.94	Depth to Water (ft.): 4.91.
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: Hanna.

Bladder Pump

New Tubing

Other

Pump Depth: 11'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or μS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1001	10.44	7.03	44	51	1.88	129.1	600	5.05
1004	10.32	6.96	37	48	1.86	135.7	1200	5.09
1007	10.34	6.94	39	49	1.85	139.9	1800	5.12
1010	10.35	6.93	38	48	1.84	143.4	2400	5.15
1013	10.37	6.91	39	48	1.83	146.9	3000	5.19

Amount actually evacuated: 3000ml.

Sampling Date: 11/14/25

Laboratory: Pace

Other: See loc.

Duplicate I.D.: —

LOW FLOW WELL MONITORING DATA SHEET

Project #: 251114-D01	Client: ERRC
Sampler: SM	Gauging Date: 11/14/25
Well I.D.: MW-17	Well Diameter (in.): 2 3 4 6 8
Total Well Depth (ft.): 19.77	Depth to Water (ft.): 13.20
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: PVC Grade	Flow Cell Type: Hanner

Purge Method: 2" Grundfos Pump

Peristaltic Pump

Bladder Pump

Sampling Method: Dedicated Tubing

New Tubing

Other

Start Purge Time: 1251

Flow Rate: 700 ml/min.

Pump Depth: 16.5'

[illegible]

Did well dewater? Yes ☐ No ☒

Amount actually evacuated: 3000ml.

Sampling Time: 1307

Sampling Date: 11/14/25

Sample I.D.: MW-17.

Laboratory: *Page*

Analyzed for:	TPH-G	BTEX	MTBE	TPH-D
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Other: See coc

Equipment Blank I.D.: _____ @ _____ Time

Duplicate I.D.: —

LOW FLOW WELL MONITORING DATA SHEET

Project #: 251114 251114-001	Client: ERRL
Sampler: DO	Gauging Date: 11/14/25
Well I.D.: MW-18	Well Diameter (in.): (2) 3 4 6 8
Total Well Depth (ft.): 14.84	Depth to Water (ft.): Dry
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: —

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other
 Start Purge Time: _____ Flow Rate: _____ Pump Depth: _____

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
			Well	is	Dry			
			No	Sample	taken			

Did well dewater? Yes No	Amount actually evacuated:
Sampling Time:	Sampling Date:
Sample I.D.:	Laboratory:
Analyzed for: TPH-G BTEX MTBE TPH-D	Other:
Equipment Blank I.D.: @ Time	Duplicate I.D.:

Project #: 251114-001	Client: EPRC
Sampler: D2	Gauging Date: 11/14/25
Well I.D.: MW-19	Well Diameter (in.) (2) 3 4 6 8
Total Well Depth (ft.): 20.04	Depth to Water (ft.): 13.94
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: Hanna

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
Sampling Method: Dedicated Tubing New Tubing Other _____
Start Purge Time: 1222 Flow Rate: 200 mL/min Pump Depth: 17'

[illegible]

Did well dewater? Yes ☒ No ☐	Amount actually evacuated: 3000
Sampling Time: 1240	Sampling Date: 11/14/25
Sample I.D.: MW-19	Laboratory: Pace
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See COL
Equipment Blank I.D.: @ Time	Duplicate I.D.: —

LOW FLOW WELL MONITORING DATA SHEET

Project #: 25114-001	Client: ERRC
Sampler: DO	Gauging Date: 11/14/25
Well I.D.: MW-20	Well Diameter (in.): 2 3 4 6 8
Total Well Depth (ft.): 19.51 odor!	Depth to Water (ft.): 14.59
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: Hanna

Purge Method: 2" Grundfos Pump

Peristaltic Pump

Bladder Pump

Sampling Method: Dedicated Tubing

New Tubing

Other

Start Purge Time: 10.33

Flow Rate:

200 ml/min

Pump Depth: 17.5'

[illegible]

Did well dewater? Yes

Amount actually evacuated: 3000

Sampling Time: 1050

Sampling Date: 11/14/25

Sample I.D.: MW-70

Laboratory: Pace

Analyzed for:	TPH-G	BTEX	MTBE	TPH-D
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Other: See Col

Equipment Blank I.D.:

a

Time

Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: <u>A 25114-101</u>	Client: <u>ERZLA</u>
Sampler: <u>NO</u>	Gauging Date: <u>11/14/25</u>
Well I.D.: <u>MW-21</u>	Well Diameter (in.): 2 3 <u>(4)</u> 6 8
Total Well Depth (ft.): <u>16.83</u>	Depth to Water (ft.): <u>13.99</u>
Depth to Free Product: <u>—</u>	Thickness of Free Product (feet): <u>—</u>
Referenced to: <u>(PVC)</u> Grade	Flow Cell Type: <u>Hanna</u>

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
 Sampling Method: Dedicated Tubing New Tubing Other _____
 Start Purge Time: 1108 Flow Rate: 200mL/min Pump Depth: 16.5

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or μS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mL)	Depth to Water (ft.)
1111	16.52	6.89	1191	94	1.12	173.5	600	14.06
1114	16.00	6.88	1191	85	1.11	164.6	1200	14.09
1117	15.39	6.87	1192	80	1.11	161.3	1800	14.15
1120	15.49	6.90	1192	78	1.09	159.2	2400	14.21
1123	15.55	6.87	1192	75	1.09	154.9	3000	14.28

Did well dewater? Yes <u>No</u>	Amount actually evacuated: <u>3000</u>
Sampling Time: <u>1125</u>	Sampling Date: <u>11/14/25</u>
Sample I.D.: <u>MW-21</u>	Laboratory: <u>Pace</u>
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: <u>See COC</u>
Equipment Blank I.D.: <u>@</u> Time	Duplicate I.D.: <u>—</u>

LOW FLOW WELL MONITORING DATA SHEET

Project #: 25114-001	Client: EPRG
Sampler: M	Gauging Date: 11/14/25
Well I.D.: RW-1	Well Diameter (in.): 2 3 ④ 6 8
Total Well Depth (ft.): 19.98	Depth to Water (ft.): 13.74
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: PVC Grade	Flow Cell Type:

Purge Method: 2" Grundfos Pump Peristaltic Pump Bladder Pump
Sampling Method: Dedicated Tubing New Tubing Other _____
Start Purge Time: 1000 Flow Rate: 200 ml/min Pump Depth: 17'

[illegible]

Did well dewater? Yes ☒ No ☐	Amount actually evacuated: 3000
Sampling Time: 10/16	Sampling Date: 11/14/25
Sample I.D.: RW-1	Laboratory: Pace
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See Col
Equipment Blank I.D.: @ Time	Duplicate I.D.:

WELLHEAD INSPECTION FORM

Client: ERRG Site: 2350 24th Ave E Seattle Date: 11/14/25
 Job #: 25114-D01 Technician: _____ Page 1 of 2

Well ID	Well Inspected - No Corrective Action Required	Check indicates deficiency											Well Not Inspected (explain in notes)	Notes (list if cap or lick replaced, if there are access issues associated with repairs, if traffic control is required, if stand pipe damaged, or any specific details not covered by checklist)	
		Cap non-functional	Lock non-functional	Lock missing	Bolts missing (list qty)	Tabs stripped (list qty)	Tabs broken (list qty)	Annular seal incomplete	Apron damaged	Rim / Lid broken	Trip Hazard	Below Grade			Other (explain in notes)
MW-2	X														
MW-4	X														
MW-6	X														
MW-7	X														
MW-8	X														
MW-9	X														
MW-10	X														
MW-11	X														
MW-13	X														
MW-14	X														
MW-15	X														
MW-16	X														
MW-17	X														
MW-18	X														
MW-19	X														
MW-20	X														
MW-21	X														

NOTES: _____

WELLHEAD INSPECTION FORM

Client: ERRG Site: 2350 24th Ave SE Seattle Date: 11/14/25
 Job #: 25114-DO1 Technician: _____ Page 2 of 2

Well ID	Well Inspected - No Corrective Action Required	Check indicates deficiency											Well Not Inspected (explain in notes)	Notes (list if cap or lick replaced, if there are access issues associated with repairs, if traffic control is required, if stand pipe damaged, or any specific details not covered by checklist)	
		Cap non-functional	Lock non-functional	Lock missing	Bolts missing (list qty)	Tabs stripped (list qty)	Tabs broken (list qty)	Annular seal incomplete	Apron damaged	Rim / Lid broken	Trip Hazard	Below Grade			Other (explain in notes)
RW-1	X														
RW-2	X														
RW-3	X														
RW-4	X														
RW-5	X														
RW-6	X														
RW-7	X														
RW-8	X														
RW-9	X														
RW-10	X														

NOTES: _____

TEST EQUIPMENT CALIBRATION LOG

[illegible]

TEST EQUIPMENT CALIBRATION LOG

[illegible]

SYSTEM MONITORING FORM
CIRCLE K - PHASE 1: MULTI-PHASE EXTRACTION (MPE) / SOIL VAPOR EXTRACTION (SVE)

Name & Company:	ERRG JS	System On on Arrival? (circle):	yes no
Date/time of data collection:	10/8/2025	System Hours:	6568.2
Weather:	Overcast, Cool	Phase 1: MPE / SVE, all active EIWs in extraction mode.	
Barometric pressure (psi):	30	Barometric Pressure source:	Anemometer
Ambient Temperature (°F):	55	Ambient Temperature source:	Internet
Noise (dBA):	If above 60 dBA, notify KJ personnel		
Moisture Separator Drained? (circle)	Yes No	Active Alarm Conditions (circle, note affected equipment):	
Approximate volume (gal):	0 cycles	1. No Alarm	
Catalytic Oxidizer Installed? (circle)	Yes No	2. High Water Level	Tank(s):
Effluent Vapor VOC Conc (ppm):	-	3. Low Water Level	Tank(s):
PID Calibration Performed? (circle)	Yes No	4. High Pressure	Equipment:
		5. Low Pressure	Equipment:
PID Calibration	Zero Gas Span Gas	6. System Shutdown	Equipment:
Calibration Value (ppm):	0 100	7. Temperature	Equipment:
Instrument Reading (ppm):	0	8. Other:	

Wells - Injection/Extraction (At Manifold)					Treatment System					
Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)	Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
RW-2	-	-	-	C	Before MS	VI 210		12.5		
RW-3	-	-	-	O	After MS	PI 310		26		
RW-4	-	-	-	C	Before Blower	VI 300		13.4		
RW-5	-	-	-	C	After Blower	PI/FI 302		2.4	71.8	
RW-6	-	-	-	O	At Heat Exchanger	TT-302		73.5		
RW-7	-	-	-	C	Before Vapor GAC	PI 411		0	-	161.8
RW-8	-	-	-	O	Vapor GAC Midpoint**	PI 412		0	-	3.3
RW-9	-	-	-	O	After Vapor GAC**	PI 410		0	-	0.6
RW-10	-	-	-	O	After Pump P-400	PI 400		0		
SW-1	-	-	-	C	Before Bag Filter	PI-405		0		
SW-2	-	-	-	O	After Bag Filter**	FI 400/PI 401		0	0	
SW-3	-	-	-	C	Midpoint Liquid GAC 1**	PI 403		0		
MW-4	-	-	-	C	After Liquid GAC 1	FE-404			0	
					Midpoint Liquid GAC 2**	PI 406		0		
SSD-1	-	-	-	O	After Liquid GAC 2	FE-407			0	
SSD-2	-	-	-	O	After Liquid GAC**	PI-404		0		
SSD-3	-	-	-	O	Catalytic Oxidizer Temperatures (°F)					N/A
VP-1	-		-		Catalytic Oxidizer PID (ppm)		Pre: N/A Post: N/A			
VP-2	-		-		Catalytic Oxidizer Flow Rate (scfm)		N/A			
VP-3	-		-		Water Discharge Flow Totalizer		Date	Time	Total Flow (gal)	
VP-4	-		-		FT 500		10/8/2025	12:00	103,105.79	
					FT 500					

** Location for collection of air or water sample for laboratory analysis.

Comments/Maintenance Activities:	Permit Discharge Limits (see permits):
Collect system readings, record totalizer from flow meter	Air: 200 scfm Water: 3 gpm / 4500 gpd
Collect system vapor influent, midpoint, and effluent PID measurements	If exceeded, notify Kennedy Jenks personnel.

Notes: psi = pounds/square inch; cfm = cubic feet per minute; ppm = parts per million; gal = gallons; MS = vapor liquid separator; GAC = granular activated carbon; O/C= open/closed

SYSTEM MONITORING FORM
CIRCLE K - PHASE 1: MULTI-PHASE EXTRACTION (MPE) / SOIL VAPOR EXTRACTION (SVE)

Name & Company:	ERRG	FI / CD	System On on Arrival? (circle):	yes	no
Date/time of data collection:	10/21/2025		System Hours:	6872.9	
Weather:	Clear, Cool		Phase 1: MPE / SVE, all active EIWs in extraction mode.		
Barometric pressure (psi):	30.22		Barometric Pressure source:	Anemometer	
Ambient Temperature (°F):	58		Ambient Temperature source:	Internet	
Noise (dBA):	If above 60 dBA, notify KJ personnel		Noise measurement source:		
Moisture Separator Drained? (circle)	Yes	No	Active Alarm Conditions (circle, note affected equipment):		
Approximate volume (gal):	1 cycle		1. No Alarm		
Catalytic Oxidizer Installed? (circle)	Yes	No	2. High Water Level	Tank(s):	
Effluent Vapor VOC Conc (ppm):	-		3. Low Water Level	Tank(s):	
PID Calibration Performed? (circle)	Yes	No	4. High Pressure	Equipment:	
PID Calibration	Zero Gas	Span Gas	5. Low Pressure	Equipment:	
Calibration Value (ppm):	0	100	6. System Shutdown	Equipment:	
Instrument Reading (ppm):	0	101.2	7. Temperature	Equipment:	
			8. Other:		

Wells - Injection/Extraction (At Manifold)					Treatment System					
Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)	Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
RW-2	-	-	-	C	Before MS	VI 210		12.5 to 15		
RW-3	-	-	-	C	After MS	PI 310		26		
RW-4	-	-	-	C	Before Blower	VI 300		13.3 to 15.9		
RW-5	-	-	-	C	After Blower	PI/FI 302		2-.7 to 2.1	48.6-58.5	
RW-6	10.5	32.11	257.4	O	At Heat Exchanger	TT-302		68.8		
RW-7	-	-	-	C	Before Vapor GAC	PI 411		0	-	326.4
RW-8	5.5	20.72	354.7	O	Vapor GAC Midpoint**	PI 412		0	-	0.2
RW-9	4.5-0	21.30	12.1	O-C	After Vapor GAC**	PI 410		0	-	0.2
RW-10	4.0-0	12.43	4.8	O-C	After Pump P-400	PI 400		0		
SW-1	-	-	-	C	Before Bag Filter	PI-405		0		
SW-2	5.5	19.59	33.1	O	After Bag Filter**	FI 400/PI 401		0	0	
SW-3	-	-	-	C	Midpoint Liquid GAC 1**	PI 403		0		
MW-4	-	-	-	C	After Liquid GAC 1	FE-404			0	
Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppb)	Valve (O/C, fraction)	Midpoint Liquid GAC 2**	PI 406		0		
SSD-1	-0.525	9.41	90	O	After Liquid GAC 2	FE-407			0	
SSD-2	-0.186	5.63	78	O	After Liquid GAC**	PI-404		0		
SSD-3	-1.434	14.55	322	O	Catalytic Oxidizer Temperatures (°F)		N/A			
VP-1	-0.01		81		Catalytic Oxidizer PID (ppm)		Pre: N/A Post: N/A			
VP-2	-0.02		52		Catalytic Oxidizer Flow Rate (scfm)		N/A			
VP-3	-0.05		471		Water Discharge Flow Totalizer		Date	Time	Total Flow (gal)	
VP-4	-0.01		16 ppm			FT 500	10/21/2025	11:00	106,198.31	
						FT 500				

** Location for collection of air or water sample for laboratory analysis.

Comments/Maintenance Activities:	Permit Discharge Limits (see permits):
Collected system readings, measured EIW flow and VOCs, recorded totalizer from flow meter	Air: 200 scfm Water: 3 gpm / 4500 gpd
Collected system vapor influent, midpoint, and effluent PID measurements	If exceeded, notify Kennedy Jenks personnel.
Collected monthly midpoint BTEX sample, increased system vacuum by closing RW-9 and RW-10 to maintain LRP above 15 inHg (13.3 to 15.9)	
Collected PID and 4 gas readings from VP-1 through VP-4, and SSD-1 through SSD-3, all H2s and LEL at 0 ppm and 0%	
O2 readings = VP-1: 20.9%, VP-2: 20.1%, VP-3: 20.9%, VP-4: 19.9%, SSD-1: 20.9%, SSD-2: 20.9%, SSD-3: 20.9%	
CO2 readings = VP-1: 0.08%, VP-2: 0.74%, VP-3: 0.18%, VP-4: 0.76%, SSD-1: 0.26%, SSD-2: 0.04%, SSD-3: 0.10%	

Notes: psi = pounds/square inch; cfm = cubic feet per minute; ppm = parts per million; gal = gallons; MS = vapor liquid separator; GAC = granular activated carbon; O/C= open/closed

SYSTEM MONITORING FORM
CIRCLE K - PHASE 1: MULTI-PHASE EXTRACTION (MPE) / SOIL VAPOR EXTRACTION (SVE)

Name & Company:	ERRG	CD	System On on Arrival? (circle):	yes	no
Date/time of data collection:	11/7/2025		System Hours:	7236	
Weather:	Cool, Clear		Phase 1: MPE / SVE, all active EIWs in extraction mode.		
Barometric pressure (psi):	29.97		Barometric Pressure source:	Anemometer	
Ambient Temperature (°F):	53		Ambient Temperature source:	Internet	
Noise (dBA):	If above 60 dBA, notify KJ personnel		Noise measurement source:		
Moisture Separator Drained? (circle)	Yes	No	Active Alarm Conditions (circle, note affected equipment):		
Approximate volume (gal):	0 cycles		1. No Alarm		
Catalytic Oxidizer Installed? (circle)	Yes	No	2. High Water Level	Tank(s):	
Effluent Vapor VOC Conc (ppm):	-		3. Low Water Level	Tank(s):	
PID Calibration Performed? (circle)	Yes	No	4. High Pressure	Equipment:	
			5. Low Pressure	Equipment:	
PID Calibration	Zero Gas	Span Gas	6. System Shutdown	Equipment:	
Calibration Value (ppm):	0	100	7. Temperature	Equipment:	
Instrument Reading (ppm):	0	99.2	8. Other:		

Wells - Injection/Extraction (At Manifold)					Treatment System					
Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)	Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
RW-2	-	-	-	C	Before MS	VI 210		-		
RW-3	-	-	-	C	After MS	PI 310		-		
RW-4	-	-	-	C	Before Blower	VI 300		-		
RW-5	-	-	-	C	After Blower	PI/FI 302		-	-	
RW-6	-	-	-	O	At Heat Exchanger	TT-302		-		
RW-7	-	-	-	C	Before Vapor GAC	PI 411		-	-	117.3
RW-8	-	-	-	O	Vapor GAC Midpoint**	PI 412		-	-	0
RW-9	-	-	-	C	After Vapor GAC**	PI 410		-	-	0
RW-10	-	-	-	C	After Pump P-400	PI 400		-		
SW-1	-	-	-	C	Before Bag Filter	PI-405		-		
SW-2	-	-	-	O	After Bag Filter**	FI 400/PI 401		-	-	
SW-3	-	-	-	C	Midpoint Liquid GAC 1**	PI 403		-		
MW-4	-	-	-	C	After Liquid GAC 1	FE-404		-	-	
					Midpoint Liquid GAC 2**	PI 406		-		
SSD-1	-	-	-	O	After Liquid GAC 2	FE-407		-	-	
SSD-2	-	-	-	O	After Liquid GAC**	PI-404		-		
SSD-3	-	-	-	O	Catalytic Oxidizer Temperatures (°F)					N/A
VP-1	-		-		Catalytic Oxidizer PID (ppm)		Pre: N/A Post: N/A			
VP-2	-		-		Catalytic Oxidizer Flow Rate (scfm)		N/A			
VP-3	-		-		Water Discharge Flow Totalizer		Date	Time	Total Flow (gal)	
VP-4	-		-				FT 500	11/7/2025	15:00	7.00
							FT 500			

** Location for collection of air or water sample for laboratory analysis.

Comments/Maintenance Activities:	Permit Discharge Limits (see permits):
Recorded totalizer from flow meter	Air: 200 scfm Water: 3 gpm / 4500 gpd
Collected system vapor influent, midpoint, and effluent PID measurements	If exceeded, notify Kennedy Jenks personnel.

Notes: psi = pounds/square inch; cfm = cubic feet per minute; ppm = parts per million; gal = gallons; MS = vapor liquid separator; GAC = granular activated carbon; O/C= open/closed

SYSTEM MONITORING FORM
CIRCLE K - PHASE 1: MULTI-PHASE EXTRACTION (MPE) / SOIL VAPOR EXTRACTION (SVE)

Name & Company:	ERRG	FI	System On on Arrival? (circle):	yes	no
Date/time of data collection:	11/14/2025		System Hours:	7405.1	
Weather:	Overcast, Rainy		Phase 1: MPE / SVE, all active EIWs in extraction mode.		
Barometric pressure (psi):	29.8		Barometric Pressure source:	Anemometer	
Ambient Temperature (°F):	45		Ambient Temperature source:	Internet	
Noise (dBA):	If above 60 dBA, notify KJ personnel		Noise measurement source:		
Moisture Separator Drained? (circle)	Yes	No	Active Alarm Conditions (circle, note affected equipment):		
Approximate volume (gal):	2 cycles		1. No Alarm		
Catalytic Oxidizer Installed? (circle)	Yes	No	2. High Water Level	Tank(s):	
Effluent Vapor VOC Conc (ppm):	-		3. Low Water Level	Tank(s):	
PID Calibration Performed? (circle)	Yes	No	4. High Pressure	Equipment:	
PID Calibration	Zero Gas	Span Gas	5. Low Pressure	Equipment:	
Calibration Value (ppm):	0	100	6. System Shutdown	Equipment:	
Instrument Reading (ppm):	0	99.8	7. Temperature	Equipment:	
			8. Other:		

Wells - Injection/Extraction (At Manifold)					Treatment System					
Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)	Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
RW-2	-	-	21.3	C	Before MS	VI 210		15		
RW-3	-	-	30.4	C	After MS	PI 310		26		
RW-4	-	-	68.4	C	Before Blower	VI 300		16		
RW-5	-	-	29.7	C	After Blower	PI/FI 302		2.6	52.8	
RW-6	12.5	34.8	100.7	O	At Heat Exchanger	TT-302		53.8		
RW-7	-	-	178	C	Before Vapor GAC	PI 411		0	-	119.8
RW-8	6	29.3	240.6	O	Vapor GAC Midpoint**	PI 412		0	-	0.6
RW-9	-	-	14.9	C	After Vapor GAC**	PI 410		0	-	0.3
RW-10	-	-	6.2	C	After Pump P-400	PI 400		0		
SW-1	-	-	33.4	C	Before Bag Filter	PI-405		0		
SW-2	6	20.56	15	O	After Bag Filter**	FI 400/PI 401		0	0	
SW-3	-	-	10.5	C	Midpoint Liquid GAC 1**	PI 403		0		
MW-4	-	-	18.9	C	After Liquid GAC 1	FE-404			0	
Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppb)	Valve (O/C, fraction)	Midpoint Liquid GAC 2**	PI 406		0		
SSD-1	-	-	-	O	After Liquid GAC 2	FE-407			0	
SSD-2	-	-	-	O	After Liquid GAC**	PI-404		0		
SSD-3	-	-	-	O	Catalytic Oxidizer Temperatures (°F)	N/A				
VP-1	-		-		Catalytic Oxidizer PID (ppm)	Pre: N/A Post: N/A				
VP-2	-		-		Catalytic Oxidizer Flow Rate (scfm)	N/A				
VP-3	-		-		Water Discharge Flow Totalizer	Date	Time	Total Flow (gal)		
VP-4	-		-		FT 500	11/14/2025	10:00	113,215.93		
					FT 500					

** Location for collection of air or water sample for laboratory analysis.

Comments/Maintenance Activities:	Permit Discharge Limits (see permits):
Collected system readings, measured EIW VOCs, recorded totalizer from flow meter	Air: 200 scfm Water: 3 gpm / 4500 gpd
Collected system vapor influent, midpoint, and effluent PID measurements	If exceeded, notify Kennedy Jenks personnel.
Collected quarterly system water samples, quarterly system vapor samples, and vapor pin samples	
Blaine Tech onsite to perform quarterly groundwater monitoring and sampling,	
Collect quarterly VOCs from nonactive EIWs.	

Notes: psi = pounds/square inch; cfm = cubic feet per minute; ppm = parts per million; gal = gallons; MS = vapor liquid separator; GAC = granular activated carbon; O/C= open/closed

SYSTEM MONITORING FORM
CIRCLE K - PHASE 1: MULTI-PHASE EXTRACTION (MPE) / SOIL VAPOR EXTRACTION (SVE)

Name & Company:	ERRG	FI	System On on Arrival? (circle):	yes	no
Date/time of data collection:	11/20/2025		System Hours:	7550.4	
Weather:	Overcast, Rainy		Phase 1: MPE / SVE, all active EIWs in extraction mode.		
Barometric pressure (psi):	29.8		Barometric Pressure source:	Anemometer	
Ambient Temperature (°F):	45		Ambient Temperature source:	Internet	
Noise (dBA):	If above 60 dBA, notify KJ personnel		Noise measurement source:		
Moisture Separator Drained? (circle)	Yes	No	Active Alarm Conditions (circle, note affected equipment):		
Approximate volume (gal):	2 cycles		1. No Alarm		
Catalytic Oxidizer Installed? (circle)	Yes	No	2. High Water Level	Tank(s):	
Effluent Vapor VOC Conc (ppm):	-		3. Low Water Level	Tank(s):	
PID Calibration Performed? (circle)	Yes	No	4. High Pressure	Equipment:	
	PID Calibration	Zero Gas	5. Low Pressure	Equipment:	
	Calibration Value (ppm):	0	6. System Shutdown	Equipment:	
	Instrument Reading (ppm):	0	7. Temperature	Equipment:	
		100.9	8. Other:		

Wells - Injection/Extraction (At Manifold)					Treatment System					
Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)	Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
RW-2	-	-	-	C	Before MS	VI 210		-		
RW-3	-	-	-	C	After MS	PI 310		-		
RW-4	-	-	-	C	Before Blower	VI 300		-		
RW-5	-	-	-	C	After Blower	PI/FI 302		-	-	
RW-6	-	-	-	O	At Heat Exchanger	TT-302		-		
RW-7	-	-	-	C	Before Vapor GAC	PI 411		-	-	90.1
RW-8	-	-	-	O	Vapor GAC Midpoint**	PI 412		-	-	1.2
RW-9	-	-	-	C	After Vapor GAC**	PI 410		-	-	0
RW-10	-	-	-	C	After Pump P-400	PI 400		-		
SW-1	-	-	-	C	Before Bag Filter	PI-405		-		
SW-2	-	-	-	O	After Bag Filter**	FI 400/PI 401		-	-	
SW-3	-	-	-	C	Midpoint Liquid GAC 1**	PI 403		-		
MW-4	-	-	-	C	After Liquid GAC 1	FE-404		-	-	
	Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppb)	Valve (O/C, fraction)	Midpoint Liquid GAC 2**	PI 406	-		
SSD-1	-	-	-	O	After Liquid GAC 2	FE-407		-	-	
SSD-2	-	-	-	O	After Liquid GAC**	PI-404		-		
SSD-3	-	-	-	O	Catalytic Oxidizer Temperatures (°F)		N/A			
VP-1	-		-		Catalytic Oxidizer PID (ppm)		Pre: N/A Post: N/A			
VP-2	-		-		Catalytic Oxidizer Flow Rate (scfm)		N/A			
VP-3	-		-		Water Discharge Flow Totalizer		Date	Time	Total Flow (gal)	
VP-4	-		-		FT 500		11/20/2025	10:00	116,514.15	
					FT 500					

** Location for collection of air or water sample for laboratory analysis.

Comments/Maintenance Activities:	Permit Discharge Limits (see permits):
Recorded totalizer from flow meter	Air: 200 scfm Water: 3 gpm / 4500 gpd
Collected system vapor influent, midpoint, and effluent PID measurements	If exceeded, notify Kennedy Jenks personnel.

Notes: psi = pounds/square inch; cfm = cubic feet per minute; ppm = parts per million; gal = gallons; MS = vapor liquid separator; GAC = granular activated carbon; O/C= open/closed

SYSTEM MONITORING FORM
CIRCLE K - PHASE 1: MULTI-PHASE EXTRACTION (MPE) / SOIL VAPOR EXTRACTION (SVE)

Name & Company:	ERRG	CD	System On on Arrival? (circle):	yes	no
Date/time of data collection:	11/25/2025		System Hours:	7664.6	
Weather:	Partially Cloudy, Cool		Phase 1: MPE / SVE, all active EIWs in extraction mode.		
Barometric pressure (psi):	29.88		Barometric Pressure source:	Anemometer	
Ambient Temperature (°F):	44		Ambient Temperature source:	Internet	
Noise (dBA):	If above 60 dBA, notify KJ personnel		Noise measurement source:		
Moisture Separator Drained? (circle)	Yes	No	Active Alarm Conditions (circle, note affected equipment):		
Approximate volume (gal):	2 cycles		1. No Alarm		
Catalytic Oxidizer Installed? (circle)	Yes	No	2. High Water Level	Tank(s):	
Effluent Vapor VOC Conc (ppm):	-		3. Low Water Level	Tank(s):	
PID Calibration Performed? (circle)	Yes	No	4. High Pressure	Equipment:	
	PID Calibration	Zero Gas	5. Low Pressure	Equipment:	
	Calibration Value (ppm):	0	6. System Shutdown	Equipment:	
	Instrument Reading (ppm):	0	7. Temperature	Equipment:	
		99.1	8. Other:		

Wells - Injection/Extraction (At Manifold)					Treatment System					
Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)	Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
RW-2	-	-	-	C	Before MS	VI 210		15		
RW-3	-	-	-	C	After MS	PI 310		26		
RW-4	-	-	-	C	Before Blower	VI 300		16		
RW-5	-	-	-	C	After Blower	PI/FI 302		2.6	52.8	
RW-6	-	-	-	O	At Heat Exchanger	TT-302		53.8		
RW-7	-	-	-	C	Before Vapor GAC	PI 411		0	-	84.9
RW-8	-	-	-	O	Vapor GAC Midpoint**	PI 412		0	-	0.9
RW-9	-	-	-	C	After Vapor GAC**	PI 410		0	-	0
RW-10	-	-	-	C	After Pump P-400	PI 400		0		
SW-1	-	-	-	C	Before Bag Filter	PI-405		0		
SW-2	-	-	-	O	After Bag Filter**	FI 400/PI 401		0	0	
SW-3	-	-	-	C	Midpoint Liquid GAC 1**	PI 403		0		
MW-4	-	-	-	C	After Liquid GAC 1	FE-404			0	
Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppb)	Valve (O/C, fraction)	Midpoint Liquid GAC 2**	PI 406		0		
SSD-1	-	-	-	O	After Liquid GAC 2	FE-407			0	
SSD-2	-	-	-	O	After Liquid GAC**	PI-404		0		
SSD-3	-	-	-	O	Catalytic Oxidizer Temperatures (°F)					N/A
VP-1	-		-		Catalytic Oxidizer PID (ppm)		Pre: N/A Post: N/A			
VP-2	-		-		Catalytic Oxidizer Flow Rate (scfm)		N/A			
VP-3	-		-		Water Discharge Flow Totalizer		Date	Time	Total Flow (gal)	
VP-4	-		-		FT 500		11/14/2025	15:00	119,064.78	
					FT 500					

** Location for collection of air or water sample for laboratory analysis.

Comments/Maintenance Activities:	Permit Discharge Limits (see permits):
Recorded totalizer from flow meter	Air: 200 scfm Water: 3 gpm / 4500 gpd
Collected system vapor influent, midpoint, and effluent PID measurements	If exceeded, notify Kennedy Jenks personnel.

Notes: psi = pounds/square inch; cfm = cubic feet per minute; ppm = parts per million; gal = gallons; MS = vapor liquid separator; GAC = granular activated carbon; O/C= open/closed

SYSTEM MONITORING FORM
CIRCLE K - PHASE 1: MULTI-PHASE EXTRACTION (MPE) / SOIL VAPOR EXTRACTION (SVE)

Name & Company:	ERRG	CD	System On on Arrival? (circle):	yes	no
Date/time of data collection:	12/1/2025		System Hours:	7724.8	
Weather:	Cloudy/Rainy		Phase 1: MPE / SVE, all active EIWs in extraction mode.		
Barometric pressure (psi):	30		Barometric Pressure source:	Anemometer	
Ambient Temperature (°F):	42		Ambient Temperature source:	Internet	
Noise (dBA):	If above 60 dBA, notify KJ personnel		Noise measurement source:		
Moisture Separator Drained? (circle)	Yes	No	Active Alarm Conditions (circle, note affected equipment):		
Approximate volume (gal):	0 cycles		1. No Alarm		
Catalytic Oxidizer Installed? (circle)	Yes	No	2. High Water Level	Tank(s):	
Effluent Vapor VOC Conc (ppm):	-		3. Low Water Level	Tank(s):	
PID Calibration Performed? (circle)	Yes	No	4. High Pressure	Equipment:	
			5. Low Pressure	Equipment:	
			6. System Shutdown	Equipment:	
			7. Temperature	Equipment:	
			8. Other:		

Wells - Injection/Extraction (At Manifold)					Treatment System					
Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)	Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
RW-2	-	-	-	C	Before MS	VI 210		-		
RW-3	-	-	-	C	After MS	PI 310		-		
RW-4	-	-	-	C	Before Blower	VI 300		-		
RW-5	-	-	-	C	After Blower	PI/FI 302		-	-	
RW-6	12.5-0	-	-	O-C	At Heat Exchanger	TT-302		-		
RW-7	0-6.5	-	-	C-O	Before Vapor GAC	PI 411		-	-	68.5-141.3
RW-8	6.5	-	-	O	Vapor GAC Midpoint**	PI 412		-	-	1.2-1.3
RW-9	-	-	-	C	After Vapor GAC**	PI 410		-	-	0.2-0.9
RW-10	-	-	-	C	After Pump P-400	PI 400		-		
SW-1	-	-	-	C	Before Bag Filter	PI-405		-		
SW-2	6.5-0	-	-	O-C	After Bag Filter**	FI 400/PI 401		-	-	
SW-3	-	-	-	C	Midpoint Liquid GAC 1**	PI 403		-		
MW-4	0-12.5	-	-	C-O	After Liquid GAC 1	FE-404		-	-	
Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppb)	Valve (O/C, fraction)	Midpoint Liquid GAC 2**	PI 406		-		
SSD-1	-	-	-	O	After Liquid GAC 2	FE-407		-	-	
SSD-2	-	-	-	O	After Liquid GAC**	PI-404		-		
SSD-3	-	-	-	O	Catalytic Oxidizer Temperatures (°F)	N/A				
VP-1	-		-		Catalytic Oxidizer PID (ppm)	Pre: N/A Post: N/A				
VP-2	-		-		Catalytic Oxidizer Flow Rate (scfm)	N/A				
VP-3	-		-		Water Discharge Flow Totalizer	Date	Time	Total Flow (gal)		
VP-4	-		-		FT 500	12/1/2025		121,953.69		
					FT 500					

** Location for collection of air or water sample for laboratory analysis.

Comments/Maintenance Activities:	Permit Discharge Limits (see permits):
Switch extraction well setup, closed RW-8, SW-2, opened RW-7, MW-4.	Air: 200 scfm Water: 3 gpm / 4500 gpd
Influent vapor concentrations increased from 68.5 ppm to 141.3 ppm	If exceeded, notify Kennedy Jenks personnel.
Collected system vapor influent, midpoint, and effluent PID measurements	

Notes: psi = pounds/square inch; cfm = cubic feet per minute; ppm = parts per million; gal = gallons; MS = vapor liquid separator; GAC = granular activated carbon; O/C= open/closed

SYSTEM MONITORING FORM
CIRCLE K - PHASE 1: MULTI-PHASE EXTRACTION (MPE) / SOIL VAPOR EXTRACTION (SVE)

Name & Company:	ERRG	CH/SS	System On on Arrival? (circle):	yes	no
Date/time of data collection:	12/10/2025		System Hours:	7904	
Weather:	Cloudy/Showers		Phase 1: MPE / SVE, all active EIWs in extraction mode.		
Barometric pressure (psi):	29.9		Barometric Pressure source:	Anemometer	
Ambient Temperature (°F):	48		Ambient Temperature source:	Internet	
Noise (dBA):	If above 60 dBA, notify KJ personnel		Noise measurement source:		
Moisture Separator Drained? (circle)	Yes	No	Active Alarm Conditions (circle, note affected equipment):		
Approximate volume (gal):	0 cycles		1. No Alarm		
Catalytic Oxidizer Installed? (circle)	Yes	No	2. High Water Level	Tank(s): STORAGE/MS	
Effluent Vapor VOC Conc (ppm):	-		3. Low Water Level	Tank(s):	
PID Calibration Performed? (circle)	Yes	No	4. High Pressure	Equipment:	
PID Calibration	Zero Gas	Span Gas	5. Low Pressure	Equipment:	
Calibration Value (ppm):	-	-	6. System Shutdown	Equipment:	
Instrument Reading (ppm):	-	-	7. Temperature	Equipment:	
			8. Other:		

Wells - Injection/Extraction (At Manifold)					Treatment System					
Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)	Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
RW-2	-	-	-	C	Before MS	VI 210		-		
RW-3	-	-	-	C	After MS	PI 310		-		
RW-4	-	-	-	C	Before Blower	VI 300		-		
RW-5	-	-	-	C	After Blower	PI/FI 302		-	-	
RW-6	-	-	-	C	At Heat Exchanger	TT-302		-		
RW-7	-	-	-	O	Before Vapor GAC	PI 411		-	-	-
RW-8	-	-	-	O	Vapor GAC Midpoint**	PI 412		-	-	-
RW-9	-	-	-	C	After Vapor GAC**	PI 410		-	-	-
RW-10	-	-	-	C	After Pump P-400	PI 400		-		
SW-1	-	-	-	C	Before Bag Filter	PI-405		-		
SW-2	-	-	-	C	After Bag Filter**	FI 400/PI 401		-	-	
SW-3	-	-	-	C	Midpoint Liquid GAC 1**	PI 403		-		
MW-4	-	-	-	O	After Liquid GAC 1	FE-404		-	-	
					Midpoint Liquid GAC 2**	PI 406		-		
SSD-1	-	-	-	O	After Liquid GAC 2	FE-407		-	-	
SSD-2	-	-	-	O	After Liquid GAC**	PI-404		-		
SSD-3	-	-	-	O	Catalytic Oxidizer Temperatures (°F)					N/A
VP-1	-		-		Catalytic Oxidizer PID (ppm)		Pre: N/A Post: N/A			
VP-2	-		-		Catalytic Oxidizer Flow Rate (scfm)		N/A			
VP-3	-		-		Water Discharge Flow Totalizer		Date	Time	Total Flow (gal)	
VP-4	-		-		FT 500		12/10/2025	15:30	128,980.04	
					FT 500					

** Location for collection of air or water sample for laboratory analysis.

Comments/Maintenance Activities:	Permit Discharge Limits (see permits):
12/9 - High level alarm in storage tank followed by moisture separator tripped	Air: 200 scfm Water: 3 gpm / 4500 gpd
12/10 - ERRG onsite to inspect alarm conditions, restarted system no mechanical issues, Bag filter replaced, buildup and fouling observed, recent storms resulted in increased extraction flows.	If exceeded, notify Kennedy Jenks personnel.
Potential sewer line backup preventing discharge pump from draining storage tank to keep up with incoming MS tank flow.	
12/11 - High level alarm tripped again, Pacific Coast Carbon onsite to replace Vapor GAC, restart system switching LGAC lead lag banks, monitor system operations, no mechanical issues observed with pumps, fouling in well bank valves and sight glass cleaned out.	

Notes: psi = pounds/square inch; cfm = cubic feet per minute; ppm = parts per million; gal = gallons; MS = vapor liquid separator; GAC = granular activated carbon; O/C= open/closed

SYSTEM MONITORING FORM
CIRCLE K - PHASE 1: MULTI-PHASE EXTRACTION (MPE) / SOIL VAPOR EXTRACTION (SVE)

Name & Company:	ERRG	FI	System On on Arrival? (circle):	yes	no
Date/time of data collection:	12/18/2025		System Hours:	8178	
Weather:	Cloudy, Rain		Phase 1: MPE / SVE, all active EIWs in extraction mode.		
Barometric pressure (psi):	29.91		Barometric Pressure source:	Anemometer	
Ambient Temperature (°F):	42		Ambient Temperature source:	Internet	
Noise (dBA): 60-74 (traffic noise)	If above 60 dBA, notify KJ personnel		Noise measurement source:	Noise meter	
Moisture Separator Drained? (circle)	Yes	No	Active Alarm Conditions (circle, note affected equipment):		
Approximate volume (gal):	2 cycles		1. No Alarm		
Catalytic Oxidizer Installed? (circle)	Yes	No	2. High Water Level	Tank(s):	
Effluent Vapor VOC Conc (ppm):	-		3. Low Water Level	Tank(s):	
PID Calibration Performed? (circle)	Yes	No	4. High Pressure	Equipment:	
	PID Calibration	Zero Gas	5. Low Pressure	Equipment:	
	Calibration Value (ppm):	0	6. System Shutdown	Equipment:	
	Instrument Reading (ppm):	0	7. Temperature	Equipment:	
		100.7	8. Other:		

Wells - Injection/Extraction (At Manifold)					Treatment System					
Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)	Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
RW-2	-	-	-	C	Before MS	VI 210		15		
RW-3	-	-	-	C	After MS	PI 310		26		
RW-4	-	-	-	C	Before Blower	VI 300		16		
RW-5	-	-	-	C	After Blower	PI/FI 302		2.5	98.4	
RW-6	-	-	-	C	At Heat Exchanger	TT-302		50.6		
RW-7	-	17.3	245.1	O	Before Vapor GAC	PI 411		0	-	126.1
RW-8	-	26.8	75.6	O	Vapor GAC Midpoint**	PI 412		0	-	0.1
RW-9	-	-	-	C	After Vapor GAC**	PI 410		0	-	0
RW-10	-	-	-	C	After Pump P-400	PI 400		0		
SW-1	-	-	-	C	Before Bag Filter	PI-405		0		
SW-2	-	-	-	C	After Bag Filter**	FI 400/PI 401		0	0	
SW-3	-	-	-	C	Midpoint Liquid GAC 1**	PI 403		0		
MW-4	-	46.2	17.6	O	After Liquid GAC 1	FE-404			0	
					Midpoint Liquid GAC 2**	PI 406		0		
SSD-1	-	-	-	O	After Liquid GAC 2	FE-407			0	
SSD-2	-	-	-	O	After Liquid GAC**	PI-404		0		
SSD-3	-	-	-	O	Catalytic Oxidizer Temperatures (°F)					N/A
VP-1	-		-		Catalytic Oxidizer PID (ppm)		Pre: N/A Post: N/A			
VP-2	-		-		Catalytic Oxidizer Flow Rate (scfm)		N/A			
VP-3	-		-		Water Discharge Flow Totalizer		Date	Time	Total Flow (gal)	
VP-4	-		-		FT 500		11/14/2025	10:00	113,215.93	
					FT 500					

** Location for collection of air or water sample for laboratory analysis.

Comments/Maintenance Activities:	Permit Discharge Limits (see permits):
Collected system readings, measured EIW VOCs, recorded totalizer from flow meter	Air: 200 scfm Water: 3 gpm / 4500 gpd
Collected system vapor influent, midpoint, and effluent PID measurements	If exceeded, notify Kennedy Jenks personnel.
Collected monthly midpoint BTEX sample.	
Remove LGAC inlet, inspect and observe buildup and fouling in inlet filter and opening.	
Clean out inlet filter and opening,	

Notes: psi = pounds/square inch; cfm = cubic feet per minute; ppm = parts per million; gal = gallons; MS = vapor liquid separator; GAC = granular activated carbon; O/C= open/closed

SYSTEM MONITORING FORM
CIRCLE K - PHASE 1: MULTI-PHASE EXTRACTION (MPE) / SOIL VAPOR EXTRACTION (SVE)

Name & Company:	ERRG	CD	System On on Arrival? (circle):	yes	no
Date/time of data collection:	12/22/2025		System Hours:	8274.2	
Weather:	Overcast		Phase 1: MPE / SVE, all active EIWs in extraction mode.		
Barometric pressure (psi):	29.5		Barometric Pressure source:	Anemometer	
Ambient Temperature (°F):	50		Ambient Temperature source:	Internet	
Noise (dBA): 60-74 (traffic noise)	If above 60 dBA, notify KJ personnel		Noise measurement source:	Noise meter	
Moisture Separator Drained? (circle)	Yes	No	Active Alarm Conditions (circle, note affected equipment):		
Approximate volume (gal):	0 cycles		1. No Alarm		
Catalytic Oxidizer Installed? (circle)	Yes	No	2. High Water Level	Tank(s):	
Effluent Vapor VOC Conc (ppm):	-		3. Low Water Level	Tank(s):	
PID Calibration Performed? (circle)	Yes	No	4. High Pressure	Equipment:	
	PID Calibration	Zero Gas	5. Low Pressure	Equipment:	
	Calibration Value (ppm):	0	6. System Shutdown	Equipment:	
	Instrument Reading (ppm):	0	7. Temperature	Equipment:	
		100.7	8. Other:		

Wells - Injection/Extraction (At Manifold)					Treatment System					
Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)	Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
RW-2	-	-	-	C	Before MS	VI 210		-		
RW-3	-	-	-	C	After MS	PI 310		-		
RW-4	-	-	-	C	Before Blower	VI 300		-		
RW-5	-	-	-	C	After Blower	PI/FI 302		-	-	
RW-6		-	-	O	At Heat Exchanger	TT-302		-		
RW-7		-	-	O	Before Vapor GAC	PI 411		-	-	116.8
RW-8		-	-	O	Vapor GAC Midpoint**	PI 412		-	-	0.4
RW-9	-	-	-	C	After Vapor GAC**	PI 410		-	-	0
RW-10	-	-	-	C	After Pump P-400	PI 400		-		
SW-1	-	-	-	C	Before Bag Filter	PI-405		-		
SW-2		-	-	C	After Bag Filter**	FI 400/PI 401		-	-	
SW-3	-	-	-	C	Midpoint Liquid GAC 1**	PI 403		-		
MW-4	-	-	-	O	After Liquid GAC 1	FE-404		-	-	
Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppb)	Valve (O/C, fraction)	Midpoint Liquid GAC 2**	PI 406		-		
SSD-1	-	-	-	O	After Liquid GAC 2	FE-407		-	-	
SSD-2	-	-	-	O	After Liquid GAC**	PI-404		-		
SSD-3	-	-	-	O	Catalytic Oxidizer Temperatures (°F)					N/A
VP-1	-		-		Catalytic Oxidizer PID (ppm)		Pre: N/A Post: N/A			
VP-2	-		-		Catalytic Oxidizer Flow Rate (scfm)		N/A			
VP-3	-		-		Water Discharge Flow Totalizer		Date	Time	Total Flow (gal)	
VP-4	-		-		FT 500		12/22/2025	14:30	139,814.96	
					FT 500					

** Location for collection of air or water sample for laboratory analysis.

Comments/Maintenance Activities:	Permit Discharge Limits (see permits):
Recorded totalizer from flow meter	Air: 200 scfm Water: 3 gpm / 4500 gpd
Collected system vapor influent, midpoint, and effluent PID measurements	If exceeded, notify Kennedy Jenks personnel.

12/23 - CH onsite to do additional cleaning of LGAC inlet filters and piping, replaced bag filter.

Notes: psi = pounds/square inch; cfm = cubic feet per minute; ppm = parts per million; gal = gallons; MS = vapor liquid separator; GAC = granular activated carbon; O/C= open/closed

Appendix B.

Laboratory Reports During Reporting Period

November 26, 2025

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Engineering/Remediation Resources Group

Sample Delivery Group: L1918811
Samples Received: 11/15/2025
Project Number: 20230065
Description: System Vapor

Report To: Jennifer Sonnichsen
15333 NE 90th Street
Ste 100
Redmond, WA 98052

Entire Report Reviewed By:



Jennifer Gambill
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

Cp: Cover Page	1	¹ Cp
Tc: Table of Contents	2	
Ss: Sample Summary	3	² Tc
Cn: Case Narrative	4	
Sr: Sample Results	5	³ Ss
VG-412-INF-20251114 L1918811-01	5	
VG-410-EFF-20251114 L1918811-02	7	⁴ Cn
VP-3-20251114 L1918811-03	9	⁵ Sr
VP-4-20251114 L1918811-04	11	
Qc: Quality Control Summary	13	⁶ Qc
Volatile Organic Compounds (MS) by Method TO-15	13	
Gl: Glossary of Terms	23	⁷ Gl
Al: Accreditations & Locations	24	⁸ Al
Sc: Sample Chain of Custody	25	⁹ Sc

SAMPLE SUMMARY

VG-412-INF-20251114 L1918811-01

Collected by
Fernando Idiarte

Collected date/time
11/14/25 12:29

Received date/time
11/15/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2646702	20	11/24/25 14:39	11/24/25 14:39	DBB	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2648194	100	11/26/25 12:04	11/26/25 12:04	DAH	Mt. Juliet, TN

VG-410-EFF-20251114 L1918811-02

Collected by
Fernando Idiarte

Collected date/time
11/14/25 12:46

Received date/time
11/15/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2646702	1	11/24/25 12:53	11/24/25 12:53	DBB	Mt. Juliet, TN

VP-3-20251114 L1918811-03

Collected by
Fernando Idiarte

Collected date/time
11/14/25 13:23

Received date/time
11/15/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2641988	1	11/18/25 05:57	11/18/25 05:57	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2643377	10	11/19/25 18:41	11/19/25 18:41	ED	Mt. Juliet, TN

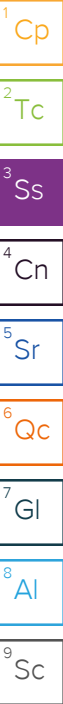
VP-4-20251114 L1918811-04

Collected by
Fernando Idiarte

Collected date/time
11/14/25 13:07

Received date/time
11/15/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2641988	1	11/18/25 06:44	11/18/25 06:44	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2646702	400	11/24/25 15:04	11/24/25 15:04	DBB	Mt. Juliet, TN



CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Jennifer Gambill
Project Manager



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	25.0	59.4	337	801		20	WG2646702
Allyl Chloride	107-05-1	76.53	4.00	12.5	ND	ND		20	WG2646702
Benzene	71-43-2	78.10	4.00	12.8	672	2150		20	WG2646702
Benzyl Chloride	100-44-7	127	4.00	20.8	ND	ND		20	WG2646702
Bromodichloromethane	75-27-4	164	4.00	26.8	ND	ND		20	WG2646702
Bromoform	75-25-2	253	12.6	130	ND	ND		20	WG2646702
Bromomethane	74-83-9	94.90	4.00	15.5	ND	ND		20	WG2646702
1,3-Butadiene	106-99-0	54.10	40.0	88.5	ND	ND		20	WG2646702
Carbon disulfide	75-15-0	76.10	8.00	24.9	ND	ND		20	WG2646702
Carbon tetrachloride	56-23-5	154	4.00	25.2	ND	ND		20	WG2646702
Chlorobenzene	108-90-7	113	4.00	18.5	ND	ND		20	WG2646702
Chloroethane	75-00-3	64.50	4.00	10.6	ND	ND		20	WG2646702
Chloroform	67-66-3	119	4.00	19.5	ND	ND		20	WG2646702
Chloromethane	74-87-3	50.50	4.00	8.26	ND	ND		20	WG2646702
2-Chlorotoluene	95-49-8	126	4.00	20.6	ND	ND		20	WG2646702
Cyclohexane	110-82-7	84.20	4.00	13.8	941	3240		20	WG2646702
Dibromochloromethane	124-48-1	208	4.00	34.0	ND	ND		20	WG2646702
1,2-Dibromoethane	106-93-4	188	4.00	30.8	ND	ND		20	WG2646702
1,2-Dichlorobenzene	95-50-1	147	4.00	24.0	ND	ND		20	WG2646702
1,3-Dichlorobenzene	541-73-1	147	4.00	24.0	ND	ND		20	WG2646702
1,4-Dichlorobenzene	106-46-7	147	4.00	24.0	ND	ND		20	WG2646702
1,2-Dichloroethane	107-06-2	99	4.00	16.2	13.6	55.1		20	WG2646702
1,1-Dichloroethane	75-34-3	98	4.00	16.0	ND	ND		20	WG2646702
1,1-Dichloroethene	75-35-4	96.90	4.00	15.9	ND	ND		20	WG2646702
cis-1,2-Dichloroethene	156-59-2	96.90	4.00	15.9	17.5	69.4		20	WG2646702
trans-1,2-Dichloroethene	156-60-5	96.90	4.00	15.9	ND	ND		20	WG2646702
1,2-Dichloropropane	78-87-5	113	4.00	18.5	ND	ND		20	WG2646702
cis-1,3-Dichloropropene	10061-01-5	111	4.00	18.2	ND	ND		20	WG2646702
trans-1,3-Dichloropropene	10061-02-6	111	4.00	18.2	ND	ND		20	WG2646702
1,4-Dioxane	123-91-1	88.10	12.6	45.4	ND	ND		20	WG2646702
Ethanol	64-17-5	46.10	50.0	94.3	ND	ND		20	WG2646702
Ethylbenzene	100-41-4	106	4.00	17.3	364	1580		20	WG2646702
4-Ethyltoluene	622-96-8	120	4.00	19.6	350	1720		20	WG2646702
Trichlorofluoromethane	75-69-4	137.40	4.00	22.5	ND	ND		20	WG2646702
Dichlorodifluoromethane	75-71-8	120.92	4.00	19.8	ND	ND		20	WG2646702
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	4.00	30.7	ND	ND		20	WG2646702
1,2-Dichlorotetrafluoroethane	76-14-2	171	4.00	28.0	ND	ND		20	WG2646702
Heptane	142-82-5	100	4.00	16.4	1450	5930		20	WG2646702
Hexachloro-1,3-butadiene	87-68-3	261	12.6	135	ND	ND		20	WG2646702
n-Hexane	110-54-3	86.20	63.0	222	1240	4370		100	WG2648194
Isopropylbenzene	98-82-8	120.20	4.00	19.7	19.3	94.9		20	WG2646702
Methylene Chloride	75-09-2	84.90	4.00	13.9	ND	ND		20	WG2646702
Methyl Butyl Ketone	591-78-6	100	25.0	102	ND	ND		20	WG2646702
2-Butanone (MEK)	78-93-3	72.10	25.0	73.7	ND	ND		20	WG2646702
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	25.0	102	ND	ND		20	WG2646702
Methyl Methacrylate	80-62-6	100.12	4.00	16.4	ND	ND		20	WG2646702
MTBE	1634-04-4	88.10	4.00	14.4	ND	ND		20	WG2646702
Naphthalene	91-20-3	128	12.6	66.0	ND	ND		20	WG2646702
2-Propanol	67-63-0	60.10	25.0	61.5	ND	ND		20	WG2646702
Propene	115-07-1	42.10	25.0	43.0	ND	ND		20	WG2646702
Styrene	100-42-5	104	8.00	34.0	ND	ND		20	WG2646702
1,1,2,2-Tetrachloroethane	79-34-5	168	4.00	27.5	ND	ND		20	WG2646702
Tetrachloroethylene	127-18-4	166	4.00	27.2	40.8	277		20	WG2646702
Tetrahydrofuran	109-99-9	72.10	4.00	11.8	ND	ND		20	WG2646702
Toluene	108-88-3	92.10	10.0	37.7	922	3470		20	WG2646702
1,2,4-Trichlorobenzene	120-82-1	181	12.6	93.3	ND	ND		20	WG2646702

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	4.00	21.8	ND	ND		20	WG2646702
1,1,2-Trichloroethane	79-00-5	133	4.00	21.8	ND	ND		20	WG2646702
Trichloroethylene	79-01-6	131	4.00	21.4	12.1	64.8		20	WG2646702
1,2,4-Trimethylbenzene	95-63-6	120	4.00	19.6	801	3930		20	WG2646702
1,3,5-Trimethylbenzene	108-67-8	120	4.00	19.6	616	3020		20	WG2646702
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	1120	5230		100	WG2648194
Vinyl chloride	75-01-4	62.50	4.00	10.2	13.2	33.7		20	WG2646702
Vinyl Bromide	593-60-2	106.95	4.00	17.5	ND	ND		20	WG2646702
Vinyl acetate	108-05-4	86.10	12.6	44.4	ND	ND		20	WG2646702
m&p-Xylene		106	8.00	34.7	3000	13000		20	WG2646702
o-Xylene	95-47-6	106	4.00	17.3	1380	5980		20	WG2646702
Xylenes, Total	1330-20-7	106.16	12.0	52.1	4380	19000		20	WG2646702
TPH (GC/MS) Low Fraction	8006-61-9	101	4000	16500	58000	240000		20	WG2646702
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		121				WG2646702
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.5				WG2648194

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	3.60	8.55		1	WG2646702
Allyl Chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2646702
Benzene	71-43-2	78.10	0.200	0.639	1.04	3.32		1	WG2646702
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2646702
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2646702
Bromoform	75-25-2	253	0.630	6.52	ND	ND		1	WG2646702
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2646702
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2646702
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		1	WG2646702
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2646702
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2646702
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2646702
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2646702
Chloromethane	74-87-3	50.50	0.200	0.413	0.313	0.646		1	WG2646702
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2646702
Cyclohexane	110-82-7	84.20	0.200	0.689	1.29	4.44		1	WG2646702
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2646702
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2646702
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2646702
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2646702
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2646702
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2646702
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2646702
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2646702
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2646702
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2646702
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2646702
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2646702
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2646702
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2646702
Ethanol	64-17-5	46.10	2.50	4.71	9.84	18.6		1	WG2646702
Ethylbenzene	100-41-4	106	0.200	0.867	0.666	2.89		1	WG2646702
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.486	2.39		1	WG2646702
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2646702
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	ND	ND		1	WG2646702
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2646702
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2646702
Heptane	142-82-5	100	0.200	0.818	2.36	9.65		1	WG2646702
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2646702
n-Hexane	110-54-3	86.20	0.630	2.22	3.79	13.4		1	WG2646702
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2646702
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.575	2.00		1	WG2646702
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2646702
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2646702
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2646702
Methyl Methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2646702
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2646702
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2646702
2-Propanol	67-63-0	60.10	1.25	3.07	2.77	6.81		1	WG2646702
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2646702
Styrene	100-42-5	104	0.400	1.70	ND	ND		1	WG2646702
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2646702
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.667	4.53		1	WG2646702
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2646702
Toluene	108-88-3	92.10	0.500	1.88	2.88	10.8		1	WG2646702
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2646702

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Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2646702
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2646702
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2646702
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.27	6.23		1	WG2646702
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	1.08	5.30		1	WG2646702
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	5.99	28.0		1	WG2646702
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2646702
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2646702
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2646702
m&p-Xylene		106	0.400	1.73	4.75	20.6		1	WG2646702
o-Xylene	95-47-6	106	0.200	0.867	2.40	10.4		1	WG2646702
Xylenes, Total	1330-20-7	106.16	0.600	2.61	7.15	31.0		1	WG2646702
TPH (GC/MS) Low Fraction	8006-61-9	101	200	826	ND	ND		1	WG2646702
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		115				WG2646702

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	11.5	27.3		1	WG2641988
Allyl Chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2641988
Benzene	71-43-2	78.10	0.200	0.639	0.267	0.853		1	WG2641988
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2641988
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2641988
Bromoform	75-25-2	253	0.630	6.52	ND	ND		1	WG2641988
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2641988
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2641988
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		1	WG2641988
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2641988
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND	J4	1	WG2641988
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2641988
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2641988
Chloromethane	74-87-3	50.50	0.200	0.413	0.323	0.667		1	WG2641988
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2641988
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG2641988
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2641988
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2641988
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2641988
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2641988
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2641988
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2641988
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2641988
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2641988
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2641988
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2641988
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2641988
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2641988
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2641988
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2641988
Ethanol	64-17-5	46.10	2.50	4.71	12.2	23.0		1	WG2641988
Ethylbenzene	100-41-4	106	0.200	0.867	0.244	1.06		1	WG2641988
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2641988
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.305	1.71		1	WG2641988
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.306	1.51		1	WG2641988
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2641988
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2641988
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2641988
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2641988
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2641988
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2641988
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG2641988
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2641988
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2641988
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2641988
Methyl Methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2641988
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2641988
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2641988
2-Propanol	67-63-0	60.10	1.25	3.07	8.38	20.6		1	WG2641988
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2641988
Styrene	100-42-5	104	0.400	1.70	ND	ND		1	WG2641988
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2641988
Tetrachloroethylene	127-18-4	166	2.00	13.6	94.6	642		10	WG2643377
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2641988
Toluene	108-88-3	92.10	0.500	1.88	6.44	24.3		1	WG2641988
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2641988

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2641988
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2641988
Trichloroethylene	79-01-6	131	0.200	1.07	13.0	69.7		1	WG2641988
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2641988
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2641988
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2641988
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND	J4	1	WG2641988
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2641988
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2641988
m&p-Xylene		106	0.400	1.73	0.953	4.13		1	WG2641988
o-Xylene	95-47-6	106	0.200	0.867	0.445	1.93		1	WG2641988
Xylenes, Total	1330-20-7	106.16	0.600	2.61	1.40	6.08		1	WG2641988
TPH (GC/MS) Low Fraction	8006-61-9	101	200	826	ND	ND		1	WG2641988
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		93.7				WG2641988
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		96.0				WG2643377

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	1.91	4.54		1	WG2641988
Allyl Chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2641988
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2641988
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2641988
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2641988
Bromoform	75-25-2	253	0.630	6.52	ND	ND		1	WG2641988
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2641988
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2641988
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		1	WG2641988
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2641988
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND	J4	1	WG2641988
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2641988
Chloroform	67-66-3	119	0.200	0.973	7.06	34.4		1	WG2641988
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2641988
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2641988
Cyclohexane	110-82-7	84.20	0.200	0.689	72.2	249		1	WG2641988
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2641988
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2641988
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2641988
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	0.521	3.13		1	WG2641988
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	3.22	19.4		1	WG2641988
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2641988
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2641988
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2641988
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	2.98	11.8		1	WG2641988
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.806	3.19		1	WG2641988
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2641988
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2641988
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2641988
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2641988
Ethanol	64-17-5	46.10	2.50	4.71	6.97	13.1		1	WG2641988
Ethylbenzene	100-41-4	106	0.200	0.867	0.966	4.19		1	WG2641988
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2641988
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2641988
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.595	2.94		1	WG2641988
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2641988
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2641988
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2641988
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2641988
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2641988
Isopropylbenzene	98-82-8	120.20	0.200	0.983	0.706	3.47		1	WG2641988
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG2641988
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2641988
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2641988
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2641988
Methyl Methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2641988
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2641988
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2641988
2-Propanol	67-63-0	60.10	1.25	3.07	2.80	6.88		1	WG2641988
Propene	115-07-1	42.10	1.25	2.15	11.3	19.5		1	WG2641988
Styrene	100-42-5	104	0.400	1.70	ND	ND		1	WG2641988
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2641988
Tetrachloroethylene	127-18-4	166	80.0	543	4640	31500		400	WG2646702
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2641988
Toluene	108-88-3	92.10	0.500	1.88	2.39	9.00		1	WG2641988
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2641988

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG2641988
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2641988
Trichloroethylene	79-01-6	131	0.200	1.07	31.8	170		1	WG2641988
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	1.51	7.41		1	WG2641988
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2641988
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	12.2	57.0		1	WG2641988
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND	J4	1	WG2641988
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2641988
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2641988
m&p-Xylene		106	0.400	1.73	0.982	4.26		1	WG2641988
o-Xylene	95-47-6	106	0.200	0.867	1.45	6.29		1	WG2641988
Xylenes, Total	1330-20-7	106.16	0.600	2.61	2.43	10.6		1	WG2641988
TPH (GC/MS) Low Fraction	8006-61-9	101	200	826	1490	6160		1	WG2641988
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		103				WG2641988
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		95.9				WG2646702

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4302530-2 11/17/25 11:16

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U	⌋	0.520	1.25
Allyl Chloride	U	⌋	0.186	0.200
Benzene	U	⌋	0.110	0.200
Benzyl Chloride	U	⌋	0.0888	0.200
Bromodichloromethane	U	⌋	0.0695	0.200
Bromoform	U	⌋	0.0755	0.630
Bromomethane	U	⌋	0.0938	0.200
1,3-Butadiene	U	⌋	0.158	2.00
Carbon disulfide	U	⌋	0.160	0.400
Carbon tetrachloride	U	⌋	0.0746	0.200
Chlorobenzene	U	⌋	0.118	0.200
Chloroethane	U	⌋	0.110	0.200
Chloroform	U	⌋	0.104	0.200
Chloromethane	U	⌋	0.110	0.200
2-Chlorotoluene	U	⌋	0.0787	0.200
Cyclohexane	U	⌋	0.170	0.200
Dibromochloromethane	U	⌋	0.0696	0.200
1,2-Dibromoethane	U	⌋	0.0690	0.200
1,2-Dichlorobenzene	U	⌋	0.0734	0.200
1,3-Dichlorobenzene	U	⌋	0.0753	0.200
1,4-Dichlorobenzene	U	⌋	0.0768	0.200
1,2-Dichloroethane	U	⌋	0.0730	0.200
1,1-Dichloroethane	U	⌋	0.0710	0.200
1,1-Dichloroethene	U	⌋	0.0747	0.200
cis-1,2-Dichloroethene	U	⌋	0.0796	0.200
trans-1,2-Dichloroethene	U	⌋	0.0735	0.200
1,2-Dichloropropane	U	⌋	0.0752	0.200
cis-1,3-Dichloropropene	U	⌋	0.0743	0.200
trans-1,3-Dichloropropene	U	⌋	0.0795	0.200
1,4-Dioxane	U	⌋	0.164	0.630
Ethanol	U	⌋	2.37	2.50
Ethylbenzene	U	⌋	0.0778	0.200
4-Ethyltoluene	U	⌋	0.0887	0.200
Trichlorofluoromethane	U	⌋	0.0771	0.200
Dichlorodifluoromethane	U	⌋	0.0806	0.200
1,1,2-Trichlorotrifluoroethane	U	⌋	0.0751	0.200
1,2-Dichlorotetrafluoroethane	U	⌋	0.0756	0.200
Heptane	U	⌋	0.114	0.200
Hexachloro-1,3-butadiene	U	⌋	0.0800	0.630
n-Hexane	U	⌋	0.143	0.630

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R4302530-2 11/17/25 11:16

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Isopropylbenzene	U	jc	0.0722	0.200
Methylene Chloride	U	jc	0.169	0.200
Methyl Butyl Ketone	U	jc	0.133	1.25
2-Butanone (MEK)	U	jc	0.116	1.25
4-Methyl-2-pentanone (MIBK)	U	jc	0.106	1.25
Methyl Methacrylate	U	jc	0.169	0.200
MTBE	U	jc	0.0813	0.200
Naphthalene	U	jc	0.617	0.630
2-Propanol	U	jc	0.680	1.25
Propene	U	jc	0.214	1.25
Styrene	U	jc	0.0802	0.400
1,1,2,2-Tetrachloroethane	U	jc	0.0695	0.200
Tetrahydrofuran	U	jc	0.164	0.200
Toluene	U	jc	0.130	0.500
1,2,4-Trichlorobenzene	U	jc	0.462	0.630
1,1,1-Trichloroethane	U	jc	0.0718	0.200
1,1,2-Trichloroethane	U	jc	0.0683	0.200
Trichloroethylene	U	jc	0.0680	0.200
1,2,4-Trimethylbenzene	U	jc	0.0927	0.200
1,3,5-Trimethylbenzene	U	jc	0.0853	0.200
2,2,4-Trimethylpentane	U	jc	0.0898	0.200
Vinyl chloride	U	jc	0.0826	0.200
Vinyl Bromide	U	jc	0.0749	0.200
Vinyl acetate	U	jc	0.0968	0.630
m&p-Xylene	U	jc	0.174	0.400
o-Xylene	U	jc	0.0887	0.200
Xylenes, Total	U	jc	0.0887	0.600
TPH (GC/MS) Low Fraction	U	jc	68.3	200
(S) 1,4-Bromofluorobenzene	98.4			60.0-140

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4302530-1 11/17/25 10:29 • (LCSD) R4302530-3 11/17/25 12:05

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	3.75	4.17	4.17	111	111	58.0-128			0.000	20
Allyl Chloride	3.75	4.39	4.38	117	117	71.0-131			0.228	20
Benzene	3.75	4.22	4.28	113	114	69.0-119			1.41	20
Benzyl Chloride	3.75	4.55	4.29	121	114	50.0-147			5.88	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4302530-1 11/17/25 10:29 • (LCSD) R4302530-3 11/17/25 12:05

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	3.75	4.37	4.27	117	114	72.0-128			2.31	20
Bromoform	3.75	3.91	3.76	104	100	66.0-139			3.91	20
Bromomethane	3.75	4.85	4.51	129	120	63.0-134			7.26	20
1,3-Butadiene	3.75	4.25	4.23	113	113	66.0-134			0.472	20
Carbon disulfide	7.50	8.69	8.62	116	115	57.0-134			0.809	20
Carbon tetrachloride	3.75	4.27	4.27	114	114	68.0-132			0.000	20
Chlorobenzene	3.75	4.49	4.42	120	118	70.0-119	J4		1.57	20
Chloroethane	3.75	4.69	4.38	125	117	63.0-127			6.84	20
Chloroform	3.75	4.33	4.31	115	115	68.0-123			0.463	20
Chloromethane	3.75	4.76	4.69	127	125	59.0-132			1.48	20
2-Chlorotoluene	3.75	4.68	4.33	125	115	74.0-130			7.77	20
Cyclohexane	3.75	4.21	4.13	112	110	70.0-117			1.92	20
Dibromochloromethane	3.75	4.28	4.23	114	113	70.0-130			1.18	20
1,2-Dibromoethane	3.75	4.50	4.41	120	118	74.0-122			2.02	20
1,2-Dichlorobenzene	3.75	4.47	4.42	119	118	63.0-129			1.12	20
1,3-Dichlorobenzene	3.75	4.79	4.47	128	119	65.0-130			6.91	20
1,4-Dichlorobenzene	3.75	4.60	4.56	123	122	60.0-131			0.873	20
1,2-Dichloroethane	3.75	4.41	4.42	118	118	65.0-128			0.227	20
1,1-Dichloroethane	3.75	4.38	4.36	117	116	68.0-126			0.458	20
1,1-Dichloroethene	3.75	4.29	4.30	114	115	61.0-133			0.233	20
cis-1,2-Dichloroethene	3.75	4.30	4.33	115	115	70.0-121			0.695	20
trans-1,2-Dichloroethene	3.75	4.30	4.22	115	113	67.0-124			1.88	20
1,2-Dichloropropane	3.75	4.37	4.37	117	117	69.0-123			0.000	20
cis-1,3-Dichloropropene	3.75	4.40	4.28	117	114	70.0-128			2.76	20
trans-1,3-Dichloropropene	3.75	4.40	4.27	117	114	75.0-133			3.00	20
1,4-Dioxane	3.75	4.54	4.46	121	119	71.0-122			1.78	20
Ethanol	3.75	4.02	4.01	107	107	59.0-125			0.249	20
Ethylbenzene	3.75	4.37	4.21	117	112	70.0-124			3.73	20
4-Ethyltoluene	3.75	4.39	4.24	117	113	67.0-129			3.48	20
Trichlorofluoromethane	3.75	4.46	4.45	119	119	62.0-126			0.224	20
Dichlorodifluoromethane	3.75	3.93	3.73	105	99.5	59.0-128			5.22	20
1,1,2-Trichlorotrifluoroethane	3.75	4.38	4.37	117	117	66.0-126			0.229	20
1,2-Dichlorotetrafluoroethane	3.75	4.35	4.12	116	110	63.0-121			5.43	20
Heptane	3.75	4.07	4.07	109	109	69.0-123			0.000	20
Hexachloro-1,3-butadiene	3.75	4.68	4.69	125	125	56.0-138			0.213	20
n-Hexane	3.75	4.01	4.00	107	107	63.0-120			0.250	20
Isopropylbenzene	3.75	4.51	4.20	120	112	68.0-124			7.12	20
Methylene Chloride	3.75	4.24	4.14	113	110	62.0-115			2.39	20
Methyl Butyl Ketone	3.75	4.22	4.15	113	111	62.0-128			1.67	20
2-Butanone (MEK)	3.75	4.45	4.39	119	117	67.0-130			1.36	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4302530-1 11/17/25 10:29 • (LCSD) R4302530-3 11/17/25 12:05

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	3.75	4.14	4.01	110	107	67.0-130			3.19	20
Methyl Methacrylate	3.75	4.05	3.98	108	106	70.0-128			1.74	20
MTBE	3.75	4.20	4.18	112	111	66.0-126			0.477	20
Naphthalene	3.75	4.82	4.69	129	125	57.0-138			2.73	20
2-Propanol	3.75	4.07	4.04	109	108	52.0-125			0.740	20
Propene	3.75	4.11	4.08	110	109	57.0-136			0.733	20
Styrene	7.50	9.07	8.77	121	117	73.0-127			3.36	20
1,1,2,2-Tetrachloroethane	3.75	4.53	4.44	121	118	65.0-127			2.01	20
Tetrahydrofuran	3.75	4.12	4.05	110	108	64.0-123			1.71	20
Toluene	3.75	4.28	4.08	114	109	66.0-119			4.78	20
1,2,4-Trichlorobenzene	3.75	4.82	4.85	129	129	55.0-142			0.620	20
1,1,1-Trichloroethane	3.75	4.26	4.22	114	113	68.0-125			0.943	20
1,1,2-Trichloroethane	3.75	4.48	4.40	119	117	73.0-119			1.80	20
Trichloroethylene	3.75	4.34	4.28	116	114	71.0-123			1.39	20
1,2,4-Trimethylbenzene	3.75	4.27	4.20	114	112	66.0-132			1.65	20
1,3,5-Trimethylbenzene	3.75	4.61	4.25	123	113	67.0-130			8.13	20
2,2,4-Trimethylpentane	3.75	3.82	3.82	102	102	68.0-121			0.000	20
Vinyl chloride	3.75	5.00	4.99	133	133	64.0-127	J4	J4	0.200	20
Vinyl Bromide	3.75	4.47	4.51	119	120	71.0-126			0.891	20
Vinyl acetate	3.75	4.76	4.86	127	130	56.0-139			2.08	20
m&p-Xylene	7.50	8.86	8.53	118	114	61.0-134			3.80	20
o-Xylene	3.75	4.47	4.22	119	113	67.0-125			5.75	20
Xylenes, Total	11.3	13.3	12.8	118	113	67.0-125			3.83	20
TPH (GC/MS) Low Fraction	188	209	201	111	107	70.0-130			3.90	20
(S) 1,4-Bromofluorobenzene				101	98.8	60.0-140				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4303171-3 11/19/25 10:08

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ppbv		ppbv	ppbv
Tetrachloroethylene	U	U	0.111	0.200
(S) 1,4-Bromofluorobenzene	95.6			60.0-140

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4303171-1 11/19/25 09:06 • (LCSD) R4303171-2 11/19/25 09:38

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Tetrachloroethylene	3.75	3.61	3.57	96.3	95.2	66.0-124			1.11	20
(S) 1,4-Bromofluorobenzene				99.7	101	60.0-140				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4305604-2 11/24/25 09:59

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U	⌋	0.520	1.25
Allyl Chloride	U	⌋	0.186	0.200
Benzene	U	⌋	0.110	0.200
Benzyl Chloride	U	⌋	0.0888	0.200
Bromodichloromethane	U	⌋	0.0695	0.200
Bromoform	U	⌋	0.0755	0.630
Bromomethane	U	⌋	0.0938	0.200
1,3-Butadiene	U	⌋	0.158	2.00
Carbon disulfide	U	⌋	0.160	0.400
Carbon tetrachloride	U	⌋	0.0746	0.200
Chlorobenzene	U	⌋	0.118	0.200
Chloroethane	U	⌋	0.110	0.200
Chloroform	U	⌋	0.104	0.200
Chloromethane	U	⌋	0.110	0.200
2-Chlorotoluene	U	⌋	0.0787	0.200
Cyclohexane	U	⌋	0.170	0.200
Dibromochloromethane	U	⌋	0.0696	0.200
1,2-Dibromoethane	U	⌋	0.0690	0.200
1,2-Dichlorobenzene	U	⌋	0.0734	0.200
1,3-Dichlorobenzene	U	⌋	0.0753	0.200
1,4-Dichlorobenzene	U	⌋	0.0768	0.200
1,2-Dichloroethane	U	⌋	0.0730	0.200
1,1-Dichloroethane	U	⌋	0.0710	0.200
1,1-Dichloroethene	U	⌋	0.0747	0.200
cis-1,2-Dichloroethene	U	⌋	0.0796	0.200
trans-1,2-Dichloroethene	U	⌋	0.0735	0.200
1,2-Dichloropropane	U	⌋	0.0752	0.200
cis-1,3-Dichloropropene	U	⌋	0.0743	0.200
trans-1,3-Dichloropropene	U	⌋	0.0795	0.200
1,4-Dioxane	U	⌋	0.164	0.630
Ethanol	U	⌋	2.37	2.50
Ethylbenzene	U	⌋	0.0778	0.200
4-Ethyltoluene	U	⌋	0.0887	0.200
Trichlorofluoromethane	U	⌋	0.0771	0.200
Dichlorodifluoromethane	U	⌋	0.0806	0.200
1,1,2-Trichlorotrifluoroethane	U	⌋	0.0751	0.200
1,2-Dichlorotetrafluoroethane	U	⌋	0.0756	0.200
Heptane	U	⌋	0.114	0.200
Hexachloro-1,3-butadiene	U	⌋	0.0800	0.630
n-Hexane	U	⌋	0.143	0.630

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4305604-2 11/24/25 09:59

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Isopropylbenzene	U	Ⓢ	0.0722	0.200
Methylene Chloride	U	Ⓢ	0.169	0.200
Methyl Butyl Ketone	U	Ⓢ	0.133	1.25
2-Butanone (MEK)	U	Ⓢ	0.116	1.25
4-Methyl-2-pentanone (MIBK)	U	Ⓢ	0.106	1.25
Methyl Methacrylate	U	Ⓢ	0.169	0.200
MTBE	U	Ⓢ	0.0813	0.200
Naphthalene	U	Ⓢ	0.617	0.630
2-Propanol	U	Ⓢ	0.680	1.25
Propene	U	Ⓢ	0.214	1.25
Styrene	U	Ⓢ	0.0802	0.400
1,1,2,2-Tetrachloroethane	U	Ⓢ	0.0695	0.200
Tetrachloroethylene	U	Ⓢ	0.111	0.200
Tetrahydrofuran	U	Ⓢ	0.164	0.200
Toluene	U	Ⓢ	0.130	0.500
1,2,4-Trichlorobenzene	U	Ⓢ	0.462	0.630
1,1,1-Trichloroethane	U	Ⓢ	0.0718	0.200
1,1,2-Trichloroethane	U	Ⓢ	0.0683	0.200
Trichloroethylene	U	Ⓢ	0.0680	0.200
1,2,4-Trimethylbenzene	U	Ⓢ	0.0927	0.200
1,3,5-Trimethylbenzene	U	Ⓢ	0.0853	0.200
2,2,4-Trimethylpentane	U	Ⓢ	0.0898	0.200
Vinyl chloride	U	Ⓢ	0.0826	0.200
Vinyl Bromide	U	Ⓢ	0.0749	0.200
Vinyl acetate	U	Ⓢ	0.0968	0.630
m&p-Xylene	U	Ⓢ	0.174	0.400
o-Xylene	U	Ⓢ	0.0887	0.200
Xylenes, Total	U	Ⓢ	0.0887	0.600
TPH (GC/MS) Low Fraction	U	Ⓢ	68.3	200
(S) 1,4-Bromofluorobenzene	94.2			60.0-140

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4305604-1 11/24/25 09:33 • (LCSD) R4305604-3 11/24/25 11:18

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	3.75	3.70	3.42	98.7	91.2	58.0-128			7.87	20
Allyl Chloride	3.75	3.69	3.37	98.4	89.9	71.0-131			9.07	20
Benzene	3.75	3.65	3.41	97.3	90.9	69.0-119			6.80	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4305604-1 11/24/25 09:33 • (LCSD) R4305604-3 11/24/25 11:18

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Benzyl Chloride	3.75	3.69	3.45	98.4	92.0	50.0-147			6.72	20
Bromodichloromethane	3.75	3.68	3.46	98.1	92.3	72.0-128			6.16	20
Bromoform	3.75	3.59	3.50	95.7	93.3	66.0-139			2.54	20
Bromomethane	3.75	3.54	3.43	94.4	91.5	63.0-134			3.16	20
1,3-Butadiene	3.75	3.68	3.29	98.1	87.7	66.0-134			11.2	20
Carbon disulfide	7.50	7.47	6.93	99.6	92.4	57.0-134			7.50	20
Carbon tetrachloride	3.75	3.70	3.47	98.7	92.5	68.0-132			6.42	20
Chlorobenzene	3.75	3.66	3.43	97.6	91.5	70.0-119			6.49	20
Chloroethane	3.75	3.46	3.30	92.3	88.0	63.0-127			4.73	20
Chloroform	3.75	3.72	3.49	99.2	93.1	68.0-123			6.38	20
Chloromethane	3.75	3.54	3.28	94.4	87.5	59.0-132			7.62	20
2-Chlorotoluene	3.75	3.66	3.45	97.6	92.0	74.0-130			5.91	20
Cyclohexane	3.75	3.77	3.48	101	92.8	70.0-117			8.00	20
Dibromochloromethane	3.75	3.64	3.44	97.1	91.7	70.0-130			5.65	20
1,2-Dibromoethane	3.75	3.69	3.36	98.4	89.6	74.0-122			9.36	20
1,2-Dichlorobenzene	3.75	3.77	3.46	101	92.3	63.0-129			8.58	20
1,3-Dichlorobenzene	3.75	3.84	3.57	102	95.2	65.0-130			7.29	20
1,4-Dichlorobenzene	3.75	3.83	3.52	102	93.9	60.0-131			8.44	20
1,2-Dichloroethane	3.75	3.61	3.33	96.3	88.8	65.0-128			8.07	20
1,1-Dichloroethane	3.75	3.67	3.33	97.9	88.8	68.0-126			9.71	20
1,1-Dichloroethene	3.75	3.66	3.30	97.6	88.0	61.0-133			10.3	20
cis-1,2-Dichloroethene	3.75	3.66	3.48	97.6	92.8	70.0-121			5.04	20
trans-1,2-Dichloroethene	3.75	3.66	3.37	97.6	89.9	67.0-124			8.25	20
1,2-Dichloropropane	3.75	3.64	3.29	97.1	87.7	69.0-123			10.1	20
cis-1,3-Dichloropropene	3.75	3.80	3.41	101	90.9	70.0-128			10.8	20
trans-1,3-Dichloropropene	3.75	3.68	3.30	98.1	88.0	75.0-133			10.9	20
1,4-Dioxane	3.75	3.92	3.68	105	98.1	71.0-122			6.32	20
Ethanol	3.75	3.33	3.14	88.8	83.7	59.0-125			5.87	20
Ethylbenzene	3.75	3.77	3.44	101	91.7	70.0-124			9.15	20
4-Ethyltoluene	3.75	3.88	3.50	103	93.3	67.0-129			10.3	20
Trichlorofluoromethane	3.75	3.72	3.51	99.2	93.6	62.0-126			5.81	20
Dichlorodifluoromethane	3.75	3.72	3.37	99.2	89.9	59.0-128			9.87	20
1,1,2-Trichlorotrifluoroethane	3.75	3.60	3.38	96.0	90.1	66.0-126			6.30	20
1,2-Dichlorotetrafluoroethane	3.75	3.71	3.42	98.9	91.2	63.0-121			8.13	20
Heptane	3.75	3.63	3.46	96.8	92.3	69.0-123			4.80	20
Hexachloro-1,3-butadiene	3.75	3.65	3.38	97.3	90.1	56.0-138			7.68	20
n-Hexane	3.75	3.71	3.48	98.9	92.8	63.0-120			6.40	20
Isopropylbenzene	3.75	3.74	3.54	99.7	94.4	68.0-124			5.49	20
Methylene Chloride	3.75	3.61	3.39	96.3	90.4	62.0-115			6.29	20
Methyl Butyl Ketone	3.75	3.86	3.58	103	95.5	62.0-128			7.53	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4305604-1 11/24/25 09:33 • (LCSD) R4305604-3 11/24/25 11:18

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
2-Butanone (MEK)	3.75	3.77	3.58	101	95.5	67.0-130			5.17	20
4-Methyl-2-pentanone (MIBK)	3.75	3.91	3.54	104	94.4	67.0-130			9.93	20
Methyl Methacrylate	3.75	3.65	3.47	97.3	92.5	70.0-128			5.06	20
MTBE	3.75	3.69	3.33	98.4	88.8	66.0-126			10.3	20
Naphthalene	3.75	3.85	3.52	103	93.9	57.0-138			8.96	20
2-Propanol	3.75	3.59	3.24	95.7	86.4	52.0-125			10.2	20
Propene	3.75	3.63	3.19	96.8	85.1	57.0-136			12.9	20
Styrene	7.50	7.89	7.41	105	98.8	73.0-127			6.27	20
1,1,2,2-Tetrachloroethane	3.75	3.66	3.45	97.6	92.0	65.0-127			5.91	20
Tetrachloroethylene	3.75	3.73	3.52	99.5	93.9	66.0-124			5.79	20
Tetrahydrofuran	3.75	3.72	3.41	99.2	90.9	64.0-123			8.70	20
Toluene	3.75	3.70	3.47	98.7	92.5	66.0-119			6.42	20
1,2,4-Trichlorobenzene	3.75	3.68	3.49	98.1	93.1	55.0-142			5.30	20
1,1,1-Trichloroethane	3.75	3.67	3.42	97.9	91.2	68.0-125			7.05	20
1,1,2-Trichloroethane	3.75	3.59	3.55	95.7	94.7	73.0-119			1.12	20
Trichloroethylene	3.75	3.65	3.43	97.3	91.5	71.0-123			6.21	20
1,2,4-Trimethylbenzene	3.75	3.85	3.68	103	98.1	66.0-132			4.52	20
1,3,5-Trimethylbenzene	3.75	3.93	3.68	105	98.1	67.0-130			6.57	20
2,2,4-Trimethylpentane	3.75	3.72	3.41	99.2	90.9	68.0-121			8.70	20
Vinyl chloride	3.75	3.65	3.34	97.3	89.1	64.0-127			8.87	20
Vinyl Bromide	3.75	3.68	3.40	98.1	90.7	71.0-126			7.91	20
Vinyl acetate	3.75	2.77	2.80	73.9	74.7	56.0-139			1.08	20
m&p-Xylene	7.50	7.55	7.10	101	94.7	61.0-134			6.14	20
o-Xylene	3.75	3.72	3.55	99.2	94.7	67.0-125			4.68	20
Xylenes, Total	11.3	11.3	10.7	100	94.7	67.0-125			5.45	20
TPH (GC/MS) Low Fraction	203	187	174	92.1	85.7	70.0-130	U	U	7.20	20
(S) 1,4-Bromofluorobenzene				102	98.8	60.0-140				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4306902-3 11/26/25 09:47

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
n-Hexane	U	U	0.143	0.630
2,2,4-Trimethylpentane	U	U	0.0898	0.200
(S) 1,4-Bromofluorobenzene	96.3			60.0-140

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4306902-1 11/26/25 08:45 • (LCSD) R4306902-2 11/26/25 09:17

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
n-Hexane	3.75	3.47	3.54	92.5	94.4	63.0-120			2.00	20
2,2,4-Trimethylpentane	3.75	3.49	3.42	93.1	91.2	68.0-121			2.03	20
(S) 1,4-Bromofluorobenzene				96.0	97.1	60.0-140				

1
Cp

2
Tc

3
Ss

4
Cn

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Sr

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Qc

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Gl

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Al

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Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

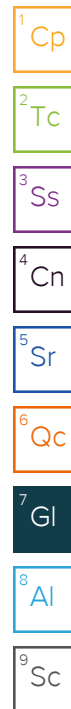
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
U (Radiochemistry)	Result + Error < MDA.
J (Radiochemistry)	Result < MDA; Result + Error > MDA.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.
U	Below Detectable Limits: Indicates that the analyte was not detected.



ACCREDITATIONS & LOCATIONS

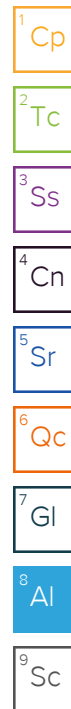
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Pace® Location Requested (City/State):		Air CHAIN-OF-CUSTODY Analytical Request Document Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields						LAB USE ONLY- Affix Workorder/Login Label Here											
Company Name: Engineering/Remediation Resources Group				Contact/Report To: Jennifer Sonnichsen								Scan QR code for instructions							
Street Address: 15333 NE 90th Street				Phone #: 425-658-5026															
City, State Zip:				E-Mail: jennifer.sonnichsen@errg.com; spencer.slominski@erro.com; fernando.idarte@erro.com															
Customer Project #:				Invoice to:															
Project Name: System Vapor				Invoice E-Mail:				Field Information				Analyses Requested				11-6-25 WA			
Site Collection Info/Facility ID (as applicable): ENGREMRWA-CIRCLE K				Purchase Order # (if applicable):															
Time Zone Collected: [] AK [] PT [] MT [] CT [] ET				Quote #:															
Data Deliverables:				Regulatory Program (CAA, RCRA, etc.) as applicable:				Canister				PUF / FILTER				Lab Use Only			
() Level II () Level III () Level IV				Rush (Pre-approval required): 2 Day 3 day 5 day Other _____				Pressure / Vacuum											
() EQUIS				Date Results Requested:				Units for Reporting ug/m³ PFBV mg/m³ PPMV											
() Other <u>EIM</u>																			
* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)																Proj. Manager: 3500 - Jennifer Gambill			
Customer Sample ID		Matrix *	Summa Canister ID	Flow Controller ID	Begin Collection		End Collection		Start Pressure / Vacuum	End Pressure / Vacuum	Duration	Rate	Total Volume	DOTO-15 Summa	AcctNum / Client ID: ENGREMRWA				
					Date	Time	Date	Time	(in Hg)	(in Hg)	(minutes)	m³/min or L/min	m³ or L		Table #:				
VG-412-INP-20251114		SV	12688	12661	11/14	1224	11/14	1229	28	5				X	Profile / Template: T236638				
VG-410-BFF-20251114		I	21375	28868		1241		1246	29	5				X	Prelog / Bottle Ord. ID: P1187879				
VP-3-20251114		I	8575	13363		1318		1323	>>30	13				X	Sample Comment				
VP-4-20251114		I	21900	13223		1302		1307	29	5				X	L 1918611-01				
															gauge zeroed at 0704				
Sample Receipt Checklist																			
COC Seal Present/Intact: Y N NP Size: 4 1L 6L 1.4L																			
COC signed/Accurate: Y N Tag Color: G W 4 P B																			
Bottles arrive intact: Y N Condition: OK NCF																			
Correct bottles used: Y N																			
Unused: 0 1L 0 6L 0 1.4L																			
Customer Remarks / Special Conditions / Possible Hazards: DODTO-15: Standard List, BTEX and TPH.												Collected By: ERRG				Additional Instructions from Pace®:			
DODTO-15: Standard List, BTEX and TPH.												Printed Name: Fernando Idarte				# Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C): Corrected Temp. (°C):			
Relinquished by/Company: (Signature) [Signature]												Received by/Company: (Signature) [Signature]				Tracking Number: 7920 2332 4408			
Relinquished by/Company: (Signature)												Received by/Company: (Signature)				Delivered by: In-Person Courier			
Relinquished by/Company: (Signature)												Received by/Company: (Signature)				FedEX UPS Other			
Relinquished by/Company: (Signature)												Received by/Company: (Signature)				Page: 1 of 1			

Engineering/Remediation Resources Group

Sample Delivery Group: L1919100
Samples Received: 11/15/2025
Project Number: 20230065
Description: Former Circle K 1461

Report To: Jennifer Sonnichsen
15333 NE 90th Street
Ste 100
Redmond, WA 98052

Entire Report Reviewed By:



Jennifer Gambill
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	4
Sr: Sample Results	5
LG-401-INF-20251114 L1919100-01	5
LG-402-MID-20251114 L1919100-02	6
LG-404-EFF-20251114 L1919100-03	7
DUP-1-20251114 L1919100-04	8
DUP-2-20251114 L1919100-05	9
TB-01-20251114 L1919100-06	10
Qc: Quality Control Summary	11
Wet Chemistry by Method 1664B	11
Volatile Organic Compounds (GC) by Method NWTPHGX	12
Volatile Organic Compounds (GC/MS) by Method 8260D	13
Gl: Glossary of Terms	14
Al: Accreditations & Locations	15
Sc: Sample Chain of Custody	16

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

LG-401-INF-20251114 L1919100-01

				Collected by FI	Collected date/time 11/14/25 11:23	Received date/time 11/15/25 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 1664B	WG2644931	1	11/23/25 06:37	11/23/25 12:45	ANW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2644857	1	11/21/25 06:23	11/21/25 06:23	GMV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2643830	1	11/20/25 00:24	11/20/25 00:24	JAH	Mt. Juliet, TN

LG-402-MID-20251114 L1919100-02

				Collected by FI	Collected date/time 11/14/25 11:36	Received date/time 11/15/25 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 1664B	WG2644931	1	11/23/25 06:37	11/23/25 12:45	ANW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2644857	1	11/21/25 06:45	11/21/25 06:45	GMV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2643830	1	11/20/25 00:44	11/20/25 00:44	JAH	Mt. Juliet, TN

LG-404-EFF-20251114 L1919100-03

				Collected by FI	Collected date/time 11/14/25 11:50	Received date/time 11/15/25 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 1664B	WG2644931	1	11/23/25 06:37	11/23/25 12:45	ANW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2644857	1	11/21/25 07:07	11/21/25 07:07	GMV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2643830	1	11/20/25 01:03	11/20/25 01:03	JAH	Mt. Juliet, TN

DUP-1-20251114 L1919100-04

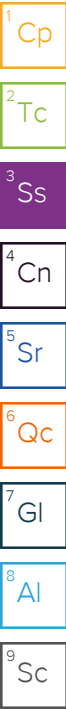
				Collected by FI	Collected date/time 11/14/25 11:55	Received date/time 11/15/25 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 1664B	WG2644931	1	11/23/25 06:37	11/23/25 12:45	ANW	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2644857	1	11/21/25 07:29	11/21/25 07:29	GMV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2643830	1	11/20/25 01:23	11/20/25 01:23	JAH	Mt. Juliet, TN

DUP-2-20251114 L1919100-05

				Collected by FI	Collected date/time 11/14/25 12:00	Received date/time 11/15/25 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 1664B	WG2644931	1	11/23/25 06:37	11/23/25 12:45	ANW	Mt. Juliet, TN

TB-01-20251114 L1919100-06

				Collected by FI	Collected date/time 11/14/25 13:00	Received date/time 11/15/25 09:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2644857	1	11/21/25 02:00	11/21/25 02:00	GMV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2643830	1	11/19/25 21:44	11/19/25 21:44	JAH	Mt. Juliet, TN

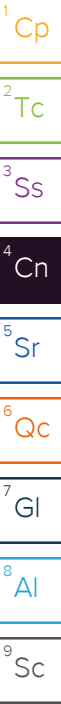


CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Jennifer Gambill
Project Manager



Wet Chemistry by Method 1664B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Oil & Grease (Hexane Extr)	7.67		5.56	1	11/23/2025 12:45	WG2644931

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	11/21/2025 06:23	WG2644857
(S) a,a,a-Trifluorotoluene(FID)	96.5		78.0-120		11/21/2025 06:23	WG2644857

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	11/20/2025 00:24	WG2643830
Ethylbenzene	ND		1.00	1	11/20/2025 00:24	WG2643830
Toluene	ND		1.00	1	11/20/2025 00:24	WG2643830
Xylenes, Total	ND		3.00	1	11/20/2025 00:24	WG2643830
Trichloroethene	ND		1.00	1	11/20/2025 00:24	WG2643830
cis-1,2-Dichloroethene	ND		1.00	1	11/20/2025 00:24	WG2643830
trans-1,2-Dichloroethene	ND		1.00	1	11/20/2025 00:24	WG2643830
Tetrachloroethene	ND	C3	1.00	1	11/20/2025 00:24	WG2643830
Vinyl chloride	ND		1.00	1	11/20/2025 00:24	WG2643830
(S) Toluene-d8	98.7		80.0-120		11/20/2025 00:24	WG2643830
(S) 4-Bromofluorobenzene	101		77.0-126		11/20/2025 00:24	WG2643830
(S) 1,2-Dichloroethane-d4	100		70.0-130		11/20/2025 00:24	WG2643830

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 1664B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Oil & Grease (Hexane Extr)	ND		5.81	1	11/23/2025 12:45	WG2644931

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	11/21/2025 06:45	WG2644857
(S) a,a,a-Trifluorotoluene(FID)	96.1		78.0-120		11/21/2025 06:45	WG2644857

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	11/20/2025 00:44	WG2643830
Ethylbenzene	ND		1.00	1	11/20/2025 00:44	WG2643830
Toluene	ND		1.00	1	11/20/2025 00:44	WG2643830
Xylenes, Total	ND		3.00	1	11/20/2025 00:44	WG2643830
Trichloroethene	ND		1.00	1	11/20/2025 00:44	WG2643830
cis-1,2-Dichloroethene	ND		1.00	1	11/20/2025 00:44	WG2643830
trans-1,2-Dichloroethene	ND		1.00	1	11/20/2025 00:44	WG2643830
Tetrachloroethene	ND	C3	1.00	1	11/20/2025 00:44	WG2643830
Vinyl chloride	ND		1.00	1	11/20/2025 00:44	WG2643830
(S) Toluene-d8	98.0		80.0-120		11/20/2025 00:44	WG2643830
(S) 4-Bromofluorobenzene	104		77.0-126		11/20/2025 00:44	WG2643830
(S) 1,2-Dichloroethane-d4	96.5		70.0-130		11/20/2025 00:44	WG2643830

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 1664B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Oil & Grease (Hexane Extr)	ND		5.81	1	11/23/2025 12:45	WG2644931

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	11/21/2025 07:07	WG2644857
(S) a,a,a-Trifluorotoluene(FID)	96.3		78.0-120		11/21/2025 07:07	WG2644857

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	11/20/2025 01:03	WG2643830
Ethylbenzene	ND		1.00	1	11/20/2025 01:03	WG2643830
Toluene	ND		1.00	1	11/20/2025 01:03	WG2643830
Xylenes, Total	ND		3.00	1	11/20/2025 01:03	WG2643830
Trichloroethene	ND		1.00	1	11/20/2025 01:03	WG2643830
cis-1,2-Dichloroethene	ND		1.00	1	11/20/2025 01:03	WG2643830
trans-1,2-Dichloroethene	ND		1.00	1	11/20/2025 01:03	WG2643830
Tetrachloroethene	ND	C3	1.00	1	11/20/2025 01:03	WG2643830
Vinyl chloride	ND		1.00	1	11/20/2025 01:03	WG2643830
(S) Toluene-d8	100		80.0-120		11/20/2025 01:03	WG2643830
(S) 4-Bromofluorobenzene	102		77.0-126		11/20/2025 01:03	WG2643830
(S) 1,2-Dichloroethane-d4	107		70.0-130		11/20/2025 01:03	WG2643830

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 1664B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Oil & Grease (Hexane Extr)	ND	J6	5.81	1	11/23/2025 12:45	WG2644931

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	ND		100	1	11/21/2025 07:29	WG2644857
(S) a,a,a-Trifluorotoluene(FID)	96.1		78.0-120		11/21/2025 07:29	WG2644857

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	11/20/2025 01:23	WG2643830
Ethylbenzene	ND		1.00	1	11/20/2025 01:23	WG2643830
Toluene	ND		1.00	1	11/20/2025 01:23	WG2643830
Xylenes, Total	ND		3.00	1	11/20/2025 01:23	WG2643830
Trichloroethene	ND		1.00	1	11/20/2025 01:23	WG2643830
cis-1,2-Dichloroethene	ND		1.00	1	11/20/2025 01:23	WG2643830
trans-1,2-Dichloroethene	ND		1.00	1	11/20/2025 01:23	WG2643830
Tetrachloroethene	ND	C3	1.00	1	11/20/2025 01:23	WG2643830
Vinyl chloride	ND		1.00	1	11/20/2025 01:23	WG2643830
(S) Toluene-d8	92.4		80.0-120		11/20/2025 01:23	WG2643830
(S) 4-Bromofluorobenzene	103		77.0-126		11/20/2025 01:23	WG2643830
(S) 1,2-Dichloroethane-d4	109		70.0-130		11/20/2025 01:23	WG2643830

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Wet Chemistry by Method 1664B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Oil & Grease (Hexane Extr)	ND		5.56	1	11/23/2025 12:45	WG2644931

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	102		100	1	11/21/2025 02:00	WG2644857
(S) a,a,a-Trifluorotoluene(FID)	95.8		78.0-120		11/21/2025 02:00	WG2644857

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	11/19/2025 21:44	WG2643830
Ethylbenzene	ND		1.00	1	11/19/2025 21:44	WG2643830
Toluene	ND		1.00	1	11/19/2025 21:44	WG2643830
Xylenes, Total	ND		3.00	1	11/19/2025 21:44	WG2643830
Trichloroethene	ND		1.00	1	11/19/2025 21:44	WG2643830
cis-1,2-Dichloroethene	ND		1.00	1	11/19/2025 21:44	WG2643830
trans-1,2-Dichloroethene	ND		1.00	1	11/19/2025 21:44	WG2643830
Tetrachloroethene	ND	C3	1.00	1	11/19/2025 21:44	WG2643830
Vinyl chloride	ND		1.00	1	11/19/2025 21:44	WG2643830
(S) Toluene-d8	99.9		80.0-120		11/19/2025 21:44	WG2643830
(S) 4-Bromofluorobenzene	103		77.0-126		11/19/2025 21:44	WG2643830
(S) 1,2-Dichloroethane-d4	99.7		70.0-130		11/19/2025 21:44	WG2643830

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Method Blank (MB)

(MB) R4305202-1 11/23/25 12:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Oil & Grease (Hexane Extr)	U		1.40	5.00

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4305202-2 11/23/25 12:45 • (LCSD) R4305202-3 11/23/25 12:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Oil & Grease (Hexane Extr)	40.0	37.9	41.6	94.8	104	78.0-114			9.31	20

L1919100-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1919100-04 11/23/25 12:45 • (MS) R4305202-4 11/23/25 12:45

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Oil & Grease (Hexane Extr)	40.0	ND	24.7	61.8	1	78.0-114	J6

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R4304421-3 11/20/25 23:35

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		78.6	100
(S) a,a,a-Trifluorotoluene(FID)	95.9			78.0-120

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4304421-1 11/20/25 22:29 • (LCSD) R4304421-2 11/20/25 22:51

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5000	4950	4700	99.0	94.0	70.0-124			5.18	20
(S) a,a,a-Trifluorotoluene(FID)				97.2	98.2	78.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4305578-3 11/19/25 19:38

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.320	1.00
Ethylbenzene	U		0.234	1.00
Toluene	U		0.274	1.00
Xylenes, Total	U		0.319	3.00
Trichloroethene	U		0.383	1.00
cis-1,2-Dichloroethene	U		0.323	1.00
trans-1,2-Dichloroethene	U		0.348	1.00
Tetrachloroethene	U		0.358	1.00
Vinyl chloride	U		0.458	1.00
(S) Toluene-d8	98.3			80.0-120
(S) 4-Bromofluorobenzene	101			77.0-126
(S) 1,2-Dichloroethane-d4	102			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4305578-1 11/19/25 18:38 • (LCSD) R4305578-2 11/19/25 18:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	10.0	9.41	9.28	94.1	92.8	70.0-123			1.39	20
Ethylbenzene	10.0	8.25	8.34	82.5	83.4	79.0-123			1.08	20
Toluene	10.0	8.42	8.21	84.2	82.1	79.0-120			2.53	20
Xylenes, Total	30.0	25.5	25.5	85.0	85.0	79.0-123			0.000	20
Trichloroethene	10.0	8.96	8.90	89.6	89.0	78.0-124			0.672	20
cis-1,2-Dichloroethene	10.0	9.04	8.76	90.4	87.6	73.0-120			3.15	20
trans-1,2-Dichloroethene	10.0	8.74	9.07	87.4	90.7	73.0-120			3.71	20
Tetrachloroethene	10.0	7.89	7.55	78.9	75.5	72.0-132			4.40	20
Vinyl chloride	10.0	9.52	9.58	95.2	95.8	67.0-131			0.628	20
(S) Toluene-d8				97.1	97.3	80.0-120				
(S) 4-Bromofluorobenzene				101	103	77.0-126				
(S) 1,2-Dichloroethane-d4				111	109	70.0-130				

1
Cp

2
Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

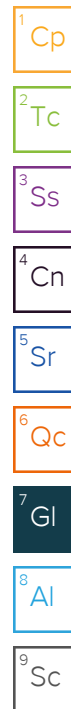
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
U (Radiochemistry)	Result + Error < MDA.
J (Radiochemistry)	Result < MDA; Result + Error > MDA.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.



ACCREDITATIONS & LOCATIONS

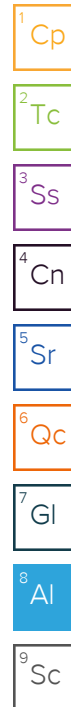
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



[illegible]

Engineering/Remediation Resources Group

Sample Delivery Group: L1919042
Samples Received: 11/15/2025
Project Number: 20230065
Description: Former Circle K 1461

Report To: Jennifer Sonnichsen
15333 NE 90th Street
Ste 100
Redmond, WA 98052

Entire Report Reviewed By:



Jennifer Gambill
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	6
Sr: Sample Results	7
MW-6 L1919042-01	7
MW-8 L1919042-02	8
MW-9 L1919042-03	9
MW-13 L1919042-04	10
MW-14 L1919042-05	11
MW-15 L1919042-06	12
MW-16 L1919042-07	13
MW-17 L1919042-08	14
MW-19 L1919042-09	15
MW-20 L1919042-10	16
MW-21 L1919042-11	17
RW-1 L1919042-12	18
DUP-1 L1919042-13	19
TRIP BLANK TB-01 L1919042-14	20
TRIP BLANK TB-02 L1919042-15	21
Qc: Quality Control Summary	22
Volatile Organic Compounds (GC) by Method NWTPHGX	22
Volatile Organic Compounds (GC/MS) by Method 8260D	25
Gl: Glossary of Terms	29
Al: Accreditations & Locations	30
Sc: Sample Chain of Custody	31

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

SAMPLE SUMMARY

MW-6 L1919042-01

				Collected by Blaine Tech	Collected date/time 11/14/25 12:46	Received date/time 11/15/25 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2643840	1	11/20/25 18:05	11/20/25 18:05	GMV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2642878	1	11/19/25 08:32	11/19/25 08:32	DYW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2646870	1	11/25/25 01:13	11/25/25 01:13	JBE	Mt. Juliet, TN

MW-8 L1919042-02

				Collected by Blaine Tech	Collected date/time 11/14/25 11:45	Received date/time 11/15/25 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2643840	5	11/20/25 19:55	11/20/25 19:55	GMV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2646870	25	11/25/25 01:54	11/25/25 01:54	JBE	Mt. Juliet, TN

MW-9 L1919042-03

				Collected by Blaine Tech	Collected date/time 11/14/25 10:44	Received date/time 11/15/25 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2643840	5	11/20/25 20:17	11/20/25 20:17	GMV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2646870	5	11/25/25 02:14	11/25/25 02:14	JBE	Mt. Juliet, TN

MW-13 L1919042-04

				Collected by Blaine Tech	Collected date/time 11/14/25 12:00	Received date/time 11/15/25 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2643840	10	11/20/25 20:39	11/20/25 20:39	GMV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2642878	1	11/19/25 08:51	11/19/25 08:51	DYW	Mt. Juliet, TN

MW-14 L1919042-05

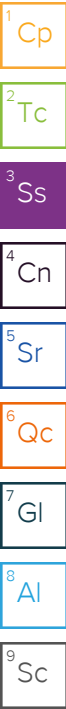
				Collected by Blaine Tech	Collected date/time 11/14/25 12:15	Received date/time 11/15/25 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2644850	1	11/21/25 08:26	11/21/25 08:26	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2642878	1	11/19/25 09:10	11/19/25 09:10	DYW	Mt. Juliet, TN

MW-15 L1919042-06

				Collected by Blaine Tech	Collected date/time 11/14/25 11:14	Received date/time 11/15/25 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2644850	1	11/21/25 08:46	11/21/25 08:46	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2642878	1	11/19/25 09:30	11/19/25 09:30	DYW	Mt. Juliet, TN

MW-16 L1919042-07

				Collected by Blaine Tech	Collected date/time 11/14/25 10:16	Received date/time 11/15/25 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2644850	1	11/21/25 09:05	11/21/25 09:05	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2642878	1	11/19/25 09:49	11/19/25 09:49	DYW	Mt. Juliet, TN



SAMPLE SUMMARY

MW-17 L1919042-08

				Collected by Blaine Tech	Collected date/time 11/14/25 13:07	Received date/time 11/15/25 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2644850	1	11/21/25 05:51	11/21/25 05:51	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2642878	25	11/19/25 11:25	11/19/25 11:25	DYW	Mt. Juliet, TN

MW-19 L1919042-09

				Collected by Blaine Tech	Collected date/time 11/14/25 12:40	Received date/time 11/15/25 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2644850	10	11/21/25 09:25	11/21/25 09:25	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2646870	50	11/25/25 02:34	11/25/25 02:34	JBE	Mt. Juliet, TN

MW-20 L1919042-10

				Collected by Blaine Tech	Collected date/time 11/14/25 10:50	Received date/time 11/15/25 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2644850	10	11/21/25 09:44	11/21/25 09:44	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2642878	50	11/19/25 12:04	11/19/25 12:04	DYW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2646870	50	11/25/25 02:54	11/25/25 02:54	JBE	Mt. Juliet, TN

MW-21 L1919042-11

				Collected by Blaine Tech	Collected date/time 11/14/25 11:25	Received date/time 11/15/25 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2644850	10	11/21/25 10:03	11/21/25 10:03	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2642878	200	11/19/25 12:23	11/19/25 12:23	DYW	Mt. Juliet, TN

RW-1 L1919042-12

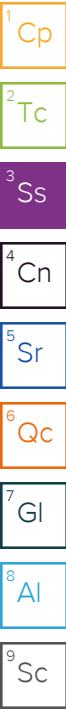
				Collected by Blaine Tech	Collected date/time 11/14/25 10:18	Received date/time 11/15/25 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2644850	1	11/21/25 06:11	11/21/25 06:11	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2642878	10	11/19/25 12:42	11/19/25 12:42	DYW	Mt. Juliet, TN

DUP-1 L1919042-13

				Collected by Blaine Tech	Collected date/time 11/14/25 12:00	Received date/time 11/15/25 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2644850	10	11/21/25 10:23	11/21/25 10:23	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2643274	1	11/20/25 06:37	11/20/25 06:37	JHH	Mt. Juliet, TN

TRIP BLANK TB-01 L1919042-14

				Collected by Blaine Tech	Collected date/time 11/14/25 13:25	Received date/time 11/15/25 09:15
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2646930	1	11/25/25 11:37	11/25/25 11:37	AEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2643274	1	11/20/25 02:46	11/20/25 02:46	JHH	Mt. Juliet, TN



SAMPLE SUMMARY

TRIP BLANK TB-02 L1919042-15

Collected by
Blaine Tech

Collected date/time
11/14/25 13:30

Received date/time
11/15/25 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2644850	1	11/21/25 04:34	11/21/25 04:34	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2643274	1	11/20/25 03:06	11/20/25 03:06	JHH	Mt. Juliet, TN

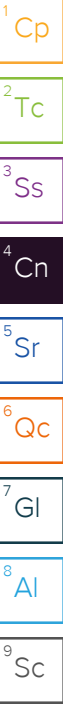
¹Cp ${}^2\text{Tc}$ 3S_1 ${}^4\text{Cn}$ ${}^5\text{Sr}$ ${}^6\text{Qc}$ ${}^7\text{Gf}$ ${}^8\text{Al}$ ${}^9\text{Sc}$

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Jennifer Gambill
Project Manager



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		100	1	11/20/2025 18:05	WG2643840
(S) a,a,a-Trifluorotoluene(FID)	95.7		78.0-120		11/20/2025 18:05	WG2643840

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	6.21		1.00	1	11/19/2025 08:32	WG2642878
Ethylbenzene	ND		1.00	1	11/19/2025 08:32	WG2642878
Toluene	ND		1.00	1	11/19/2025 08:32	WG2642878
Xylenes, Total	ND		3.00	1	11/19/2025 08:32	WG2642878
Trichloroethene	ND		1.00	1	11/19/2025 08:32	WG2642878
cis-1,2-Dichloroethene	ND		1.00	1	11/19/2025 08:32	WG2642878
trans-1,2-Dichloroethene	ND		1.00	1	11/19/2025 08:32	WG2642878
Tetrachloroethene	ND		1.00	1	11/19/2025 08:32	WG2642878
Vinyl chloride	2.22	C5	1.00	1	11/25/2025 01:13	WG2646870
(S) Toluene-d8	101		80.0-120		11/19/2025 08:32	WG2642878
(S) Toluene-d8	102		80.0-120		11/25/2025 01:13	WG2646870
(S) 4-Bromofluorobenzene	91.3		77.0-126		11/19/2025 08:32	WG2642878
(S) 4-Bromofluorobenzene	91.3		77.0-126		11/25/2025 01:13	WG2646870
(S) 1,2-Dichloroethane-d4	119		70.0-130		11/19/2025 08:32	WG2642878
(S) 1,2-Dichloroethane-d4	109		70.0-130		11/25/2025 01:13	WG2646870

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	8640		500	5	11/20/2025 19:55	WG2643840
(S) a,a,a-Trifluorotoluene(FID)	93.5		78.0-120		11/20/2025 19:55	WG2643840

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		25.0	25	11/25/2025 01:54	WG2646870
Ethylbenzene	96.3		25.0	25	11/25/2025 01:54	WG2646870
Toluene	ND		25.0	25	11/25/2025 01:54	WG2646870
Xylenes, Total	1120		75.0	25	11/25/2025 01:54	WG2646870
Trichloroethene	ND		25.0	25	11/25/2025 01:54	WG2646870
cis-1,2-Dichloroethene	ND		25.0	25	11/25/2025 01:54	WG2646870
trans-1,2-Dichloroethene	ND		25.0	25	11/25/2025 01:54	WG2646870
Tetrachloroethene	ND		25.0	25	11/25/2025 01:54	WG2646870
Vinyl chloride	ND		25.0	25	11/25/2025 01:54	WG2646870
(S) Toluene-d8	103		80.0-120		11/25/2025 01:54	WG2646870
(S) 4-Bromofluorobenzene	93.7		77.0-126		11/25/2025 01:54	WG2646870
(S) 1,2-Dichloroethane-d4	111		70.0-130		11/25/2025 01:54	WG2646870

Sample Narrative:

L1919042-02 WG2646870: Non-target compounds too high to run at a lower dilution.

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

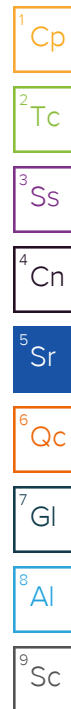
Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1770		500	5	11/20/2025 20:17	WG2643840
(S) a,a,a-Trifluorotoluene(FID)	96.1		78.0-120		11/20/2025 20:17	WG2643840

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		5.00	5	11/25/2025 02:14	WG2646870
Ethylbenzene	55.4		5.00	5	11/25/2025 02:14	WG2646870
Toluene	ND		5.00	5	11/25/2025 02:14	WG2646870
Xylenes, Total	92.9		15.0	5	11/25/2025 02:14	WG2646870
Trichloroethene	ND		5.00	5	11/25/2025 02:14	WG2646870
cis-1,2-Dichloroethene	ND		5.00	5	11/25/2025 02:14	WG2646870
trans-1,2-Dichloroethene	ND		5.00	5	11/25/2025 02:14	WG2646870
Tetrachloroethene	ND		5.00	5	11/25/2025 02:14	WG2646870
Vinyl chloride	ND		5.00	5	11/25/2025 02:14	WG2646870
(S) Toluene-d8	102		80.0-120		11/25/2025 02:14	WG2646870
(S) 4-Bromofluorobenzene	92.6		77.0-126		11/25/2025 02:14	WG2646870
(S) 1,2-Dichloroethane-d4	109		70.0-130		11/25/2025 02:14	WG2646870

Sample Narrative:

L1919042-03 WG2646870: Non-target compounds too high to run at a lower dilution.



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1170		1000	10	11/20/2025 20:39	WG2643840
(S) a,a,a-Trifluorotoluene(FID)	94.6		78.0-120		11/20/2025 20:39	WG2643840

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	38.7		1.00	1	11/19/2025 08:51	WG2642878
Ethylbenzene	3.01		1.00	1	11/19/2025 08:51	WG2642878
Toluene	1.39		1.00	1	11/19/2025 08:51	WG2642878
Xylenes, Total	30.2		3.00	1	11/19/2025 08:51	WG2642878
Trichloroethene	ND		1.00	1	11/19/2025 08:51	WG2642878
cis-1,2-Dichloroethene	ND		1.00	1	11/19/2025 08:51	WG2642878
trans-1,2-Dichloroethene	ND		1.00	1	11/19/2025 08:51	WG2642878
Tetrachloroethene	ND		1.00	1	11/19/2025 08:51	WG2642878
Vinyl chloride	ND	J4	1.00	1	11/19/2025 08:51	WG2642878
(S) Toluene-d8	95.0		80.0-120		11/19/2025 08:51	WG2642878
(S) 4-Bromofluorobenzene	96.3		77.0-126		11/19/2025 08:51	WG2642878
(S) 1,2-Dichloroethane-d4	107		70.0-130		11/19/2025 08:51	WG2642878

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		100	1	11/21/2025 08:26	WG2644850
(S) a,a,a-Trifluorotoluene(FID)	104		78.0-120		11/21/2025 08:26	WG2644850

¹Cp

²Tc

³Ss

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	11/19/2025 09:10	WG2642878
Ethylbenzene	ND		1.00	1	11/19/2025 09:10	WG2642878
Toluene	ND		1.00	1	11/19/2025 09:10	WG2642878
Xylenes, Total	ND		3.00	1	11/19/2025 09:10	WG2642878
Trichloroethene	ND		1.00	1	11/19/2025 09:10	WG2642878
cis-1,2-Dichloroethene	ND		1.00	1	11/19/2025 09:10	WG2642878
trans-1,2-Dichloroethene	ND		1.00	1	11/19/2025 09:10	WG2642878
Tetrachloroethene	ND		1.00	1	11/19/2025 09:10	WG2642878
Vinyl chloride	ND	J4	1.00	1	11/19/2025 09:10	WG2642878
(S) Toluene-d8	103		80.0-120		11/19/2025 09:10	WG2642878
(S) 4-Bromofluorobenzene	94.8		77.0-126		11/19/2025 09:10	WG2642878
(S) 1,2-Dichloroethane-d4	120		70.0-130		11/19/2025 09:10	WG2642878

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

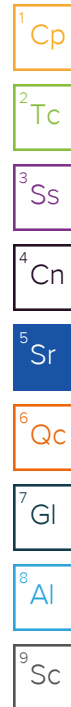
⁹Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		100	1	11/21/2025 08:46	WG2644850
(S) a,a,a-Trifluorotoluene(FID)	104		78.0-120		11/21/2025 08:46	WG2644850

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	11/19/2025 09:30	WG2642878
Ethylbenzene	ND		1.00	1	11/19/2025 09:30	WG2642878
Toluene	ND		1.00	1	11/19/2025 09:30	WG2642878
Xylenes, Total	ND		3.00	1	11/19/2025 09:30	WG2642878
Trichloroethene	ND		1.00	1	11/19/2025 09:30	WG2642878
cis-1,2-Dichloroethene	ND		1.00	1	11/19/2025 09:30	WG2642878
trans-1,2-Dichloroethene	ND		1.00	1	11/19/2025 09:30	WG2642878
Tetrachloroethene	ND		1.00	1	11/19/2025 09:30	WG2642878
Vinyl chloride	ND	J4	1.00	1	11/19/2025 09:30	WG2642878
(S) Toluene-d8	101		80.0-120		11/19/2025 09:30	WG2642878
(S) 4-Bromofluorobenzene	88.7		77.0-126		11/19/2025 09:30	WG2642878
(S) 1,2-Dichloroethane-d4	121		70.0-130		11/19/2025 09:30	WG2642878



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		100	1	11/21/2025 09:05	WG2644850
(S) a,a,a-Trifluorotoluene(FID)	105		78.0-120		11/21/2025 09:05	WG2644850

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	11/19/2025 09:49	WG2642878
Ethylbenzene	ND		1.00	1	11/19/2025 09:49	WG2642878
Toluene	ND		1.00	1	11/19/2025 09:49	WG2642878
Xylenes, Total	ND		3.00	1	11/19/2025 09:49	WG2642878
Trichloroethene	ND		1.00	1	11/19/2025 09:49	WG2642878
cis-1,2-Dichloroethene	ND		1.00	1	11/19/2025 09:49	WG2642878
trans-1,2-Dichloroethene	ND		1.00	1	11/19/2025 09:49	WG2642878
Tetrachloroethene	ND		1.00	1	11/19/2025 09:49	WG2642878
Vinyl chloride	ND	J4	1.00	1	11/19/2025 09:49	WG2642878
(S) Toluene-d8	101		80.0-120		11/19/2025 09:49	WG2642878
(S) 4-Bromofluorobenzene	87.8		77.0-126		11/19/2025 09:49	WG2642878
(S) 1,2-Dichloroethane-d4	119		70.0-130		11/19/2025 09:49	WG2642878

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	499		100	1	11/21/2025 05:51	WG2644850
(S) a,a,a-Trifluorotoluene(FID)	105		78.0-120		11/21/2025 05:51	WG2644850

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		25.0	25	11/19/2025 11:25	WG2642878
Ethylbenzene	ND		25.0	25	11/19/2025 11:25	WG2642878
Toluene	ND		25.0	25	11/19/2025 11:25	WG2642878
Xylenes, Total	ND		75.0	25	11/19/2025 11:25	WG2642878
Trichloroethene	83.1		25.0	25	11/19/2025 11:25	WG2642878
cis-1,2-Dichloroethene	62.3		25.0	25	11/19/2025 11:25	WG2642878
trans-1,2-Dichloroethene	ND		25.0	25	11/19/2025 11:25	WG2642878
Tetrachloroethene	1470		25.0	25	11/19/2025 11:25	WG2642878
Vinyl chloride	ND	J4	25.0	25	11/19/2025 11:25	WG2642878
(S) Toluene-d8	99.7		80.0-120		11/19/2025 11:25	WG2642878
(S) 4-Bromofluorobenzene	84.8		77.0-126		11/19/2025 11:25	WG2642878
(S) 1,2-Dichloroethane-d4	118		70.0-130		11/19/2025 11:25	WG2642878

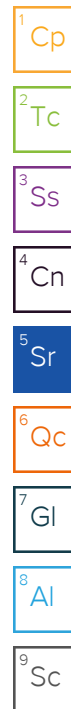
¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	10600		1000	10	11/21/2025 09:25	WG2644850
(S) a,a,a-Trifluorotoluene(FID)	103		78.0-120		11/21/2025 09:25	WG2644850

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	74.2		50.0	50	11/25/2025 02:34	WG2646870
Ethylbenzene	527		50.0	50	11/25/2025 02:34	WG2646870
Toluene	725		50.0	50	11/25/2025 02:34	WG2646870
Xylenes, Total	1990		150	50	11/25/2025 02:34	WG2646870
Trichloroethene	51.9		50.0	50	11/25/2025 02:34	WG2646870
cis-1,2-Dichloroethene	854		50.0	50	11/25/2025 02:34	WG2646870
trans-1,2-Dichloroethene	ND		50.0	50	11/25/2025 02:34	WG2646870
Tetrachloroethene	137		50.0	50	11/25/2025 02:34	WG2646870
Vinyl chloride	ND		50.0	50	11/25/2025 02:34	WG2646870
(S) Toluene-d8	102		80.0-120		11/25/2025 02:34	WG2646870
(S) 4-Bromofluorobenzene	94.0		77.0-126		11/25/2025 02:34	WG2646870
(S) 1,2-Dichloroethane-d4	108		70.0-130		11/25/2025 02:34	WG2646870



Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	27900		1000	10	11/21/2025 09:44	WG2644850
(S) a,a,a-Trifluorotoluene(FID)	100		78.0-120		11/21/2025 09:44	WG2644850

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	3300		50.0	50	11/19/2025 12:04	WG2642878
Ethylbenzene	1590		50.0	50	11/19/2025 12:04	WG2642878
Toluene	1340		50.0	50	11/19/2025 12:04	WG2642878
Xylenes, Total	8110		150	50	11/19/2025 12:04	WG2642878
Trichloroethene	ND		50.0	50	11/19/2025 12:04	WG2642878
cis-1,2-Dichloroethene	ND		50.0	50	11/19/2025 12:04	WG2642878
trans-1,2-Dichloroethene	ND		50.0	50	11/19/2025 12:04	WG2642878
Tetrachloroethene	ND		50.0	50	11/19/2025 12:04	WG2642878
Vinyl chloride	66.2	C5	50.0	50	11/25/2025 02:54	WG2646870
(S) Toluene-d8	91.4		80.0-120		11/19/2025 12:04	WG2642878
(S) Toluene-d8	101		80.0-120		11/25/2025 02:54	WG2646870
(S) 4-Bromofluorobenzene	93.9		77.0-126		11/19/2025 12:04	WG2642878
(S) 4-Bromofluorobenzene	90.1		77.0-126		11/25/2025 02:54	WG2646870
(S) 1,2-Dichloroethane-d4	112		70.0-130		11/19/2025 12:04	WG2642878
(S) 1,2-Dichloroethane-d4	107		70.0-130		11/25/2025 02:54	WG2646870

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	35300		1000	10	11/21/2025 10:03	WG2644850
(S) a,a,a-Trifluorotoluene(FID)	100		78.0-120		11/21/2025 10:03	WG2644850

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	4800		200	200	11/19/2025 12:23	WG2642878
Ethylbenzene	827		200	200	11/19/2025 12:23	WG2642878
Toluene	4850		200	200	11/19/2025 12:23	WG2642878
Xylenes, Total	6830		600	200	11/19/2025 12:23	WG2642878
Trichloroethene	ND		200	200	11/19/2025 12:23	WG2642878
cis-1,2-Dichloroethene	ND		200	200	11/19/2025 12:23	WG2642878
trans-1,2-Dichloroethene	ND		200	200	11/19/2025 12:23	WG2642878
Tetrachloroethene	ND		200	200	11/19/2025 12:23	WG2642878
Vinyl chloride	ND	J4	200	200	11/19/2025 12:23	WG2642878
(S) Toluene-d8	93.7		80.0-120		11/19/2025 12:23	WG2642878
(S) 4-Bromofluorobenzene	94.6		77.0-126		11/19/2025 12:23	WG2642878
(S) 1,2-Dichloroethane-d4	115		70.0-130		11/19/2025 12:23	WG2642878

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	143		100	1	11/21/2025 06:11	WG2644850
(S) a,a,a-Trifluorotoluene(FID)	105		78.0-120		11/21/2025 06:11	WG2644850

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		10.0	10	11/19/2025 12:42	WG2642878
Ethylbenzene	ND		10.0	10	11/19/2025 12:42	WG2642878
Toluene	ND		10.0	10	11/19/2025 12:42	WG2642878
Xylenes, Total	ND		30.0	10	11/19/2025 12:42	WG2642878
Trichloroethene	22.5		10.0	10	11/19/2025 12:42	WG2642878
cis-1,2-Dichloroethene	ND		10.0	10	11/19/2025 12:42	WG2642878
trans-1,2-Dichloroethene	ND		10.0	10	11/19/2025 12:42	WG2642878
Tetrachloroethene	391		10.0	10	11/19/2025 12:42	WG2642878
Vinyl chloride	ND	J4	10.0	10	11/19/2025 12:42	WG2642878
(S) Toluene-d8	101		80.0-120		11/19/2025 12:42	WG2642878
(S) 4-Bromofluorobenzene	92.9		77.0-126		11/19/2025 12:42	WG2642878
(S) 1,2-Dichloroethane-d4	116		70.0-130		11/19/2025 12:42	WG2642878

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	1710		1000	10	11/21/2025 10:23	WG2644850
(S) a,a,a-Trifluorotoluene(FID)	103		78.0-120		11/21/2025 10:23	WG2644850

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	43.6		1.00	1	11/20/2025 06:37	WG2643274
Ethylbenzene	5.95		1.00	1	11/20/2025 06:37	WG2643274
Toluene	2.21		1.00	1	11/20/2025 06:37	WG2643274
Xylenes, Total	22.8		3.00	1	11/20/2025 06:37	WG2643274
Trichloroethene	ND		1.00	1	11/20/2025 06:37	WG2643274
cis-1,2-Dichloroethene	ND		1.00	1	11/20/2025 06:37	WG2643274
trans-1,2-Dichloroethene	ND		1.00	1	11/20/2025 06:37	WG2643274
Tetrachloroethene	ND		1.00	1	11/20/2025 06:37	WG2643274
Vinyl chloride	ND	J4	1.00	1	11/20/2025 06:37	WG2643274
(S) Toluene-d8	96.1		80.0-120		11/20/2025 06:37	WG2643274
(S) 4-Bromofluorobenzene	93.8		77.0-126		11/20/2025 06:37	WG2643274
(S) 1,2-Dichloroethane-d4	111		70.0-130		11/20/2025 06:37	WG2643274

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		100	1	11/25/2025 11:37	WG2646930
(S) a,a,a-Trifluorotoluene(FID)	97.8		78.0-120		11/25/2025 11:37	WG2646930

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	11/20/2025 02:46	WG2643274
Ethylbenzene	ND		1.00	1	11/20/2025 02:46	WG2643274
Toluene	ND		1.00	1	11/20/2025 02:46	WG2643274
Xylenes, Total	ND		3.00	1	11/20/2025 02:46	WG2643274
Trichloroethene	ND		1.00	1	11/20/2025 02:46	WG2643274
cis-1,2-Dichloroethene	ND		1.00	1	11/20/2025 02:46	WG2643274
trans-1,2-Dichloroethene	ND		1.00	1	11/20/2025 02:46	WG2643274
Tetrachloroethene	ND		1.00	1	11/20/2025 02:46	WG2643274
Vinyl chloride	ND	J4	1.00	1	11/20/2025 02:46	WG2643274
(S) Toluene-d8	99.7		80.0-120		11/20/2025 02:46	WG2643274
(S) 4-Bromofluorobenzene	90.8		77.0-126		11/20/2025 02:46	WG2643274
(S) 1,2-Dichloroethane-d4	115		70.0-130		11/20/2025 02:46	WG2643274

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		100	1	11/21/2025 04:34	WG2644850
(S) a,a,a-Trifluorotoluene(FID)	112		78.0-120		11/21/2025 04:34	WG2644850

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	11/20/2025 03:06	WG2643274
Ethylbenzene	ND		1.00	1	11/20/2025 03:06	WG2643274
Toluene	ND		1.00	1	11/20/2025 03:06	WG2643274
Xylenes, Total	ND		3.00	1	11/20/2025 03:06	WG2643274
Trichloroethene	ND		1.00	1	11/20/2025 03:06	WG2643274
cis-1,2-Dichloroethene	ND		1.00	1	11/20/2025 03:06	WG2643274
trans-1,2-Dichloroethene	ND		1.00	1	11/20/2025 03:06	WG2643274
Tetrachloroethene	ND		1.00	1	11/20/2025 03:06	WG2643274
Vinyl chloride	ND	J4	1.00	1	11/20/2025 03:06	WG2643274
(S) Toluene-d8	101		80.0-120		11/20/2025 03:06	WG2643274
(S) 4-Bromofluorobenzene	92.0		77.0-126		11/20/2025 03:06	WG2643274
(S) 1,2-Dichloroethane-d4	115		70.0-130		11/20/2025 03:06	WG2643274

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Method Blank (MB)

(MB) R4304391-3 11/20/25 12:02

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		78.6	100
(S) a,a,a-Trifluorotoluene(FID)	96.3			78.0-120

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4304391-1 11/20/25 10:12 • (LCSD) R4304391-2 11/20/25 10:56

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5000	4550	4580	91.0	91.6	70.0-124			0.657	20
(S) a,a,a-Trifluorotoluene(FID)				97.3	97.6	78.0-120				

L1918781-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1918781-01 11/20/25 14:04 • (MS) R4304391-4 11/20/25 21:01 • (MSD) R4304391-5 11/20/25 21:23

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5000	ND	5000	4970	100	99.4	1	10.0-155			0.602	21
(S) a,a,a-Trifluorotoluene(FID)					96.1	96.3		78.0-120				

1
Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

9
Sc

Method Blank (MB)

(MB) R4305658-5 11/21/25 00:53

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		78.6	100
(S) a,a,a-Trifluorotoluene(FID)	104			78.0-120

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4305658-3 11/20/25 22:36 • (LCSD) R4305658-4 11/20/25 22:56

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5000	4800	5040	96.0	101	70.0-124			4.88	20
(S) a,a,a-Trifluorotoluene(FID)				96.8	106	78.0-120				

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Cp

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Tc

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Ss

4
Cn

5
Sr

6
Qc

7
Gl

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Al

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Sc

Method Blank (MB)

(MB) R4306439-3 11/25/25 11:00

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		78.6	100
(S) a,a,a-Trifluorotoluene(FID)	98.3			78.0-120

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4306439-1 11/25/25 09:59 • (LCSD) R4306439-2 11/25/25 10:19

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5000	4890	5010	97.8	100	70.0-124			2.42	20
(S) a,a,a-Trifluorotoluene(FID)				101	101	78.0-120				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4304541-3 11/19/25 05:20

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.320	1.00
Ethylbenzene	U		0.234	1.00
Toluene	U		0.274	1.00
Xylenes, Total	U		0.319	3.00
Trichloroethene	U		0.383	1.00
cis-1,2-Dichloroethene	U		0.323	1.00
trans-1,2-Dichloroethene	U		0.348	1.00
Tetrachloroethene	U		0.358	1.00
Vinyl chloride	U		0.458	1.00
(S) Toluene-d8	101			80.0-120
(S) 4-Bromofluorobenzene	92.5			77.0-126
(S) 1,2-Dichloroethane-d4	118			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4304541-1 11/19/25 04:22 • (LCSD) R4304541-2 11/19/25 04:42

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	10.0	10.2	10.1	102	101	70.0-123			0.985	20
Ethylbenzene	10.0	9.30	9.44	93.0	94.4	79.0-123			1.49	20
Toluene	10.0	9.75	9.76	97.5	97.6	79.0-120			0.103	20
Xylenes, Total	30.0	27.8	28.2	92.7	94.0	79.0-123			1.43	20
Trichloroethene	10.0	10.5	10.9	105	109	78.0-124			3.74	20
cis-1,2-Dichloroethene	10.0	8.98	9.49	89.8	94.9	73.0-120			5.52	20
trans-1,2-Dichloroethene	10.0	8.75	8.78	87.5	87.8	73.0-120			0.342	20
Tetrachloroethene	10.0	8.85	9.07	88.5	90.7	72.0-132			2.46	20
Vinyl chloride	10.0	15.6	15.5	156	155	67.0-131	J4	J4	0.643	20
(S) Toluene-d8				93.4	91.8	80.0-120				
(S) 4-Bromofluorobenzene				88.3	89.9	77.0-126				
(S) 1,2-Dichloroethane-d4				117	112	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4304549-3 11/19/25 23:58

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.320	1.00
Ethylbenzene	U		0.234	1.00
Toluene	U		0.274	1.00
Xylenes, Total	U		0.319	3.00
Trichloroethene	U		0.383	1.00
cis-1,2-Dichloroethene	U		0.323	1.00
trans-1,2-Dichloroethene	U		0.348	1.00
Tetrachloroethene	U		0.358	1.00
Vinyl chloride	U		0.458	1.00
(S) Toluene-d8	97.2			80.0-120
(S) 4-Bromofluorobenzene	90.7			77.0-126
(S) 1,2-Dichloroethane-d4	117			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4304549-1 11/19/25 23:00 • (LCSD) R4304549-2 11/19/25 23:19

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	10.0	9.68	10.2	96.8	102	70.0-123			5.23	20
Ethylbenzene	10.0	9.12	9.74	91.2	97.4	79.0-123			6.57	20
Toluene	10.0	9.14	9.97	91.4	99.7	79.0-120			8.69	20
Xylenes, Total	30.0	26.5	28.7	88.3	95.7	79.0-123			7.97	20
Trichloroethene	10.0	9.86	10.5	98.6	105	78.0-124			6.29	20
cis-1,2-Dichloroethene	10.0	8.84	9.41	88.4	94.1	73.0-120			6.25	20
trans-1,2-Dichloroethene	10.0	8.25	8.79	82.5	87.9	73.0-120			6.34	20
Tetrachloroethene	10.0	8.15	8.86	81.5	88.6	72.0-132			8.35	20
Vinyl chloride	10.0	13.7	14.5	137	145	67.0-131	J4	J4	5.67	20
(S) Toluene-d8				89.6	92.0	80.0-120				
(S) 4-Bromofluorobenzene				92.1	90.8	77.0-126				
(S) 1,2-Dichloroethane-d4				115	112	70.0-130				

L1918502-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1918502-04 11/20/25 05:01 • (MS) R4304549-4 11/20/25 08:51 • (MSD) R4304549-5 11/20/25 09:10

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	10.0	ND	10.5	11.3	105	113	1	17.0-158			7.34	27
Ethylbenzene	10.0	ND	9.40	10.2	94.0	102	1	30.0-155			8.16	27
Toluene	10.0	ND	9.73	10.5	97.3	105	1	26.0-154			7.61	28

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Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

L1918502-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1918502-04 11/20/25 05:01 • (MS) R4304549-4 11/20/25 08:51 • (MSD) R4304549-5 11/20/25 09:10

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Xylenes, Total	30.0	ND	28.1	30.2	93.7	101	1	29.0-154			7.20	28
Trichloroethene	10.0	1.98	12.3	13.1	103	111	1	10.0-160			6.30	25
cis-1,2-Dichloroethene	10.0	ND	10.5	11.1	98.5	105	1	10.0-160			5.56	27
trans-1,2-Dichloroethene	10.0	ND	9.12	9.93	91.2	99.3	1	17.0-153			8.50	27
Tetrachloroethene	10.0	ND	9.19	10.0	91.9	100	1	10.0-160			8.44	27
Vinyl chloride	10.0	ND	17.0	17.9	170	179	1	10.0-160	J5	J5	5.16	27
(S) Toluene-d8					90.7	89.2		80.0-120				
(S) 4-Bromofluorobenzene					89.3	90.2		77.0-126				
(S) 1,2-Dichloroethane-d4					118	115		70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R4306253-3 11/25/25 00:19

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.320	1.00
Ethylbenzene	U		0.234	1.00
Toluene	U		0.274	1.00
Xylenes, Total	U		0.319	3.00
Trichloroethene	U		0.383	1.00
cis-1,2-Dichloroethene	U		0.323	1.00
trans-1,2-Dichloroethene	U		0.348	1.00
Tetrachloroethene	U		0.358	1.00
Vinyl chloride	U		0.458	1.00
(S) Toluene-d8	102			80.0-120
(S) 4-Bromofluorobenzene	93.4			77.0-126
(S) 1,2-Dichloroethane-d4	111			70.0-130

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4306253-1 11/24/25 22:39 • (LCSD) R4306253-2 11/24/25 22:59

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	10.0	9.03	8.53	90.3	85.3	70.0-123			5.69	20
Ethylbenzene	10.0	9.52	8.58	95.2	85.8	79.0-123			10.4	20
Toluene	10.0	9.04	8.54	90.4	85.4	79.0-120			5.69	20
Xylenes, Total	30.0	27.7	25.8	92.3	86.0	79.0-123			7.10	20
Trichloroethene	10.0	8.79	8.37	87.9	83.7	78.0-124			4.90	20
cis-1,2-Dichloroethene	10.0	9.14	8.59	91.4	85.9	73.0-120			6.20	20
trans-1,2-Dichloroethene	10.0	9.06	8.76	90.6	87.6	73.0-120			3.37	20
Tetrachloroethene	10.0	8.86	8.63	88.6	86.3	72.0-132			2.63	20
Vinyl chloride	10.0	12.2	11.4	122	114	67.0-131			6.78	20
(S) Toluene-d8				98.5	99.9	80.0-120				
(S) 4-Bromofluorobenzene				92.8	91.3	77.0-126				
(S) 1,2-Dichloroethane-d4				111	110	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

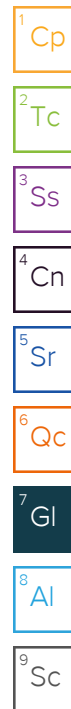
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
U (Radiochemistry)	Result + Error < MDA.
J (Radiochemistry)	Result < MDA; Result + Error > MDA.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
C5	The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.



ACCREDITATIONS & LOCATIONS

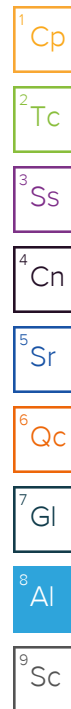
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.



Form containing various sections: Name/Address, Billing Information, Project Description, Regulatory Program, Collection details, Sample ID table, Matrix, Remarks, Tracking, and Sample Receipt Checklist.

Company Name/Address:
Engineering/Remediation Resources Group

15333 NE 90th Street

Report to:
Jennifer Sonnichsen 425-658-5026

Billing Information:

Jennifer Sonnichsen | Accounts Payable
 15333 NE 90th Street
 Ste 100
 Redmond, WA 98073

Email To:
 jennifer.sonnichsen@errg.com; spencer.slomins

Project Description:

FORMER CIRCLE K 1461

City/State

Collected: **Seattle, WA**

Please Circle:

☒ PT ☐ MT ☐ CT ☐ ET

Regulatory Program (DOD, RCRA, DW, etc.):

ELM ECOLOGY

Client Project #

Lab Project #

ENGREMRWA-CIRCLE K

Collected by (print):

BLAINE TECH

Site/Facility ID #

20230065

P.O. #

Collected by (signature):

[Signature]

Rush? (Lab MUST Be Notified)

Same Day ☐ Five Day ☐
 Next Day ☐ 5 Day (Rad Only) ☐
 Two Day ☐ 10 Day (Rad Only) ☐
 Three Day ☐ STD TAT ☐

Quote #

Date Results Needed

No. of Cntrs

Immediately Packed on Ice N ☐ Y ☒

Sample ID

Comp/Grab

Matrix *

Depth

Date

Time

NWTPHGX 40mlAmb-HCl

NWTPHGX 40mlAmb-HCl-Bk

V8260 40mlAmb-HCl

V8260 40mlAmb-HCl-Bk

TRIP BLANK

TB-01

GRAB

TB GW

N/A

11/14/25

1325

2

X

X

TRIP BLANK

TB-02

GRAB

TB GW

N/A

11/14/25

1330

2

X

X

* Matrix:
 SS - Soil **AIR** - Air **F** - Filter
 GW - Groundwater **B** - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks: V8260: BTEX+CVOCs custom list.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:

☐ UPS ☐ FedEx ☐ Courier

Tracking #

Relinquished by: (Signature)

[Signature]

Date:

11/14/25

Time:

1315

Received by: (Signature)

[Signature] ERRG

Trip Blank Received: Yes/No

4 ☒ HCl MeOH ☐ TBR

Relinquished by: (Signature)

[Signature]

Date:

11/14/25

Time:

1400

Received by: (Signature)

[Signature] FEDEX

Temp: °C Bottles Received:

TLA 20432.0

Relinquished by: (Signature)

[Signature]

Date:

11/15/26

Time:

0915

Received for lab by: (Signature)

[Signature] RUC

Date: Time:

11/15/26 0915

Hold:

Condition:

NCF 10

Analysis / Container / Preservative

Chain of Custody Page 2 of 2



MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

SDG # **L1919042**

Table #

Acctnum: **ENGREMRWA**

Template: **T263464**

Prelogin: **P1188131**

PM: 3500 - Jennifer Gambill

PB:

Shipped Via: **FedEX Ground**

Remarks

Sample # (lab only)

Sample Receipt Checklist

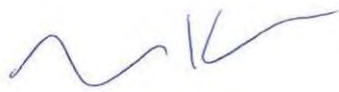
COC Seal Present/Intact: ☒ Y ☐ N
 COC Signed/Accurate: ☒ Y ☐ N
 Bottles arrive intact: ☒ Y ☐ N
 Correct bottles used: ☒ Y ☐ N
 Sufficient volume sent: ☒ Y ☐ N
 If Applicable
 VOA Zero Headspace: ☒ Y ☐ N
 Preservation Correct/Checked: ☒ Y ☐ N
 RAD Screen <0.5 mR/hr: ☒ Y ☐ N

If preservation required by Login: Date/Time

Appendix C.

Data Validation Reports During Reporting Period

DATA VALIDATION CHECKLIST – STAGE 2A

Site Name	Circle K	Project Name	O&M – Monthly Vapor System
Data Reviewer (signature and date)	 11/26/2025	Technical Reviewer (signature and date)	 12/4/2025
Laboratory Report No.	L1918811 (samples collected 11/14/2025)	Laboratory	Pace Analytical
Analyses	VOCs by TO-15 Summa		
Sample and Matrix	VG-412-INF-20251114 L1918811--01 VG-410-EFF-20251114 L1918811--02 VP-3-20251114 L1918811--03 VP-4-20251114 L1918811--04		
Field Duplicate Pairs	No field duplicate pairs were identified in this SDG.		
Field Blanks	No trip or field blanks were identified in this SDG.		

INTRODUCTION

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use (January 2009). Analytical data were evaluated in general accordance with the EPA National Functional Guidelines for Organic and Inorganic Superfund Methods Data Review (November 2020).

OVERALL EVALUATION

All results are usable with the qualifications described in this checklist.

Data completeness and verification

Within Criteria	Exceedance/Notes
Y	

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times.

Method Blanks:

Within Criteria	Exceedance/Notes
Y	Method blanks were analyzed as required by the method. No contaminants were found in the method blanks.

Field Blanks:

Within Criteria	Exceedance/Notes
NA	No trip or field blanks were analyzed.

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
Y	Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

MS/MSD:

Within Criteria	Exceedance/Notes
NA	Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was not performed on an associated project sample.

Laboratory Control Samples:

Within Criteria	Exceedance/Notes
N	Laboratory control samples (LCS) and laboratory control sample duplicate (LCSD) sample analysis were performed. Percent recoveries (%R) and RPD were within QC limits except those listed below.

Sample ID	Analyte	LCS %R	LCSD %R	QC Limits	RPD	RPD Limit	New Qualifier
L1918811-03, L1918811-04	Chlorobenzene	120	118	70-119	1.57	20	J – all detections UJ – non-detects
	Vinyl chloride	133	133	64-127	0.2	20	

Field duplicates:

Within Criteria	Exceedance/Notes
NA	Field duplicate sample analysis was not performed.

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	L1918811-01 was diluted by a factor of 20, hexane diluted by a factor of 100, 2,2,4-trimethylpentane diluted by a factor of 100. L1918811-03 was diluted by a factor of 10 for tetrachloroethylene. L1918811-04 was diluted by a factor of 400 for tetrachloroethylene.

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

Other [none]:

Within Criteria	Exceedance/Notes
NA	

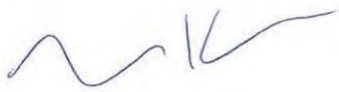
Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

U	The analyte was not detected and was reported as less than the LOD or as defined by the customer.
J	The reported result was an estimated value with unknown bias.
J+	The result was an estimated quantity, but the results may be biased high.

J-	The result was an estimated quantity, but the results may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a “tentative identification”.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer, however, the associated numerical value is approximate.
X	The presence or absence of the analyte cannot be substantiated by the data provided. Exclusion of the data is recommended.

DATA VALIDATION CHECKLIST – STAGE 2A

Site Name	Circle K	Project Name	O&M – Monthly Water System
Data Reviewer (signature and date)	 12/8/2025	Technical Reviewer (signature and date)	 12/8/2025
Laboratory Report No.	L1919100 (samples collected 11/14/2025)	Laboratory	Pace Analytical
Analyses	VOCs by Method 8260D, Total Petroleum Hydrocarbons as Gasoline by Method NWTPHGX and Oil and Grease HEM by Method 1664B		
Sample and Matrix	LG-401-INF-20251114 LG-402-MID-20251114 LG-404-EFF-20251114 DUP-1-20251114 DUP-2-20251114 TB-01-20251114 L1919100-01 L1919100-02 L1919100-03 L1919100-04 L1919100-05 L1919100-06		
Field Duplicate Pairs	There are two field duplicates identified in this SDG. DUP-1-20251114 and DUP-2-20251114 are duplicates of LG-404-EFF-20251114. DUP-2-20251114 was only analyzed for Oil and Grease HEM by Method 1664B.		
Field Blanks	There is one trip blank identified in this SDG.		

INTRODUCTION

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use (January 2009). Analytical data were evaluated in general accordance with the EPA National Functional Guidelines for Organic and Inorganic Superfund Methods Data Review (November 2020).

OVERALL EVALUATION

All results are usable with the qualifications described in this checklist.

Data completeness and verification

Within Criteria	Exceedance/Notes
Y	

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times.

Method Blanks:

Within Criteria	Exceedance/Notes
Y	Method blanks were analyzed as required by the method. No contaminants were found in the method blanks.

Field Blanks:

Within Criteria	Exceedance/Notes
N	A trip blank was analyzed as required by the method. No contaminants were found in the trip blank except for those noted in the table below:

Sample IDs	Analyte	Trip Blank Result (micrograms per liter)	Qualifier
L1919100-01, L1919100-02, L1919100-03, L1919100-04, L1919100-05	Gasoline Range Organics- NWTPH	102	If the sample result is < the quantitation limit (QL), report at the QL and qualify U; If the sample result is ≥ QL but < the blank result, report at sample result and qualify U; If the sample result is ≥ QL and ≥ the blank result, report at sample result and qualify J+

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
Y	Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

MS/MSD:

Within Criteria	Exceedance/Notes
NA	Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was not performed on an associated project sample. .

Laboratory Control Samples:

Within Criteria	Exceedance/Notes
Y	Laboratory control samples (LCS) and laboratory control sample duplicate (LCSD) sample analysis were performed. Percent recoveries (%R) and RPD were within QC limits.

Field duplicates:

Within Criteria	Exceedance/Notes
Y	No analytes were detected in the primary or duplicate samples, therefore RPD was not calculated.

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	All samples were analyzed undiluted.

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

Other [none]:

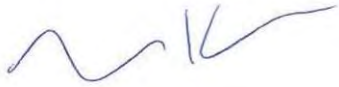
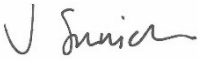
Within Criteria	Exceedance/Notes
NA	

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

U	The analyte was not detected and was reported as less than the LOD or as defined by the customer.
J	The reported result was an estimated value with unknown bias.
J+	The result was an estimated quantity, but the results may be biased high.
J-	The result was an estimated quantity, but the results may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification".
NJ	The analyte has been "tentatively identified" or "presumptively" as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer, however, the associated numerical value is approximate.
X	The presence or absence of the analyte cannot be substantiated by the data provided. Exclusion of the data is recommended.

DATA VALIDATION CHECKLIST – STAGE 2A

Site Name	Circle K	Project Name	O&M – Groundwater Sampling
Data Reviewer (signature and date)	 12/4/2025	Technical Reviewer (signature and date)	 12/8/2025
Laboratory Report No.	L1919042 (samples collected 11/14/2025)	Laboratory	Pace Analytical
Analyses	VOCs by Method 8260D and Total Petroleum Hydrocarbons as Gasoline by NWTPHGX		
Sample and Matrix	MW-6 (GW) MW-8 (GW) MW-9 (GW) MW-13 (GW) MW-14 (GW) MW-15 (GW) MW-16 (GW) MW-17 (GW) MW-19 (GW) MW-20 (GW) MW-21 (GW) RW-1 (GW) DUP-1 (GW) TB-01 (Water) TB-02 (Water) L1919042 -01 L1919042 -02 L1919042 -03 L1919042 -04 L1919042 -05 L1919042 -06 L1919042 -07 L1919042 -08 L1919042 -09 L1919042 -10 L1919042 -11 L1919042 -12 L1919042 -13 L1919042 -14 L1919042 -15		
Field Duplicate Pairs	DUP-1 is a duplicate of MW-13.		
Field Blanks	Two trip blanks were identified in this SDG. No other field blanks were identified in this SDG.		

INTRODUCTION

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use (January 2009). Analytical data were evaluated in general accordance with the EPA National Functional Guidelines for Organic and Inorganic Superfund Methods Data Review (November 2020).

OVERALL EVALUATION

All results are usable with the qualifications described in this checklist.

Data completeness and verification

Within Criteria	Exceedance/Notes
Y	

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times.

Method Blanks:

Within Criteria	Exceedance/Notes
Y	Method blanks were analyzed as required by the method. No contaminants were found in the method blanks.

Field Blanks:

Within Criteria	Exceedance/Notes
Y	All analytes for both trip blanks were non-detect.

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
Y	Surrogates were added to all samples as required by the method. All surrogate recoveries (%R) were within QC limits.

MS/MSD:

Within Criteria	Exceedance/Notes
NA	Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was not performed on an associated project sample.

Laboratory Control Samples:

Within Criteria	Exceedance/Notes
Y	Laboratory control samples (LCS) and laboratory control sample duplicate (LCSD) sample analysis were performed. Percent recoveries (%R) and Relative Percent Difference (RPD) were within QC limits.

Sample ID	Analyte	LCS %R	LCSD %R	QC Limits	RPD	RPD Limit	New Qualifier
L1919042-04, L1919042-05, L1919042-06, L1919042-07, L1919042-08, L1919042-10, L1919042-11, L1919042-12	Vinyl chloride	156	155	67-131	0.643	20	J – all detections UJ – non-detects
L1919042-13, L1919042-14, L1919042-15		137	145		5.67		

Field duplicates:

Within Criteria	Exceedance/Notes
Y	Field duplicate sample analysis was performed. RPDs were within QC limits (<30%), as noted below (RPDs were only calculated for detected analytes in both samples).

RPD Calculation: $[|R1-R2| \div ((R1+R2) \div 2)] \times 100$

Field Duplicate Pair	Analyte	RPD Calculation	New Qualifier
MW-13 and DUP-1	GRO	$[1710-1170 \div ((1170+1710) \div 2)] \times 100 = 37.5$	J for detections; no qualification for non-detects
	Benzene	$[43.6-38.7 \div ((38.7+43.6) \div 2)] \times 100 = 11.91$	N/A
	Ethylbenzene	$[5.95-3.01 \div ((5.95+3.01) \div 2)] \times 100 = 65.26$	J for detections; no qualification for non-detects
	Toluene	$[2.21-1.39 \div ((2.21+1.39) \div 2)] \times 100 = 45.56$	
	Xylenes, Total	$[22.8-30.2 \div ((22.8+30.2) \div 2)] \times 100 = 27.92$	N/A

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	MW-8 analyzed for VOCs by 8260D was diluted by a factor of 25 and Gasoline Range Organics-NWTPH was diluted by a factor of 5. MW-9 analyzed for VOCs by 8260D and Gasoline Range Organics-NWTPH was diluted by a factor of 5. MW-13 analyzed for Gasoline Range Organics-NWTPH was diluted by a factor of 10. MW-17 analyzed for VOCs by 8260D was diluted by a factor of 25. MW-19 and MW-20 analyzed for VOCs by 8260D were diluted by a factor of 50 and Gasoline Range Organics-NWTPH, were diluted by a factor of 10. MW-21 analyzed for VOCs by 8260D was diluted by a factor of 200 and Gasoline Range Organics-NWTPH was diluted by a factor of 10. RW-1 analyzed for VOCs by 8260D was diluted by a factor of 10. DUP-1 analyzed for Gasoline Range Organics-NWTPH was diluted by a factor of 10.

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

MDLs/RLs:

Within Criteria	Exceedance/Notes
N/A	

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

Other [none]:

Within Criteria	Exceedance/Notes
NA	

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

U	The analyte was not detected and was reported as less than the LOD or as defined by the customer.
J	The reported result was an estimated value with unknown bias.

J+	The result was an estimated quantity, but the results may be biased high.
J-	The result was an estimated quantity, but the results may be biased low.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a “tentative identification”.
NJ	The analyte has been “tentatively identified” or “presumptively” as present and the associated numerical value was the estimated concentration in the sample.
UJ	The analyte was not detected and was reported as less than the LOD or as defined by the customer, however, the associated numerical value is approximate.
X	The presence or absence of the analyte cannot be substantiated by the data provided. Exclusion of the data is recommended.

Appendix D. Spent Carbon Certificate of Reactivation



Activated Carbon Products & Services

PO Box 1346 – Ridgefield, WA 98642

Phone: (360) 727-3775

Email: Info@PacificCoastCarbon.com

February 26th, 2026

Attn: Dale Meyers / 425-389-2521

Former Circle K 1461 Site

2350 24th Ave E - B

Seattle, WA 98112

This letter certifies the following non hazardous spent carbon received by Pacific Coast Carbon was reactivated in accordance with 40 CFR Part 265 and part 61 regulations:

Generators Mailing & Site Address

Former Circle K 1461 Site

2350 24th Ave E – B

Seattle, WA 98112

Profile Number:

V-25101

Shipping Documentation number: 25489 & 25566

Date of Receipt

Doc# 25489 receipt 10-17-25

Doc# 25566 receipt 12-10-25

Qty, Container type & Weight: 4 – Supersacks Doc# 25489- 5,542 pounds

Reactivated Date: 10-19-2025

Qty, Container type & Weight: 4 - Supersacks Doc# 25566 – 5363 pounds

Reactivation Date: 02-26-26

Under civil and criminal penalties of law for false and or fraudulent statements or representations, I verify the information contained above is accurate, true and complete. As to the identified sections(s) of this certificate for which I cannot personally verify accuracy and truth, I certify as the company official and having company authority and responsibility for the persons who, acting under my direct instructions, made the verification that this information is accurate, true and complete.

Pacific Coast Carbon

Sincerely,

Alex Peru

Alex Peru

President