Second Quarter 2025
Remedial Progress Evaluation Report for
Former Circle K 1461 Site
Seattle, Washington

August 2025

ERRG Project No. 20230065

Prepared for:

State of Washington, Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008

Prepared by:

Engineering/Remediation Resources Group, Inc.
15333 NE 90th Street, Bldg. S, Suite 100
Redmond, WA 98052
(425) 658-5026

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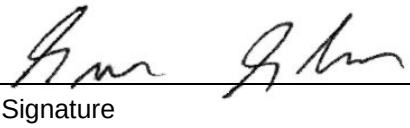	August 29, 2025
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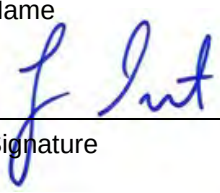	August 29, 2025
Signature	Date
Fernando Idiarte, LG	Project Geologist
Name	Title

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Acronyms and Abbreviations

amsl	above mean sea level
bgs	below ground surface
BTEX	benzene, ethylbenzene, toluene, 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	Engineering 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
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
mg/L	milligrams per liter
MPE	multiphase extraction
MTCA	Model Toxics Control Act
O&M	Operation and Maintenance

Acronyms and Abbreviations *(continued)*

PID	photoionization detector
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 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 Second Quarter 2025 under Phase 1. 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 (yd^3) 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, ethylbenzene, toluene, 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 yd^3 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 yd^3 of impacted soil was removed from the area surrounding the heating oil UST, and approximately 80 yd^3 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 second quarter 1992 and second 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). Weekly, monthly, 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. 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 groundwater monitoring activities, and Section 5 summarizes the 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 6 to 12 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 weekly and monthly O&M activities.

3.2.1. Weekly O&M

A visual inspection, temperature check, and removal of accumulated debris of the catalytic oxidizer within the VTS were performed weekly until the removal of the catalytic oxidizer on 15 April 2025. The catalytic oxidizer was observed as operational and in working condition; no deficiencies were noted during the inspection. Site inspections are documented in the System Monitoring Forms (Appendix A).

3.2.2. 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 inspection. 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, if the well was active. 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.

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 on 30 May 2025 at vapor pins VP-3, and VP-4, using Summa canisters. Sampling was performed in response to PID measurements exceeding 425 ppb at VP-4 on 08 May 2025, as well as previous exceedance measured at VP-3. 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

Monthly VTS samples were collected from two locations (influent and effluent of the vapor GAC) using 1-liter Summa canisters on 18 April 2025, 30 May 2025, and 20 June 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

Monthly WTS samples were collected from the following three locations throughout the system: influent to the lead liquid GAC vessel, midpoint between the lead and lag liquid GAC vessel, and effluent of the lag liquid GAC vessel. Results are presented in Table 6, shown on Figure 5, and discussed in Section 5.2.3.

WTS samples were collected on 25 April 2025, 23 May 2025, and 20 June 2025 from LG-401, LG-403, and LG-404 (influent, midpoint, and effluent, respectively). 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.

3.5. FIELD QUALITY CONTROL

During the April 2025, May 2025, and June 2025 WTS sampling events, two duplicates were collected at LG-404 (DUP-1 and DUP-2). All DUP-1 samples were analyzed for GRO, BTEX, chlorinated VOCs, and FOG for each event, while DUP-2 samples were analyzed for FOG only.

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 offsite by ERRG's vendor (Pacific Coast Carbon).

3.7. DEVIATIONS

No deviations 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). Groundwater measurements were taken on 25 April 2025 and 23 May 2025, during the monthly events at the monitoring, compliance, and remediation wells (25 in total). Table 7 and Figure 6 show the groundwater elevation results, which are summarized in Section 5.3.1. 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 25 April 2025 and 23 May 2025, during each monthly sampling event using low-flow purging methodology in accordance with SOG-006 (Kennedy Jenks, 2024b). Table 8 and Figures 7 and 8 show the groundwater analytical results, which are summarized in Sections 5.3.2 and 5.3.3, for the second quarter monthly monitoring events.

Upon arrival, the condition of the well was noted 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 (5 to 50 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). Decontamination water was stored in a 55-gallon drum on the site.

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 April 2025, a blind duplicate was collected from well MW-6 and submitted for analysis of GRO and BTEX. A trip blank was also submitted and analyzed for GRO and BTEX. In May 2025, a blind duplicate was collected from well MW-15 and submitted for analysis of GRO and BTEX. 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 were observed during the reporting period.

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 influent flow rates ranged between 59.8 cubic feet per minute (cfm) and 106.5 cfm. System influent vacuum ranged from 10.4 pounds inches of mercury (inHg) to 16.9 inHg. VOC concentrations in vapor influent ranged from 164.8 ppm to 560 ppm. VOC concentrations in vapor effluent ranged from 0.0 ppm to 72.1 ppm.

EIW vacuum measurements ranged from 5 inHg at several wells to 19.5 inHg at well RW-7. EIW flow rates ranged from 23.6 cfm at well RW-8 to 64.2 cfm at well RW-7. Measured VOC concentrations at EIWs ranged from 0 ppm at SW-1 to 685 ppm at RW-7. Some VOC and flow measurements may have skewed due to excess water being extracted from EIW.

Vapor pin vacuum measurements ranged from 0.006 inH_20 (inches of water) at vapor pin VP-2 to 0.012 inH_20 at vapor pin VP-1. VOC concentrations at vapor pins ranged from 60 ppb ppm at VP-1 to 11.6 ppm at VP-4. Methane, oxygen, carbon dioxide, and hydrogen sulfide measurements were also collected at all vapor pins. Oxygen measurements ranged from 19.2% at VP-1 to 20.9% at the remaining three vapor pins, while carbon dioxide measurements ranged from 0.06% at VP-3 and 0.92% at VP-1. Methane and hydrogen sulfide were not observed in vapor pin measurements.

SSD vacuum measurements ranged from 0.201 inH_20 at SSD-2 to 3.171 inH_20 at SSD-3. SSD flow rates ranged from 5.4 cfm at SSD-2 to 28.2 cfm at SSD-3. VOC concentrations at SSD locations ranged from 0.1 ppm at SSD-1 to 2.2 ppm 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 0.02% at SSD-2 and 0.09% at SSD-3. Methane and hydrogen sulfide were not observed in SSD measurements.

During Second Quarter 2025 reporting period, approximately 54,026 gallons of treated water were 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, midpoint, and effluent.

Appendix B includes the analytical laboratory reports for the soil 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 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 (µg/m^3) in both samples (VP-3 and VP-4), with concentrations of 9,290 µg/m^3 and 6,030 µg/m^3, respectively.
- Benzene, toluene, ethylbenzene, and total xylenes were detected in both samples (VP-3 and VP-4); however, concentrations did not exceed the screening levels of 460 µg/m^3, 76,000 µg/m^3, 15,000 µg/m^3, and 1,500 µg/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 582,000 µg/m3 (influent) and 1,040 µg/m3 (effluent) in April 2025, 117,000 µg/m3 (influent) and 190,000 µg/m3 (effluent) in May 2025, and 727,000 µg/m3 (influent) and non-detect (effluent) in June 2025.
- Benzene concentrations were 5,170 µg/m^3 (influent) and 5.94 µg/m^3 (effluent) in April 2025, and 1,490 µg/m^3 (influent) and 658 µg/m^3 (effluent) in May 2025, and 1,970 µg/m^3 (influent) and 1.03 µg/m^3 (effluent) in June 2025.
- Toluene concentrations were 9,910 µg/m^3 (influent) and 36.5 µg/m^3 (effluent) in April 2025, non-detect µg/m^3 (influent) and 2,970 µg/m^3 (effluent) in May 2025, and 1,040 µg/m^3 (influent) and non-detect (effluent) in June 2025.
- Ethylbenzene concentrations were 2,350 µg/m^3 (influent) and 15.5 µg/m^3 (effluent) in April 2025, non-detect µg/m^3 (influent) and 2,010 µg/m^3 (effluent) in May 2025, and 4,160 µg/m^3 (influent) and non-detect (effluent) in June 2025.
- Total xylenes concentrations were 28,200 µg/m^3 (influent) and 434 µg/m^3 (effluent) in April 2025, non-detect (influent) and 23,000 µg/m^3 (effluent) in May 2025, and 39,700 µg/m^3 (influent) and non-detect (effluent) in June 2025.

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

5.2.3. WTS Sampling

During the April 2025 monitoring event, GRO was detected below the screening level concentration of 0.25 milligrams per liter (mg/L), at 0.152 mg/L in influent sample LG-401-INF (influent to lead liquid GAC vessel). All other analyte concentrations were below the detection limit for all samples collected.

In May 2025, all analytes were reported as non-detect above laboratory limits of detection in all samples, with the exception of the influent sample. In the influent, FOG, GRO, total xylenes, trichloroethylene (TCE), cis-1,2-dichloroethylene (cis-1,2-DCE) and tetrachloroethylene (PCE) were detected at concentrations below their respective screening levels of 100 mg/L, 2.2 mg/L, 0.25 mg/L, 0.5 mg/L, 1.0mg/L and 0.24 mg/L. Detected concentrations in the influent were 6.1 mg/L FOG, 0.738 mg/L for GRO, 0.00794 mg/L, 0.00125 mg/L for TCE, 0.0012 mg/L for cis-1,2-DCE, and 0.016 mg/L for PCE. FOG was also detected in the middle and effluent samples, at concentrations of 6.7 mg/L and 6.0 mg/L, respectively, all of which were below applicable screening levels.

In June 2025, all analytes were reported as non-detect above laboratory limits of detection in all samples, with the exception of the influent sample. In the influent, FOG, GRO, and total xylenes were detected at concentrations below their respective screening levels of 100 mg/L, 0.25 mg/L, and 2.2 mg/L. Detected concentrations in the influent were 6.17 mg/L for FOG, 0.107 mg/L for GRO, and 0.00362 mg/L for total xylenes. FOG was also detected in the middle and effluent samples, at concentrations of 5.38 mg/L and 5.68 mg/L, respectively. All detected concentrations were below applicable screening levels.

Field instrument measurements for pH and turbidity were within permitted ranges. Measurements for pH ranged from 7.32 to 8.24, and turbidity measurements ranged from 2.5 to 45 nephelometric turbidity units.

5.3. GROUNDWATER RESULTS

This section summarizes the groundwater elevation results and the baseline and January groundwater sample results.

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 April 2025 and May 2025, depth-to-water measurements indicated continued seasonal and operational fluctuations in groundwater elevations across the monitoring well network. In April 2025, groundwater elevations ranged from 50.24 feet amsl at well MW-20 to 60.71 feet amsl at MW-2. In May 2025, groundwater elevations ranged from 50.98 feet amsl at MW-21 to 60.92 feet amsl at MW-11. These variations are consistent with the effects of ongoing groundwater extraction and seasonal recharge patterns.

Depth-to-water measurements and groundwater elevation contours for these periods are presented in Table 7, with corresponding hydrographs provided in Figure 6. No light non-aqueous phase liquid (LNAPL) was observed during either monitoring event.

Depth-to-water measurements and groundwater elevation contours for May 2025 are shown on Figure 6 and calculations for April 2025 and May 2025 are summarized in Table 7.

5.3.2. April 2025 Groundwater Sampling Results

During the April 2025 event, GRO and/or BTEX analytes were detected at concentrations exceeding their respective cleanup levels in several monitoring wells, as summarized below.

- GRO was detected at concentrations ranging from 122 µg/L to 47,000 µg/L in wells RW-1 and MW-21, respectively. GRO concentrations exceeding the cleanup level 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 5.91 µg/L to 10,800 µg/L in wells MW-6 and MW-21, respectively. Benzene exceeded the cleanup level of 5 µg/L in wells MW-6, MW-13, MW-19, MW-20, and MW-21.
- Toluene was detected at concentrations ranging from 44.1 µg/L to 9,830 µg/L in wells MW-9 and MW-21, respectively. The detected toluene concentration exceeded the cleanup level of 1,000 µg/L in wells MW-13, MW-19, and MW-21.
- Ethylbenzene was detected at concentrations ranging from 252 µg/L to 1,450 µg/L in wells MW-13 and MW-21, respectively. Ethylbenzene exceeded the cleanup level of 700 µg/L in wells MW-8, MW-19, MW-20 and MW-21.
- Total Xylenes were detected at concentrations ranging from 1,110 µg/L to 8,030 µg/L in wells MW-15 and MW-21, respectively. Concentrations exceeding the cleanup level of 1,000 µg/L were reported in wells MW-8, MW-9, MW-13, MW-19, MW-20, and MW-21

5.3.3. May 2025 Groundwater Sampling Results

During the May 2025 event, GRO and/or BTEX analytes were detected at concentrations exceeding their respective cleanup levels in several monitoring wells, as summarized below.

- GRO was detected at concentrations ranging from 147 µg/L to 67,000 µg/L in wells RW-1 and MW-21, respectively. GRO concentrations exceeding the cleanup level 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 173 µg/L to 9,630 µg/L in wells MW-13 and MW-21, respectively. Benzene exceeded the cleanup level of 5 µg/L in wells MW-13, MW-19, MW-20, and MW-21.

- Toluene was detected at concentrations ranging from 35.1 µg/L to 15,200 µg/L in wells MW-9 and MW-21, respectively. The detected toluene concentration exceeded the cleanup level of 1,000 µg/L in wells MW-19, and MW-21.

- Ethylbenzene was detected at concentrations ranging from 121 µg/L to 1,660 µg/L in wells MW-13 and MW-20, respectively. Ethylbenzene exceeded the cleanup level of 700 µg/L in wells MW-8 and MW-21.

- Total Xylenes were detected at concentrations ranging from 1,450 µg/L to 10,200 µg/L in wells MW-9 and MW-21, respectively. Concentrations exceeding the cleanup level of 1,000 µg/L were reported in wells MW-8, MW-9, MW-13, MW-19, MW-20, and MW-21.

Due to high concentrations of analytes, dilutions were required for certain samples in order to obtain results within the instrument 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 non-detected due to the increased limit of detection. These non-detects may still contain concentrations above the cleanup level for site COCs that are below the elevated limit of detection. Dilution impacts to limit of detections are expected 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 Second Quarter 2025 reporting period.

6.1. CONCLUSIONS

The remedial system operated under Phase 1 conditions from 01 April 2025 through 30 May 2025 and from 13 June through 30 June 2025. The system extracted and discharged to the sewer approximately 54,026 gallons of treated groundwater.

The remedial system was offline from 30 May through 12 June 2025 due to the system not achieving the required control efficiency of 97% removal and/or less than 10 ppm at the effluent. A carbon sample was collected for profiling on 04 June 2025 to confirm carbon was viable for re-use and reactivation in lieu of landfill disposal. Carbon changeout was completed on 12 June 2025, and 2,000 pounds of 4x10 virgin coconut carbon was used. Three super sacks of spent carbon were removed from the vapor GAC vessels and hauled offsite for reactivation. A certificate of reactivation for the spent carbon is provided in Appendix D.

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 one vapor pin (VP-4), as shown in Table 2. Two vapor pins were sampled with Summa canisters for laboratory analysis by TO-15, as VP-3 previously exceeded 425 ppb in First Quarter 2025. Samples from both vapor pins exhibited GRO concentrations exceeding the 1,500 µg/m^3 screening level[1] (Table 3). Although BTEX concentrations were detected in both samples, all BTEX concentrations were less than their respective screening levels[2] (Appendix B).

6.1.2. System Vapor and Water Treatment

The VTS operated as intended during the reporting period operating with the catalytic oxidizer from 15 April 2025 through 15 April 2025 and with the vapor GAC vessels after 15 April 2025, with the exception of falling below removal efficiency requirements on 30 May 2025. Based on PID measurements, VOC concentration was above 10 ppm and control efficiency was below 97% removal. GRO and benzene concentrations in effluent vapor were less than the PSCAA emission limits during the reporting period, except for benzene in the May 2025. The system was shut off upon collecting the system vapor influent and effluent sample, which confirmed that control efficiency was not being achieved along with the PID

[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). Also available online at: <https://ecology.wa.gov/regulations-permits/guidance-technical-assistance/contamination-cleanup-tools/clarc/data-tables>.

measurements. The VTS continued operating as intended after carbon change out was completed on 12 June 2025.

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 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. Groundwater Monitoring and Sampling

Figure 6 shows the groundwater elevation contours for May 2025. Groundwater elevations between April and May 2025 show offsite groundwater flow in a south to southeast direction from wells MW-11 and MW-2 (Table 7). Groundwater elevations northeast of the WTS are relatively flat, while groundwater from MW-17 and MW-18 flows north by northwest to the localized area of depression in the vicinity of well MW-6 and MW-7, consistent with historical groundwater flow. Influence from groundwater extraction can be observed at wells MW-13, MW-20, and MW-21, as groundwater elevations exhibit signs of drawdown relative to wells MW-18 and MW-6.

Figure 7 and Figure 8 present the contours for GRO and benzene concentrations detected at the site during the May 2025 event, respectively. The benzene and GRO plumes are largely bounded within the site property boundaries, with the northern portion extending into the adjacent road. The plume area with the highest concentrations is delineated by MW-20, MW-21, and MW-19. These concentrations drop down rapidly in all directions, with elevated GRO concentrations extending north, towards MW-8. GRO and/or BTEX concentrations exceeding the cleanup levels[2] were observed in seven monitoring wells in April and May 2025. A decrease in concentrations was observed in monitoring wells MW-6, MW-8, and MW-13, while fluctuation was observed in monitoring wells MW-19, MW-20, and MW-21.

GRO concentrations exceeded the cleanup level of 800 µg/L in six wells (MW-8, MW-9, MW-13, MW-19, MW-20, and MW-21) between April 2025 and May 2025. GRO concentrations did not decrease to below cleanup levels in any wells. Concentrations decreased in two wells (MW-8 and MW-19), and increased in six wells (RW-1, MW-9, MW-13, MW-17, MW-20, and MW-21) between monitoring events.

Benzene concentrations exceeded the cleanup level of 5 µg/L in five wells (MW-6, MW-13, MW-19, MW-20, and MW-21) between April 2025 and May 2025. Concentrations decreased in each of the five wells between monitoring events. Benzene concentrations decreased below cleanup levels

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

in well MW-6 in from 5.91 µg/L in April 2025 to non-detect with a laboratory detection limit of 1.0 µg/L in May 2025.

Toluene concentrations exceeded the cleanup level of 1,000 µg/L in three wells (MW-13, MW-20, and MW-21) between April 2025 and May 2025. Toluene concentrations decreased below cleanup level in well MW-13 from 1,160 µg/L to 973 µg/L between monitoring events. Concentrations decreased in five additional wells (MW-8, MW-9, MW-19, MW-20, and MW-21) between April 2025 and May 2025 monitoring events.

Ethylbenzene concentrations exceeded the cleanup level of 700 µg/L in four wells (MW-8, MW-19, MW-20, and MW-21) between April 2025 and May 2025. Ethylbenzene concentrations decreased to below screening levels in well MW-19 from 1,080 µg/L to 511 µg/L and in well MW-20 from 859 µg/L to 657 µg/L between monitoring events. Concentrations decreased in two additional wells (MW-8 and MW-13), concentrations increased in one well (MW-21) between April 2025 and May 2025 monitoring events.

Total xylenes concentrations exceeded the cleanup level of 1,000 µg/L in six wells (MW-8, MW-9, MW-13, MW-19, MW-20, and MW-21) between April 2025 and May 2025. Concentrations decreased in four wells (MW-8, MW-13, MW-19, and MW-20) and increased in two wells (MW-9 and MW-20) between April 2025 and May 2025 monitoring events.

Comparisons of groundwater concentrations between previous contour maps show minimal change in the shape of the GRO and BTEX plume. However, concentrations have decreased below cleanup levels in wells MW-15 and MW-6 for GRO and in well MW-6 for benzene since remedial operation began. Additionally, concentrations of GRO and benzene at the wells exhibiting the highest concentrations (MW-19, MW-20, and MW-21) have fluctuations and decreases in concentration from October 2024 to May 2025.

6.2. RECOMMENDATIONS

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

- Continue to operate the remedial system under Phase 1 conditions.
- Focus extraction on EIWs within GRO and benzene plume, minimize extraction from EIWs that can potentially extract additional analytes near monitoring wells with detected concentrations of select CVOCs.

6.2.1. 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.
- Monthly vapor monitoring of EIWs and VTS will occur in July 2025, August 2025, and September 2025.
- Quarterly vapor pins and SSD well monitoring will occur in August 2025.
- Vapor sampling at VTS influent and effluent will transition to a quarterly frequency, with the next event occurring in August 2025
- Water sampling at WTS influent, midpoint, and effluent will transition to a quarterly frequency, with the next event occurring in August 2025
- Groundwater monitoring and sampling will transition to a quarterly frequency, with the next event occurring in August 2025
- Perform carbon change outs as needed.
- As-needed vapor or water sampling.

6.2.2. Identified Problems and Proposed Solutions

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

- Groundwater samples collected in April and May 2025 were analyzed for select CVOCs and detections for various CVOCs were observed in several wells.
    - Groundwater impacts via chlorinated VOCs will be resolved under separate Consent Decree or Agreed Order.

7. References

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Figures

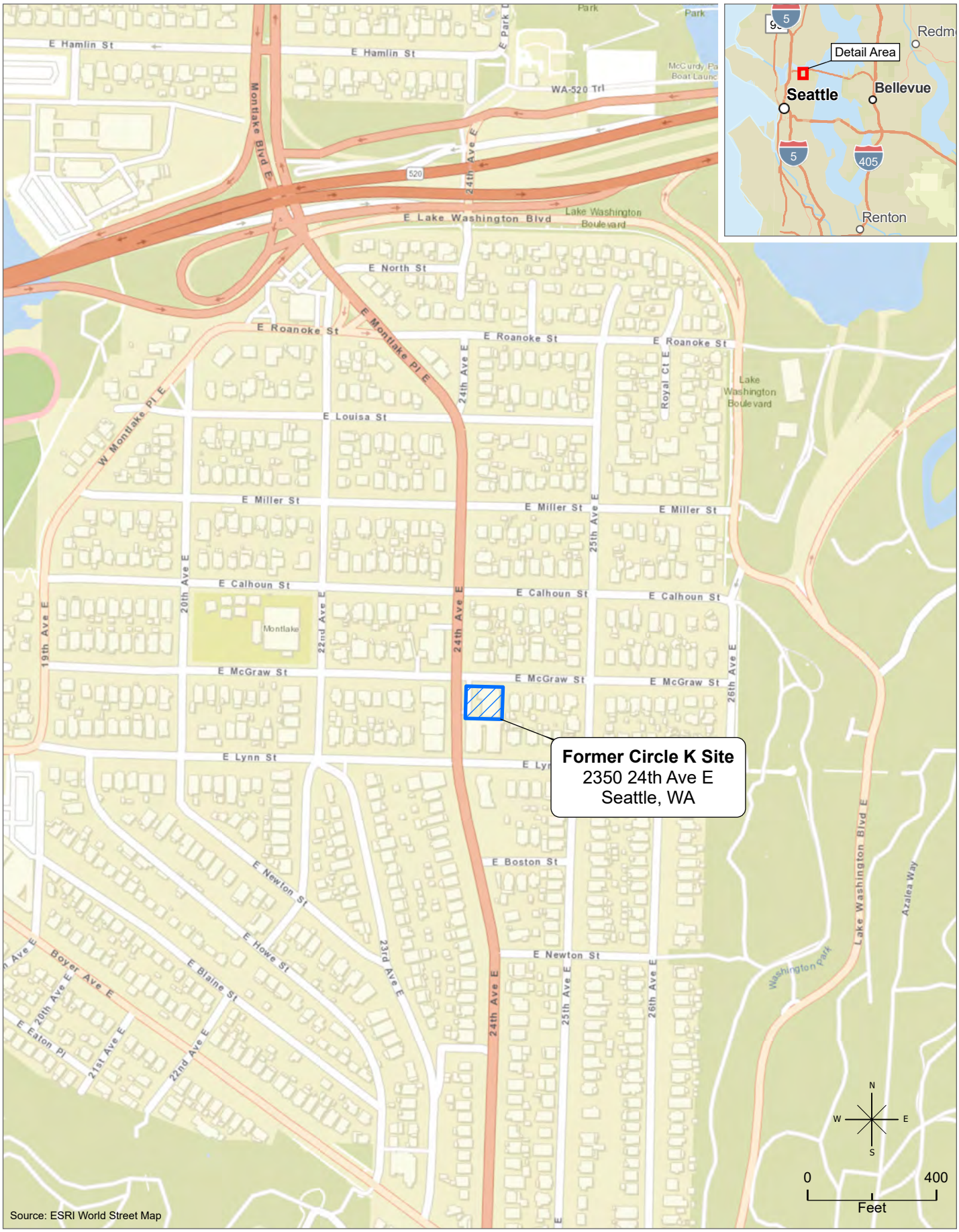


Figure 1. Site Location and Vicinity

First Quarter 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA

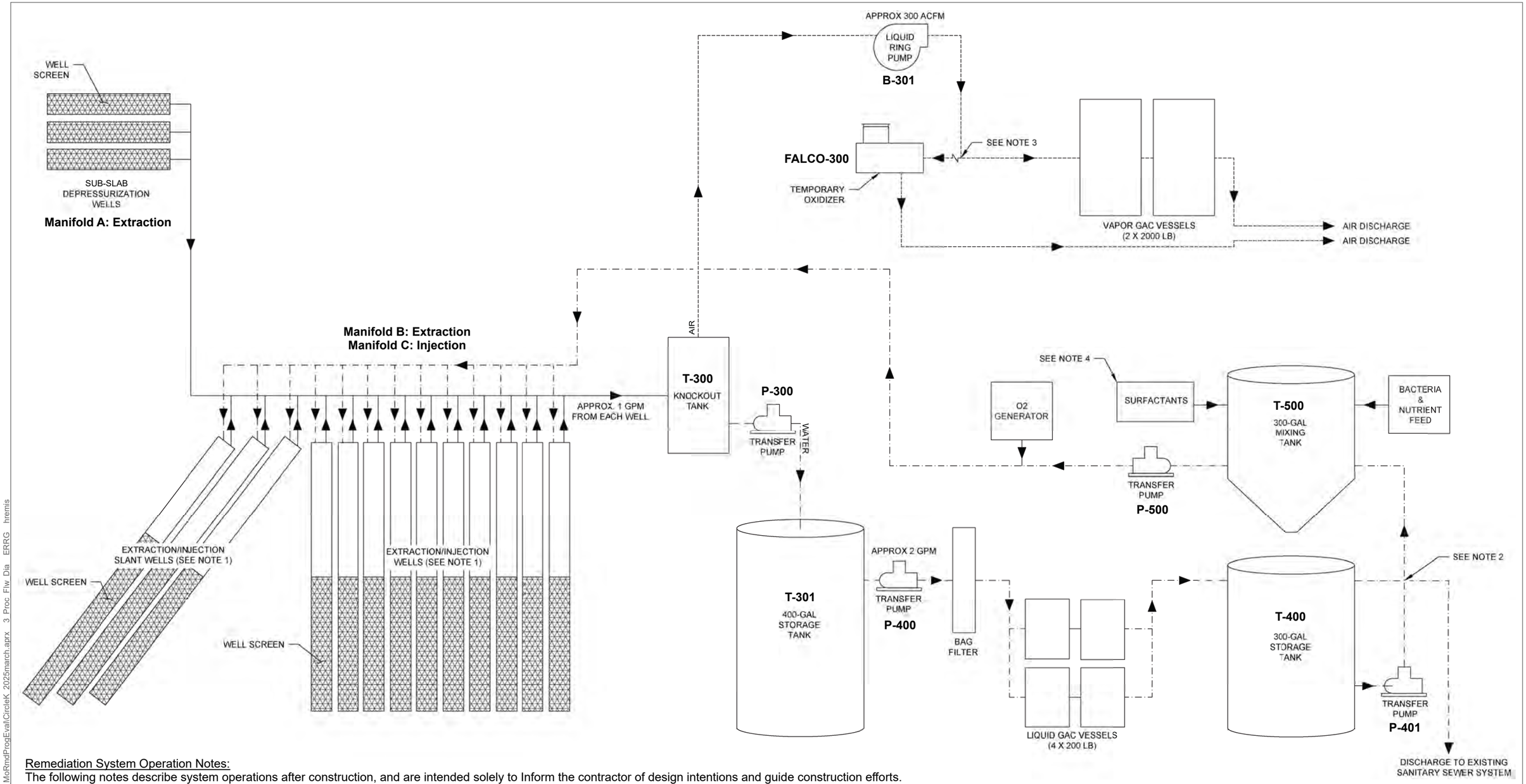
ERRG

2025-05-05 X:\US\WA\CircleK\Jan2025_MoRmdProgEval\CircleK_2025march.aprx 2_SiteLayout ERRG hremis

Figure 2. Site Layout with System and Wells

First Quarter 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA

ERRG



Remediation System Operation Notes:
The following notes describe system operations after construction, and are intended solely to Inform the contractor of design intentions and guide construction efforts.

1. System will be operated to allow wells used for extraction to also be used for reinjection and vice versa. Operation of wells for extraction or reinjection will be based on site conditions, well locations, concentrations of the chemicals of concern, and the overall remediation progress.
2. Groundwater initially extracted from the system is expected to be discharged to the sanitary sewer via gravity. Once groundwater concentrations are amenable to bioremediation via reinjection, water will be transferred to the mixing tank for amendment prior to reinjection. Excess water will gravity flow to the sanitary sewer. Volumes and flow rates will be determined during operation.
3. Vapor will be directed through the temporary oxidizer for the first several months of operation until concentrations of the chemicals of concern have decreased to a level suitable for treatment via the vapor GAC vessels. The oxidizer will then be removed, and vapor will be directed through the GAC vessels prior to discharge.
4. Surfactants will be added first to the water prior to reinjection to release additional hydrocarbons from the soil. Then, bacteria and nutrient feed will be added to the water prior to reinjection to create a microbial population to degrade hydrocarbons in situ.

Acronyms:

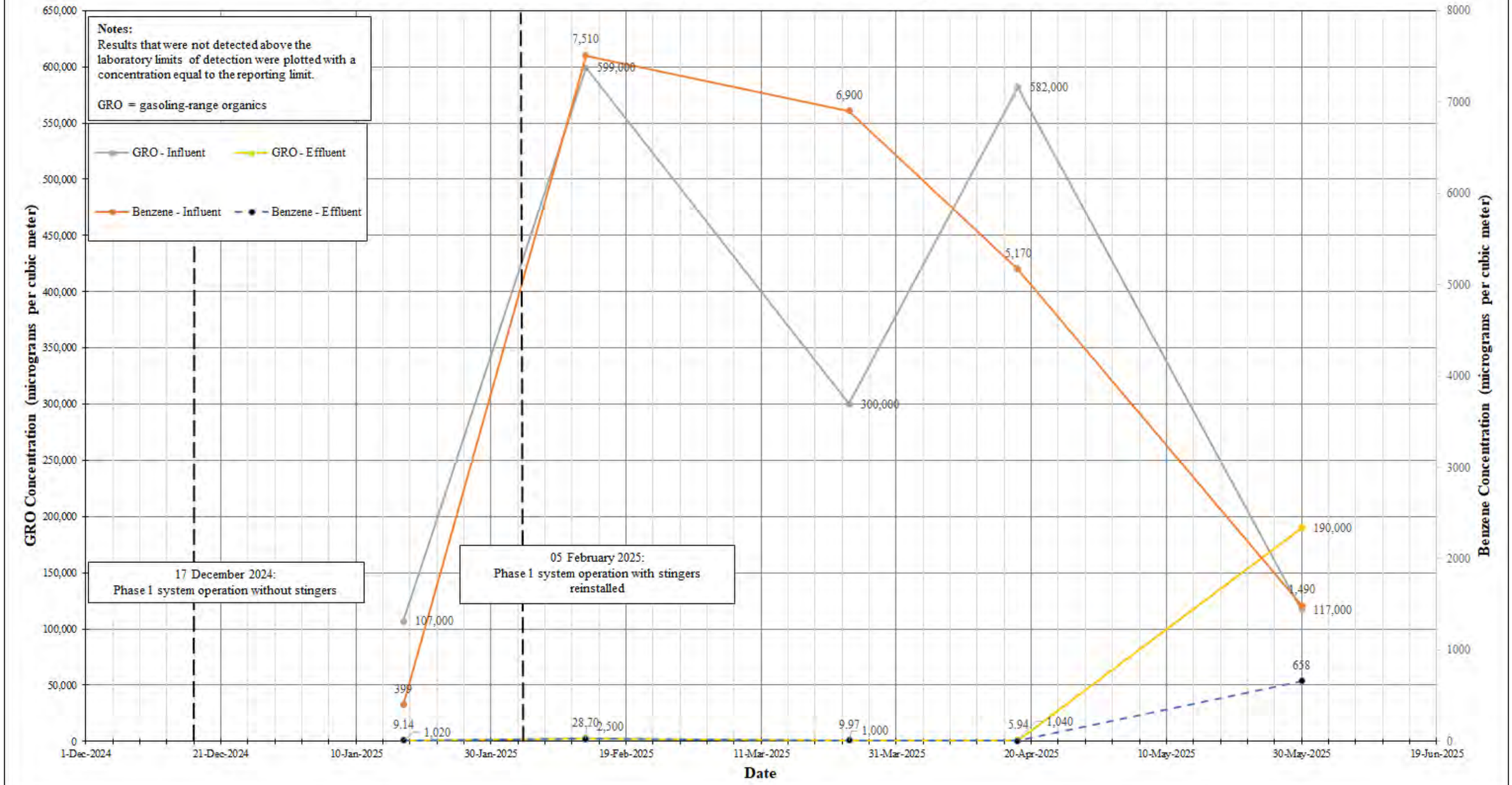
ACFM	actual cubic feet per minute
APPROX.	approximately
GAC	granulatar activated carbon
GAL	gallon
GPM	gallons per minute
O2	oxygen

Source:
Sheet G-04, Treatment System Schematic.
Circle K Site 1461 Environmental Remediation System Installation.
Seattle, Washington.
Washington State Department of Ecology, Bellevue, Washington.
Kennedy Jenks

Figure 3. System Process Flow Diagram
First Quarter 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA

ERRG

Figure 4. GRO and Benzene Concentrations in System Vapor Influent and Effluent



2025-05-13 X:\US\WA\CircleK\Jan2025_MoRmdProgEval\CircleK_2025march.aprx 4_Graph_Vapor ERRG hremis

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

ERRG

Figure 5. GRO and Benzene Concentrations System Water Influent and Effluent

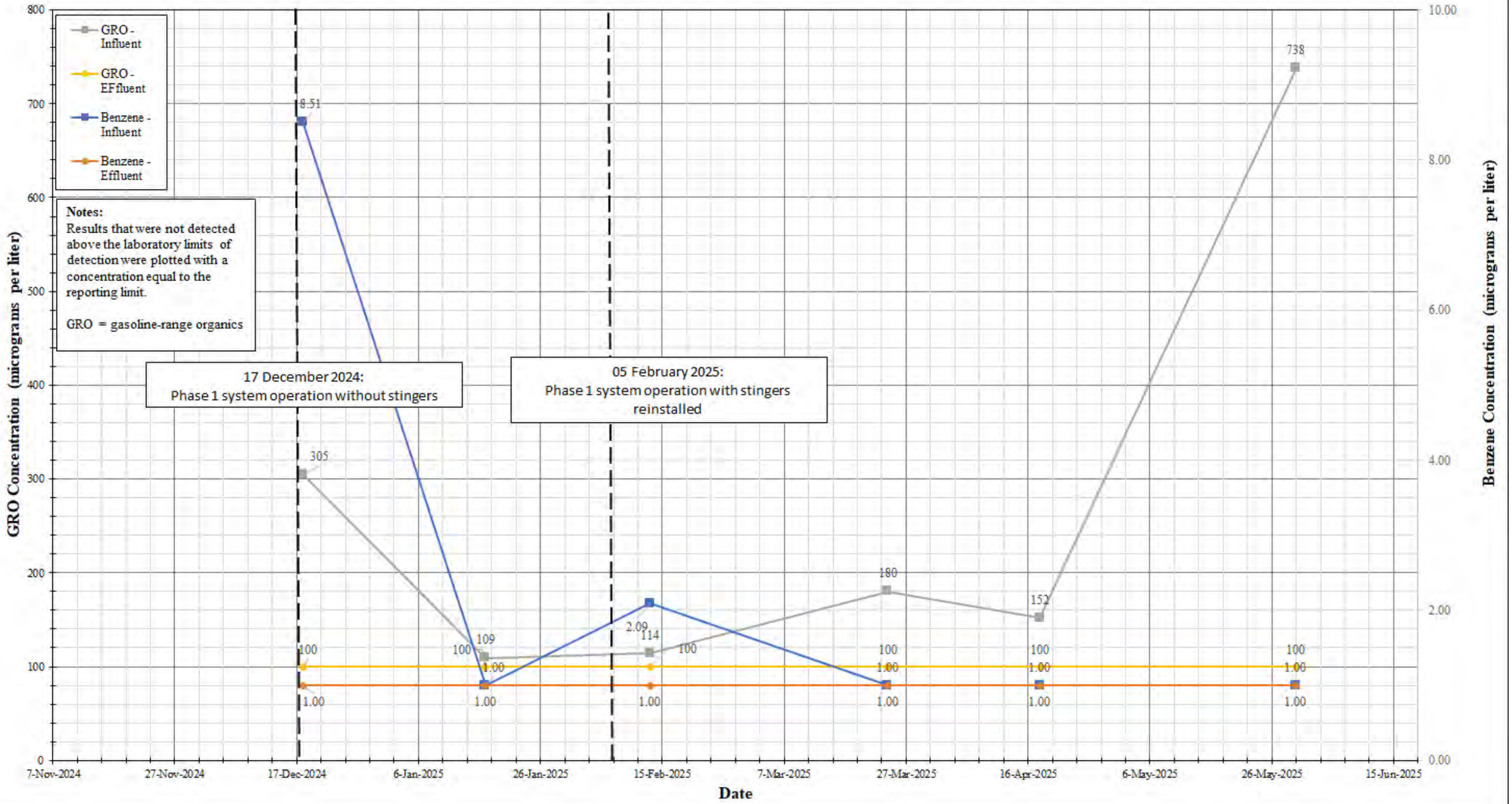
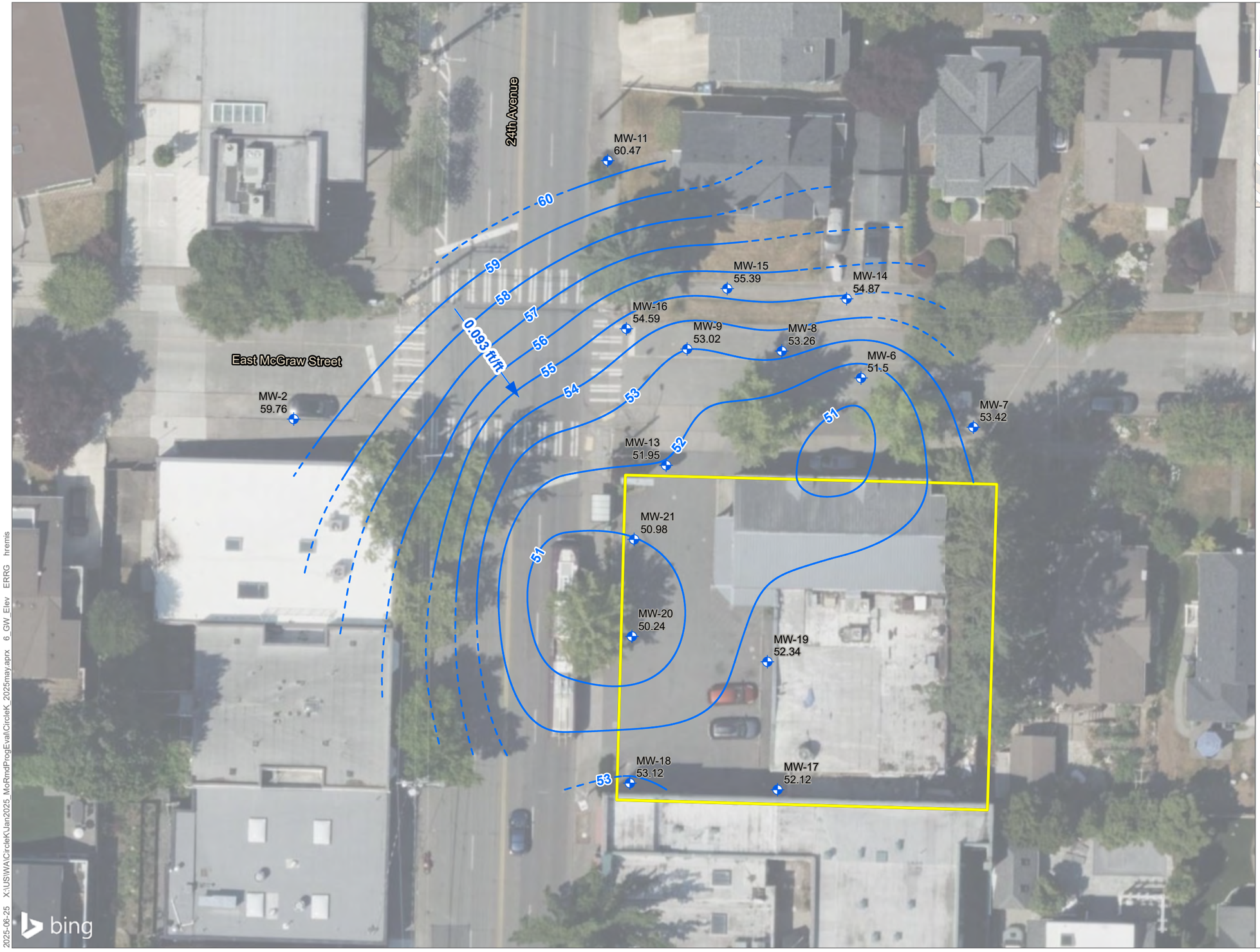
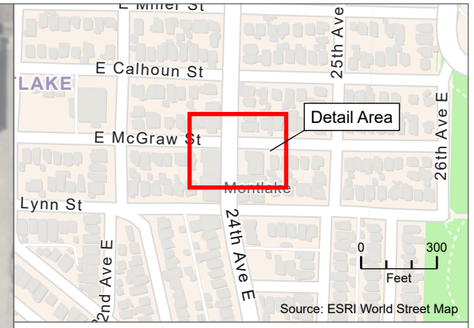


Figure 5. GRO and Benzene Concentrations in System Water Influent and Effluent

Second Quarter 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA

ERRG





Monitoring Well

Approximate Elevation Contour (ft amsl, dashed where Inferred)

Approximate Hydraulic Gradient

Parcel Boundary

ft amsl	feet above mean sea level
ft/ft	foot per foot

N W E S

0 30 Feet

2025-06-25 X:\US\WA\CircleK\Jan2025_MoRmdProgEval\CircleK_2025may.aprx 6_GW_Elev ERRG hremis

Figure 6. Groundwater Elevation Contours, May 2025

Second Quarter 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA

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Notes:
1. Groundwater samples were collected on 23 May 2025 from monitoring wells.
2. GRO cleanup level is 800 µg/L.
3. **BOLD** indicates the detected concentration is less than the cleanup level.
4. **RED** indicates the detected concentrations exceeds the cleanup level.

dup	duplicate sample
GRO	gasoline-range organics
J+	the result is estimated with high bias
U	analyte not detected above limit of detection shown
µg/L	micrograms per liter

2025-09-02 X:\US\WA\CircleK\Jan2025_MoRmdProgEval\CircleK_2025may.aprx 7_GasRO ERRG hremis

Figure 7. Groundwater Gasoline-Range Organics Contours, May 2025

Second Quarter 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA

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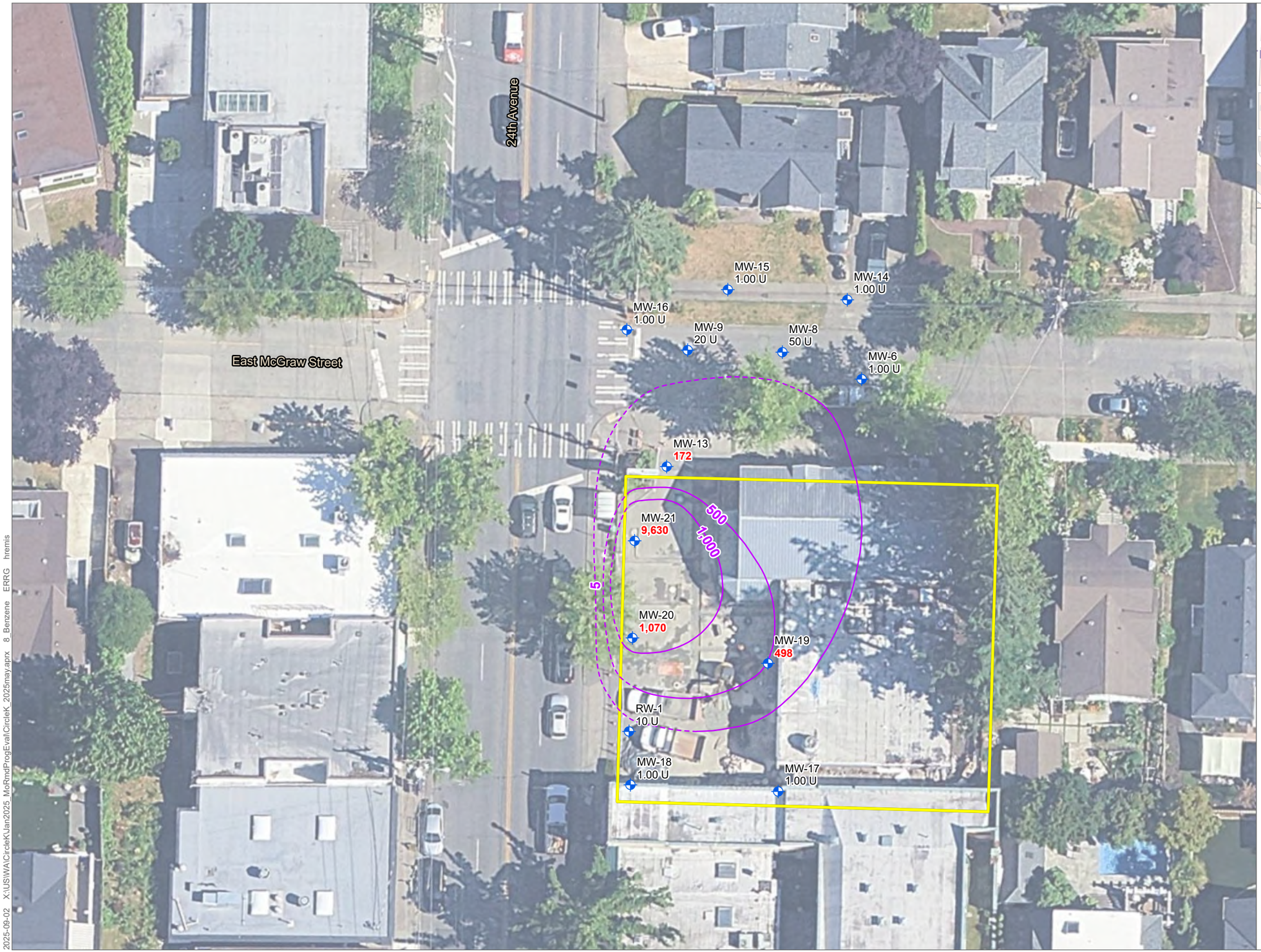
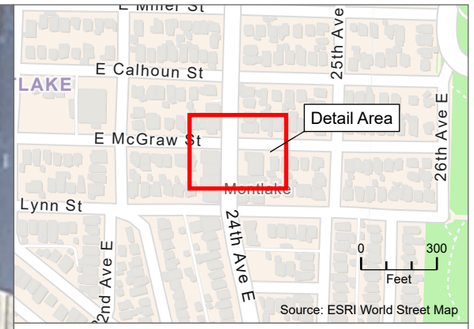




Monitoring Well

Estimated Benzene Isoconcentration Contour (µg/L; Dashed where Inferred)

Parcel Boundary

Notes:
1. Groundwater samples were collected on 23 May 2025 from monitoring wells.
2. Cleanup level for benzene 5 µg/L.
3. **BOLD** indicates the detected concentration is less than the cleanup level.
4. **RED** indicates the detected concentrations exceeds the cleanup level.

dup	duplicate sample
J+	the result is estimated with high bias
U	analyte not detected above limit of detection shown
µg/L	micrograms per liter

N
W
E
S
0
30
Feet

2025-09-02 X:\US\WA\CircleK\Jan2025_MoRmdProgEval\CircleK_2025may.aprx 8_Benzene ERRG hremis

Figure 8. Groundwater Benzene Concentration Contours, May 2025

Second Quarter 2025 Remedial Progress Evaluation Report for Former Circle K 1461
Seattle, WA

ERRG

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	9/11/1989	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)	Flow (cfm)	VOCs[1] (ppm)	CH_4 (% LEL)	O_2 (%)	CO_2 (%)	H_2S (ppm)
Falco 300 Influent (Liquid Ring Pump for Pressure)	1/3/2025	24.7	42	119.8				
	1/6/2025	24.7	67	--				
	1/16/2025	21.6	76.4	--				
	1/17/2025[2]	--	--	61.6				
	1/23/2025	20.6	76.4	--				
	2/6/2025	16.3	112.4	254.9				
	2/17/2025	16.3	98.2	--				
	2/19/2025	15.2	112.8	160.9				
	3/7/2025[2]	15.2	98	212				
	3/14/2025[2]	14.2	102	--				
	3/16/2025[2]	18	87.5	--				
	3/21/2025[2]	17.6	83.8	--				
	3/24/2025[2]	17.6	82.9	153				
	3/28/2025[2]	16.5	86.4	--				
	4/4/2025[2]	16.9	87.4	252				
	4/11/2025[2]	15.1	98.5	244.1				
	4/15/2025[2]	13.6	115.2	--				
	4/18/2025[2]	13.3	101.5	164.8				
	4/25/2025[2]	10.4	89.6	--				
	5/2/2025[2]	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)	Flow (cfm)	VOCs[1] (ppm)	CH_4 (% LEL)	O_2 (%)	CO_2 (%)	H_2S (ppm)
Falco 300 Influent (Liquid Ring Pump for Pressure) *(continued)*	5/8/2025[2]	13.1	66.3	376				
	5/16/2025[2]	12.4	64.1	537				
	5/23/2025[2]	12.8	60.7	--				
	5/30/2025[2]	12.3	59.8	560 / 168.4				
	6/13/2025[2]	12.4	86.2	303				
	6/20/2025[2]	12.6	83.6	261.2 / 298.2				
	6/27/2025[2]	12	88.3	294				
Falco 300 Effluent	1/3/2025			33.4				
	1/17/2025[2]			198 ppb				
	2/19/2025			11.4				
	3/7/2025[2]			1.6				
	3/24/2025[2]			0.9				
	4/4/2025[2]			3.3				
	4/11/2025[2]			2.3				
	4/15/2025[2]			--				
	4/18/2025[2]			0				
	4/25/2025[2]			--				
	5/2/2025[2]			0.8				
	5/8/2025[2]			3.3				

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

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted)	Flow (cfm)	VOCs[1] (ppm)	CH_4 (% LEL)	O_2 (%)	CO_2 (%)	H_2S (ppm)
Falco 300 Effluent *(cont.)*	5/16/2025[2]			6.4				
	5/23/2025[2]			--				
	5/30/2025[2]			72.1 / 43.2				
	6/13/2025[2]			1.4				
	6/20/2025[2]			0				
	6/27/2025[2]			0				
RW-2	1/3/2025	-8	9.7	2				
	2/6/2025	-8	17.6	0.9				
	2/19/2025	-2	--	32.8				
	3/7/2025[2]	offline	--	--				
	4/4/2025[2]	offline	--	--				
	4/18/2025[2]	offline	--	2.8				
	6/13/2025[2]	-5.5	--	--				
	6/20/2025[2]	offline	--	--				
RW-3	1/3/2025	-3.5	7.5	8.1				
	2/6/2025	offline	--	--				
	2/19/2025	-4.5	--	14.5				
	3/7/2025[2]	offline	--	--				
	4/4/2025[2]	offline	--	--				
	4/18/2025[2]	offline	--	20.1				

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

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted)	Flow (cfm)	VOCs[1] (ppm)	CH_4 (% LEL)	O_2 (%)	CO_2 (%)	H_2S (ppm)
RW-3 *(cont.)*	6/13/2025[2]	-5.5	--					
	6/20/2025[2]	-5.5	--	32-340.9 (water in tubing)				
	6/27/2025[2]	-5.5	31.9	--				
RW-4	1/3/2025	-6	7.5	8.1				
	2/6/2025	-8	0	151.3				
	2/19/2025	-5	--	233.5				
	3/7/2025[2]	-12	63	137				
	4/4/2025[2]	-19	48.3	90.6				
	4/15/2025[2]	-5	--	--				
	4/18/2025[2]	-6	--	82.8				
	5/2/2025[2]	offline	--	66.9				
	5/8/2025[2]	online	--	--				
RW-5	1/3/2025	offline	--	--				
	2/6/2025	offline	--	--				
	2/19/2025	-4.5	--	32.7				
	3/7/2025[2]	offline	--	--				
	4/4/2025[2]	offline	--	--				
	4/18/2025[2]	offline	--	19.5				

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

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted)	Flow (cfm)	VOCs[1] (ppm)	CH_4 (% LEL)	O_2 (%)	CO_2 (%)	H_2S (ppm)
RW-6	1/3/2025	-6	9.3	1.3				
	2/6/2025	-6	7.55	24.2				
	2/19/2025	-5	--	23.4				
	3/7/2025[2]	offline	--	--				
	4/4/2025[2]	offline	--	--				
	4/15/2025[2]	-5	--	--				
	4/18/2025[2]	-5	--	3.6				
	5/2/2025[2]	-7	46.2	178				
	6/13/2025[2]	-10	--	--				
	6/20/2025[2]	-10	--	641				
	6/27/2025[2]	-10	43.2	--				
RW-7	1/3/2025	-5	24.7	18.3				
	2/6/2025	-8	0	56.1				
	2/19/2025	-5	--	698.2				
	3/7/2025[2]	-13	40	624				
	4/4/2025[2]	-19.5	64.2	685				
	4/15/2025[2]	-10	--	--				
	4/18/2025[2]	-11	--	483				
	5/2/2025[2]	-10	58.3	381.5 (water in tubing)				
	5/8/2025[2]	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)	Flow (cfm)	VOCs[1] (ppm)	CH_4 (% LEL)	O_2 (%)	CO_2 (%)	H_2S (ppm)
RW-8	1/3/2025	-6.5	27	9.5				
	2/8/2025	-8	3	334				
	2/19/2025	-5	--	559.8				
	3/7/2025[2]	-12	43	242				
	4/4/2025[2]	-19	55.1	125.1				
	4/15/2025[2]	-5.5	--	--				
	4/18/2025[2]	-6	--	94.5				
	5/2/2025[2]	-6.5	30.6	103.7				
	6/13/2025[2]	-5.5	--	--				
	6/20/2025[2]	-5.5	--	432				
	6/27/2025[2]	-5.5	23.6	--				
RW-9	1/3/2025	-2.5	133.1	3.1				
	2/6/2025	-7	0	27.5				
	2/19/2025	-4.5	--	39.9				
	3/7/2025[2]	offline	--	--				
	4/4/2025[2]	offline	--	--				
	4/15/2025[2]	-5.5	--	--				
	4/18/2025	-5	--	60.8				
	5/2/2025	-6.5	40.3	38.6				
	6/13/2025	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)	Flow (cfm)	VOCs[1] (ppm)	CH_4 (% LEL)	O_2 (%)	CO_2 (%)	H_2S (ppm)
RW-10	1/3/2025	--	--	--				
	2/6/2025	offline	--	--				
	2/19/2025	-5	0	39.5				
	3/7/2025[2]	offline	--	--				
	4/4/2025[2]	offline	--	--				
	4/15/2025	-5	--	--				
	4/18/2025	offline	--	0.3				
MW-4	1/3/2025	offline	--	--				
	2/6/2025	-12	5.46	0				
	2/19/2025	-5	--	25.9				
	3/7/2025[2]	offline	--	--				
	4/4/2025[2]	offline	--	--				
	4/15/2025[2]	-5	--	--				
	4/18/2025[2]	-5	--	31				
	4/25/2025[2]	offline	--	--				
	5/30/2025[2]	offline	--	--				
	6/13/2025[2]	-10	--	--				
	6/20/2025[2]	-10	--	31.6				
	6/27/2025[2]	-10	53.4	--				

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

Monitoring Location ID No.	Date	System Monitoring		Vapor Monitoring				
		Pressure/Vacuum (inHg, unless noted)	Flow (cfm)	VOCs[1] (ppm)	CH_4 (% LEL)	O_2 (%)	CO_2 (%)	H_2S (ppm)
SW-1	1/3/2025	-7.5	38.7	11.6				
	2/6/2025	offline	--	--				
	2/19/2025	-5	--	52				
	3/7/2025[2]	offline	--	--				
	4/4/2025[2]	offline	--	--				
	4/18/2025[2]	offline	--	0				
SW-2	1/3/2025	offline	--	--				
	2/6/2025	offline	--	--				
	2/19/2025	-5	--	51.5				
	3/7/2025[2]	offline	--	--				
	4/4/2025[2]	offline	--	--				
	4/15/2025[2]	-8	--	--				
	4/18/2025[2]	-8	--	29.3				
	5/2/2025[2]	-10	42.1	11.9 (water in tubing)				
	6/13/2025[2]	offline	--	--				
SW-3	1/3/2025	-4	67.8	--				
	2/6/2025	-12.5	--	1				
	2/19/2025	-4.5	--	20.82				
	3/7/2025[2]	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)	Flow (cfm)	VOCs[1] (ppm)	CH_4 (% LEL)	O_2 (%)	CO_2 (%)	H_2S (ppm)
SW-3 *(cont.)*	4/15/2025[2]	-5	--	--				
	4/18/2025[2]	offline	--	2.8				
VP-1	1/3/2025	-0.001 (inH_2O)		0.8				
	1/31/2025[2]	--		133 ppb	0	20.4	0.28	0.0
	2/6/2025	-0.14 (inH_2O)		2.6	--	--	--	--
	5/8/2025[2]	-0.009 (inH_2O)		60 ppb	0	19.2	0.92	0
VP-2	1/3/2025	-0.001 (inH_2O)		0.6	--	--	--	--
	1/31/2025[2]	--		108 ppb	0	20.5	0.04	0.0
	2/6/2025	-0.1 (inH_2O)		6.6	--	--	--	--
	5/8/2025[2]	-0.006 (inH_2O)		78 ppb	0	20.9	0.10	0
VP-3	1/3/2025	-0.002 (inH_2O)		3.5	--	--	--	--
	1/31/2025[2]	--		1.282	0	20.3	0.26	0.0
	2/6/2025	-0.049 (inH_2O)		6.6	--	--	--	--
	5/8/2025[2]	-0.012 (inH_2O)		135 ppb	0	20.9	0.06	0
VP-4	1/3/2025	-0.003 (inH_2O)		38.1	--	--	--	--
	1/31/2025[2]	--		18.7	0	19.0	1.06	0.0
	2/6/2025	-0.013 (inH_20)		137.7	--	--	--	--
	2/19/2025	-0.05 (inH_20)		122	--	--	--	--
	5/8/2025[2]	-0.007 (inH_20)		11.6	0	20.9	0.42	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)	Flow (cfm)	VOCs[1] (ppm)	CH_4 (% LEL)	O_2 (%)	CO_2 (%)	H_2S (ppm)
SSD-1	2/6/2025	-5 (inH_20)	--	--	--	--	--	--
	2/19/2025	-1.5 (inH_20)	--	--	--	--	--	--
	3/7/2025[2]	-0.661 (inH_20)	4.2	20 ppb	0	20.9	0.08	0
	4/4/2025[2]	-0.557 (inH_20)	7.6	0.1	0	20.9	0.08	0
SSD-2	2/6/2025	-5 (inH_20)	--	--	--	--	--	--
	2/19/2025	-1.5 (inH_20)	--	--	--	--	--	--
	3/7/2025[2]	-1.006 (inH_20)	6.8	118 ppb	0	20.9	0.02	0
	4/4/2025[2]	-0.201 (inH_20)	5.4	0.2	0	20.9	0.02	0
SSD-3	2/6/2025	-18 (inH_20)	--	--	--	--	--	--
	2/19/2025	-4.9 inH_20	--	--	--	--	--	--
	3/7/2025[2]	-3.308 (inH_20)	22.8	2.3	0	20.9	0.09	0
	4/4/2025[2]	-3.171 (inH_20)	28.2	2.2	0	20.9	0.09	0

Notes:

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

2 = Measurement collected by ERRG

Gray Cell = measurement not required at location

cfm = cubic foot per minute
CH_4 = methane
CO_2 = carbon dioxide
H_2S = hydrogen sulfide
inHg = inch of mercury
inH_20 = inch of water
MPE = multiphase extraction
O_2 = 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 – Second 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*
VP-3	02/13/2025	**1,920**	**5.30**	**31.6**	**24.5**	**306**
VP-3	6/20/2025	**9,290**	**0.639**	**117**	**48.1**	**443**
VP-4	02/13/2025	**158,000**	**4.73**	**31.8**	**23.2**	**227**
VP-4	6/20/2025	**6,030**	**0.639**	**8.02**	**3.42**	**8.29**

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

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

Analytes 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)
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	--	--	--	--
	4/18/2025	582,000	1,040	0.0093	3.4	--	--	--	--
	5/30/2025	117,000	190,000	1.7	623	--	--	--	--
	6/20/2025	727,000	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
	4/18/2025	5,170	5.94	0.000053	0.019	--	1.0	--	21
	5/30/2025	1,490	658	0.0059	2.2	--	1.0	--	21
	6/20/2025	1,970	1.03	0.0000093	0.0034	--	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	--
	03/24/2025	13,100	1.88 U	0.000017	0.0062	19	--	370	--
	4/18/2025	9,910	36.5	0.00033	0.12	19	--	370	--
	5/30/2025	18.8 U	2,970	0.027	9.7	19	--	370	--
	6/20/2025	10,000	1.88 U	0.000017	0.0062	19	--	370	--

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

Analytes 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)
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
	4/18/2025	2,350	15.5	0.00014	0.051	--	3.2	--	65
	5/30/2025	8.67 U	2,010	0.018	6.6	--	3.2	--	65
	6/20/2025	4,160	0.867 U	0.0000078	0.0028	--	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	--
	4/18/2025	28,200	434	0.0039	1.4	0.82	--	16	--
	5/30/2025	26.1 U	23,000	0.21	75	0.82	--	16	--
	6/20/2025	39,700	2.61 U	0.000023	0.0086	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
	4/18/2025	5,210	15.1	0.00014	0.050	--	1.3	--	27
	5/30/2025	151	233	0.0021	0.76	--	1.3	--	27
	6/20/2025	136	1.36 U	0.000012	0.0045	--	1.3	--	27

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

Analytes 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	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
	4/18/2025	22.4	0.511 U	0.0000046	0.0017	--	0.92	--	18
	5/30/2025	8.33	10.2 U	0.000092	0.033	--	0.92	--	18
	6/20/2025	51.1 U	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	--
	4/18/2025	10.6 U	0.528 U	0.0000047	0.0017	110	--	2,200	--
	5/30/2025	5.28 U	10.6 U	0.000095	0.035	110	--	2,200	--
	6/20/2025	52.8 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	--
	4/18/2025	8.26 U	0.706	0.0000063	0.0023	0.33	--	6.7	--
	5/30/2025	4.13 U	8.26 U	0.000074	0.027	0.33	--	6.7	--
	6/20/2025	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)*

Analytes 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)
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
	4/18/2025	13.9 U	0.694 U	0.0000062	0.0023	--	490	--	9,800
	5/30/2025	6.94 U	13.9 U	0.00012	0.046	--	490	--	9,800
	6/20/2025	69.4 U	0.694 U	0.0000062	0.0023	--	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
µg/m³ = micrograms per cubic meter
U = not detected at the limit of detection.
-- = no value available

Table 5. MPE System Liquid Performance and Volume Discharged and Injected – Second 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 1/24/2025.
February 2025	20,081	29,171	1,160	0	0	Stingers reinstalled on 2/5/2025, 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 May 30, 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 June 13, 2025 after carbon changeout.

Notes: Wastewater Discharge Authorization No. 4614-01.

1 = Volume estimated based on last recorded totalizer reading for the month.

gpd = gallons per day

MPE = multiphase extraction

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

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*
LG-401-INF	1/17/2025	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 C3
	4/25/2025	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
	5/23/2025	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
	6/27/2025	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
LG-403-MID	1/17/2025	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 C3
	4/25/2025	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
	5/23/2025	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
	6/27/2025	7.53	22	**5.38**	0.1	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	1/17/2025[2]	6.82	23	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	1/17/2025[2]	--	--	5.81 U	--	--	--	--	--	--	--	--	--	--
DUP-2	1/17/2025[2]	--	--	5.95 U	--	--	--	--	--	--	--	--	--	--
DUP-3	1/17/2025[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[3]	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[3]	--	--	5.26 U	--	--	--	--	--	--	--	--	--	--
LG-404-EFF	04/25/2025	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 U
DUP-1	04/25/2025	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 U
DUP-2	04/25/2025	--	--	5.9 U	--	--	--	--	--	--	--	--	--	--
LG-404-EFF	05/23/2025	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	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

Table 6. Water Treatment System Analytical Results – Second 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-2	05/23/2025	--	--	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	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	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	--	--	6.1 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.
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 limit of detection.
UJ = Not detected at the limit of detection, but the limit is an estimation.

Table 7. Depth to Groundwater and Elevation – Second 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	1/17/2025	9.68	69.79	60.11
	02/21/2025	9.49	69.79	60.30
	03/28/2025	9.08	69.79	60.71
	4/25/2025	9.23	69.79	60.56
	5/23/2025	10.03	69.79	59.76
MW-6	1/17/2025	11.64	63.13	51.49
	02/21/2025	11.70	63.13	51.43
	03/28/2025	11.50	63.13	51.63
	4/25/2025	11.71	63.13	51.42
	5/23/2025	11.63	63.13	51.50
MW-7	1/17/2025	7.50	62.66	55.16
	02/21/2025	7.27	62.66	55.39
	03/28/2025	11.24	62.66	51.42
	4/25/2025	8.35	62.66	54.31
	5/23/2025	9.24	62.66	53.42
MW-8	1/17/2025	9.13	63.59	54.46
	02/21/2025	9.53	63.59	54.06
	03/28/2025	9.10	63.59	54.49
	4/25/2025	9.8	63.59	53.79
	5/23/2025	10.33	63.59	53.26
MW-9	1/17/2025	9.20	64.30	55.10
	02/21/2025	10.12	64.30	54.18
	03/28/2025	10.06	64.30	54.24
	4/25/2025	10.58	64.30	53.72
	5/23/2025	11.28	64.30	53.02
MW-11	1/17/2025	2.67	63.59	60.92
	02/21/2025	2.85	63.59	60.74
	03/28/2025	1.54	63.59	62.05
	4/25/2025	3.3	63.59	60.29
	5/23/2025	3.12	63.59	60.47

Table 7. Depth to Groundwater and Elevation – Second 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-13	1/17/2025	10.21	65.08	54.87
	02/21/2025	11.26	65.08	53.82
	03/28/2025	11.96	65.08	53.12
	4/25/2025	12.2	65.08	52.88
	5/23/2025	13.13	65.08	51.95
MW-14	1/17/2025	7.57	63.30	55.73
	02/21/2025	7.51	63.30	55.79
	03/28/2025	6.83	63.30	56.47
	4/25/2025	8.11	63.30	55.19
	5/23/2025	8.43	63.30	54.87
MW-15	1/17/2025	6.50	64.18	57.68
	02/21/2025	4.52	64.18	59.66
	03/28/2025	2.53	64.18	61.65
	4/25/2025	8.34	64.18	55.84
	5/23/2025	8.79	64.18	55.39
MW-16	1/17/2025	8.11	64.00	55.89
	02/21/2025	8.37	64.00	55.63
	03/28/2025	5.97	64.00	58.03
	4/25/2025	9.01	64.00	54.99
	5/23/2025	9.41	64.00	54.59
MW-17	1/17/2025	10.77	65.98	55.21
	02/21/2025	12.23	65.98	53.75
	03/28/2025	12.22	65.98	53.76
	4/25/2025	13.34	65.98	52.64
	5/23/2025	13.86	65.98	52.12
MW-18	1/17/2025	11.79	66.73	54.94
	02/21/2025	12.71	66.73	54.02
	03/28/2025	12.98	66.73	53.75
	4/25/2025	13.28	66.73	53.45
	5/23/2025	13.61	66.73	53.12

Table 7. Depth to Groundwater and Elevation – Second 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-19	1/17/2025	10.74	66.36	55.62
	02/21/2025	13.35	66.36	53.01
	03/28/2025	13.23	66.36	53.13
	4/25/2025	14.39	66.36	51.97
	5/23/2025	14.02	66.36	52.34
MW-20	1/17/2025	10.53	66.17	55.64
	02/21/2025	13.29	66.17	52.88
	03/28/2025	13.90	66.17	52.27
	4/25/2025	14.53	66.17	51.64
	5/23/2025	15.93	66.17	50.24
MW-21	1/17/2025	9.64	65.89	56.25
	02/21/2025	13.39	65.89	52.20
	03/28/2025	14.17	65.89	51.72
	4/25/2025	14.6	65.89	51.29
	5/23/2025	14.91	65.89	50.98
RW-1	1/17/2025	11.14	--	--
	02/21/2025	12.70	--	--
	03/28/2025	13.19	--	--
	4/25/2025	13.66	--	--
	5/23/2025	14.55	--	--
RW-2	1/17/2025	7.75	--	--
	02/21/2025	11.40	--	--
	03/28/2025	11.92	--	--
	4/25/2025	12.15	--	--
	5/23/2025	13.09	--	--
RW-3	1/17/2025	6.85	--	--
	02/21/2025	11.65	--	--
	03/28/2025	12.10	--	--
	4/25/2025	12.11	--	--
	5/23/2025	13.10	--	--

Table 7. Depth to Groundwater and Elevation – Second 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-4	1/17/2025	9.83	--	--
	02/21/2025	12.65	--	--
	03/28/2025	12.70	--	--
	4/25/2025	12.72	--	--
	5/23/2025	13.70	--	--
RW-5	1/17/2025	11.31	--	--
	02/21/2025	12.76	--	--
	03/28/2025	13.81	--	--
	4/25/2025	14.31	--	--
	5/23/2025	15.6	--	--
RW-6	1/17/2025	8.16	--	--
	02/21/2025	9.30	--	--
	03/28/2025	10.06	--	--
	4/25/2025	8.05	--	--
	5/23/2025	11.3	--	--
RW-7	1/17/2025	7.71	--	--
	02/21/2025	12.39	--	--
	03/28/2025	12.97	--	--
	4/25/2025	12.13	--	--
	5/23/2025	12.94	--	--
RW-8	1/17/2025	7.36	--	--
	02/21/2025	12.04	--	--
	03/28/2025	13.21	--	--
	4/25/2025	13.03	--	--
	5/23/2025	13.78	--	--
RW-9	1/17/2025	10.55	--	--
	02/21/2025	14.17	--	--
	03/28/2025	13.81	--	--
	4/25/2025	12.26	--	--
	5/23/2025	12.37	--	--

Table 7. Depth to Groundwater and Elevation – Second 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-10	1/17/2025	11.36	--	--
	02/21/2025	12.78	--	--
	03/28/2025	13.08	--	--
	4/25/2025	14.84	--	--
	5/23/2025	12.89	--	--

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 through each January, February, and March 2025 event, rendering it inaccessible.

amsl = above mean sea level

bgs = below ground surface

-- = information not available

Table 8. Groundwater Analytical Results – Second 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	1/17/2025	**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**	10 U	10 U	10 U	30 U
	5/23/2025	**147**	10 U	10 U	10 U	30 U
MW-6[2]	1/17/2025	**263 J+**	**46.2**	**1.67**	**5.28**	3 U
	02/21/2025	**109**	**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
	5/23/2025	100 U	1 U	1 U	1 U	3 U
MW-8	1/17/2025	**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**
	03/28/2025	**16,200**	50 U	**72.5**	**570**	**2,440**
	04/25/2025	**19,900**	50 U	**210**	**1,390**	**4,880**
	5/23/2025	**19,100**	50 U	**143**	**1,130**	**3,490**
MW-9	1/17/2025	**3,850**	20 U	20 U	**156**	**203**
	1/17/2025	**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**

Table 8. Groundwater Analytical Results – Second 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-9 (continued)	04/25/2025	**8,030**	20 U	**44.1**	**530**	**1,110**
	5/23/2025	**12,700**	20 U	**35.1**	**607**	**1,450**
MW-13	1/17/2025	**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**
	5/23/2025	**9,920**	**173**	**973**	**121**	**2,840**
MW-14	1/17/2025	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
	5/23/2025	100 U	1 U	**21.3**	1 U	3 U
MW-15	1/17/2025	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
	5/23/2025	100 U	1 U	1 U	1 U	3 U
MW-16	1/17/2025	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
	5/23/2025	100 U	1 U	1 U	1 U	3 U

Table 8. Groundwater Analytical Results – Second 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-17	1/17/2025	**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**	1 U	1 U	1 U	3 U
	5/23/2025	**429**	1 U	1 U	1 U	3 U
MW-18	1/17/2025	**117 J+**	1 U	1 U	1 U	3 U
	02/21/2025	110 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
	5/23/2025	100 U	1 U	1 U	1 U	3 U
MW-19	1/17/2025	**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**	**5,670**	**8,970**	**1,080**	**5,780**
	5/23/2025	**17,400**	**498**	**2,220**	**511**	**2,670**
MW-20	1/17/2025	**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**
	5/23/2025	**17,500**	**1,070**	**781**	**657**	**3,400**

Table 8. Groundwater Analytical Results – Second 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	1/17/2025	**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**
	04/25/2025	**47,000**	**10,800**	**9,830**	**1,450**	**8,030**
	5/23/2025	**67,000**	**9,630**	**15,200**	**1,660**	**10,200**

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.

Bold = sample result was detected

Yellow = sample result exceeds the cleanup level

Orange = elevated limit of detection, 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+ = Estimated, High Bias: The result was an estimated quantity, but the result may be biased high.

U= Not detected at the limit of detection.

Appendix A.
Field Data During Reporting Period

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:	4/4/2025	System Hours:	2624.6
Weather:	Overcast, Light Showers	*Phase 1: MPE / SVE, all active EIWs in extraction mode.*	
Barometric pressure (psi):	29.57	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
Approximate volume (gal):	2 cycles while onsite	
Catalytic Oxidizer Installed? (circle)	Yes	No
Effluent Vapor VOC Conc (ppm):	3.3	
PID Calibration Performed? (circle)	Yes	No

PID Calibration	Zero Gas	Span Gas
Calibration Value (ppm):	0	100
Instrument Reading (ppm):	0	99.6

Active Alarm Conditions (circle, note affected equipment):

1. No Alarm
2. High Water Level — Tank(s):
3. Low Water Level — Tank(s):
4. High Pressure — Equipment:
5. Low Pressure — Equipment:
6. System Shutdown — Equipment:
7. Temperature — Equipment:
8. Other:

Wells - Injection/Extraction (At Manifold)

Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
RW-2	-	-	-	C
RW-3	-	-	-	C
RW-4	19	48.3	90.6	**O**
RW-5	-	-	-	C
RW-6	-	-	-	C
RW-7	19.5	64.2	685	**O**
RW-8	19	55.1	125.1	**O**
RW-9	-	-	-	C
RW-10	-	-	-	C
SW-1	-	-	-	C
SW-2	-	-	-	C
SW-3	-	-	-	C
MW-4	-	-	-	C

Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
SSD-1	0.557	7.6	0.1	**O**
SSD-2	0.201	5.4	0.2	**O**
SSD-3	3.171	28.2	2.2	**O**
VP-1	-		-	
VP-2	-		-	
VP-3	-		-	
VP-4	-		-	

Treatment System

Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
Before MS	VI 210		16		
After MS	PI 310		26		
Before Blower	VI 300		16.9		
After Blower	PI/FI 302		2.8	87.4	
At Heat Exchanger	TT-302		55.9		
Before Vapor GAC	PI 411		NA	NA	NA
Vapor GAC Midpoint**	PI 412		NA	NA	NA
After Vapor GAC**	PI 410		NA	NA	NA
After Pump P-400	PI 400		32		
Before Bag Filter	PI-405		32		
After Bag Filter**	FI 400/PI 401		30	6.54	
Midpoint Liquid GAC 1**	PI 403		0		
After Liquid GAC 1	FE-404			6.87	
Midpoint Liquid GAC 2**	PI 406		0		
After Liquid GAC 2	FE-407			0	
After Liquid GAC**	PI-404		0		

Catalytic Oxidizer Temperatures (°F)	T1 Entrance: 626.5 T2 Exit 656.1 T3 Interior : 668.2
Catalytic Oxidizer PID (ppm)	Pre: 252 Post 3.3
Catalytic Oxidizer Flow Rate (scfm)	87.4

Water Discharge Flow Totalizer	Date	Time	Total Flow (gal)
FT 500	4/4/2025	11:30	25,980
FT 500			

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

Comments/Maintenance Activities:
Collect system readings, record totalizer from flow meter
Glacier sub onsite installing heat trace along piping, HEX-302 sensor replaced on 4/1
Collect weekly BTEX midpoint sample
Collect system vapor influent and effluent PID measurements
Measure SSD with PID and 4-gas, CO2 as follows SSD-1: 0.08%, SSD-2: 0.02%, SSD-3: 0.09%
(0.0 ppm H2S at all 3, 0% LEL at all 3, 20.9% O2, at all 3)

Permit Discharge Limits (see permits):

Air: 200 scfm Water: 3 gpm / 4500 gpd

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:	4/11/2025	System Hours:	2795.2
Weather:	Cool, Cloudy	*Phase 1: MPE / SVE, all active EIWs in extraction mode.*	
Barometric pressure (psi):	30.35	Barometric Pressure source:	Anemometer
Ambient Temperature (°F):	54	Ambient Temperature source:	Internet
Noise (dBA):	If above 60 dBA, notify KJ personnel	Noise measurement source:	

Moisture Separator Drained? (circle)	Yes	No
Approximate volume (gal):	1 cycle while onsite	
Catalytic Oxidizer Installed? (circle)	Yes	No
Effluent Vapor VOC Conc (ppm):	2.3	
PID Calibration Performed? (circle)	Yes	No

PID Calibration	Zero Gas	Span Gas
Calibration Value (ppm):	0	100
Instrument Reading (ppm):	0	99.8

Active Alarm Conditions (circle, note affected equipment):

1. No Alarm
2. High Water Level — Tank(s):
3. Low Water Level — Tank(s):
4. High Pressure — Equipment:
5. Low Pressure — Equipment:
6. System Shutdown — Equipment:
7. Temperature — Equipment:
8. Other:

Wells - Injection/Extraction (At Manifold)

Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
RW-2	-	-	-	C
RW-3	-	-	-	C
RW-4	-	-	-	**O**
RW-5	-	-	-	C
RW-6	-	-	-	C
RW-7	-	-	-	C
RW-8	-	-	-	**O**
RW-9	-	-	-	C
RW-10	-	-	-	C
SW-1	-	-	-	C
SW-2	-	-	-	C
SW-3	-	-	-	C
MW-4	-	-	-	C

Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
SSD-1	-	-	-	**O**
SSD-2	-	-	-	**O**
SSD-3	-	-	-	**O**
VP-1	-		-	
VP-2	-		-	
VP-3	-		-	
VP-4	-		-	

Treatment System

Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
Before MS	VI 210		14.2		
After MS	PI 310		26		
Before Blower	VI 300		15.1		
After Blower	PI/FI 302		3	98.5	
At Heat Exchanger	TT-302		66.3		
Before Vapor GAC	PI 411		NA	NA	NA
Vapor GAC Midpoint**	PI 412		NA	NA	NA
After Vapor GAC**	PI 410		NA	NA	NA
After Pump P-400	PI 400		31		
Before Bag Filter	PI-405		31		
After Bag Filter**	FI 400/PI 401		25	-	
Midpoint Liquid GAC 1**	PI 403		14		
After Liquid GAC 1	FE-404			6.23	
Midpoint Liquid GAC 2**	PI 406		0		
After Liquid GAC 2	FE-407			5.87	
After Liquid GAC**	PI-404		0		

Catalytic Oxidizer Temperatures (°F)	T1 Entrance: 626.6 T2 Exit 692.4 T3 Interior 692.9
Catalytic Oxidizer PID (ppm)	Pre: 244.1 Post: 2.3
Catalytic Oxidizer Flow Rate (scfm)	98.5

Water Discharge Flow Totalizer	Date	Time	Total Flow (gal)
FT 500	4/11/2025	1:30	32,784
FT 500			

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

Comments/Maintenance Activities:
Collect system readings, collect system vapor influent and effluent PID measurements
Record totalizer from flow meter
Collect weekly BTEX midpoint sample

Permit Discharge Limits (see permits):	
Air: 200 scfm	Water: 3 gpm / 4500 gpd
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:	4/15/2025	System Hours:	2885.6
Weather:	Overcast, Cool	*Phase 1: MPE / SVE, all active EIWs in extraction mode.*	
Barometric pressure (psi):	30.21	Barometric Pressure source:	Anemometer
Ambient Temperature (°F):	66	Ambient Temperature source:	Internet
Noise (dBA):	If above 60 dBA, notify KJ personnel	Noise measurement source:	

Moisture Separator Drained? (circle)	Yes	No
Approximate volume (gal):	2 cycles while onsite	
Catalytic Oxidizer Installed? (circle)	Yes	No
Effluent Vapor VOC Conc (ppm):	-	
PID Calibration Performed? (circle)	Yes	No

PID Calibration	Zero Gas	Span Gas
Calibration Value (ppm):	0	100
Instrument Reading (ppm):	0	99.2

Active Alarm Conditions (circle, note affected equipment):

1. No Alarm		
2. High Water Level	Tank(s):	
3. Low Water Level	Tank(s):	
4. High Pressure	Equipment:	
5. Low Pressure	Equipment:	
6. System Shutdown	Equipment:	
7. Temperature	Equipment:	
8. Other:		

Wells - Injection/Extraction (At Manifold)

Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
RW-2	5	-	-	O
RW-3	-	-	-	C
RW-4	5	-	-	O
RW-5	-	-	-	C
RW-6	5	-	-	C
RW-7	10	-	-	O
RW-8	5.5	-	-	O
RW-9	5.5	-	-	O
RW-10	5	-	-	O
SW-1	-	-	-	C
SW-2	8	-	-	O
SW-3	5	-	-	O
MW-4	5	-	-	O

Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
SSD-1	-	-	-	O
SSD-2	-	-	-	O
SSD-3	-	-	-	O
VP-1	-		-	
VP-2	-		-	
VP-3	-		-	
VP-4	-		-	

Treatment System

Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
Before MS	VI 210		12.5		
After MS	PI 310		26		
Before Blower	VI 300		13.6		
After Blower	PI/FI 302		3.3	115.2	
At Heat Exchanger	TT-302		64		
Before Vapor GAC	PI 411		1	NA	NA
Vapor GAC Midpoint**	PI 412		NA	NA	NA
After Vapor GAC**	PI 410		NA	NA	NA
After Pump P-400	PI 400		32		
Before Bag Filter	PI-405		32		
After Bag Filter**	FI 400/PI 401		30	0	
Midpoint Liquid GAC 1**	PI 403		0		
After Liquid GAC 1	FE-404			0	
Midpoint Liquid GAC 2**	PI 406		0		
After Liquid GAC 2	FE-407			0	
After Liquid GAC**	PI-404		0		

Catalytic Oxidizer Temperatures (°F)	N/A
Catalytic Oxidizer PID (ppm)	Pre: N/A Post: N/A
Catalytic Oxidizer Flow Rate (scfm)	N/A

Water Discharge Flow Totalizer	Date	Time	Total Flow (gal)
FT 500	4/15/2025	11:00	35,475
FT 500			

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

Comments/Maintenance Activities:
Glacier onsite to disconnect CatOx unit.
Wires disconnected, coalescing valve removed, valve closed off and locked.
Switch to Vapor GAC for treatment, open more extraction wells to balance system vapor concentrations.
Collect system readings, record totalizer from flow meter

Permit Discharge Limits (see permits):	
Air: 200 scfm	Water: 3 gpm / 4500 gpd
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:	4/18/2025	System Hours:	2963.5
Weather:	Overcast, Cool	*Phase 1: MPE / SVE, all active EIWs in extraction mode.*	
Barometric pressure (psi):	29.98	Barometric Pressure source:	Anemometer
Ambient Temperature (°F):	64	Ambient Temperature source:	Internet
Noise (dBA):	If above 60 dBA, notify KJ personnel	Noise measurement source:	

Moisture Separator Drained? (circle)	Yes	No
Approximate volume (gal):	3 cycles while onsite	
Catalytic Oxidizer Installed? (circle)	Yes	No
Effluent Vapor VOC Conc (ppm):		
PID Calibration Performed? (circle)	Yes	No

PID Calibration	Zero Gas	Span Gas
Calibration Value (ppm):	0	100
Instrument Reading (ppm):	0	101.2

Active Alarm Conditions (circle, note affected equipment):

1. No Alarm
2. High Water Level — Tank(s):
3. Low Water Level — Tank(s):
4. High Pressure — Equipment:
5. Low Pressure — Equipment:
6. System Shutdown — Equipment:
7. Temperature — Equipment:
8. Other:

Wells - Injection/Extraction (At Manifold)

Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
RW-2	-	-	2.8	C
RW-3	-	-	20.1	C
RW-4	6	-	82.8	O
RW-5	-	-	19.5	C
RW-6	5	-	3.6	O
RW-7	11	-	483	O
RW-8	6	-	94.5	O
RW-9	5	-	60.8	O
RW-10	-	-	0.3	C
SW-1	-	-	0	C
SW-2	8	-	29.3	O
SW-3	-	-	2.8	C
MW-4	5	-	31	O

Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
SSD-1	-	-	-	O
SSD-2	-	-	-	O
SSD-3	-	-	-	O
VP-1	-		-	
VP-2	-		-	
VP-3	-		-	
VP-4	-		-	

Treatment System

Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
Before MS	VI 210		12		
After MS	PI 310		26		
Before Blower	VI 300		13.3		
After Blower	PI/FI 302		3.4	101.5	
At Heat Exchanger	TT-302		77.3		
Before Vapor GAC	PI 411		3	NA	164.8
Vapor GAC Midpoint**	PI 412		NA	NA	0
After Vapor GAC**	PI 410		NA	NA	0
After Pump P-400	PI 400		0		
Before Bag Filter	PI-405		0		
After Bag Filter**	FI 400/PI 401		0	0	
Midpoint Liquid GAC 1**	PI 403		0		
After Liquid GAC 1	FE-404			0	
Midpoint Liquid GAC 2**	PI 406		0		
After Liquid GAC 2	FE-407			0	
After Liquid GAC**	PI-404		0		
Catalytic Oxidizer Temperatures (°F)		N/A			
Catalytic Oxidizer PID (ppm)		Pre: N/A	Post: N/A		
Catalytic Oxidizer Flow Rate (scfm)		N/A			

Water Discharge Flow Totalizer	Date	Time	Total Flow (gal)
FT 500	4/18/2025	15:00	22578.66
FT 500			

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

Comments/Maintenance Activities:

Closed wells SW-3, RW-2 to improve vacuum and target high concentration wells,

Collect system readings.

System vacuum improved: 11.5 inHg to 13.3 inHg, system flow reduced: 118 cfm to 101.5 cfm

Record totalizer from flow meter, collect weekly BTEX midpoint sample, collect monthly system vapor samples.

Low vacuum alarm notification on 4/22, closed MW-4, adjust valves on open wells to maintain adequate vacuum.

Collect system vapor influent and effluent PID measurements

Permit Discharge Limits (see permits):

Air: 200 scfm Water: 3 gpm / 4500 gpd

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:	4/25/2025	System Hours:	3129.2
Weather:	Overcast	*Phase 1: MPE / SVE, all active EIWs in extraction mode.*	
Barometric pressure (psi):	29.88	Barometric Pressure source:	Anemometer
Ambient Temperature (°F):	68	Ambient Temperature source:	Internet
Noise (dBA):	If above 60 dBA, notify KJ personnel	Noise measurement source:	

Moisture Separator Drained? (circle)	Yes	No	
Approximate volume (gal):	4 cycles while onsite		
Catalytic Oxidizer Installed? (circle)	Yes	No	
Effluent Vapor VOC Conc (ppm):	-		
PID Calibration Performed? (circle)	Yes	No	

PID Calibration	Zero Gas	Span Gas
Calibration Value (ppm):	-	-
Instrument Reading (ppm):	-	-

Active Alarm Conditions (circle, note affected equipment):

1. No Alarm		
2. High Water Level	Tank(s):	
3. Low Water Level	Tank(s):	
4. High Pressure	Equipment:	
5. Low Pressure	Equipment:	
6. System Shutdown	Equipment:	
7. Temperature	Equipment:	
8. Other:		

Wells - Injection/Extraction (At Manifold)

Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
RW-2	-	-	-	C
RW-3	-	-	-	C
RW-4	-	-	-	O
RW-5	-	-	-	C
RW-6	-	-	-	O
RW-7	-	-	-	O
RW-8	-	-	-	O
RW-9	-	-	-	O
RW-10	-	-	-	C
SW-1	-	-	-	C
SW-2	-	-	-	O
SW-3	-	-	-	C
MW-4	-	-	-	C

Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
SSD-1	-	-	-	O
SSD-2	-	-	-	O
SSD-3	-	-	-	O
VP-1	-		-	
VP-2	-		-	
VP-3	-		-	
VP-4	-		-	

Treatment System

Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
Before MS	VI 210		9.5		
After MS	PI 310		26		
Before Blower	VI 300		10.4		
After Blower	PI/FI 302		2.7	89.6	
At Heat Exchanger	TT-302		71		
Before Vapor GAC	PI 411		0.1	-	-
Vapor GAC Midpoint**	PI 412		0	-	-
After Vapor GAC**	PI 410		0	-	-
After Pump P-400	PI 400		0		
Before Bag Filter	PI-405		0		
After Bag Filter**	FI 400/PI 401		0	-	
Midpoint Liquid GAC 1**	PI 403		0		
After Liquid GAC 1	FE-404			-	
Midpoint Liquid GAC 2**	PI 406		0		
After Liquid GAC 2	FE-407			-	
After Liquid GAC**	PI-404		0		

Catalytic Oxidizer Temperatures (°F)	N/A			
Catalytic Oxidizer PID (ppm)	Pre: N/A	Post: N/A		
Catalytic Oxidizer Flow Rate (scfm)	N/A			
Water Discharge Flow Totalizer	Date	Time	Total Flow (gal)	
FT 500	4/25/2025	12:00	42674.28	
FT 500				

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

Comments/Maintenance Activities:	Permit Discharge Limits (see permits):
Collect system readings	Air: 200 scfm Water: 3 gpm / 4500 gpd
Record totalizer from flow meter	If exceeded, notify Kennedy Jenks personnel.
Collect weekly BTEX midpoint sample, collect monthly system water samples.	
Turbidity and pH readings for influent, midpoint, and effluent samples: 8.18/43 NTU, 8.24/18 NTU , 8.22,8.20/ 15,11 NTU	
Blaine Tech onsite to collect monthly groundwater samples.	

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:	5/2/2025	System Hours:	3296.6
Weather:	Sunny, Warm	*Phase 1: MPE / SVE, all active EIWs in extraction mode.*	
Barometric pressure (psi):	29.88	Barometric Pressure source:	Anemometer
Ambient Temperature (°F):	68	Ambient Temperature source:	Internet
Noise (dBA):	If above 60 dBA, notify KJ personnel	Noise measurement source:	

Moisture Separator Drained? (circle)	Yes	No
Approximate volume (gal):	2 cycles while onsite	
Catalytic Oxidizer Installed? (circle)	Yes	No
Effluent Vapor VOC Conc (ppm):		
PID Calibration Performed? (circle)	Yes	No

PID Calibration	Zero Gas	Span Gas
Calibration Value (ppm):	0	100
Instrument Reading (ppm):	0	100.2

Active Alarm Conditions (circle, note affected equipment):

1. No Alarm		
2. High Water Level	Tank(s):	
3. Low Water Level	Tank(s):	
4. High Pressure	Equipment:	
5. Low Pressure	Equipment:	
6. System Shutdown	Equipment:	
7. Temperature	Equipment:	
8. Other:		

Wells - Injection/Extraction (At Manifold)

Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
RW-2	-	-	-	C
RW-3	-	-	-	C
RW-4	-	-	66.9	C
RW-5	-	-	-	C
RW-6	7	46.2	178	**O**
RW-7	10	58.3	381.5**	**O**
RW-8	6.5	30.6	103.7	**O**
RW-9	6.5	40.3	38.6	**O**
RW-10	-	-	-	C
SW-1	-	-	-	C
SW-2	10	42.1	11.9**	**O**
SW-3	-	-	-	C
MW-4	-	-	-	C

Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
SSD-1	-	-	-	**O**
SSD-2	-	-	-	**O**
SSD-3	-	-	-	**O**
VP-1	-		-	
VP-2	-		-	
VP-3	-		-	
VP-4	-		-	

Treatment System

Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
Before MS	VI 210		12.5		
After MS	PI 310		26		
Before Blower	VI 300		13.8		
After Blower	PI/FI 302		2	66.5	
At Heat Exchanger	TT-302		75.1		
Before Vapor GAC	PI 411		0	-	206
Vapor GAC Midpoint**	PI 412		0	-	9
After Vapor GAC**	PI 410		0	-	0.8
After Pump P-400	PI 400		0		
Before Bag Filter	PI-405		0		
After Bag Filter**	FI 400/PI 401		0	-	
Midpoint Liquid GAC 1**	PI 403		0		
After Liquid GAC 1	FE-404			-	
Midpoint Liquid GAC 2**	PI 406		0		
After Liquid GAC 2	FE-407			-	
After Liquid GAC**	PI-404		0		

Catalytic Oxidizer Temperatures (°F)	N/A			
Catalytic Oxidizer PID (ppm)	Pre: N/A	Post: N/A		
Catalytic Oxidizer Flow Rate (scfm)	N/A			
Water Discharge Flow Totalizer	Date	Time	Total Flow (gal)	
FT 500	5/2/2025	12:00	45,980	
FT 500				

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

Comments/Maintenance Activities:	**Permit Discharge Limits (see permits):**
Closed wells RW-4 to improve vacuum	Air: 200 scfm Water: 3 gpm / 4500 gpd
Collect system readings, record totalizer from flow meter	If exceeded, notify Kennedy Jenks personnel.
System vacuum improved: 10.4 inHg to 13.8 inHg, system flow reduced: 88.2 cfm to 66.5 cfm	
Collect weekly BTEX midpoint sample	
**low readings in SW-2 and RW-7 most likely due to water in piping/tubing preventing accurate reading	
Collect system vapor influent 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 FI	System On on Arrival? (circle):	yes / no
Date/time of data collection:	5/8/2025	System Hours:	3439.7
Weather:	Cool, Overcast	*Phase 1: MPE / SVE, all active EIWs in extraction mode.*	
Barometric pressure (psi):	29.9	Barometric Pressure source:	Anemometer
Ambient Temperature (°F):	60	Ambient Temperature source:	Internet
Noise (dBA):	If above 60 dBA, notify KJ personnel	Noise measurement source:	

Moisture Separator Drained? (circle)	Yes	No
Approximate volume (gal):	2 cycles while onsite	
Catalytic Oxidizer Installed? (circle)	Yes	No
Effluent Vapor VOC Conc (ppm):		
PID Calibration Performed? (circle)	Yes	No

PID Calibration	Zero Gas	Span Gas
Calibration Value (ppm):	0	100 / 10
Instrument Reading (ppm):	0	100.6 / 9.95

Active Alarm Conditions (circle, note affected equipment):

1. No Alarm
2. High Water Level — Tank(s):
3. Low Water Level — Tank(s):
4. High Pressure — Equipment:
5. Low Pressure — Equipment:
6. System Shutdown — Equipment:
7. Temperature — Equipment:
8. Other:

Wells - Injection/Extraction (At Manifold)

Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
RW-2	-	-	-	C
RW-3	-	-	-	C
RW-4	-	-	-	**O**
RW-5	-	-	-	C
RW-6	-	-	-	**O**
RW-7	-	-	-	C
RW-8	-	-	-	**O**
RW-9	-	-	-	**O**
RW-10	-	-	-	C
SW-1	-	-	-	C
SW-2	-	-	-	**O**
SW-3	-	-	-	C
MW-4	-	-	-	C

Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
SSD-1	-	-	-	**O**
SSD-2	-	-	-	**O**
SSD-3	-	-	-	**O**
VP-1	0.009		60 ppb	
VP-2	0.006		78 ppb	
VP-3	0.012		135 ppb	
VP-4	0.007		11.6	

Treatment System

Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
Before MS	VI 210		12		
After MS	PI 310		26		
Before Blower	VI 300		13.1		
After Blower	PI/FI 302		2.1	66.3	
At Heat Exchanger	TT-302		64.2		
Before Vapor GAC	PI 411		0	-	376
Vapor GAC Midpoint**	PI 412		0	-	29
After Vapor GAC**	PI 410		0	-	3.3
After Pump P-400	PI 400		0		
Before Bag Filter	PI-405		0		
After Bag Filter**	FI 400/PI 401		0	-	
Midpoint Liquid GAC 1**	PI 403		0		
After Liquid GAC 1	FE-404			-	
Midpoint Liquid GAC 2**	PI 406		0		
After Liquid GAC 2	FE-407			-	
After Liquid GAC**	PI-404		0		
Catalytic Oxidizer Temperatures (°F)		N/A			
Catalytic Oxidizer PID (ppm)		Pre: N/A		Post: N/A	
Catalytic Oxidizer Flow Rate (scfm)		N/A			

Water Discharge Flow Totalizer	Date	Time	Total Flow (gal)
FT 500	5/8/2025	11:00	51,114
FT 500			

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

Comments/Maintenance Activities:	**Permit Discharge Limits (see permits):**
System influent concentrations increasing, switch RW-7 for RW-4 to help maintain levels.	Air: 200 scfm Water: 3 gpm / 4500 gpd
Collect system readings. Record totalizer from flow meter	If exceeded, notify Kennedy Jenks personnel.
Collect weekly BTEX midpoint sample	
Collect system vapor influent and effluent PID measurements	
Measure vapor pins with PID, 4-gas and manometer, CO2 as follows VP-1: 0.92%, VP-2: 0.10%, VP-3: 0.06%, VP-4: 0.42%	
(0.0 ppm H2S at all 4, 0% LEL at all 4, 20.9% O2, at 3, 19.2% O2 at VP-1)	

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:	5/16/2025	System Hours:	3632.4
Weather:	Light Showers	*Phase 1: MPE / SVE, all active EIWs in extraction mode.*	
Barometric pressure (psi):	29.88	Barometric Pressure source:	Anemometer
Ambient Temperature (°F):	55	Ambient Temperature source:	Internet
Noise (dBA):	If above 60 dBA, notify KJ personnel	Noise measurement source:	

Moisture Separator Drained? (circle)	Yes	No
Approximate volume (gal):	2 cycles while onsite	
Catalytic Oxidizer Installed? (circle)	Yes	No
Effluent Vapor VOC Conc (ppm):	-	
PID Calibration Performed? (circle)	Yes	No

PID Calibration	Zero Gas	Span Gas
Calibration Value (ppm):	0	100
Instrument Reading (ppm):	0	101.2

Active Alarm Conditions (circle, note affected equipment):

1. No Alarm		
2. High Water Level	Tank(s):	
3. Low Water Level	Tank(s):	
4. High Pressure	Equipment:	
5. Low Pressure	Equipment:	
6. System Shutdown	Equipment:	
7. Temperature	Equipment:	
8. Other:		

Wells - Injection/Extraction (At Manifold)

Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
RW-2	-	-	-	C
RW-3	-	-	-	C
RW-4	-	-	-	**O**
RW-5	-	-	-	C
RW-6	-	-	-	**O**
RW-7	-	-	-	C
RW-8	-	-	-	**O**
RW-9	-	-	-	**O**
RW-10	-	-	-	C
SW-1	-	-	-	C
SW-2	-	-	-	**O**
SW-3	-	-	-	C
MW-4	-	-	-	C

Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
SSD-1	-	-	-	**O**
SSD-2	-	-	-	**O**
SSD-3	-	-	-	**O**
VP-1	-		-	
VP-2	-		-	
VP-3	-		-	
VP-4	-		-	

Treatment System

Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
Before MS	VI 210		11.5		
After MS	PI 310		26		
Before Blower	VI 300		12.4		
After Blower	PI/FI 302		2.2	64.1	
At Heat Exchanger	TT-302		60.6		
Before Vapor GAC	PI 411		1.4	-	537
Vapor GAC Midpoint**	PI 412		0	-	85.3
After Vapor GAC**	PI 410		0	-	6.4
After Pump P-400	PI 400		0		
Before Bag Filter	PI-405		0		
After Bag Filter**	FI 400/PI 401		0	-	
Midpoint Liquid GAC 1**	PI 403		0		
After Liquid GAC 1	FE-404			-	
Midpoint Liquid GAC 2**	PI 406		0		
After Liquid GAC 2	FE-407			-	
After Liquid GAC**	PI-404		0		

Catalytic Oxidizer Temperatures (°F)	N/A
Catalytic Oxidizer PID (ppm)	Pre: N/A Post: N/A
Catalytic Oxidizer Flow Rate (scfm)	N/A

Water Discharge Flow Totalizer	Date	Time	Total Flow (gal)
FT 500	5/16/2025	12:00	56,640
FT 500			

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

Comments/Maintenance Activities:
Collect system readings
Record totalizer from flow meter
Collect weekly BTEX midpoint sample
Collect system vapor influent and effluent PID measurements

Permit Discharge Limits (see permits):

Air: 200 scfm Water: 3 gpm / 4500 gpd

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/DC	System On on Arrival? (circle):	yes / no
Date/time of data collection:	5/23/2025	System Hours:	3801.8
Weather:	Clear, Warm	*Phase 1: MPE / SVE, all active EIWs in extraction mode.*	
Barometric pressure (psi):	29.88	Barometric Pressure source:	Anemometer
Ambient Temperature (°F):	66	Ambient Temperature source:	Internet
Noise (dBA):	50-75 If above 60 dBA, notify KJ personnel	Noise measurement source:	Noise meter

Moisture Separator Drained? (circle)	Yes	No
Approximate volume (gal):	2 cycles while onsite	
Catalytic Oxidizer Installed? (circle)	Yes	No
Effluent Vapor VOC Conc (ppm):	-	
PID Calibration Performed? (circle)	Yes	No

PID Calibration	Zero Gas	Span Gas
Calibration Value (ppm):	-	-
Instrument Reading (ppm):	-	-

Active Alarm Conditions (circle, note affected equipment):

1. No Alarm
2. High Water Level — Tank(s):
3. Low Water Level — Tank(s):
4. High Pressure — Equipment:
5. Low Pressure — Equipment:
6. System Shutdown — Equipment:
7. Temperature — Equipment:
8. Other:

Wells - Injection/Extraction (At Manifold)

Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
RW-2	-	-	-	C
RW-3	-	-	-	C
RW-4	-	-	-	O
RW-5	-	-	-	C
RW-6	-	-	-	O
RW-7	-	-	-	C
RW-8	-	-	-	O
RW-9	-	-	-	O
RW-10	-	-	-	C
SW-1	-	-	-	C
SW-2	-	-	-	O
SW-3	-	-	-	C
MW-4	-	-	-	C

Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
SSD-1	-	-	-	O
SSD-2	-	-	-	O
SSD-3	-	-	-	O
VP-1	-		-	
VP-2	-		-	
VP-3	-		-	
VP-4	-		-	

Treatment System

Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
Before MS	VI 210		12		
After MS	PI 310		26		
Before Blower	VI 300		12.8		
After Blower	PI/FI 302		2.1	60.7	
At Heat Exchanger	TT-302		67.5		
Before Vapor GAC	PI 411		0	-	-
Vapor GAC Midpoint**	PI 412		0	-	-
After Vapor GAC**	PI 410		0	-	-
After Pump P-400	PI 400		0		
Before Bag Filter	PI-405		0		
After Bag Filter**	FI 400/PI 401		0	-	
Midpoint Liquid GAC 1**	PI 403		0		
After Liquid GAC 1	FE-404			-	
Midpoint Liquid GAC 2**	PI 406		0		
After Liquid GAC 2	FE-407			-	
After Liquid GAC**	PI-404		0		

Catalytic Oxidizer Temperatures (°F)	N/A			
Catalytic Oxidizer PID (ppm)	Pre: N/A	Post: N/A		
Catalytic Oxidizer Flow Rate (scfm)	N/A			
Water Discharge Flow Totalizer	Date	Time	Total Flow (gal)	
FT 500	5/23/2025	13:00	62.278	
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 weekly BTEX midpoint sample, collect monthly system water samples.	If exceeded, notify Kennedy Jenks personnel.

Turbidity and pH readings for influent, midpoint, and effluent samples: 7.48/26 NTU, 7.41/3.4 NTU , 7.32,7.34 / 2.5,4.6 NTU

Blaine Tech onsite to collect monthly groundwater samples.

Noise measurements collected at various locations: adjacent to system 70-75 dB, adjacent to main road 62-74 dB

adjacent to McGraw 51-69 dB, at front door of mart/dry cleaner 63-74 dB (second measurement indicative of moving vehicle influence

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:	5/30/2025	System Hours:	3968.2
Weather:	Clear, Warm	*Phase 1: MPE / SVE, all active EIWs in extraction mode.*	
Barometric pressure (psi):	29.88	Barometric Pressure source:	Anemometer
Ambient Temperature (°F):	75	Ambient Temperature source:	Internet
Noise (dBA):	If above 60 dBA, notify KJ personnel	Noise measurement source:	

Moisture Separator Drained? (circle)	Yes	No
Approximate volume (gal):	1 cycle while onsite	
Catalytic Oxidizer Installed? (circle)	Yes	No
Effluent Vapor VOC Conc (ppm):	-	
PID Calibration Performed? (circle)	Yes	No

PID Calibration	Zero Gas	Span Gas
Calibration Value (ppm):	0	100
Instrument Reading (ppm):	0	100.9

Active Alarm Conditions (circle, note affected equipment):

1. No Alarm		
2. High Water Level	Tank(s):	
3. Low Water Level	Tank(s):	
4. High Pressure	Equipment:	
5. Low Pressure	Equipment:	
6. System Shutdown	Equipment:	
7. Temperature	Equipment:	
8. Other:		

Wells - Injection/Extraction (At Manifold)

Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
RW-2	-	-	-	C
RW-3	-	-	-	C
RW-4	-	-	-	**O**
RW-5	-	-	-	C
RW-6	-	-	-	**O**
RW-7	-	-	-	C
RW-8	-	-	-	**O**
RW-9	-	-	-	**O**
RW-10	-	-	-	C
SW-1	-	-	-	C
SW-2	-	-	-	**O**
SW-3	-	-	-	C
MW-4	-	-	-	C

Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
SSD-1	-	-	-	**O**
SSD-2	-	-	-	**O**
SSD-3	-	-	-	**O**
VP-1	-		-	
VP-2	-		-	
VP-3	-		-	
VP-4	-		-	

Treatment System

Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
Before MS	VI 210		11.5		
After MS	PI 310		26		
Before Blower	VI 300		12.3		
After Blower	PI/FI 302		2	59.8	
At Heat Exchanger	TT-302		75.1		
Before Vapor GAC	PI 411		0	-	560 / 168.4
Vapor GAC Midpoint**	PI 412		0	-	-
After Vapor GAC**	PI 410		0	-	72.1 / 43.2
After Pump P-400	PI 400		0		
Before Bag Filter	PI-405		0		
After Bag Filter**	FI 400/PI 401		0	-	
Midpoint Liquid GAC 1**	PI 403		0		
After Liquid GAC 1	FE-404			-	
Midpoint Liquid GAC 2**	PI 406		0		
After Liquid GAC 2	FE-407			-	
After Liquid GAC**	PI-404		0		

Catalytic Oxidizer Temperatures (°F)	N/A
Catalytic Oxidizer PID (ppm)	Pre: N/A Post: N/A
Catalytic Oxidizer Flow Rate (scfm)	N/A

Water Discharge Flow Totalizer	Date	Time	Total Flow (gal)
FT 500	5/30/2025	13:00	66,541
FT 500			

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

Comments/Maintenance Activities:
Collect system readings, record totalizer from flow meter.
Collect influent, midpoint, and effluent PID measurements
Collect weekly BTEX midpoint sample
Collect monthly system vapor samples collected,
Vapor GAC not meeting 97% control and/or <10 ppm at effluent, adjusted wells to reduce influent from 560 ppm to 168.4 ppm
Vapor GAC still below 97% control and above 10 ppm, shut system down, coordinate for carbon changeout

Permit Discharge Limits (see permits):

Air: 200 scfm Water: 3 gpm / 4500 gpd

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 / DC	System On on Arrival? (circle):	yes no
Date/time of data collection:	6/13/2025	System Hours:	3969.6
Weather:	Clear, cool	*Phase 1: MPE / SVE, all active EIWs in extraction mode.*	
Barometric pressure (psi):	29.88	Barometric Pressure source:	Anemometer
Ambient Temperature (°F):	64	Ambient Temperature source:	Internet
Noise (dBA):	If above 60 dBA, notify KJ personnel	Noise measurement source:	

Moisture Separator Drained? (circle)	Yes	No
Approximate volume (gal):	2 cycles while onsite	
Catalytic Oxidizer Installed? (circle)	Yes	No
Effluent Vapor VOC Conc (ppm):	-	
PID Calibration Performed? (circle)	Yes	No

PID Calibration	Zero Gas	Span Gas
Calibration Value (ppm):	0	100
Instrument Reading (ppm):	0	99.6

Active Alarm Conditions (circle, note affected equipment):

1. No Alarm		
2. High Water Level	Tank(s):	
3. Low Water Level	Tank(s):	
4. High Pressure	Equipment:	
5. Low Pressure	Equipment:	
6. System Shutdown	Equipment:	
7. Temperature	Equipment:	
8. Other:		

Wells - Injection/Extraction (At Manifold)

Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
RW-2	5.5	-	-	O
RW-3	5.5	-	-	O
RW-4	-	-	-	C
RW-5	-	-	-	C
RW-6	10	-	-	O
RW-7	-	-	-	C
RW-8	5.5	-	-	O
RW-9	-	-	-	C
RW-10	-	-	-	C
SW-1	-	-	-	C
SW-2	-	-	-	C
SW-3	-	-	-	C
MW-4	10	-	-	O

Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
SSD-1	-	-	-	O
SSD-2	-	-	-	O
SSD-3	-	-	-	O
VP-1	-		-	
VP-2	-		-	
VP-3	-		-	
VP-4	-		-	

Treatment System

Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
Before MS	VI 210		11.5		
After MS	PI 310		26		
Before Blower	VI 300		12.4		
After Blower	PI/FI 302		2.6	86.2	
At Heat Exchanger	TT-302		63.2		
Before Vapor GAC	PI 411		0	-	303
Vapor GAC Midpoint**	PI 412		0	-	5.5
After Vapor GAC**	PI 410		0	-	1.4
After Pump P-400	PI 400		0		
Before Bag Filter	PI-405		0		
After Bag Filter**	FI 400/PI 401		0	-	
Midpoint Liquid GAC 1**	PI 403		0		
After Liquid GAC 1	FE-404			-	
Midpoint Liquid GAC 2**	PI 406		0		
After Liquid GAC 2	FE-407			-	
After Liquid GAC**	PI-404		0		
Catalytic Oxidizer Temperatures (°F)		N/A			
Catalytic Oxidizer PID (ppm)		Pre: N/A	Post: N/A		
Catalytic Oxidizer Flow Rate (scfm)		N/A			

Water Discharge Flow Totalizer	Date	Time	Total Flow (gal)
FT 500	6/13/2025	13:00	66,874
FT 500			

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

Comments/Maintenance Activities:	Permit Discharge Limits (see permits):
6/4 DC collected carbon sample to submit for VOC/RCRA-8/TCLP for profiling	Air: 200 scfm Water: 3 gpm / 4500 gpd
6/12 Carbon change out performed by Pacific Coast Carbon, spent carbon evacuated	If exceeded, notify Kennedy Jenks personnel.
into super sac's, Vapor GAC vessels filled with 4,000lbs of 4x10 virgin coconut carbon, bolt stripped, sealing bolt opening until repair	
Spent carbon will be reactivated for reuse by Pacific Coast Carbon. Pacific Coast Carbon to retap bolts on 6/17.	
6/13 System restarted at 1030am, no issues with seal, returned to operation, collect system readings, record totalizer from flow meter	
Collect system vapor influent and effluent PID measurements, collect weekly BTEX midpoint sample	

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:	6/20/2025	System Hours:	4142.2
Weather:	Partialy Cloudy, Cool	*Phase 1: MPE / SVE, all active EIWs in extraction mode.*	
Barometric pressure (psi):	29.88	Barometric Pressure source:	Anemometer
Ambient Temperature (°F):	66	Ambient Temperature source:	Internet
Noise (dBA):	If above 60 dBA, notify KJ personnel	Noise measurement source:	

Moisture Separator Drained? (circle)	Yes	No
Approximate volume (gal):	2 cycles while onsite	
Catalytic Oxidizer Installed? (circle)	Yes	No
Effluent Vapor VOC Conc (ppm):	-	
PID Calibration Performed? (circle)	Yes	No

PID Calibration	Zero Gas	Span Gas
Calibration Value (ppm):	0	100
Instrument Reading (ppm):	0	100.7

Active Alarm Conditions (circle, note affected equipment):

1. No Alarm		
2. High Water Level	Tank(s):	
3. Low Water Level	Tank(s):	
4. High Pressure	Equipment:	
5. Low Pressure	Equipment:	
6. System Shutdown	Equipment:	
7. Temperature	Equipment:	
8. Other:		

Wells - Injection/Extraction (At Manifold)

Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
RW-2	-	-	-	C
RW-3	5.5	-	32-340.9	**O**
RW-4	-	-	-	C
RW-5	-	-	-	C
RW-6	10	-	641	**O**
RW-7	-	-	-	C
RW-8	5.5	-	432	**O**
RW-9	-	-	-	C
RW-10	-	-	-	C
SW-1	-	-	-	C
SW-2	-	-	-	C
SW-3	-	-	-	C
MW-4	10	-	31.6	**O**

Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
SSD-1	-	-	-	**O**
SSD-2	-	-	-	**O**
SSD-3	-	-	-	**O**
VP-1	-		-	
VP-2	-		-	
VP-3	-		-	
VP-4	-		-	

Treatment System

Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
Before MS	VI 210		11.5		
After MS	PI 310		26		
Before Blower	VI 300		12.6		
After Blower	PI/FI 302		2.8	83.6	
At Heat Exchanger	TT-302		65.3		
Before Vapor GAC	PI 411		0	-	261.2 / 298.2
Vapor GAC Midpoint**	PI 412		0	-	0.6 / 0.3
After Vapor GAC**	PI 410		0	-	0.0 / 0.0
After Pump P-400	PI 400		0		
Before Bag Filter	PI-405		0		
After Bag Filter**	FI 400/PI 401		0	-	
Midpoint Liquid GAC 1**	PI 403		0		
After Liquid GAC 1	FE-404			-	
Midpoint Liquid GAC 2**	PI 406		0		
After Liquid GAC 2	FE-407			-	
After Liquid GAC**	PI-404		0		

Catalytic Oxidizer Temperatures (°F)	N/A
Catalytic Oxidizer PID (ppm)	Pre: N/A Post: N/A
Catalytic Oxidizer Flow Rate (scfm)	N/A

Water Discharge Flow Totalizer	Date	Time	Total Flow (gal)
FT 500	6/20/2025	12:00	72,048
FT 500			

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

Comments/Maintenance Activities:	Permit Discharge Limits (see permits):
6/17 DC and Pacifc Coast Carbon onsite to retap bolts on Vapor GAC vessel lids.	Air: 200 scfm Water: 3 gpm / 4500 gpd
System down for <30 minutes, returned to operation without issue upon completing repairs.	If exceeded, notify Kennedy Jenks personnel.
6/20 Collect system readings, record totalizer from flow meter, collect system vapor and vapor pin samples	
Collect weekly BTEX midpoint sample, collect system vapor influent and effluent PID measurements	
Closed RW-2 to improve vacuum, increased from 9.0 inHg to 12.6 inHg, flow reduced from 106.5 cfm to 83.6 cfm.	
Influent vapor increased from 261.2 ppm to 298.2 ppm after closing RW-2.	

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:	6/27/2025	System Hours:	4308.2
Weather:	Overcast, Cool	*Phase 1: MPE / SVE, all active EIWs in extraction mode.*	
Barometric pressure (psi):	30.06	Barometric Pressure source:	Anemometer
Ambient Temperature (°F):	67	Ambient Temperature source:	Internet
Noise (dBA):	If above 60 dBA, notify KJ personnel	Noise measurement source:	

Moisture Separator Drained? (circle)	Yes	No
Approximate volume (gal):	2 cycles while onsite	
Catalytic Oxidizer Installed? (circle)	Yes	No
Effluent Vapor VOC Conc (ppm):	-	
PID Calibration Performed? (circle)	Yes	No

PID Calibration	Zero Gas	Span Gas
Calibration Value (ppm):	0	100
Instrument Reading (ppm):	0	100.8

Active Alarm Conditions (circle, note affected equipment):

1. No Alarm		
2. High Water Level	Tank(s):	
3. Low Water Level	Tank(s):	
4. High Pressure	Equipment:	
5. Low Pressure	Equipment:	
6. System Shutdown	Equipment:	
7. Temperature	Equipment:	
8. Other:		

Wells - Injection/Extraction (At Manifold)

Well ID	Pres/Vac (in Hg)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
RW-2	-	-	-	C
RW-3	5.5	31.9	-	**O**
RW-4	-	-	-	C
RW-5	-	-	-	C
RW-6	10	43.2	-	**O**
RW-7	-	-	-	C
RW-8	5.5	23.6	-	**O**
RW-9	-	-	-	C
RW-10	-	-	-	C
SW-1	-	-	-	C
SW-2	-	-	-	C
SW-3	-	-	-	C
MW-4	10	53.4	-	**O**

Well ID	Pres/Vac (inWC)	Flow (cfm)	PID (ppm)	Valve (O/C, fraction)
SSD-1	0.495	6.4	-	**O**
SSD-2	0.35	4.4	-	**O**
SSD-3	1.52	24.3	-	**O**
VP-1	-		-	
VP-2	-		-	
VP-3	-		-	
VP-4	-		-	

Treatment System

Location	ID	Temp (°F)	Pres/Vac (psi or inHg)	Flow (cfm/gpm)	PID (ppm)
Before MS	VI 210		11.5		
After MS	PI 310		26		
Before Blower	VI 300		12		
After Blower	PI/FI 302		2.9	88.3	
At Heat Exchanger	TT-302		71.3		
Before Vapor GAC	PI 411		0	-	294.2
Vapor GAC Midpoint**	PI 412		0	-	0.4
After Vapor GAC**	PI 410		0	-	0
After Pump P-400	PI 400		32		
Before Bag Filter	PI-405		32		
After Bag Filter**	FI 400/PI 401		23	-	
Midpoint Liquid GAC 1**	PI 403		23		
After Liquid GAC 1	FE-404			6.13	
Midpoint Liquid GAC 2**	PI 406		9		
After Liquid GAC 2	FE-407			5.76	
After Liquid GAC**	PI-404		25		

Catalytic Oxidizer Temperatures (°F)	N/A
Catalytic Oxidizer PID (ppm)	Pre: N/A Post: N/A
Catalytic Oxidizer Flow Rate (scfm)	N/A

Water Discharge Flow Totalizer	Date	Time	Total Flow (gal)
FT 500	6/27/2025	12:00	76,354
FT 500			

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

Comments/Maintenance Activities:	**Permit Discharge Limits (see permits):**
Drew from KCIW onsite to collect effluent samples for permit compliance	Air: 200 scfm Water: 3 gpm / 4500 gpd
Collect system readings, record totalizer from flow meter .	If exceeded, notify Kennedy Jenks personnel.
Measure flows on active wells, record vacuums.	
Collect weekly BTEX midpoint sample, collect monthly system water samples.	
Turbidity and pH readings for influent, midpoint, and effluent samples: 7.66/45 NTU, 7.53/22 NTU , 7.50,7.50 / 5.6,4.8 NTU	
Collect system vapor influent 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

WELL GAUGING DATA

Project # 250425-kc1 Date 4/~~29~~25/25 Client ERRG

Site 2350 24th Ave E, Seattle WA

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	0815	2	—	—	—	—	9.23	16.44		
MW-4	0808	2	—	—	—	—	30.60	87.95		
MW-6	1022	2	—	—	—	—	11.71	20.38		
MW-7	0805	2	—	—	—	—	8.35	20.40		
MW-8	0951	2	odor	—	—	—	9.80	19.40		
MW-9	0925	2	—	—	—	—	10.58	20.29		
MW-10		——	obstructed @				9.22'	——	——	
MW-11	0806	2	—	—	—	—	3.30	19.28		
MW-13	0821	2	—	—	—	—	12.20	18.68		
MW-14	0811	2	—	—	—	—	8.11	18.81		
MW-15	0809	2	—	—	—	—	8.34	16.44		
MW-16	0934	2	—	—	—	—	9.01	16.99		
MW-17	0820	2	—	—	—	—	13.34	19.73		
MW-18	0815	2	—	—	—	—	13.28	14.91		
MW-19	0836	2	—	—	—	—	14.34	20.01		
MW-20	0827	4	—	—	—	—	14.53	19.61		
MW-21	0828	4	—	—	—	—	14.60	18.67	✓	

WELL GAUGING DATA

Project # ~~2350~~ 250425-KC | Date 4/25/25 Client ERRG

Site 2350 24th Ave E, Seattle WA

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	0809	4	—	—	—	—	13.66	19.96		
RW-2	0817	4	—	—	—	—	12.15	19.25		
RW-3	0819	4	—	—	—	—	12.11	19.76		
RW-4	0818	4	—	—	—	—	12.72	19.94		
RW-5	0835	4	—	—	—	—	14.31	19.51		
RW-6	0814	4	—	—	—	—	8.05	19.61		
RW-7	0839	4	—	—	—	—	12.13	18.69		
RW-8	0825	4	—	—	—	—	13.03	20.10		
RW-9	0825	4	—	—	—	—	12.26	20.12		
RW-10	0831	4	—	—	—	—	14.84	30.50	↓	

LOW FLOW WELL MONITORING DATA SHEET

Project #: 250425-KC2	Client: ERRG
Sampler: KC	Gauging Date: 4/25/25
Well I.D.: MW-6	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 20.38	Depth to Water (ft.): 11.71
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: 1024 Flow Rate: 200 mL/min Pump Depth: 16.5'

Time	Temp. (°C or °F)	pH	Cond. (mS/cm or ~~uS/cm~~)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or (mL))	Depth to Water (ft.)
1027	14.12	6.85	660	89	2.94	85.9	600	12.00
1030	14.46	6.90	670	86	2.78	79.5	1200	12.05
1033	14.42	6.95	672	112	2.71	75.4	1800	12.08
1036	14.21	6.97	673	109	2.70	76.4	2400	12.10
1039	14.26	6.97	668	105	2.68	~~75.4~~ 75.7	3000	12.14

Did well dewater? Yes (No) Amount actually evacuated: 3000mL

Sampling Time: 1042 Sampling Date: 4/25/25

Sample I.D.: MW-6 Laboratory: PACE

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

Equipment Blank I.D.: @ Time Duplicate I.D.: DUP-1

LOW FLOW WELL MONITORING DATA SHEET

Project #: 250425-KC1	Client: ERRG
Sampler: KC	Gauging Date: 4/25/25
Well I.D.: MW-8	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 19.40	Depth to Water (ft.): 9.80
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: 0955 Flow Rate: 200 ml/min Pump Depth: 15'

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.)
0958	14.30	6.95	372	25	2.84	85.7	600	10.15
1001	14.33	6.89	371	43	2.73	81.3	1200	10.21
1004	14.18	6.82	369	47	2.64	79.1	1800	10.24
1007	14.36	6.77	369	50	2.60	77.1	2400	10.28
1010	14.23	6.75	370	49	2.60	76.5	3000	10.30

Did well dewater? Yes (No) Amount actually evacuated: 3000mL

Sampling Time: 1013 Sampling Date: 4/25/25

Sample I.D.: MW-8 Laboratory: PACE

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

Equipment Blank I.D.: @ Time Duplicate I.D.: —

LOW FLOW WELL MONITORING DATA SHEET

Project #: 250425-KC1	Client: EFRG
Sampler: KC	Gauging Date: 4/25/25
Well I.D.: MW-9	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 20.29	Depth to Water (ft.): 10.58
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: 0927 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.)
0930	14.25	7.10	530	23	2.86	87.7	600	10.79
0933	14.41	7.01	536	20	2.78	85.1	1200	10.81
0936	14.43	6.97	540	21	2.71	80.4	1800	10.85
0939	14.35	6.90	537	22	2.67	80.0	2400	10.85
0942	14.46	6.89	537	23	2.64	79.4	3000	10.85

Did well dewater? Yes (No) Amount actually evacuated: 3000

Sampling Time: 0945 Sampling Date: 4/25/25

Sample I.D.: MW-9 Laboratory: PACE

Analyzed for: TPH-G BTEX MTBE TPH-D Other: see COC

Equipment Blank I.D.: @ Time Duplicate I.D.: —

LOW FLOW WELL MONITORING DATA SHEET

Project #: 250425-KC2	Client: ERG
Sampler: KE	Gauging Date: 4/25/25
Well I.D.: MW-13	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 18.68	Depth to Water (ft.): 12.20
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: 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.)
1130	17.25	7.15	707	61	2.98	95.8	600	13.01
1133	17.15	7.12	641	63	2.65	89.4	1200	13.34
1136	17.76	7.07	635	58	2.51	85.1	1800	13.59
1139	17.71	7.06	633	57	2.49	84.8	2400	13.85
1142	17.84	7.08	630	56	2.48	84.5	3000	13.92

Did well dewater? Yes (No) Amount actually evacuated: 3000 mL

Sampling Time: 1145 Sampling Date: 4/25/25

Sample I.D.: MW-13 Laboratory: PACE

Analyzed for: TPH-G BTEX MTBE TPH-D Other: see COC

Equipment Blank I.D.: @ Time Duplicate I.D.: —

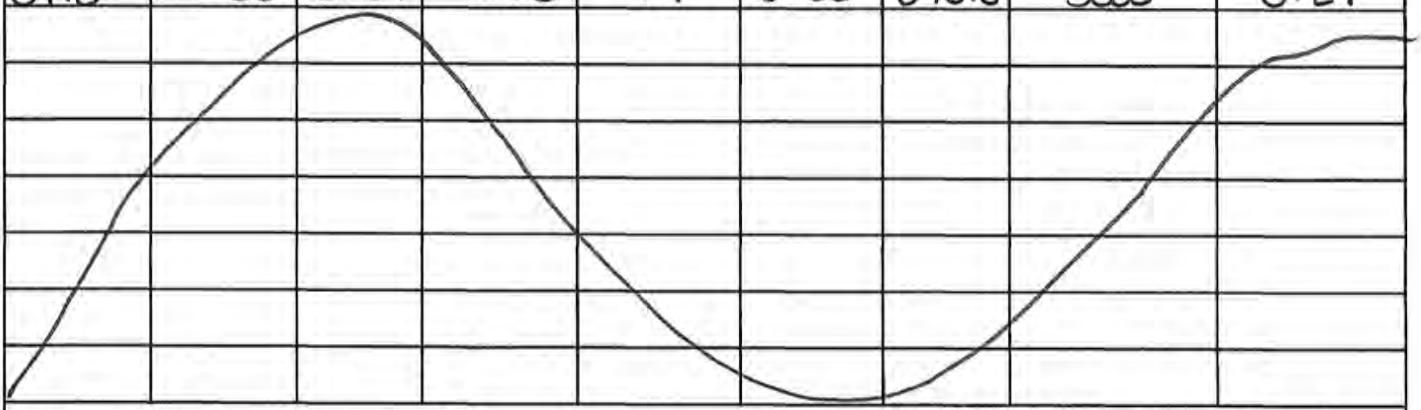
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250925-KC1	Client: ERRG
Sampler: Sandy M.	Gauging Date: 04/25/25
Well I.D.: MW-14	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 18.81	Depth to Water (ft.): 8.11
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: 0903 Flow Rate: 200ml/min Pump Depth: 13.5'

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.)
0906	13.27	6.17	386	20	1.44	323.1	600	8.17
0909	13.25	5.87	389	19	1.08	334.8	1200	8.19
0912	13.28	5.79	390	19	0.96	340.2	1800	8.21
0915	13.26	5.71	389	19	0.93	343.0	2400	8.23
0918	13.25	5.69	388	19	0.88	346.5	3000	8.24



Did well dewater? Yes (No) Amount actually evacuated: 3000ml.

Sampling Time: 0921 Sampling Date: 04/25/25.

Sample I.D.: MW-14. Laboratory: Pace.

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

Equipment Blank I.D.: @ Time Duplicate I.D.: —

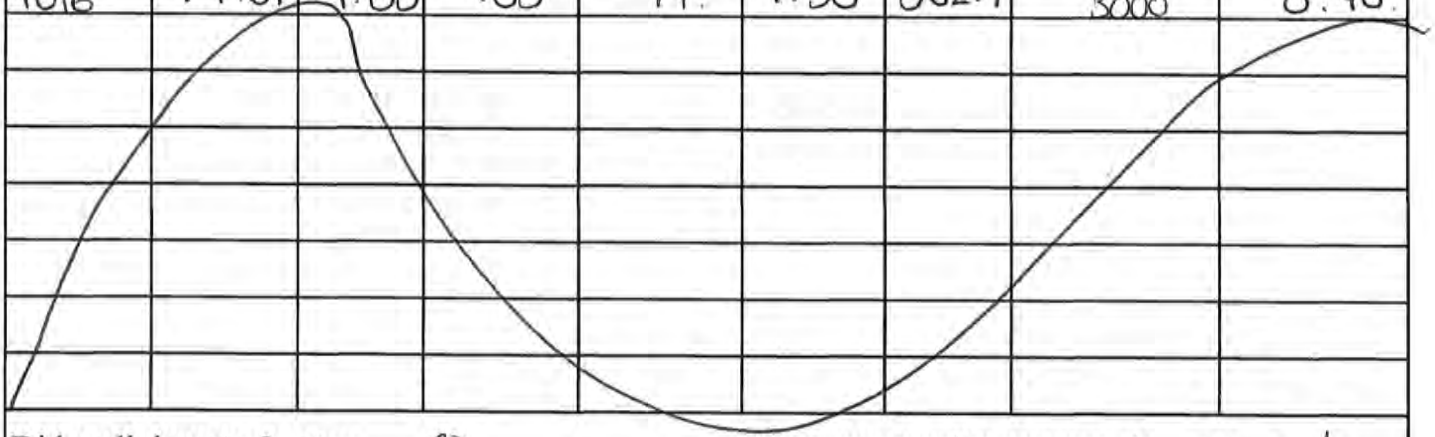
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250425-RC1	Client: ERG
Sampler: Sandy M	Gauging Date: 04/25/25
Well I.D.: MW-15	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 17.13	Depth to Water (ft.): 8.34
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: 1001 Flow Rate: 200ml/min Pump Depth: 12.5'

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.)
1004	13.92	5.14	107	30	1.76	357.3	600	8.39
1007	13.93	4.94	104	20	1.68	363.2	1200	8.41
1010	13.95	4.86	104	18	1.57	364.9	1800	8.43
1013	13.99	4.82	105	17	1.56	363.0	2400	8.45
1016	14.01	4.83	105	17	1.38	362.4	3000	8.46



Did well dewater? Yes (No)	Amount actually evacuated: 3000mL
Sampling Time: 1019	Sampling Date: 04/25/25
Sample I.D.: MW-15	Laboratory: Pace
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See COC.
Equipment Blank I.D.: @ Time	Duplicate I.D.: —

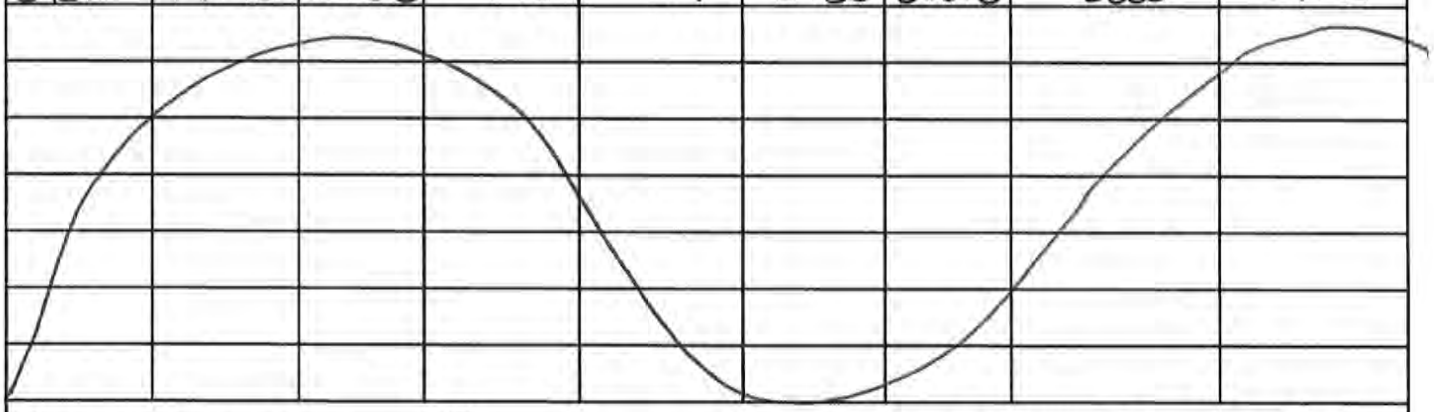
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250425-KC1	Client: ERRG
Sampler: Sandy M	Gauging Date: 04/25/25
Well I.D.: MW-16	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 16.99	Depth to Water (ft.): 09.01
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: 0936 Flow Rate: 200ml/min Pump Depth: 13'

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.)
0939	14.06	5.52	933	104	0.58	339.4	600	09.08
0942	14.13	5.58	949	97	0.46	334.6	1200	09.10
0945	14.09	5.62	949	72	0.33	331.6	1800	09.12
0948	14.10	5.66	950	69	0.31	328.3	2400	09.14
0951	14.13	5.68	948	67	0.30	326.8	3000	09.16



Did well dewater? Yes (No)	Amount actually evacuated: 3000ml.
Sampling Time: 0954	Sampling Date: 04/25/25
Sample I.D.: MW-16	Laboratory: Pace.
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See COC
Equipment Blank I.D.: @ Time	Duplicate I.D.: —

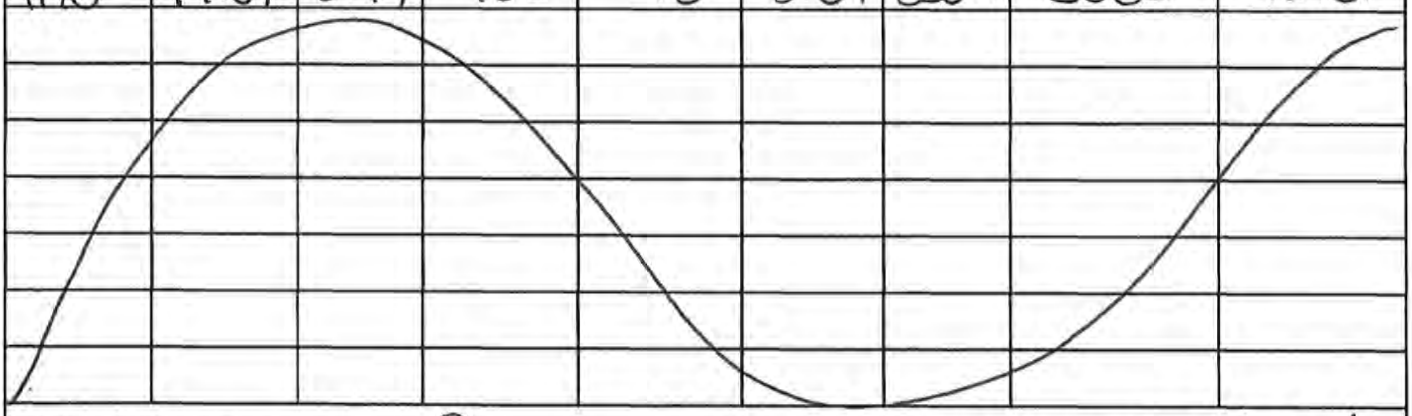
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250425-KC1	Client: ERRG
Sampler: Sandy M.	Gauging Date: 04/25/25
Well I.D.: MW-17	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 19.73	Depth to Water (ft.): 13.39
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: 1105 Flow Rate: 200ml/min 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.)
1108	14.63	5.89	151	17	3.27	315.1	600	13.47
1111	14.57	5.86	152	17	3.20	316.1	1200	13.51
1114	14.50	5.82	152	17	3.14	318.1	1800	13.54
1117	14.61	5.80	151	17	3.13	319.4	2400	13.57
1120	14.69	5.79	152	18	3.09	320.9	3000	13.61



Did well dewater? Yes (No) Amount actually evacuated: 3000ml.

Sampling Time: 1123 Sampling Date: 04/25/25

Sample I.D.: MW-17. Laboratory: Pace

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

Equipment Blank I.D.: @ Time Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 250425-KCI	Client: ERRG
Sampler: DO	Gauging Date: 4/25/25
Well I.D.: MW-18	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 14.91	Depth to Water (ft.): 13.28
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: 1129 Flow Rate: 100mL/min Pump Depth: 14

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.)
1132	15.32	7.46	439	36	1.55	90.3	300	13.62
1135	15.79	7.12	448	31	1.50	102.1	600	13.97
1138	15.98	7.01	448	28	1.60	105.1	900	14.21
			well dewatering					
			Sample taken at 1140					

Did well dewater? (Yes) No Amount actually evacuated: 900

Sampling Time: 1140 Sampling Date: 4/25/25

Sample I.D.: MW-18 Laboratory: PACE

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

Equipment Blank I.D.: @ Time Duplicate I.D.: —

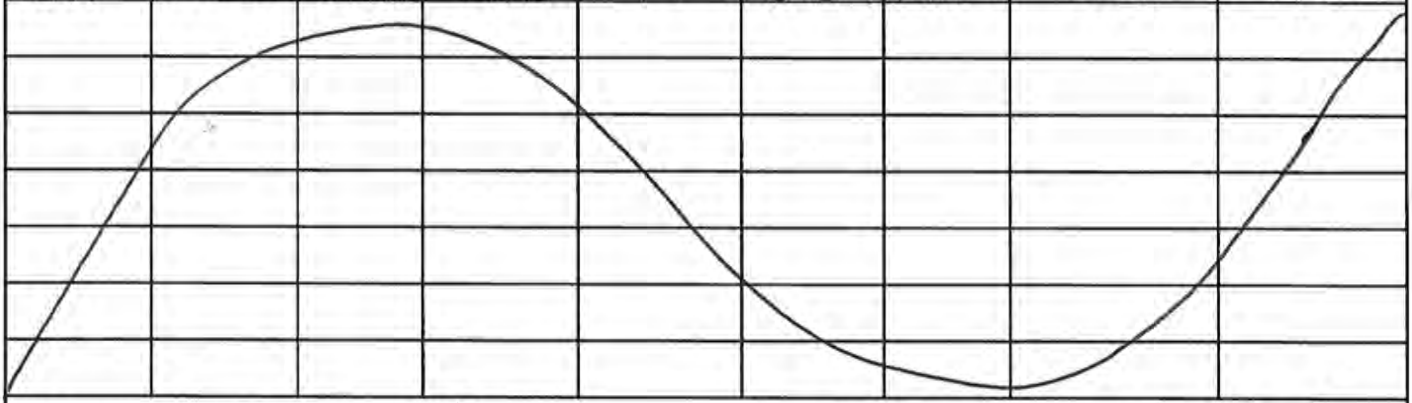
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250425-KC1	Client: ERRG
Sampler: Sandy	Gauging Date: 04/25/25
Well I.D.: MW-19	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 16.58	Depth to Water (ft.): 14.39
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: 1029 Flow Rate: 200ml/min. Pump Depth: 15.5'

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.)
1032	15.13	5.87	212	14	0.61	321.9	600	14.46
1035	15.23	5.95	229	14	0.49	310.3	1200	14.49
1038	15.29	5.99	231	13	0.44	300.5	1800	14.52
1041	15.26	6.05	232	13	0.43	293.5	2400	14.55
1044	15.37	6.06	233	14	0.39	289.7	3000	14.58



Did well dewater? Yes (No) Amount actually evacuated: 3000ml.

Sampling Time: 1047 Sampling Date: 04/25/25

Sample I.D.: MW-19 Laboratory: Pace.

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

Equipment Blank I.D.: @ Time Duplicate I.D.: —

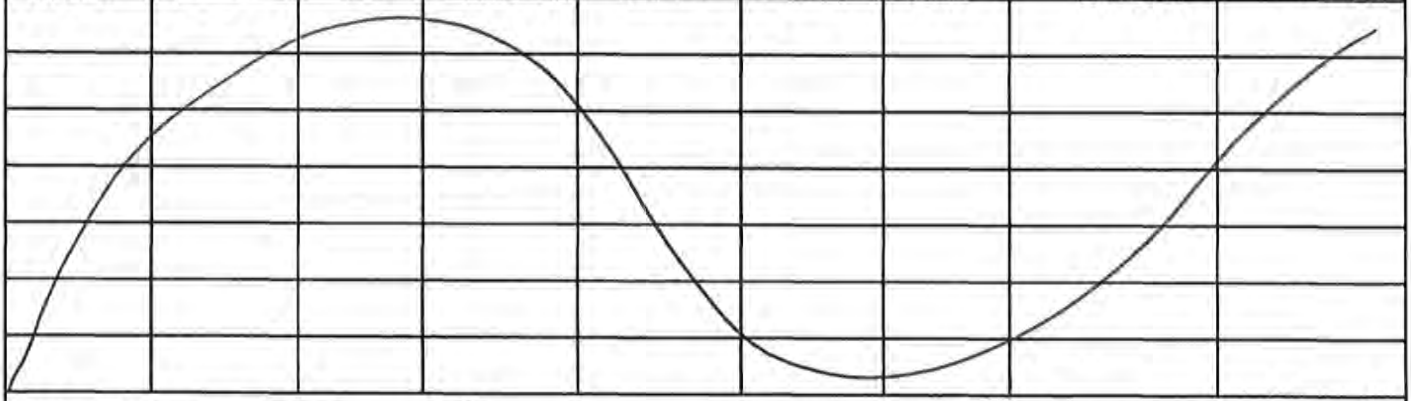
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250425 - KC1.	Client: ERG
Sampler: Sandy M	Gauging Date: 04/25/25
Well I.D.: MW-20	Well Diameter (in.): ~~2~~ 3 (4) 6 8 ___
Total Well Depth (ft.): 19.61	Depth to Water (ft.): ~~8.67~~ 14.53
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: 1139 Flow Rate: 200ml/min Pump Depth: 17.51

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.)
1142	18.87	7.15	1325	215	0.42	152.7	600	14.58
1145	18.35	7.19	1335	207	0.73	104.6	1200	14.61
1148	18.87	7.16	1331	200	0.68	93.8	1800	14.64
1151	18.81	7.15	1326	198	0.55	89.7	2400	14.66
1154	18.69	7.15	1327	193	0.49	84.3	3000	14.68



Did well dewater? Yes (No) Amount actually evacuated: 3000ml.

Sampling Time: 1157 Sampling Date: 04/25/25

Sample I.D.: MW-20. Laboratory: Pace

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

Equipment Blank I.D.: @ Time Duplicate I.D.: —

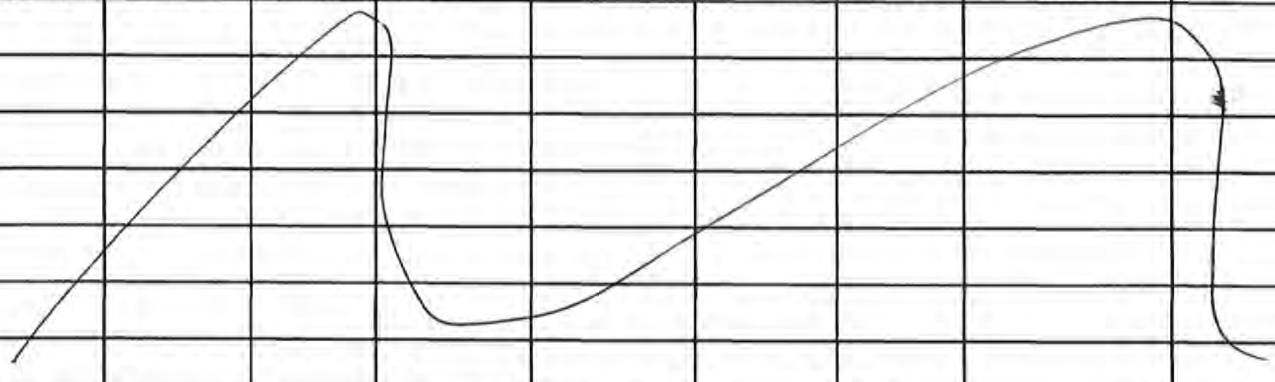
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250425-KL2	Client: ERRG
Sampler: KL	Gauging Date: 4/25/25
Well I.D.: MW-21	Well Diameter (in.): 2 3 (4) 6 8 ___
Total Well Depth (ft.): 18.67	Depth to Water (ft.): 14.60
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: 1054 Flow Rate: 200 mL/min Pump Depth: 17'

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.)
1057	16.02	6.82	800	42	2.80	72.8	600	14.67
1100	16.03	6.84	800	32	2.76	71.3	1200	14.70
1103	16.29	6.91	810	25	2.58	63.3	1800	14.70
1106	16.09	6.96	809	23	2.57	61.7	2400	14.70
1109	16.00	6.93	806	23	2.56	63.0	3000	14.70



Did well dewater? Yes (No)	Amount actually evacuated: 3000mL
Sampling Time: 1111	Sampling Date: 4/25/25
Sample I.D.: MW-21	Laboratory: PACE
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See COC
Equipment Blank I.D.: @ Time	Duplicate I.D.: —

LOW FLOW WELL MONITORING DATA SHEET

Project #: 250425-KL7	Client: ERRG
Sampler: KL	Gauging Date: 4/25/25
Well I.D.: RW-1	Well Diameter (in.): 2 3 (4) 6 8 ___
Total Well Depth (ft.): 19.96	Depth to Water (ft.): 13.66
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: 0855 Flow Rate: 200 mL/min Pump Depth: 17'

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.)
0858	~~5.82~~ 14.25 °C	5.82	382	99	3.43	100.1	600	13.80
0901	14.30	5.73	382	51	3.37	98.4	1200	13.88
0904	14.48	5.50	383	38	3.12	90.6	1800	13.94
0907	14.51	5.47	385	39	3.09	89.2	2400	14.01
0910	14.46	5.43	385	37	3.06	88.8	3000	14.04

Did well dewater? Yes (No) Amount actually evacuated: 3000 mL

Sampling Time: 0913 Sampling Date: 4/25/25

Sample I.D.: RW-1 Laboratory: PACE

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

Equipment Blank I.D.: @ Time Duplicate I.D.: ~~DUP-1~~

WELLHEAD INSPECTION FORM

Client: ERRG Site: 2350 24th Ave E Date: 4/25/25

Job #: 250425-KL1 Technician: KL, DO, SM Page 1 of 2

Well ID	Well Inspected - No Corrective Action Required	Check indicates deficiency: 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)	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)
MW-2	✓														
MW-4	✓														
MW-6	✓														
MW-7	✓														
MW-8	✓														
MW-9	✓														
MW-10	✓														
MW-11	✓														
MW-13	✓														
MW-14	✓														
MW-15	✓														
MW-16	✓														
MW-17	✓														
MW-18	✓														
MW-19	✓														
MW-20	✓														
MW-21	✓														

NOTES:

WELLHEAD INSPECTION FORM

Client: EMG Site: 2350 24th Ave E Date: 4/25/25

Job #: 250425-KC1 Technician: KC, SM, DO. Page 2 of 2

Well ID	Well Inspected - No Corrective Action Required	Check indicates deficiency: 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)	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)
RW-1	✓														
RW-2	✓														
RW-3	✓														
RW-4	✓														
RW-5	✓														
RW-6	✓														
RW-7	✓														
RW-8	✓														
RW-9	✓														
RW-10	✓														

NOTES:

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 2350 24th Ave E, Seattle				PROJECT NUMBER 240425-KC1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
HANNA	07460001001	4/25/25 @ 0645	pH 4 7 10	4.08 7.06 9.93	✓	19.2	KC
			cond. 3900 ORP 237.5 D.O. 100	3904 238.5 92	✓	19.2	KC
Hanna.	07460003101	04/25/25 @ 0648.	pH 4 7 10.	3.96. 7.03 9.96	✓	18.1	SM
			cond. 3900 ORP. 237.5 DO. 100	3897. 237.1 99.8.	✓	18.1	SM.
Hanna	07460037101	4/25/25 @ 0620	pH 4 7 10	4.02 7.09 9.98	✓	19.2	DO
			Cond 3900 ORP 237.5 DO 100	3896 234.4 97.0	✓	19.2	DO

WELL GAUGING DATA

Project # 250523-SM1 Date 5/23/25 Client ERRG

Site 2350 24TH AVE E. SEATTLE, WA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Water/ SPH Meter	PID (PPM)
MW-2	0809	2	—	—	—	—	10.03	16.37	**	0.0
MW-4	0828	2	—	—	—	—	30.78	88.88	**	0.0
MW-6	0928	2	—	—	—	—	11.63	20.38	**	0.0
MW-7	0923	2	—	—	—	—	09.24	20.31	**	0.0
MW-8	1050	2	odor	—	—	—	10.33	19.37	**	0.0
MW-9	0955	2	odor	—	—	—	11.28	20.26	**	0.0
MW-10	—	—	obstructed at				9.26		—	—
MW-11	0813	2	—	—	—	—	3.12	19.92	**	0.0
MW-13	0839	2	—	—	—	—	13.13	18.71	**	0.0
MW-14	0818	2	—	—	—	—	8.43	18.84	**	0.0
MW-15	0815	2	—	—	—	—	8.79	17.16	**	0.0
MW-16	0924	2	—	—	—	—	9.41	17.00	**	0.0
MW-17	0814	2	—	—	—	—	13.86	19.76	**	0.0
MW-18	0818	2	—	—	—	—	13.61	14.93	**	0.0
MW-19	0836	2	—	—	—	—	14.02	20.04	**	0.1

Instruments Used: Durham Geoslope Water Level Indicator* GeoTech Oil/Water Interface Probe** Other: _____

Survey Point - Top of casing at all wells

WELL GAUGING DATA

Project # 250523-SM1 Date 5/23/25 Client ERES

Site 2350 24TH AVE E, SEATTLE, WA

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Water/ SPH Meter	PID (PPM)
MW-20	0833	2	-	—	—	—	15.93	19.42	**	0.0
MW-21	0845	4	odor	—	—	—	14.91	18.74	**	0.0
RW-1	0820	4	—	—	—	—	14.55	20.03	**	0.0
RW-2	0837	4	—	—	—	—	13.09	19.39	**	0.0
RW-3	0841	4	—	—	—	—	13.10	19.74	**	0.0
RW-4	0846	4	—	—	—	—	13.70	19.80	**	0.0
RW-5	0842	4	—	—	—	—	15.60	19.36	**	0.0
RW-6	0833	4	—	—	—	—	11.03	20.17	**	0.0
RW-7	0838	4	—	—	—	—	12.94	18.89	**	0.0
RW-8	0850	4	—	—	—	—	13.78	20.15	**	0.0
RW-9	0829	4	—	—	—	—	12.37	20.03	**	0.0
RW-10	0843	4	—	—	—	—	12.89	30.21	**	0.0

Instruments Used: Durham Geoslope Water Level Indicator* GeoTech Oil/Water Interface Probe** Other: _____

Survey Point - Top of casing at all wells

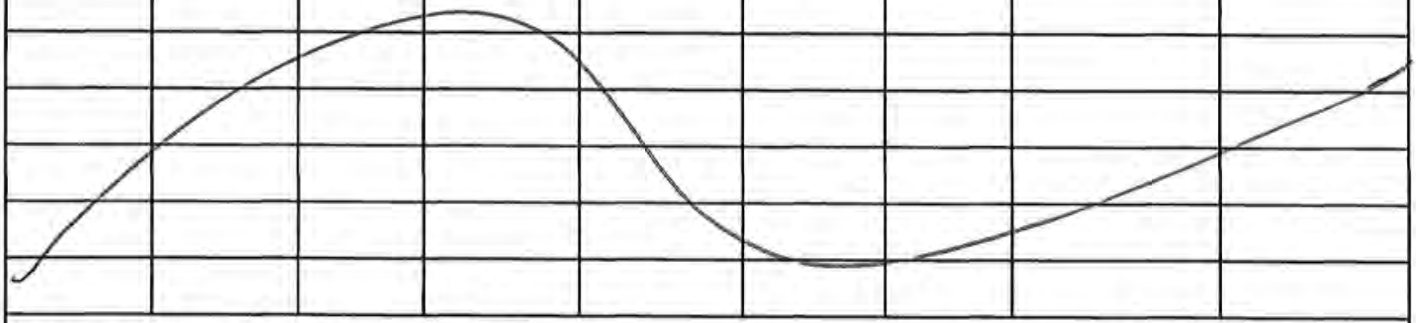
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250523-SM1	Client: ERRG
Sampler: LB	Gauging Date: 5/23/25
Well I.D.: MW-6	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 20.38	Depth to Water (ft.): 11.63
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: 0959 Flow Rate: 200mL/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.)
1002	13.75	7.51	616	594	~~1.28~~ 0.17	34.9	600	11.68
1005	13.77	7.51	616	392	0.11	29.8	1200	11.70
1008	13.65	7.52	618	287	0.09	25.9	1800	11.71
1011	13.69	7.52	620	284	0.08	24.6	2400	11.73
1014	13.71	7.53	621	281	0.08	23.9	3000	11.74



Did well dewater? Yes (No)	Amount actually evacuated: 3000mL
Sampling Time: 1015	Sampling Date: 5/23/25
Sample I.D.: MW-6	Laboratory: PACE
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE COC
Equipment Blank I.D.: @ Time	Duplicate I.D.:

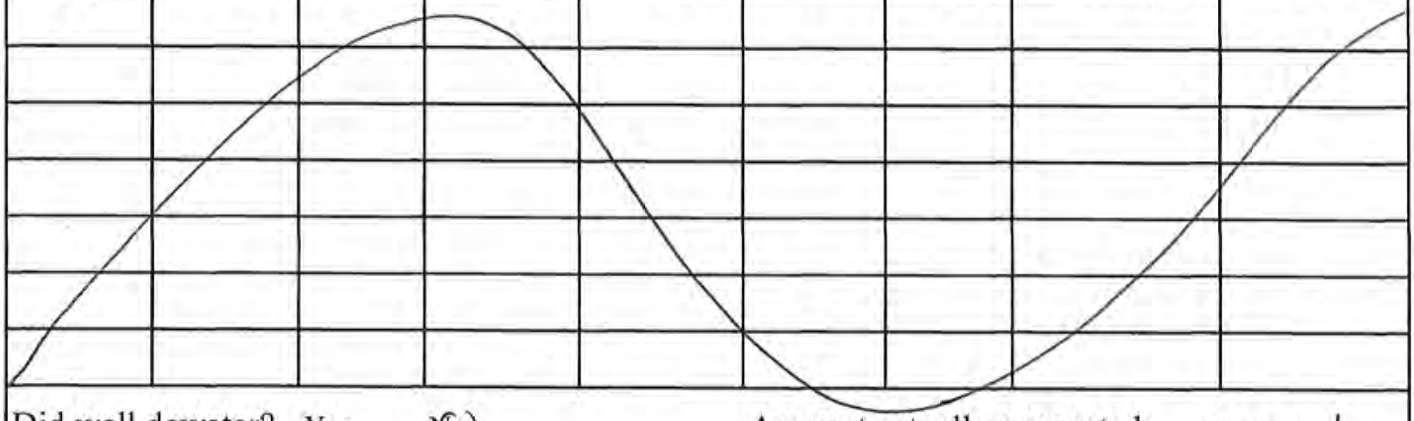
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250523-SM1.	Client: ERRG.
Sampler: Sandy M.	Gauging Date: 05/23/25
Well I.D.: MW-8 (odor).	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 19.37.	Depth to Water (ft.): 10.33
Depth to Free Product: —	Thickness of Free Product (feet): —
Referenced to: (PVC) Grade	Flow Cell Type: Horiba.

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump
Sampling Method: Dedicated (Tubing) | New Tubing | Other ___

Start Purge Time: 1054 Flow Rate: 200ml/min. Pump Depth: 14.5'

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.)	P.I.C
1057	13.94	5.81	295	27	1.39	327.1	600	10.38	0.0
1100	14.01	5.89	297	27	1.31	316.0	1200	10.41	0.0
1103	13.96	5.93	297	28	1.27	308.5	1800	10.44	0.0
1106	13.89	5.98	297	28	1.26	300.8	2400	10.47	0.0
1109	13.83	5.99	297	28	1.26	298.6	3000	10.50	0.0



Did well dewater? Yes (No) Amount actually evacuated: 3000ml.

Sampling Time: 1112 Sampling Date: 05/23/25

Sample I.D.: MW-8 Laboratory: Pace

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

Equipment Blank I.D.: @ Time Duplicate I.D.: —

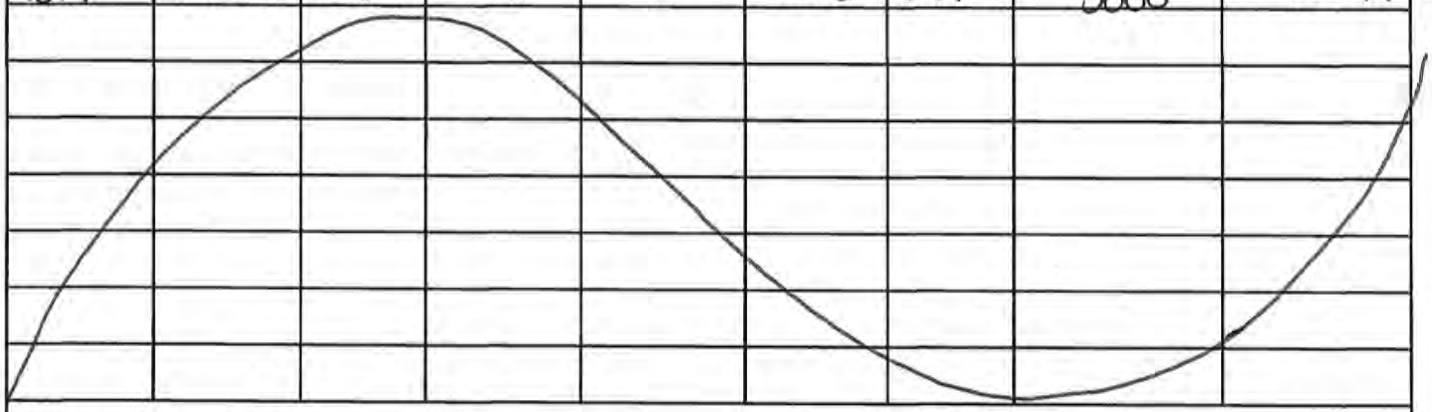
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250523-SM1	Client: ERRG.
Sampler: Sandy M	Gauging Date: 05/23/25
Well I.D.: MW-9. (odor).	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): ~~11.28~~ 20.26	Depth to Water (ft.): ~~20.26~~ SM 11.28
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: 0959 Flow Rate: 200ml/min. Pump Depth: 15.5'

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.)	P.1.0
1002	13.88	6.10	405	22	1.62	308.8	600	20.33	0.0
1005	13.95	6.04	411	18	1.37	300.0	1200	20.36	0.0
1008	14.02	6.03	413	18	1.31	280.0	1800	20.39	0.0
1011	14.09	6.03	413	18	1.29	283.0	2400	20.41	0.0
1014	14.13	6.04	411	18	1.28	277.0	3000	20.44	0.0



Did well dewater? Yes (No)	Amount actually evacuated: 3000ml.
Sampling Time: 1017	Sampling Date: 05/23/25
Sample I.D.: MW-9	Laboratory: Pace.
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See COC.
Equipment Blank I.D.: @ Time	Duplicate I.D.: —

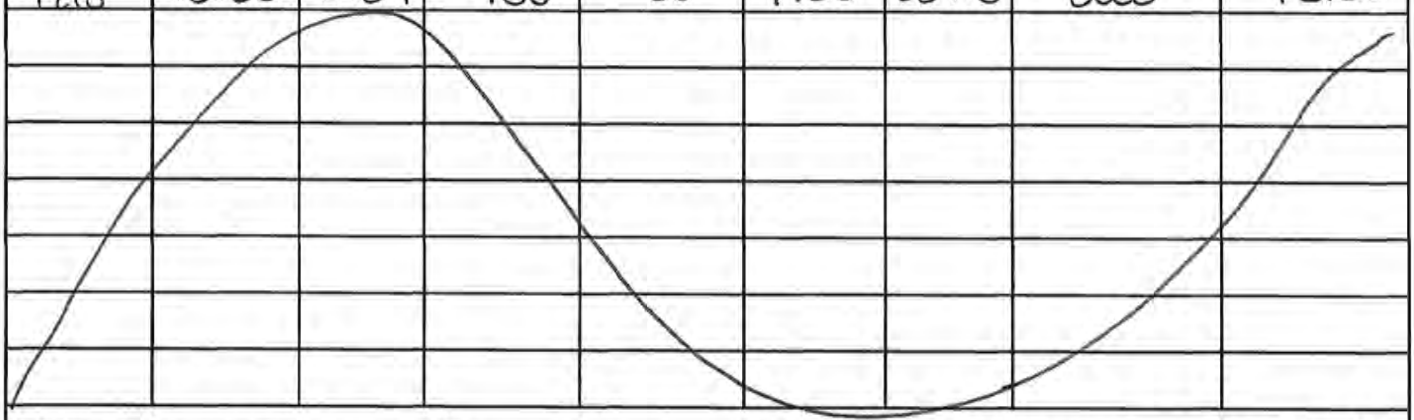
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250523-SM1	Client: ERRG.
Sampler: Sandy M	Gauging Date: 05/23/25.
Well I.D.: MW-13 (odor).	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 18.71.	Depth to Water (ft.): 13.13.
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: 1200 Flow Rate: 200ml/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.)	P.I.D
1203	15.57	6.21	491	26	1.56	260.1	600	13.21	0.0
1206	15.47	6.30	484	28	1.38	247.9	1200	13.24.	0.0
1209	15.55	6.30	480	29	1.37	240.9	1800	13.27	0.0
1212	15.61	6.30	481	29	1.37	237.8	2400	13.30	0.0
1215	15.88	6.29	480	30	1.36	234.8	3000	13.33	0.0



Did well dewater? Yes (No)	Amount actually evacuated: 3000ml.
Sampling Time: 1218	Sampling Date: 05/23/25.
Sample I.D.: MW-13	Laboratory: Pace.
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See COC.
Equipment Blank I.D.: @ Time	Duplicate I.D.: —

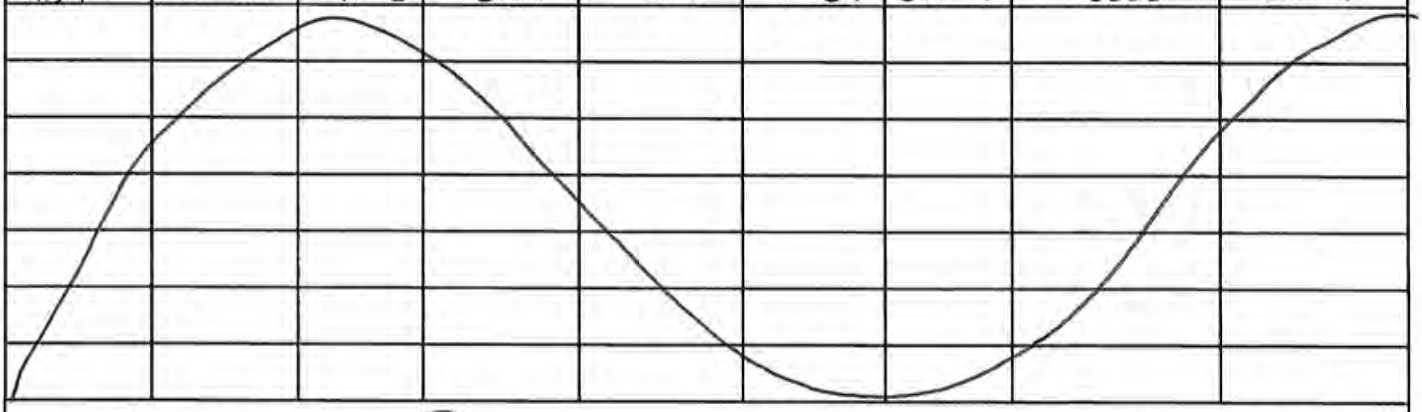
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250523-SM1	Client: ERRG
Sampler: Sandy M.	Gauging Date: 05/23/25
Well I.D.: MW-14	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): 18.84	Depth to Water (ft.): 8.43
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: 1119 Flow Rate: 200ml/min. Pump Depth: 13.5'

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.)	P.I.?
1122	15.47	5.06	310	35	1.43	348.0	600	8.52	0.0
1125	15.28	4.93	314	33	1.33	345.7	1200	8.55	0.0
1128	15.33	4.89	317	34	1.32	343.8	1800	8.58	0.0
1131	15.31	4.88	319	34	1.31	341.1	2400	8.61	0.0
1134	15.36	4.88	321	34	1.29	338.7	3000	8.64	0.0



Did well dewater? Yes (No) Amount actually evacuated: 3000ml

Sampling Time: 1137 Sampling Date: 05/23/25

Sample I.D.: MW-14 Laboratory: Pace.

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

Equipment Blank I.D.: @ Time Duplicate I.D.: —

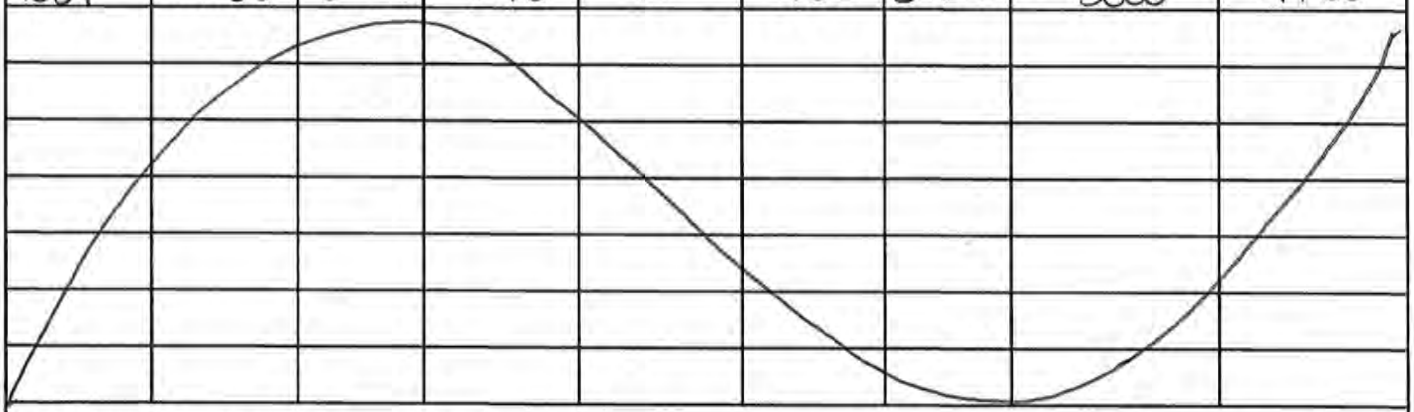
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250523-SM1	Client: ERRG.
Sampler: Sandy M.	Gauging Date: 05/23/25
Well I.D.: MW-15	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 17.06	Depth to Water (ft.): 8.79
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: 1024 Flow Rate: 200ml/min. Pump Depth: 131'

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.)	P.I.D
1027	14.07	5.53	078	47	3.83	333.8	600	8.88	0.0
1030	14.18	5.33	076	47	3.82	344.9	1200	8.92	0.0
1033	14.22	5.31	075	46	3.76	347.1	1800	8.95	0.0
1036	14.30	5.26	075	46	3.69	350.5	2400	8.98	0.0
1039	14.35	5.24	075	46	3.63	352.3	3000	9.00	0.0



Did well dewater? Yes (No) Amount actually evacuated: 3000ml.

Sampling Time: ~~1027~~ SM 1042 Sampling Date: 05/23/25.

Sample I.D.: MW-15 Laboratory: Pace.

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

Equipment Blank I.D.: @ Time Duplicate I.D.: DUP-1.

LOW FLOW WELL MONITORING DATA SHEET

Project #: 250523-SM1	Client: ERRG
Sampler: Sandy M	Gauging Date: 05/23/25
Well I.D.: MW-16	Well Diameter (in.): (2) 3 4 6 8 ___
Total Well Depth (ft.): ~~SM~~ 17.00	Depth to Water (ft.): 9.41
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: 0928 Flow Rate: 200 ml/min Pump Depth: 13'

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.)	P.I.
0931	13.66	6.59	627	101	1.71	279.9	600	9.48	0.0
0934	13.80	6.30	628	82	1.52	292.8	1200	9.52	0.0
0937	13.91	6.23	631	85	1.45	299.2	1800	9.55	0.0
0940	13.99	6.21	630	90	1.42	303.9	2400	9.58	0.0
0943	14.03	6.19	630	88	1.40	306.8	3000	9.62	0.0

Did well dewater? Yes (No) Amount actually evacuated: 3000 mL

Sampling Time: 0946 Sampling Date: 05/23/25

Sample I.D.: MW-16 Laboratory: Pace

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

Equipment Blank I.D.: @ Time Duplicate I.D.: —

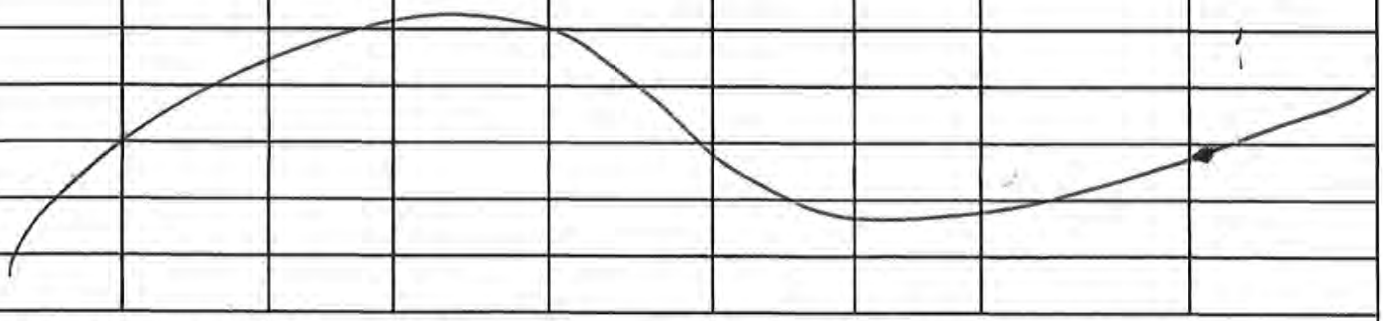
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250523-SM1	Client: ERRG
Sampler: LB	Gauging Date: 5/23/25
Well I.D.: MW-17	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 19.70	Depth to Water (ft.): 13.86
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: 1103 Flow Rate: 200 mL / MIN Pump Depth: 17'

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.)
1106	15.03	7.30	195	106	0.86	127.4	600	13.91
1109	15.14	7.01	186	32	0.84	168.4	1200	13.93
1112	15.21	6.85	182	26	0.83	164.5	1800	13.97
1115	15.25	6.86	182	25	0.82	161.9	2400	13.98
1118	15.28	6.88	181	24	0.81	159.8	3000	13.99



Did well dewater? Yes (No)	Amount actually evacuated: 3000 mL
Sampling Time: 1120	Sampling Date: 5/23/25
Sample I.D.: MW-17	Laboratory: PACE
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: SEE COC
Equipment Blank I.D.: @ Time	Duplicate I.D.:

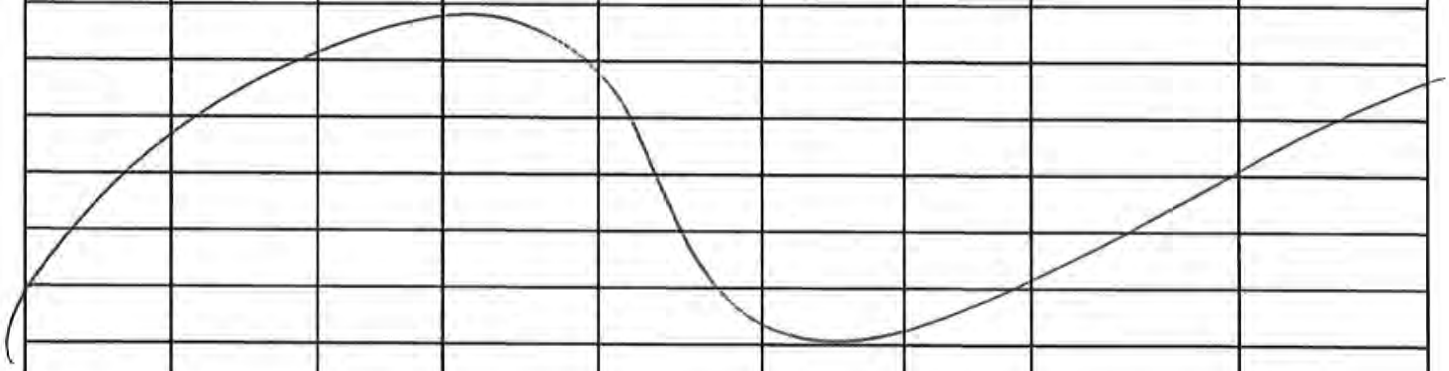
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250523-SM1	Client: ERRG
Sampler: LB	Gauging Date: 5/23/25
Well I.D.: MW1-18	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 14.93	Depth to Water (ft.): 13.61
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: 1135 Flow Rate: 100 mL/MIN Pump Depth: 14'

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.)
1138	16.24	6.88	~~227~~ 410	47	0.91	227.8	300	14.01
	—	WELL DEWATERING,		SAMPLE COLLECTED				—



Did well dewater? Yes (No) Amount actually evacuated: 300 mL

Sampling Time: 1140 Sampling Date: 5/23/25

Sample I.D.: MW-18 Laboratory: PACE

Analyzed for: TPH-G BTEX MTBE TPH-D (Other) SEE COC

Equipment Blank I.D.: @ Time Duplicate I.D.: —

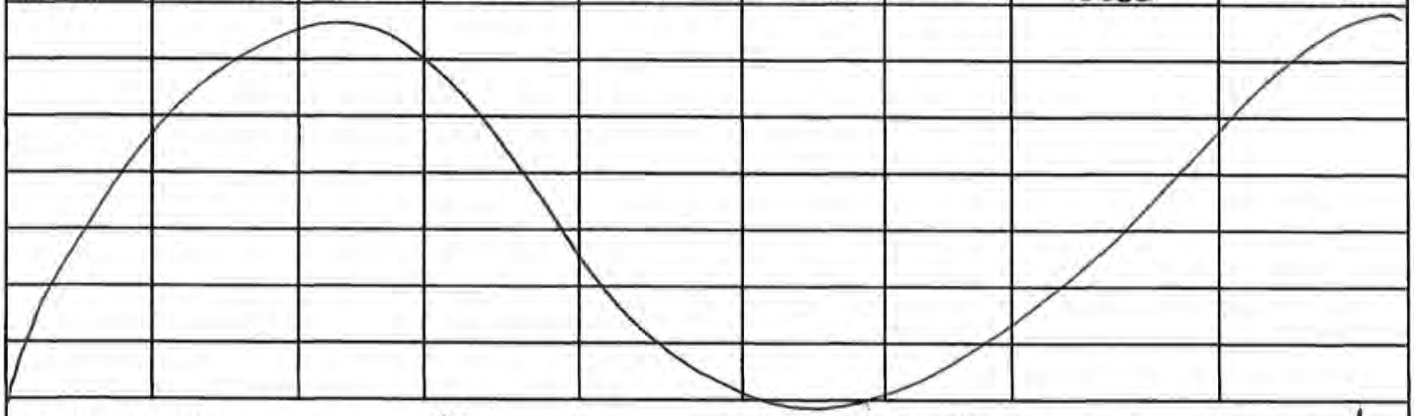
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250523-SM1	Client: ERRG
Sampler: Sandy M.	Gauging Date: 05/23/25
Well I.D.: MW-19	Well Diameter (in.): (2) 3 4 6 8 ____
Total Well Depth (ft.): 20.04	Depth to Water (ft.): 14.02
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: 1257 Flow Rate: 200ml/min Pump Depth: 17'

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.)	P.I.D
1300	17.64	6.73	163	25	0.93	60.5	600	14.09	0.0
1303	18.37	6.45	154	22	0.56	69.6	1200	14.12	0.0
1306	18.39	6.39	149	20	0.59	71.7	1800	14.15	0.0
1309	18.42	6.37	147	20	0.59	72.8	2400	14.18	0.0
1312	18.49	6.35	145	19	0.58	73.7	3000	14.20	0.0



Did well dewater? Yes (No)	Amount actually evacuated: 3000ml.
Sampling Time: 1315	Sampling Date: 05/23/25
Sample I.D.: MW-19	Laboratory: Pace.
Analyzed for: TPH-G BTEX MTBE TPH-D	Other: See COC.
Equipment Blank I.D.: @ Time	Duplicate I.D.: —

LOW FLOW WELL MONITORING DATA SHEET

Project #: 250523-SM1	Client: ERRG
Sampler: LB	Gauging Date: 5/23/25
Well I.D.: MW-20	Well Diameter (in.): 2 3 (4) 6 8 ___
Total Well Depth (ft.): 19.42	Depth to Water (ft.): 15.93
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: 1031 Flow Rate: 200mL/MIN Pump Depth: 18'

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.)
1034	15.09	7.66	1265	>1000	0.17	-36.7	600	16.04
1037	14.98	7.66	1319	>1000	0.12	-45.0	1200	16.08
1040	14.93	7.66	1337	386	0.10	-52.0	1800	16.08
1043	14.97	7.68	1336	351	0.10	-52.6	2400	16.10
1046	15.03	7.67	1338	351	0.10	-52.5	3000	16.10
1049	15.04	7.67	1337	350	0.09	-51.8	3600	16.10

Did well dewater? Yes (No) Amount actually evacuated: 3600 mL

Sampling Time: 1050 Sampling Date: 5/23/25

Sample I.D.: MW-20 Laboratory: PACE

Analyzed for: TPH-G BTEX MTBE TPH-D Other: SEE COC

Equipment Blank I.D.: @ Time Duplicate I.D.:

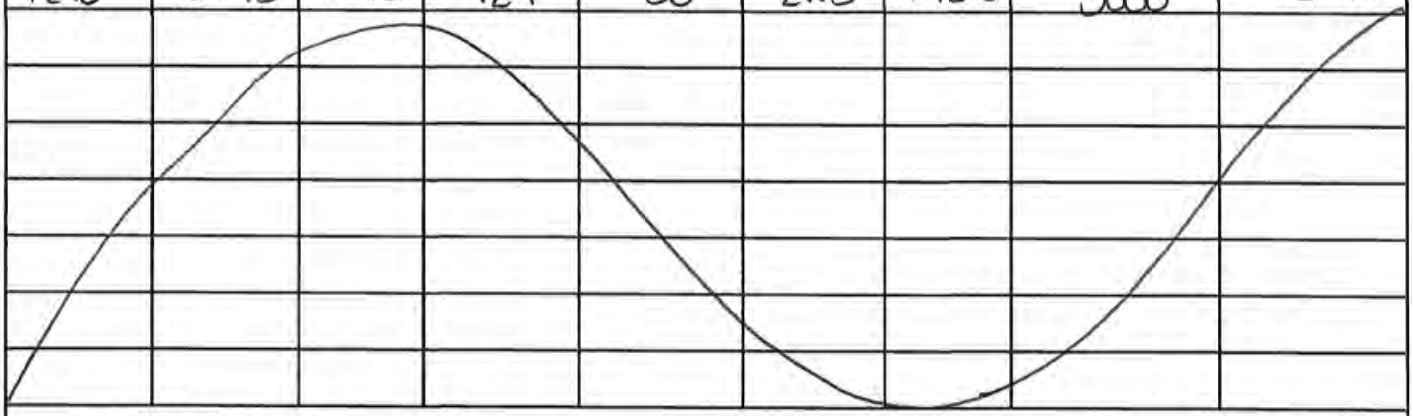
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250323-SM1	Client: ERG
Sampler: Sandy M	Gauging Date: 05/23/25.
Well I.D.: MW-21 (odor).	Well Diameter (in.): 2 3 (4) 6 8 ___
Total Well Depth (ft.): 18.74	Depth to Water (ft.): 14.91
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: 1225 Flow Rate: 200ml/min. Pump Depth: 17'

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.)	P.I.D
1228	15.48	6.39	931	33	2.26	170.5	600	14.99	0.0
1231	15.52	6.40	928	29	2.18	158.4	1200	~~15~~ 15.02	0.0
1234	15.50	6.41	928	29	2.15	150.8	1800	15.05	0.0
1237	15.46	6.42	927	29	2.14	144.5	2400	15.08	0.0
1240	15.43	6.42	927	30	2.15	142.0	3000	15.10	0.0



Did well dewater? Yes (No) Amount actually evacuated: 3000ml.

Sampling Time: 1243 Sampling Date: 05/23/25

Sample I.D.: MW-21 Laboratory: Pace.

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

Equipment Blank I.D.: @ Time Duplicate I.D.: —

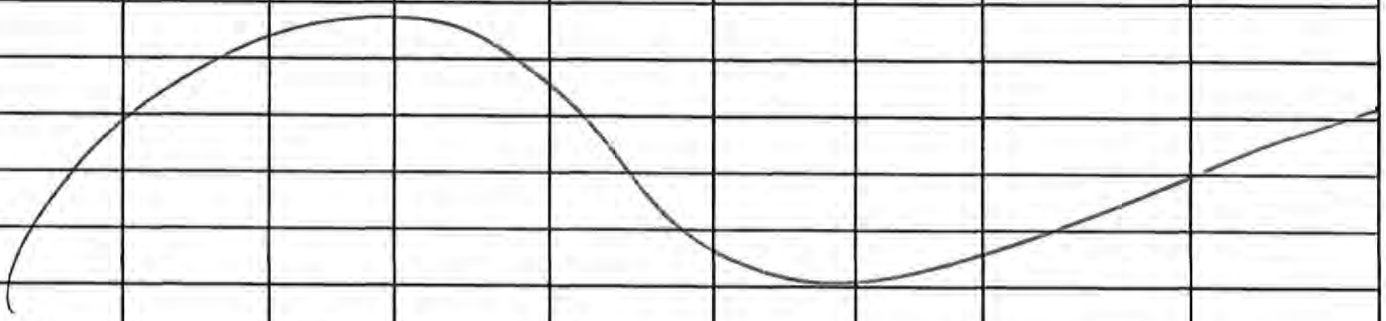
LOW FLOW WELL MONITORING DATA SHEET

Project #: 250E23-LB1	Client: ERRG
Sampler: LB	Gauging Date: 5/23/25
Well I.D.: RW1-1	Well Diameter (in.): 2 3 (4) 6 8 ___
Total Well Depth (ft.): 20.03	Depth to Water (ft.): 14.55
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: 1157 Flow Rate: 200 mL/MIN Pump Depth: 18'

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.)
1200	15.21	6.87	343	237	0.77	52.1	600	14.61
1203	15.33	6.83	337	74	0.75	45.0	1200	14.61
1206	15.27	6.81	337	44	0.74	36.4	1800	14.61
1209	15.31	6.81	336	43	0.74	34.8	2400	14.61
1212	15.30	6.80	336	41	0.73	32.6	3000	14.61



Did well dewater? Yes (No) Amount actually evacuated: 3000 mL

Sampling Time: 1215 Sampling Date: 5/23/25

Sample I.D.: RW1-1 Laboratory: PACE

Analyzed for: TPH-G BTEX MTBE TPH-D Other: SEE COC

Equipment Blank I.D.: @ Time Duplicate I.D.: —

WELLHEAD INSPECTION FORM

Client: ERRG Site: 2350 24th Ave E., Seattle, WA Date: 05/23/25

Job #: 250523-SM1. Technician: SM / LB. Page 1 of 2

Well ID	Well Inspected - No Corrective Action Required	Check indicates deficiency: 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)	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)
MW-2	✓														
MW-4	✓														
MW-6	✓														
MW-7	✓														
MW-8	✓														
MW-9	✓														
MW-10	✓														obstructed well at 9.26'
MW-11	✓														
MW-13	✓														
MW-14	✓														
MW-15	✓														
MW-16	✓														
MW-17	✓														
MW-18	✓														
MW-19	✓														
MW-20	✓														
MW-21	✓														

NOTES:

WELLHEAD INSPECTION FORM

Client: ERRG Site: 2350 24th Ave. E., Seattle, WA. Date: 05/23/25

Job #: 250523-SM1 Technician: SM / LB. Page 2 of 2

Well ID	Well Inspected - No Corrective Action Required	Check indicates deficiency: 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)	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)
RW-1	✓														
RW-2	✓														
RW-3	✓														
RW-4	✓														
RW-5	✓														
RW-6	✓														
RW-7	✓														
RW-8	✓														
RW-9	✓														
RW-10	✓														

NOTES:

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 250523-SM1				PROJECT NUMBER 2350 24th Ave. E., Seattle, WA			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
Hanna	07460003101	05/23/25 @ 0630	pH 4 7 10	4.04 6.95 9.96	✓	~~18.7~~	SM
			cond .3900 ORP 237.5 DO . 100	3892 236.8 99.8	✓	18.7	SM
HANNA	08020058101	5/23/25 @0645	PH 4.0 7.0 10.0	3.98 7.02 10.03	✓	18.3	LB
			COND 3900	3903	✓	18.4	LB
			ORP 237.5	236.8 ✓	✓	18.4	LB
			DO 100%	100.3%	✓	—	LB

Appendix B.
Laboratory Reports During Reporting Period

ANALYTICAL REPORT

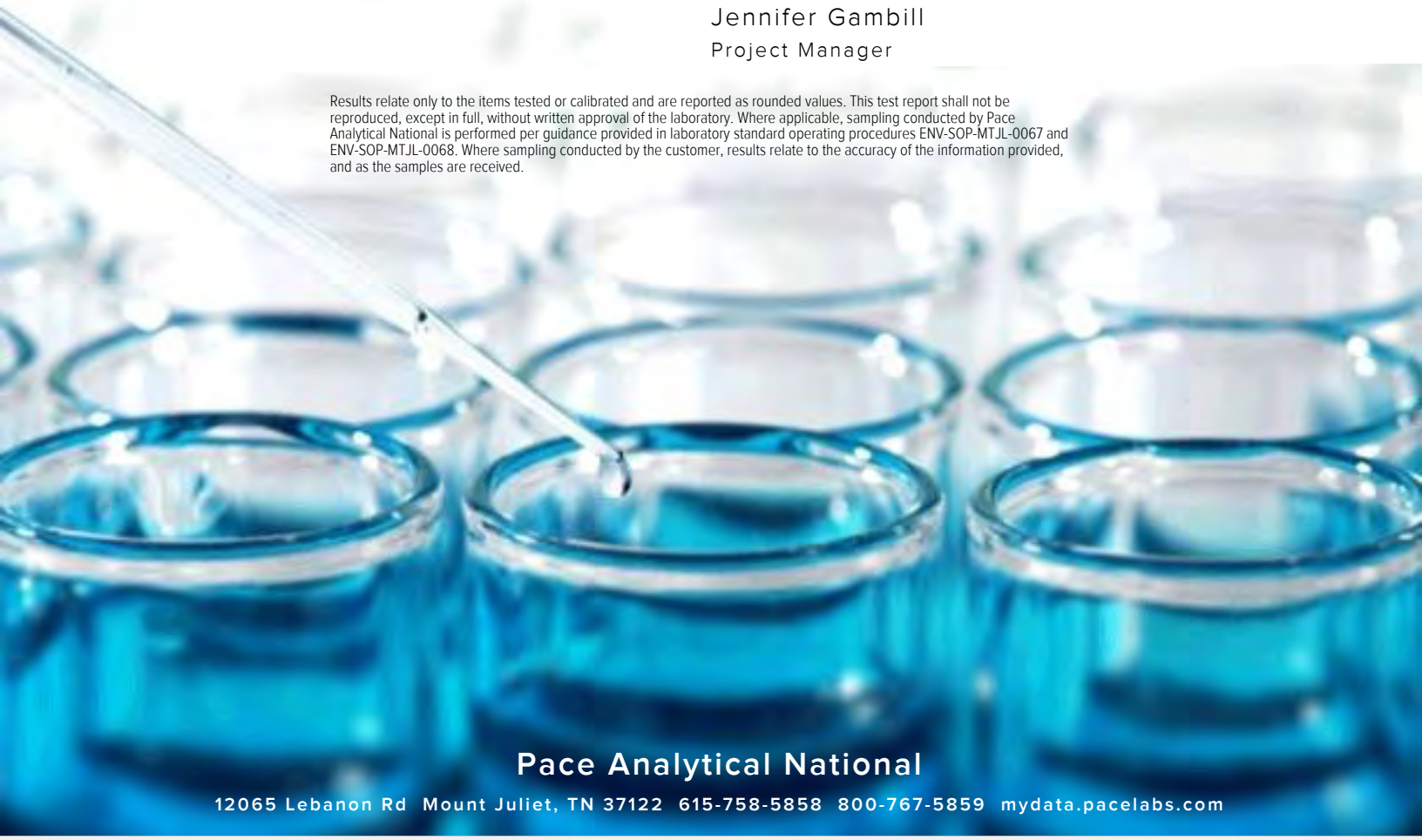
May 05, 2025

Engineering/Remediation Resources Group

Sample Delivery Group:	L1852466
Samples Received:	04/26/2025
Project Number:	20230065
Description:	Former Circle K
Site:	1461
Report To:	Jennifer Sonnichsen 15333 NE 90th Street Ste 100 Redmond, WA 98052

Entire Report Reviewed By:

Jennifer Gambill
Project Manager



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

TABLE OF CONTENTS

RW-1 L1852466-01 GW

Collected by: Blaine Tech | Collected date/time: 04/25/25 09:13 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502383	1	04/29/25 14:10	04/29/25 14:10	AEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	10	04/30/25 11:03	04/30/25 11:03	ACG	Mt. Juliet, TN

MW-14 L1852466-02 GW

Collected by: Blaine Tech | Collected date/time: 04/25/25 09:21 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502383	1	04/29/25 14:31	04/29/25 14:31	AEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	1	04/30/25 07:29	04/30/25 07:29	ACG	Mt. Juliet, TN

MW-9 L1852466-03 GW

Collected by: Blaine Tech | Collected date/time: 04/25/25 09:45 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2503086	5	04/30/25 20:33	04/30/25 20:33	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	20	04/30/25 11:27	04/30/25 11:27	ACG	Mt. Juliet, TN

MW-16 L1852466-04 GW

Collected by: Blaine Tech | Collected date/time: 04/25/25 09:54 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2503086	1	04/30/25 19:29	04/30/25 19:29	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	1	04/30/25 07:52	04/30/25 07:52	ACG	Mt. Juliet, TN

MW-8 L1852466-05 GW

Collected by: Blaine Tech | Collected date/time: 04/25/25 10:13 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502383	5	04/29/25 17:01	04/29/25 17:01	AEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	50	04/30/25 11:51	04/30/25 11:51	ACG	Mt. Juliet, TN

MW-15 L1852466-06 GW

Collected by: Blaine Tech | Collected date/time: 04/25/25 10:19 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2503086	1	04/30/25 19:50	04/30/25 19:50	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	1	04/30/25 08:16	04/30/25 08:16	ACG	Mt. Juliet, TN

MW-6 L1852466-07 GW

Collected by: Blaine Tech | Collected date/time: 04/25/25 10:42 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502383	1	04/29/25 15:57	04/29/25 15:57	AEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	1	04/30/25 08:40	04/30/25 08:40	ACG	Mt. Juliet, TN

MW-19 L1852466-08 GW

Collected by: Blaine Tech | Collected date/time: 04/25/25 10:47 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502383	10	04/29/25 17:22	04/29/25 17:22	AEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	100	04/30/25 12:15	04/30/25 12:15	ACG	Mt. Juliet, TN

MW-21 L1852466-09 GW

Collected by: Blaine Tech | Collected date/time: 04/25/25 11:11 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502383	10	04/29/25 17:44	04/29/25 17:44	AEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	500	04/30/25 12:39	04/30/25 12:39	ACG	Mt. Juliet, TN

MW-17 L1852466-10 GW

Collected by: Blaine Tech | Collected date/time: 04/25/25 11:23 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502383	1	04/29/25 16:18	04/29/25 16:18	AEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	25	04/30/25 13:03	04/30/25 13:03	ACG	Mt. Juliet, TN

MW-18 L1852466-11 GW

Collected by: Blaine Tech | Collected date/time: 04/25/25 11:40 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502383	1	04/29/25 16:40	04/29/25 16:40	AEB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	1	04/30/25 09:03	04/30/25 09:03	ACG	Mt. Juliet, TN

MW-13 L1852466-12 GW

Collected by: Blaine Tech | Collected date/time: 04/25/25 11:45 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502873	10	04/30/25 01:11	04/30/25 01:11	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	50	04/30/25 13:27	04/30/25 13:27	ACG	Mt. Juliet, TN

MW-20 L1852466-13 GW

Collected by: Blaine Tech | Collected date/time: 04/25/25 11:57 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502873	10	04/30/25 01:33	04/30/25 01:33	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	250	04/30/25 13:51	04/30/25 13:51	ACG	Mt. Juliet, TN

DUP-1 L1852466-14 GW

Collected by: Blaine Tech | Collected date/time: 04/25/25 12:00 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502873	1	04/29/25 21:16	04/29/25 21:16	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503919	1	05/01/25 12:48	05/01/25 12:48	JHH	Mt. Juliet, TN

TB-1 L1852466-15 GW

Collected by: Blaine Tech
Collected date/time: 04/25/25 12:01
Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502459	1	04/29/25 12:38	04/29/25 12:38	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	1	04/30/25 06:41	04/30/25 06:41	ACG	Mt. Juliet, TN

TB-2 L1852466-16 GW

Collected by: Blaine Tech
Collected date/time: 04/25/25 12:02
Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502459	1	04/29/25 12:58	04/29/25 12:58	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	1	04/30/25 07:05	04/30/25 07:05	ACG	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 (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	122	B	100	1	04/29/2025 14:10	WG2502383
(S) a,a,a-Trifluorotoluene(FID)	*97.5*		*78.0-120*		*04/29/2025 14:10*	WG2502383

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		10.0	10	04/30/2025 11:03	WG2503012
Ethylbenzene	ND		10.0	10	04/30/2025 11:03	WG2503012
Toluene	ND		10.0	10	04/30/2025 11:03	WG2503012
Xylenes, Total	ND		30.0	10	04/30/2025 11:03	WG2503012
Trichloroethene	16.5		10.0	10	04/30/2025 11:03	WG2503012
cis-1,2-Dichloroethene	ND		10.0	10	04/30/2025 11:03	WG2503012
trans-1,2-Dichloroethene	ND		10.0	10	04/30/2025 11:03	WG2503012
Tetrachloroethene	409		10.0	10	04/30/2025 11:03	WG2503012
Vinyl chloride	ND		10.0	10	04/30/2025 11:03	WG2503012
(S) Toluene-d8	*103*		*80.0-120*		*04/30/2025 11:03*	WG2503012
(S) 4-Bromofluorobenzene	*98.7*		*77.0-126*		*04/30/2025 11:03*	WG2503012
(S) 1,2-Dichloroethane-d4	*97.3*		*70.0-130*		*04/30/2025 11:03*	WG2503012

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	04/29/2025 14:31	WG2502383
(S) a,a,a-Trifluorotoluene(FID)	*96.8*		*78.0-120*		*04/29/2025 14:31*	WG2502383

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/30/2025 07:29	WG2503012
Ethylbenzene	ND		1.00	1	04/30/2025 07:29	WG2503012
Toluene	5.02		1.00	1	04/30/2025 07:29	WG2503012
Xylenes, Total	ND		3.00	1	04/30/2025 07:29	WG2503012
Trichloroethene	ND		1.00	1	04/30/2025 07:29	WG2503012
cis-1,2-Dichloroethene	ND		1.00	1	04/30/2025 07:29	WG2503012
trans-1,2-Dichloroethene	ND		1.00	1	04/30/2025 07:29	WG2503012
Tetrachloroethene	ND		1.00	1	04/30/2025 07:29	WG2503012
Vinyl chloride	ND		1.00	1	04/30/2025 07:29	WG2503012
(S) Toluene-d8	*104*		*80.0-120*		*04/30/2025 07:29*	WG2503012
(S) 4-Bromofluorobenzene	*99.3*		*77.0-126*		*04/30/2025 07:29*	WG2503012
(S) 1,2-Dichloroethane-d4	*95.9*		*70.0-130*		*04/30/2025 07:29*	WG2503012

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	8030		500	5	04/30/2025 20:33	WG2503086
(S) a,a,a-Trifluorotoluene(FID)	*98.6*		*78.0-120*		*04/30/2025 20:33*	WG2503086

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		20.0	20	04/30/2025 11:27	WG2503012
Ethylbenzene	530		20.0	20	04/30/2025 11:27	WG2503012
Toluene	44.1		20.0	20	04/30/2025 11:27	WG2503012
Xylenes, Total	1110		60.0	20	04/30/2025 11:27	WG2503012
Trichloroethene	ND		20.0	20	04/30/2025 11:27	WG2503012
cis-1,2-Dichloroethene	ND		20.0	20	04/30/2025 11:27	WG2503012
trans-1,2-Dichloroethene	ND		20.0	20	04/30/2025 11:27	WG2503012
Tetrachloroethene	ND		20.0	20	04/30/2025 11:27	WG2503012
Vinyl chloride	ND		20.0	20	04/30/2025 11:27	WG2503012
(S) Toluene-d8	*99.4*		*80.0-120*		*04/30/2025 11:27*	WG2503012
(S) 4-Bromofluorobenzene	*100*		*77.0-126*		*04/30/2025 11:27*	WG2503012
(S) 1,2-Dichloroethane-d4	*91.1*		*70.0-130*		*04/30/2025 11:27*	WG2503012

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	04/30/2025 19:29	WG2503086
(S) a,a,a-Trifluorotoluene(FID)	*97.2*		*78.0-120*		*04/30/2025 19:29*	WG2503086

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/30/2025 07:52	WG2503012
Ethylbenzene	ND		1.00	1	04/30/2025 07:52	WG2503012
Toluene	ND		1.00	1	04/30/2025 07:52	WG2503012
Xylenes, Total	ND		3.00	1	04/30/2025 07:52	WG2503012
Trichloroethene	ND		1.00	1	04/30/2025 07:52	WG2503012
cis-1,2-Dichloroethene	ND		1.00	1	04/30/2025 07:52	WG2503012
trans-1,2-Dichloroethene	ND		1.00	1	04/30/2025 07:52	WG2503012
Tetrachloroethene	ND		1.00	1	04/30/2025 07:52	WG2503012
Vinyl chloride	ND		1.00	1	04/30/2025 07:52	WG2503012
(S) Toluene-d8	*103*		*80.0-120*		*04/30/2025 07:52*	WG2503012
(S) 4-Bromofluorobenzene	*99.1*		*77.0-126*		*04/30/2025 07:52*	WG2503012
(S) 1,2-Dichloroethane-d4	*97.4*		*70.0-130*		*04/30/2025 07:52*	WG2503012

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	19900		500	5	04/29/2025 17:01	WG2502383
(S) a,a,a-Trifluorotoluene(FID)	*95.7*		*78.0-120*		*04/29/2025 17:01*	WG2502383

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		50.0	50	04/30/2025 11:51	WG2503012
Ethylbenzene	1390		50.0	50	04/30/2025 11:51	WG2503012
Toluene	210		50.0	50	04/30/2025 11:51	WG2503012
Xylenes, Total	4880		150	50	04/30/2025 11:51	WG2503012
Trichloroethene	ND		50.0	50	04/30/2025 11:51	WG2503012
cis-1,2-Dichloroethene	ND		50.0	50	04/30/2025 11:51	WG2503012
trans-1,2-Dichloroethene	ND		50.0	50	04/30/2025 11:51	WG2503012
Tetrachloroethene	ND		50.0	50	04/30/2025 11:51	WG2503012
Vinyl chloride	ND		50.0	50	04/30/2025 11:51	WG2503012
(S) Toluene-d8	*101*		*80.0-120*		*04/30/2025 11:51*	WG2503012
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*04/30/2025 11:51*	WG2503012
(S) 1,2-Dichloroethane-d4	*91.2*		*70.0-130*		*04/30/2025 11:51*	WG2503012

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	04/30/2025 19:50	WG2503086
(S) a,a,a-Trifluorotoluene(FID)	*95.6*		*78.0-120*		*04/30/2025 19:50*	WG2503086

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/30/2025 08:16	WG2503012
Ethylbenzene	ND		1.00	1	04/30/2025 08:16	WG2503012
Toluene	ND		1.00	1	04/30/2025 08:16	WG2503012
Xylenes, Total	ND		3.00	1	04/30/2025 08:16	WG2503012
Trichloroethene	ND		1.00	1	04/30/2025 08:16	WG2503012
cis-1,2-Dichloroethene	ND		1.00	1	04/30/2025 08:16	WG2503012
trans-1,2-Dichloroethene	ND		1.00	1	04/30/2025 08:16	WG2503012
Tetrachloroethene	ND		1.00	1	04/30/2025 08:16	WG2503012
Vinyl chloride	ND		1.00	1	04/30/2025 08:16	WG2503012
(S) Toluene-d8	*105*		*80.0-120*		*04/30/2025 08:16*	WG2503012
(S) 4-Bromofluorobenzene	*98.8*		*77.0-126*		*04/30/2025 08:16*	WG2503012
(S) 1,2-Dichloroethane-d4	*98.2*		*70.0-130*		*04/30/2025 08:16*	WG2503012

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	04/29/2025 15:57	WG2502383
(S) a,a,a-Trifluorotoluene(FID)	*95.8*		*78.0-120*		*04/29/2025 15:57*	WG2502383

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	2.28		1.00	1	04/30/2025 08:40	WG2503012
Ethylbenzene	ND		1.00	1	04/30/2025 08:40	WG2503012
Toluene	ND		1.00	1	04/30/2025 08:40	WG2503012
Xylenes, Total	ND		3.00	1	04/30/2025 08:40	WG2503012
Trichloroethene	ND		1.00	1	04/30/2025 08:40	WG2503012
cis-1,2-Dichloroethene	1.11		1.00	1	04/30/2025 08:40	WG2503012
trans-1,2-Dichloroethene	ND		1.00	1	04/30/2025 08:40	WG2503012
Tetrachloroethene	ND		1.00	1	04/30/2025 08:40	WG2503012
Vinyl chloride	2.47		1.00	1	04/30/2025 08:40	WG2503012
(S) Toluene-d8	*105*		*80.0-120*		*04/30/2025 08:40*	WG2503012
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*04/30/2025 08:40*	WG2503012
(S) 1,2-Dichloroethane-d4	*97.1*		*70.0-130*		*04/30/2025 08:40*	WG2503012

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	38600		1000	10	04/29/2025 17:22	WG2502383
(S) a,a,a-Trifluorotoluene(FID)	*92.8*		*78.0-120*		*04/29/2025 17:22*	WG2502383

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	5670		100	100	04/30/2025 12:15	WG2503012
Ethylbenzene	1080		100	100	04/30/2025 12:15	WG2503012
Toluene	8970		100	100	04/30/2025 12:15	WG2503012
Xylenes, Total	5780		300	100	04/30/2025 12:15	WG2503012
Trichloroethene	168		100	100	04/30/2025 12:15	WG2503012
cis-1,2-Dichloroethene	ND		100	100	04/30/2025 12:15	WG2503012
trans-1,2-Dichloroethene	ND		100	100	04/30/2025 12:15	WG2503012
Tetrachloroethene	590		100	100	04/30/2025 12:15	WG2503012
Vinyl chloride	ND		100	100	04/30/2025 12:15	WG2503012
(S) Toluene-d8	*104*		*80.0-120*		*04/30/2025 12:15*	WG2503012
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*04/30/2025 12:15*	WG2503012
(S) 1,2-Dichloroethane-d4	*92.1*		*70.0-130*		*04/30/2025 12:15*	WG2503012

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	47000		1000	10	04/29/2025 17:44	WG2502383
(S) a,a,a-Trifluorotoluene(FID)	*88.7*		*78.0-120*		*04/29/2025 17:44*	WG2502383

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	10800		500	500	04/30/2025 12:39	WG2503012
Ethylbenzene	1450		500	500	04/30/2025 12:39	WG2503012
Toluene	9830		500	500	04/30/2025 12:39	WG2503012
Xylenes, Total	8030		1500	500	04/30/2025 12:39	WG2503012
Trichloroethene	ND		500	500	04/30/2025 12:39	WG2503012
cis-1,2-Dichloroethene	ND		500	500	04/30/2025 12:39	WG2503012
trans-1,2-Dichloroethene	ND		500	500	04/30/2025 12:39	WG2503012
Tetrachloroethene	ND		500	500	04/30/2025 12:39	WG2503012
Vinyl chloride	ND		500	500	04/30/2025 12:39	WG2503012
(S) Toluene-d8	*104*		*80.0-120*		*04/30/2025 12:39*	WG2503012
(S) 4-Bromofluorobenzene	*104*		*77.0-126*		*04/30/2025 12:39*	WG2503012
(S) 1,2-Dichloroethane-d4	*95.6*		*70.0-130*		*04/30/2025 12:39*	WG2503012

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	392	B	100	1	04/29/2025 16:18	WG2502383
(S) a,a,a-Trifluorotoluene(FID)	*96.9*		*78.0-120*		*04/29/2025 16:18*	WG2502383

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		25.0	25	04/30/2025 13:03	WG2503012
Ethylbenzene	ND		25.0	25	04/30/2025 13:03	WG2503012
Toluene	ND		25.0	25	04/30/2025 13:03	WG2503012
Xylenes, Total	ND		75.0	25	04/30/2025 13:03	WG2503012
Trichloroethene	57.3		25.0	25	04/30/2025 13:03	WG2503012
cis-1,2-Dichloroethene	ND		25.0	25	04/30/2025 13:03	WG2503012
trans-1,2-Dichloroethene	ND		25.0	25	04/30/2025 13:03	WG2503012
Tetrachloroethene	1570		25.0	25	04/30/2025 13:03	WG2503012
Vinyl chloride	ND		25.0	25	04/30/2025 13:03	WG2503012
(S) Toluene-d8	*103*		*80.0-120*		*04/30/2025 13:03*	WG2503012
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*04/30/2025 13:03*	WG2503012
(S) 1,2-Dichloroethane-d4	*95.4*		*70.0-130*		*04/30/2025 13:03*	WG2503012

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	04/29/2025 16:40	WG2502383
(S) a,a,a-Trifluorotoluene(FID)	*97.2*		*78.0-120*		*04/29/2025 16:40*	WG2502383

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/30/2025 09:03	WG2503012
Ethylbenzene	ND		1.00	1	04/30/2025 09:03	WG2503012
Toluene	ND		1.00	1	04/30/2025 09:03	WG2503012
Xylenes, Total	ND		3.00	1	04/30/2025 09:03	WG2503012
Trichloroethene	4.33		1.00	1	04/30/2025 09:03	WG2503012
cis-1,2-Dichloroethene	2.21		1.00	1	04/30/2025 09:03	WG2503012
trans-1,2-Dichloroethene	ND		1.00	1	04/30/2025 09:03	WG2503012
Tetrachloroethene	164		1.00	1	04/30/2025 09:03	WG2503012
Vinyl chloride	ND		1.00	1	04/30/2025 09:03	WG2503012
(S) Toluene-d8	*102*		*80.0-120*		*04/30/2025 09:03*	WG2503012
(S) 4-Bromofluorobenzene	*96.1*		*77.0-126*		*04/30/2025 09:03*	WG2503012
(S) 1,2-Dichloroethane-d4	*98.1*		*70.0-130*		*04/30/2025 09:03*	WG2503012

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 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	8000		1000	10	04/30/2025 01:11	WG2502873
(S) a,a,a-Trifluorotoluene(FID)	*91.1*		*78.0-120*		*04/30/2025 01:11*	WG2502873

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	211		50.0	50	04/30/2025 13:27	WG2503012
Ethylbenzene	252		50.0	50	04/30/2025 13:27	WG2503012
Toluene	1160		50.0	50	04/30/2025 13:27	WG2503012
Xylenes, Total	3690		150	50	04/30/2025 13:27	WG2503012
Trichloroethene	ND		50.0	50	04/30/2025 13:27	WG2503012
cis-1,2-Dichloroethene	ND		50.0	50	04/30/2025 13:27	WG2503012
trans-1,2-Dichloroethene	ND		50.0	50	04/30/2025 13:27	WG2503012
Tetrachloroethene	ND		50.0	50	04/30/2025 13:27	WG2503012
Vinyl chloride	ND		50.0	50	04/30/2025 13:27	WG2503012
(S) Toluene-d8	*102*		*80.0-120*		*04/30/2025 13:27*	WG2503012
(S) 4-Bromofluorobenzene	*103*		*77.0-126*		*04/30/2025 13:27*	WG2503012
(S) 1,2-Dichloroethane-d4	*90.9*		*70.0-130*		*04/30/2025 13:27*	WG2503012

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	12600		1000	10	04/30/2025 01:33	WG2502873
(S) a,a,a-Trifluorotoluene(FID)	*91.8*		*78.0-120*		*04/30/2025 01:33*	WG2502873

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	2240		250	250	04/30/2025 13:51	WG2503012
Ethylbenzene	859		250	250	04/30/2025 13:51	WG2503012
Toluene	828		250	250	04/30/2025 13:51	WG2503012
Xylenes, Total	4360		750	250	04/30/2025 13:51	WG2503012
Trichloroethene	ND		250	250	04/30/2025 13:51	WG2503012
cis-1,2-Dichloroethene	ND		250	250	04/30/2025 13:51	WG2503012
trans-1,2-Dichloroethene	ND		250	250	04/30/2025 13:51	WG2503012
Tetrachloroethene	ND		250	250	04/30/2025 13:51	WG2503012
Vinyl chloride	ND		250	250	04/30/2025 13:51	WG2503012
(S) Toluene-d8	*102*		*80.0-120*		*04/30/2025 13:51*	WG2503012
(S) 4-Bromofluorobenzene	*103*		*77.0-126*		*04/30/2025 13:51*	WG2503012
(S) 1,2-Dichloroethane-d4	*94.8*		*70.0-130*		*04/30/2025 13:51*	WG2503012

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	04/29/2025 21:16	WG2502873
(S) a,a,a-Trifluorotoluene(FID)	*92.0*		*78.0-120*		*04/29/2025 21:16*	WG2502873

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	5.91		1.00	1	05/01/2025 12:48	WG2503919
Ethylbenzene	ND		1.00	1	05/01/2025 12:48	WG2503919
Toluene	ND		1.00	1	05/01/2025 12:48	WG2503919
Xylenes, Total	ND		3.00	1	05/01/2025 12:48	WG2503919
Trichloroethene	1.23		1.00	1	05/01/2025 12:48	WG2503919
cis-1,2-Dichloroethene	2.41		1.00	1	05/01/2025 12:48	WG2503919
trans-1,2-Dichloroethene	ND		1.00	1	05/01/2025 12:48	WG2503919
Tetrachloroethene	ND		1.00	1	05/01/2025 12:48	WG2503919
Vinyl chloride	4.29		1.00	1	05/01/2025 12:48	WG2503919
(S) Toluene-d8	*108*		*80.0-120*		*05/01/2025 12:48*	WG2503919
(S) 4-Bromofluorobenzene	*89.0*		*77.0-126*		*05/01/2025 12:48*	WG2503919
(S) 1,2-Dichloroethane-d4	*105*		*70.0-130*		*05/01/2025 12:48*	WG2503919

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	04/29/2025 12:38	WG2502459
(S) a,a,a-Trifluorotoluene(FID)	*102*		*78.0-120*		*04/29/2025 12:38*	WG2502459

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/30/2025 06:41	WG2503012
Ethylbenzene	ND		1.00	1	04/30/2025 06:41	WG2503012
Toluene	ND		1.00	1	04/30/2025 06:41	WG2503012
Xylenes, Total	ND		3.00	1	04/30/2025 06:41	WG2503012
Trichloroethene	ND		1.00	1	04/30/2025 06:41	WG2503012
cis-1,2-Dichloroethene	ND		1.00	1	04/30/2025 06:41	WG2503012
trans-1,2-Dichloroethene	ND		1.00	1	04/30/2025 06:41	WG2503012
Tetrachloroethene	ND		1.00	1	04/30/2025 06:41	WG2503012
Vinyl chloride	ND		1.00	1	04/30/2025 06:41	WG2503012
(S) Toluene-d8	*106*		*80.0-120*		*04/30/2025 06:41*	WG2503012
(S) 4-Bromofluorobenzene	*100*		*77.0-126*		*04/30/2025 06:41*	WG2503012
(S) 1,2-Dichloroethane-d4	*96.1*		*70.0-130*		*04/30/2025 06:41*	WG2503012

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	04/29/2025 12:58	WG2502459
(S) a,a,a-Trifluorotoluene(FID)	*103*		*78.0-120*		*04/29/2025 12:58*	WG2502459

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/30/2025 07:05	WG2503012
Ethylbenzene	ND		1.00	1	04/30/2025 07:05	WG2503012
Toluene	ND		1.00	1	04/30/2025 07:05	WG2503012
Xylenes, Total	ND		3.00	1	04/30/2025 07:05	WG2503012
Trichloroethene	ND		1.00	1	04/30/2025 07:05	WG2503012
cis-1,2-Dichloroethene	ND		1.00	1	04/30/2025 07:05	WG2503012
trans-1,2-Dichloroethene	ND		1.00	1	04/30/2025 07:05	WG2503012
Tetrachloroethene	ND		1.00	1	04/30/2025 07:05	WG2503012
Vinyl chloride	ND		1.00	1	04/30/2025 07:05	WG2503012
(S) Toluene-d8	*104*		*80.0-120*		*04/30/2025 07:05*	WG2503012
(S) 4-Bromofluorobenzene	*99.0*		*77.0-126*		*04/30/2025 07:05*	WG2503012
(S) 1,2-Dichloroethane-d4	*99.0*		*70.0-130*		*04/30/2025 07:05*	WG2503012

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

Method Blank (MB)

(MB) R4207271-3 04/29/25 10:08

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	52.4	J	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*97.1*			*78.0-120*

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

(LCS) R4207271-1 04/29/25 09:04 • (LCSD) R4207271-2 04/29/25 09:26

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	4420	4410	88.4	88.2	70.0-124			0.227	20
(S) a,a,a-Trifluorotoluene(FID)				*103*	*105*	*78.0-120*				

Method Blank (MB)

(MB) R4207173-3 04/29/25 10:08

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*103*			*78.0-120*

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

(LCS) R4207173-1 04/29/25 09:08 • (LCSD) R4207173-2 04/29/25 09:28

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	5390	5430	108	109	70.0-124			0.739	20
(S) a,a,a-Trifluorotoluene(FID)				*107*	*107*	*78.0-120*				

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

Method Blank (MB)

(MB) R4207592-2 04/29/25 16:28

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*93.5*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R4207592-1 04/29/25 15:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5000	4480	89.6	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*99.7*	*78.0-120*	

Method Blank (MB)

(MB) R4208963-2 04/30/25 13:12

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	59.9	J	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*96.7*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R4208963-1 04/30/25 12:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5000	4680	93.6	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*99.4*	*78.0-120*	

Method Blank (MB)

(MB) R4207781-3 04/30/25 06:18

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
Ethylbenzene	U		0.137	1.00
Toluene	U		0.278	1.00
Xylenes, Total	U		0.174	3.00
Trichloroethene	U		0.190	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
Tetrachloroethene	U		0.300	1.00
Vinyl chloride	U		0.234	1.00
(S) Toluene-d8	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*99.7*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*97.9*			*70.0-130*

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

(LCS) R4207781-1 04/30/25 05:07 • (LCSD) R4207781-2 04/30/25 05:30

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	5.00	5.12	5.41	102	108	70.0-123			5.51	20
Ethylbenzene	5.00	4.80	5.01	96.0	100	79.0-123			4.28	20
Toluene	5.00	5.08	5.27	102	105	79.0-120			3.67	20
Xylenes, Total	15.0	14.4	15.3	96.0	102	79.0-123			6.06	20
Trichloroethene	5.00	5.39	5.83	108	117	78.0-124			7.84	20
cis-1,2-Dichloroethene	5.00	4.91	5.22	98.2	104	73.0-120			6.12	20
trans-1,2-Dichloroethene	5.00	5.31	5.68	106	114	73.0-120			6.73	20
Tetrachloroethene	5.00	5.60	5.85	112	117	72.0-132			4.37	20
Vinyl chloride	5.00	5.18	5.56	104	111	67.0-131			7.08	20
(S) Toluene-d8				*104*	*103*	*80.0-120*				
(S) 4-Bromofluorobenzene				*104*	*103*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*92.8*	*94.8*	*70.0-130*				

Method Blank (MB)

(MB) R4208846-3 05/01/25 12:09

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Ethylbenzene	U		0.137	1.00
Toluene	U		0.278	1.00
Xylenes, Total	U		0.174	3.00
Trichloroethene	U		0.190	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
Tetrachloroethene	U		0.300	1.00
Vinyl chloride	U		0.234	1.00
(S) Toluene-d8	*111*			*80.0-120*
(S) 4-Bromofluorobenzene	*90.4*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*97.0*			*70.0-130*

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

(LCS) R4208846-1 05/01/25 11:11 • (LCSD) R4208846-2 05/01/25 11:30

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	5.00	4.81	4.86	96.2	97.2	70.0-123			1.03	20
Ethylbenzene	5.00	4.81	4.92	96.2	98.4	79.0-123			2.26	20
Toluene	5.00	5.24	5.31	105	106	79.0-120			1.33	20
Xylenes, Total	15.0	14.6	14.7	97.3	98.0	79.0-123			0.683	20
Trichloroethene	5.00	4.59	4.83	91.8	96.6	78.0-124			5.10	20
cis-1,2-Dichloroethene	5.00	4.79	4.77	95.8	95.4	73.0-120			0.418	20
trans-1,2-Dichloroethene	5.00	5.59	5.31	112	106	73.0-120			5.14	20
Tetrachloroethene	5.00	4.97	5.19	99.4	104	72.0-132			4.33	20
Vinyl chloride	5.00	5.46	5.46	109	109	67.0-131			0.000	20
(S) Toluene-d8				*108*	*110*	*80.0-120*				
(S) 4-Bromofluorobenzene				*94.3*	*90.3*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*103*	*109*	*70.0-130*				

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.
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
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

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	LAO000356
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.

Company Name/Address:
Engineering/Remediation Resources Group

15333 NE 90th Street

Billing Information:
Jennifer Sonnichsen | Accounts Payable
15333 NE 90th Street
Ste 100
Redmond, WA 98052

Pres Chk

Report to:
Jennifer Sonnichsen 425-658-5026

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

Project Description:
FORMER CIRCLE K

City/State Collected: SEATTLE, WA

Please Circle: (PT) MT CT ET

Regulatory Program(DOD,RCRA,DW,etc):
ECOLOGY - EIM

Client Project #
20230065

Lab Project #
ENGREMRWA-CIRCLE K

Collected by (print):
BLAINE TECH

Site/Facility ID #
1461

P.O. #

Collected by (signature):
KL, DO, SM

Immediately Packed on Ice N ___ Y ✓

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

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHGX 40mlAmb HCl	NWTPHGX 40mlAmb-HCl-Blk	V8260 40mlAmb-HCl	V8260 40mlAmb-HCl-Blk							Remarks	Sample # (lab only)
RW-1	GRAB	GW	N/A	4/25/25	0913	6	X		X									-01
MW-14		GW			0921	6	X		X									-02
MW-9		GW			0945	6	X		X									-03
MW-16		GW			0954	6	X		X									-04
MW-8		GW			1013	6	X		X									-05
MW-15		GW			1019	6	X		X									-06
MW-6		GW			1042	6	X		X									-07
MW-19		GW			1047	6	X		X									-08
MW-21		GW			1111	6	X		X									-09
MW-17		GW			1123	6	X		X									-10

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

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/hubfs/pas-standard-terms.pdf

SDG # L1852466
Table # H014
Acctnum: ENGREMRWA
Template: T263464
Prelogin: P1144782
PM: 3500 - Jennifer Gambill
PB: 4/15/25 mv
Shipped Via: FedEx Ground

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

Remarks:V8260: BTEX+CVOCs custom list.
TCE, PCE, VC, cDCE, tDCE ONLY

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4939 2452 5367

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
(FI) KL, DO, SM Blaine Tech	4/25/25	1205	(FI) ERRG		
Relinquished by : (Signature) (FI) ERRG	4/25/25	1430	FEDEX	Temp: 2.0 °C 0.9+0.4=1.3	Bottles Received: 84
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/26/25	Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Company Name/Address:
Engineering/Remediation Resources Group

15333 NE 90th Street

Billing Information:
Jennifer Sonnichsen | Accounts Payable
15333 NE 90th Street
Ste 100
Redmond, WA 98052

Pres Chk

Report to:
Jennifer Sonnichsen 425-658-5026

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

Project Description: FORMER CIRCLE K

City/State Collected: SF

Please Circle: (PT) MT CT ET

Regulatory Program(DOD,RCRA,DW,etc): ECOLOGY-EIM

Client Project # 20230065

Lab Project # **ENGREMRWA-CIRCLE K**

Collected by (print): BLAINE TECH

Site/Facility ID # 1461

P.O. #

Collected by (signature): KC, DO, SM

Immediately Packed on Ice N ___ Y ✓

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

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHGX 40mlAmb HCl	NWTPHGX 40mlAmb-HCl-Blk	V8260 40mlAmb-HCl	V8260 40mlAmb-HCl-Blk
MW-18	GRAB	GW	N/A	4/25/25	1140	6	X		X	
MW-13	↓	GW	↓	↓	1145	6	X		X	
MW-20	↓	GW	↓	↓	1157	6	X		X	
DUP-1	↓	GW	↓	↓	1200	6	X		X	
		GW				6	X		X	(FI)
		GW				6	X		X	(FI)
TRIP BLANK TB-1	~	GW	N/A	4/25/25	1201	2		X		X
TRIP BLANK TB-2	~	GW	↓	↓	1202	2		X		X

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

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/hubfs/pas-standard-terms.pdf

SDG # L1852466

Table #

Acctnum: **ENGREMRWA**
Template:**T263464**
Prelogin: **P1144782**
PM: **3500 - Jennifer Gambill**
PB: 4/15/25 MV

Shipped Via: **FedEX Ground**

Remarks	Sample # (lab only)
	- 11
	- 12
	- 13
	- 14
	- 15
	- 16

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

Remarks:V8260: BTEX+CVOCs custom list.
2 SEE PAGE 1

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4439 2452 5367

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓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: ✓ __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
KC, DO, SM BLAINE TECH	4/25/25	1205	(FI) ERRG	Y	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: TL 0.9+0.1=1.3 °C	Bottles Received: 84
ERRG	4/25/25	1430			
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/26/25	Time: 0900
				Hold:	Condition: NCF / OK

ANALYTICAL REPORT

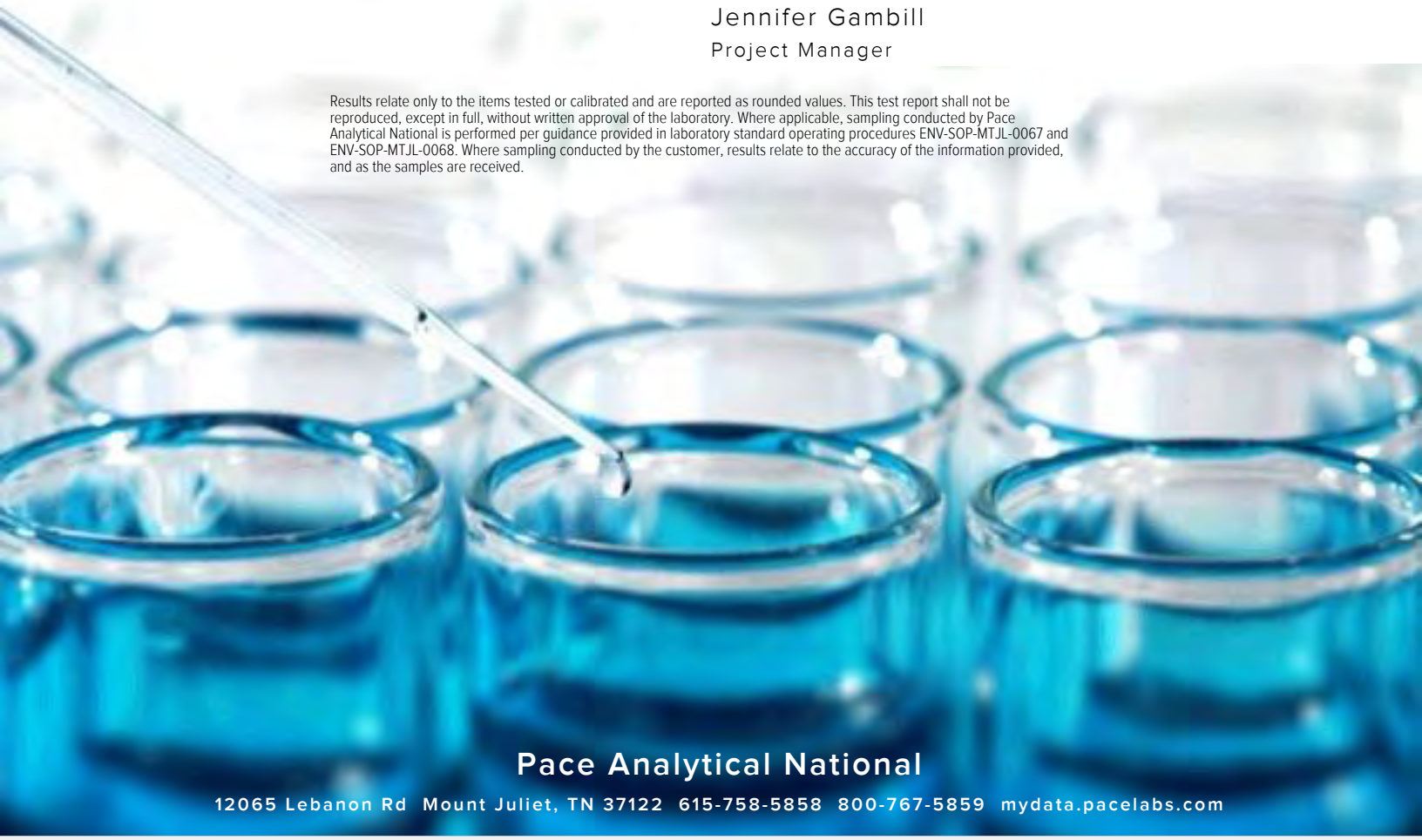
June 04, 2025

Engineering/Remediation Resources Group

Sample Delivery Group:	L1863104
Samples Received:	05/24/2025
Project Number:	20230065
Description:	Former Circle K
Site:	1461
Report To:	Jennifer Sonnichsen 15333 NE 90th Street Ste 100 Redmond, WA 98052

Entire Report Reviewed By:

Jennifer Gambill
Project Manager



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

TABLE OF CONTENTS

MW-16 L1863104-01

Collected by: LB/SM | Collected date/time: 05/23/25 09:46 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2526017	1	05/29/25 16:02	05/29/25 16:02	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2526623	1	05/30/25 13:00	05/30/25 13:00	DYW	Mt. Juliet, TN

MW-17 L1863104-02

Collected by: LB/SM | Collected date/time: 05/23/25 11:20 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2526017	1	05/29/25 16:22	05/29/25 16:22	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2526623	25	05/30/25 15:39	05/30/25 15:39	DYW	Mt. Juliet, TN

MW-18 L1863104-03

Collected by: LB/SM | Collected date/time: 05/23/25 11:40 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2526017	1	05/29/25 16:42	05/29/25 16:42	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2526623	1	05/30/25 13:20	05/30/25 13:20	DYW	Mt. Juliet, TN

MW-19 L1863104-04

Collected by: LB/SM | Collected date/time: 05/23/25 13:15 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2526017	10	05/29/25 17:23	05/29/25 17:23	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2526623	100	05/30/25 16:39	05/30/25 16:39	DYW	Mt. Juliet, TN

MW-20 L1863104-05

Collected by: LB/SM | Collected date/time: 05/23/25 10:50 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2527544	10	05/31/25 19:24	05/31/25 19:24	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2530030	50	06/04/25 02:32	06/04/25 02:32	JHH	Mt. Juliet, TN

MW-21 L1863104-06

Collected by: LB/SM | Collected date/time: 05/23/25 12:43 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2527544	10	05/31/25 19:46	05/31/25 19:46	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2526623	500	05/30/25 17:19	05/30/25 17:19	DYW	Mt. Juliet, TN

RW-1 L1863104-07

Collected by: LB/SM | Collected date/time: 05/23/25 12:15 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2527544	1	05/31/25 13:55	05/31/25 13:55	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2526623	10	05/30/25 15:00	05/30/25 15:00	DYW	Mt. Juliet, TN

DUP-1 L1863104-08

Collected by: LB/SM | Collected date/time: 05/23/25 12:00 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2527544	1	05/31/25 14:17	05/31/25 14:17	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2526623	1	05/30/25 13:40	05/30/25 13:40	DYW	Mt. Juliet, TN

MW-6 L1863104-09

Collected by: LB/SM | Collected date/time: 05/23/25 10:15 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2527544	1	05/31/25 14:38	05/31/25 14:38	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2526623	1	05/30/25 14:00	05/30/25 14:00	DYW	Mt. Juliet, TN

MW-8 L1863104-10

Collected by: LB/SM | Collected date/time: 05/23/25 11:12 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2527544	5	05/31/25 20:07	05/31/25 20:07	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2526623	50	05/30/25 15:59	05/30/25 15:59	DYW	Mt. Juliet, TN

MW-13 L1863104-11

Collected by: LB/SM | Collected date/time: 05/23/25 12:18 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2527544	10	05/31/25 20:30	05/31/25 20:30	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2526623	50	05/30/25 16:19	05/30/25 16:19	DYW	Mt. Juliet, TN

MW-14 L1863104-12

Collected by: LB/SM | Collected date/time: 05/23/25 11:37 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2527544	1	05/31/25 15:00	05/31/25 15:00	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2526623	1	05/30/25 14:20	05/30/25 14:20	DYW	Mt. Juliet, TN

MW-9 L1863104-13

Collected by: LB/SM | Collected date/time: 05/23/25 10:17 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2527544	5	05/31/25 20:51	05/31/25 20:51	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2526623	20	05/30/25 15:20	05/30/25 15:20	DYW	Mt. Juliet, TN

MW-15 L1863104-14

Collected by: LB/SM | Collected date/time: 05/23/25 10:42 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2527544	1	05/31/25 15:22	05/31/25 15:22	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2526623	1	05/30/25 14:40	05/30/25 14:40	DYW	Mt. Juliet, TN

SAMPLE SUMMARY

TB-01 L1863104-15

Collected by: LB/SM
Collected date/time: 05/23/25 13:30
Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2527548	1	05/31/25 02:09	05/31/25 02:09	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2530030	1	06/04/25 02:11	06/04/25 02:11	JHH	Mt. Juliet, TN

TB-02 L1863104-16

Collected by: LB/SM
Collected date/time: 05/23/25 13:35
Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2527548	1	05/31/25 02:33	05/31/25 02:33	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2527497	1	05/31/25 08:47	05/31/25 08:47	JHH	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

Sample Delivery Group (SDG) Narrative

Analyzed from headspace vial.

Lab Sample ID	Project Sample ID	Method
L1863104-15	TB-01	8260B

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	05/29/2025 16:02	WG2526017
(S) a,a,a-Trifluorotoluene(FID)	*103*		*78.0-120*		*05/29/2025 16:02*	WG2526017

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/30/2025 13:00	WG2526623
Ethylbenzene	ND		1.00	1	05/30/2025 13:00	WG2526623
Toluene	ND		1.00	1	05/30/2025 13:00	WG2526623
Xylenes, Total	ND		3.00	1	05/30/2025 13:00	WG2526623
Trichloroethene	ND		1.00	1	05/30/2025 13:00	WG2526623
cis-1,2-Dichloroethene	ND		1.00	1	05/30/2025 13:00	WG2526623
trans-1,2-Dichloroethene	ND		1.00	1	05/30/2025 13:00	WG2526623
Tetrachloroethene	ND		1.00	1	05/30/2025 13:00	WG2526623
Vinyl chloride	ND	C3	1.00	1	05/30/2025 13:00	WG2526623
(S) Toluene-d8	*100*		*80.0-120*		*05/30/2025 13:00*	WG2526623
(S) 4-Bromofluorobenzene	*94.6*		*77.0-126*		*05/30/2025 13:00*	WG2526623
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*05/30/2025 13:00*	WG2526623

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	429		100	1	05/29/2025 16:22	WG2526017
(S) a,a,a-Trifluorotoluene(FID)	*103*		*78.0-120*		*05/29/2025 16:22*	WG2526017

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		25.0	25	05/30/2025 15:39	WG2526623
Ethylbenzene	ND		25.0	25	05/30/2025 15:39	WG2526623
Toluene	ND		25.0	25	05/30/2025 15:39	WG2526623
Xylenes, Total	ND		75.0	25	05/30/2025 15:39	WG2526623
Trichloroethene	50.5		25.0	25	05/30/2025 15:39	WG2526623
cis-1,2-Dichloroethene	ND		25.0	25	05/30/2025 15:39	WG2526623
trans-1,2-Dichloroethene	ND		25.0	25	05/30/2025 15:39	WG2526623
Tetrachloroethene	1120		25.0	25	05/30/2025 15:39	WG2526623
Vinyl chloride	ND	C3	25.0	25	05/30/2025 15:39	WG2526623
(S) Toluene-d8	*102*		*80.0-120*		*05/30/2025 15:39*	WG2526623
(S) 4-Bromofluorobenzene	*95.4*		*77.0-126*		*05/30/2025 15:39*	WG2526623
(S) 1,2-Dichloroethane-d4	*97.6*		*70.0-130*		*05/30/2025 15:39*	WG2526623

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	05/29/2025 16:42	WG2526017
(S) a,a,a-Trifluorotoluene(FID)	*103*		*78.0-120*		*05/29/2025 16:42*	WG2526017

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/30/2025 13:20	WG2526623
Ethylbenzene	ND		1.00	1	05/30/2025 13:20	WG2526623
Toluene	ND		1.00	1	05/30/2025 13:20	WG2526623
Xylenes, Total	ND		3.00	1	05/30/2025 13:20	WG2526623
Trichloroethene	4.18		1.00	1	05/30/2025 13:20	WG2526623
cis-1,2-Dichloroethene	1.81		1.00	1	05/30/2025 13:20	WG2526623
trans-1,2-Dichloroethene	ND		1.00	1	05/30/2025 13:20	WG2526623
Tetrachloroethene	165		1.00	1	05/30/2025 13:20	WG2526623
Vinyl chloride	ND	C3	1.00	1	05/30/2025 13:20	WG2526623
(S) Toluene-d8	*98.5*		*80.0-120*		*05/30/2025 13:20*	WG2526623
(S) 4-Bromofluorobenzene	*95.3*		*77.0-126*		*05/30/2025 13:20*	WG2526623
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*05/30/2025 13:20*	WG2526623

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	17400		1000	10	05/29/2025 17:23	WG2526017
(S) a,a,a-Trifluorotoluene(FID)	*99.2*		*78.0-120*		*05/29/2025 17:23*	WG2526017

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	498		100	100	05/30/2025 16:39	WG2526623
Ethylbenzene	511		100	100	05/30/2025 16:39	WG2526623
Toluene	2220		100	100	05/30/2025 16:39	WG2526623
Xylenes, Total	2670		300	100	05/30/2025 16:39	WG2526623
Trichloroethene	115		100	100	05/30/2025 16:39	WG2526623
cis-1,2-Dichloroethene	ND		100	100	05/30/2025 16:39	WG2526623
trans-1,2-Dichloroethene	ND		100	100	05/30/2025 16:39	WG2526623
Tetrachloroethene	525		100	100	05/30/2025 16:39	WG2526623
Vinyl chloride	ND	C3	100	100	05/30/2025 16:39	WG2526623
(S) Toluene-d8	*100*		*80.0-120*		*05/30/2025 16:39*	WG2526623
(S) 4-Bromofluorobenzene	*96.3*		*77.0-126*		*05/30/2025 16:39*	WG2526623
(S) 1,2-Dichloroethane-d4	*104*		*70.0-130*		*05/30/2025 16:39*	WG2526623

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	17500		1000	10	05/31/2025 19:24	WG2527544
(S) a,a,a-Trifluorotoluene(FID)	*95.9*		*78.0-120*		*05/31/2025 19:24*	WG2527544

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	1070		50.0	50	06/04/2025 02:32	WG2530030
Ethylbenzene	657		50.0	50	06/04/2025 02:32	WG2530030
Toluene	781		50.0	50	06/04/2025 02:32	WG2530030
Xylenes, Total	3400		150	50	06/04/2025 02:32	WG2530030
Trichloroethene	ND		50.0	50	06/04/2025 02:32	WG2530030
cis-1,2-Dichloroethene	62.7		50.0	50	06/04/2025 02:32	WG2530030
trans-1,2-Dichloroethene	ND		50.0	50	06/04/2025 02:32	WG2530030
Tetrachloroethene	ND		50.0	50	06/04/2025 02:32	WG2530030
Vinyl chloride	ND		50.0	50	06/04/2025 02:32	WG2530030
(S) Toluene-d8	*101*		*80.0-120*		*06/04/2025 02:32*	WG2530030
(S) 4-Bromofluorobenzene	*93.4*		*77.0-126*		*06/04/2025 02:32*	WG2530030
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*06/04/2025 02:32*	WG2530030

Sample Narrative:

L1863104-05 WG2530030: Target and Non-target compounds too high to run at a lower dilution.

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 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	67000		1000	10	05/31/2025 19:46	WG2527544
(S) a,a,a-Trifluorotoluene(FID)	*94.2*		*78.0-120*		*05/31/2025 19:46*	WG2527544

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	9630		500	500	05/30/2025 17:19	WG2526623
Ethylbenzene	1660		500	500	05/30/2025 17:19	WG2526623
Toluene	15200		500	500	05/30/2025 17:19	WG2526623
Xylenes, Total	10200		1500	500	05/30/2025 17:19	WG2526623
Trichloroethene	ND		500	500	05/30/2025 17:19	WG2526623
cis-1,2-Dichloroethene	ND		500	500	05/30/2025 17:19	WG2526623
trans-1,2-Dichloroethene	ND		500	500	05/30/2025 17:19	WG2526623
Tetrachloroethene	ND		500	500	05/30/2025 17:19	WG2526623
Vinyl chloride	ND	C3	500	500	05/30/2025 17:19	WG2526623
(S) Toluene-d8	*100*		*80.0-120*		*05/30/2025 17:19*	WG2526623
(S) 4-Bromofluorobenzene	*96.9*		*77.0-126*		*05/30/2025 17:19*	WG2526623
(S) 1,2-Dichloroethane-d4	*98.3*		*70.0-130*		*05/30/2025 17:19*	WG2526623

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	147		100	1	05/31/2025 13:55	WG2527544
(S) a,a,a-Trifluorotoluene(FID)	*97.4*		*78.0-120*		*05/31/2025 13:55*	WG2527544

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		10.0	10	05/30/2025 15:00	WG2526623
Ethylbenzene	ND		10.0	10	05/30/2025 15:00	WG2526623
Toluene	ND		10.0	10	05/30/2025 15:00	WG2526623
Xylenes, Total	ND		30.0	10	05/30/2025 15:00	WG2526623
Trichloroethene	14.3		10.0	10	05/30/2025 15:00	WG2526623
cis-1,2-Dichloroethene	ND		10.0	10	05/30/2025 15:00	WG2526623
trans-1,2-Dichloroethene	ND		10.0	10	05/30/2025 15:00	WG2526623
Tetrachloroethene	250		10.0	10	05/30/2025 15:00	WG2526623
Vinyl chloride	ND	C3	10.0	10	05/30/2025 15:00	WG2526623
(S) Toluene-d8	*98.8*		*80.0-120*		*05/30/2025 15:00*	WG2526623
(S) 4-Bromofluorobenzene	*92.1*		*77.0-126*		*05/30/2025 15:00*	WG2526623
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*05/30/2025 15:00*	WG2526623

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	05/31/2025 14:17	WG2527544
(S) a,a,a-Trifluorotoluene(FID)	*97.2*		*78.0-120*		*05/31/2025 14:17*	WG2527544

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/30/2025 13:40	WG2526623
Ethylbenzene	ND		1.00	1	05/30/2025 13:40	WG2526623
Toluene	ND		1.00	1	05/30/2025 13:40	WG2526623
Xylenes, Total	ND		3.00	1	05/30/2025 13:40	WG2526623
Trichloroethene	ND		1.00	1	05/30/2025 13:40	WG2526623
cis-1,2-Dichloroethene	ND		1.00	1	05/30/2025 13:40	WG2526623
trans-1,2-Dichloroethene	ND		1.00	1	05/30/2025 13:40	WG2526623
Tetrachloroethene	ND		1.00	1	05/30/2025 13:40	WG2526623
Vinyl chloride	ND	C3	1.00	1	05/30/2025 13:40	WG2526623
(S) Toluene-d8	*100*		*80.0-120*		*05/30/2025 13:40*	WG2526623
(S) 4-Bromofluorobenzene	*96.2*		*77.0-126*		*05/30/2025 13:40*	WG2526623
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*05/30/2025 13:40*	WG2526623

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	05/31/2025 14:38	WG2527544
(S) a,a,a-Trifluorotoluene(FID)	*97.5*		*78.0-120*		*05/31/2025 14:38*	WG2527544

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/30/2025 14:00	WG2526623
Ethylbenzene	ND		1.00	1	05/30/2025 14:00	WG2526623
Toluene	ND		1.00	1	05/30/2025 14:00	WG2526623
Xylenes, Total	ND		3.00	1	05/30/2025 14:00	WG2526623
Trichloroethene	ND		1.00	1	05/30/2025 14:00	WG2526623
cis-1,2-Dichloroethene	ND		1.00	1	05/30/2025 14:00	WG2526623
trans-1,2-Dichloroethene	ND		1.00	1	05/30/2025 14:00	WG2526623
Tetrachloroethene	ND		1.00	1	05/30/2025 14:00	WG2526623
Vinyl chloride	1.03	C3	1.00	1	05/30/2025 14:00	WG2526623
(S) Toluene-d8	*102*		*80.0-120*		*05/30/2025 14:00*	WG2526623
(S) 4-Bromofluorobenzene	*97.4*		*77.0-126*		*05/30/2025 14:00*	WG2526623
(S) 1,2-Dichloroethane-d4	*105*		*70.0-130*		*05/30/2025 14:00*	WG2526623

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	19100		500	5	05/31/2025 20:07	WG2527544
(S) a,a,a-Trifluorotoluene(FID)	*95.6*		*78.0-120*		*05/31/2025 20:07*	WG2527544

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		50.0	50	05/30/2025 15:59	WG2526623
Ethylbenzene	1130		50.0	50	05/30/2025 15:59	WG2526623
Toluene	143		50.0	50	05/30/2025 15:59	WG2526623
Xylenes, Total	3490		150	50	05/30/2025 15:59	WG2526623
Trichloroethene	ND		50.0	50	05/30/2025 15:59	WG2526623
cis-1,2-Dichloroethene	ND		50.0	50	05/30/2025 15:59	WG2526623
trans-1,2-Dichloroethene	ND		50.0	50	05/30/2025 15:59	WG2526623
Tetrachloroethene	ND		50.0	50	05/30/2025 15:59	WG2526623
Vinyl chloride	ND	C3	50.0	50	05/30/2025 15:59	WG2526623
(S) Toluene-d8	*99.1*		*80.0-120*		*05/30/2025 15:59*	WG2526623
(S) 4-Bromofluorobenzene	*98.5*		*77.0-126*		*05/30/2025 15:59*	WG2526623
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*05/30/2025 15:59*	WG2526623

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	9920		1000	10	05/31/2025 20:30	WG2527544
(S) a,a,a-Trifluorotoluene(FID)	*94.7*		*78.0-120*		*05/31/2025 20:30*	WG2527544

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	173		50.0	50	05/30/2025 16:19	WG2526623
Ethylbenzene	121		50.0	50	05/30/2025 16:19	WG2526623
Toluene	973		50.0	50	05/30/2025 16:19	WG2526623
Xylenes, Total	2840		150	50	05/30/2025 16:19	WG2526623
Trichloroethene	ND		50.0	50	05/30/2025 16:19	WG2526623
cis-1,2-Dichloroethene	ND		50.0	50	05/30/2025 16:19	WG2526623
trans-1,2-Dichloroethene	ND		50.0	50	05/30/2025 16:19	WG2526623
Tetrachloroethene	ND		50.0	50	05/30/2025 16:19	WG2526623
Vinyl chloride	ND	C3	50.0	50	05/30/2025 16:19	WG2526623
(S) Toluene-d8	*101*		*80.0-120*		*05/30/2025 16:19*	WG2526623
(S) 4-Bromofluorobenzene	*98.8*		*77.0-126*		*05/30/2025 16:19*	WG2526623
(S) 1,2-Dichloroethane-d4	*98.0*		*70.0-130*		*05/30/2025 16:19*	WG2526623

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	05/31/2025 15:00	WG2527544
(S) a,a,a-Trifluorotoluene(FID)	*97.7*		*78.0-120*		*05/31/2025 15:00*	WG2527544

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/30/2025 14:20	WG2526623
Ethylbenzene	ND		1.00	1	05/30/2025 14:20	WG2526623
Toluene	21.3		1.00	1	05/30/2025 14:20	WG2526623
Xylenes, Total	ND		3.00	1	05/30/2025 14:20	WG2526623
Trichloroethene	ND		1.00	1	05/30/2025 14:20	WG2526623
cis-1,2-Dichloroethene	ND		1.00	1	05/30/2025 14:20	WG2526623
trans-1,2-Dichloroethene	ND		1.00	1	05/30/2025 14:20	WG2526623
Tetrachloroethene	ND		1.00	1	05/30/2025 14:20	WG2526623
Vinyl chloride	ND	C3	1.00	1	05/30/2025 14:20	WG2526623
(S) Toluene-d8	*104*		*80.0-120*		*05/30/2025 14:20*	WG2526623
(S) 4-Bromofluorobenzene	*93.3*		*77.0-126*		*05/30/2025 14:20*	WG2526623
(S) 1,2-Dichloroethane-d4	*94.9*		*70.0-130*		*05/30/2025 14:20*	WG2526623

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	12700		500	5	05/31/2025 20:51	WG2527544
(S) a,a,a-Trifluorotoluene(FID)	*98.5*		*78.0-120*		*05/31/2025 20:51*	WG2527544

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		20.0	20	05/30/2025 15:20	WG2526623
Ethylbenzene	607		20.0	20	05/30/2025 15:20	WG2526623
Toluene	35.1		20.0	20	05/30/2025 15:20	WG2526623
Xylenes, Total	1450		60.0	20	05/30/2025 15:20	WG2526623
Trichloroethene	ND		20.0	20	05/30/2025 15:20	WG2526623
cis-1,2-Dichloroethene	ND		20.0	20	05/30/2025 15:20	WG2526623
trans-1,2-Dichloroethene	ND		20.0	20	05/30/2025 15:20	WG2526623
Tetrachloroethene	ND		20.0	20	05/30/2025 15:20	WG2526623
Vinyl chloride	ND	C3	20.0	20	05/30/2025 15:20	WG2526623
(S) Toluene-d8	*98.1*		*80.0-120*		*05/30/2025 15:20*	WG2526623
(S) 4-Bromofluorobenzene	*96.6*		*77.0-126*		*05/30/2025 15:20*	WG2526623
(S) 1,2-Dichloroethane-d4	*100*		*70.0-130*		*05/30/2025 15:20*	WG2526623

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	05/31/2025 15:22	WG2527544
(S) a,a,a-Trifluorotoluene(FID)	*97.5*		*78.0-120*		*05/31/2025 15:22*	WG2527544

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/30/2025 14:40	WG2526623
Ethylbenzene	ND		1.00	1	05/30/2025 14:40	WG2526623
Toluene	ND		1.00	1	05/30/2025 14:40	WG2526623
Xylenes, Total	ND		3.00	1	05/30/2025 14:40	WG2526623
Trichloroethene	ND		1.00	1	05/30/2025 14:40	WG2526623
cis-1,2-Dichloroethene	ND		1.00	1	05/30/2025 14:40	WG2526623
trans-1,2-Dichloroethene	ND		1.00	1	05/30/2025 14:40	WG2526623
Tetrachloroethene	ND		1.00	1	05/30/2025 14:40	WG2526623
Vinyl chloride	ND	C3	1.00	1	05/30/2025 14:40	WG2526623
(S) Toluene-d8	*101*		*80.0-120*		*05/30/2025 14:40*	WG2526623
(S) 4-Bromofluorobenzene	*96.4*		*77.0-126*		*05/30/2025 14:40*	WG2526623
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*05/30/2025 14:40*	WG2526623

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	05/31/2025 02:09	WG2527548
(S) a,a,a-Trifluorotoluene(FID)	*100*		*78.0-120*		*05/31/2025 02:09*	WG2527548

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	06/04/2025 02:11	WG2530030
Ethylbenzene	ND		1.00	1	06/04/2025 02:11	WG2530030
Toluene	ND		1.00	1	06/04/2025 02:11	WG2530030
Xylenes, Total	ND		3.00	1	06/04/2025 02:11	WG2530030
Trichloroethene	ND		1.00	1	06/04/2025 02:11	WG2530030
cis-1,2-Dichloroethene	ND		1.00	1	06/04/2025 02:11	WG2530030
trans-1,2-Dichloroethene	ND		1.00	1	06/04/2025 02:11	WG2530030
Tetrachloroethene	ND		1.00	1	06/04/2025 02:11	WG2530030
Vinyl chloride	ND		1.00	1	06/04/2025 02:11	WG2530030
(S) Toluene-d8	*101*		*80.0-120*		*06/04/2025 02:11*	WG2530030
(S) 4-Bromofluorobenzene	*90.1*		*77.0-126*		*06/04/2025 02:11*	WG2530030
(S) 1,2-Dichloroethane-d4	*107*		*70.0-130*		*06/04/2025 02:11*	WG2530030

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	05/31/2025 02:33	WG2527548
(S) a,a,a-Trifluorotoluene(FID)	*100*		*78.0-120*		*05/31/2025 02:33*	WG2527548

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/31/2025 08:47	WG2527497
Ethylbenzene	ND		1.00	1	05/31/2025 08:47	WG2527497
Toluene	ND		1.00	1	05/31/2025 08:47	WG2527497
Xylenes, Total	ND		3.00	1	05/31/2025 08:47	WG2527497
Trichloroethene	ND		1.00	1	05/31/2025 08:47	WG2527497
cis-1,2-Dichloroethene	ND		1.00	1	05/31/2025 08:47	WG2527497
trans-1,2-Dichloroethene	ND		1.00	1	05/31/2025 08:47	WG2527497
Tetrachloroethene	ND		1.00	1	05/31/2025 08:47	WG2527497
Vinyl chloride	ND		1.00	1	05/31/2025 08:47	WG2527497
(S) Toluene-d8	*98.2*		*80.0-120*		*05/31/2025 08:47*	WG2527497
(S) 4-Bromofluorobenzene	*89.1*		*77.0-126*		*05/31/2025 08:47*	WG2527497
(S) 1,2-Dichloroethane-d4	*104*		*70.0-130*		*05/31/2025 08:47*	WG2527497

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

Method Blank (MB)

(MB) R4224392-2 05/29/25 10:29

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)	*103*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R4224392-1 05/29/25 09:26

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5000	4520	90.4	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*104*	*78.0-120*	

Method Blank (MB)

(MB) R4224744-2 05/31/25 11:59

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)	*97.3*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R4224744-1 05/31/25 11:15

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5000	5210	104	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*106*	*78.0-120*	

Method Blank (MB)

(MB) R4224215-3 05/31/25 01:46

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)	*101*			*78.0-120*

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

(LCS) R4224215-1 05/30/25 23:51 • (LCSD) R4224215-2 05/31/25 00:15

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	4510	4770	90.2	95.4	70.0-124			5.60	20
(S) a,a,a-Trifluorotoluene(FID)				*102*	*103*	*78.0-120*				

Method Blank (MB)

(MB) R4225031-3 05/30/25 08:14

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Ethylbenzene	U		0.137	1.00
Toluene	U		0.278	1.00
Xylenes, Total	U		0.174	3.00
Trichloroethene	U		0.190	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
Tetrachloroethene	U		0.300	1.00
Vinyl chloride	U		0.234	1.00
(S) Toluene-d8	*100*			*80.0-120*
(S) 4-Bromofluorobenzene	*93.8*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

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

(LCS) R4225031-1 05/30/25 06:54 • (LCSD) R4225031-2 05/30/25 07:34

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	5.00	4.27	4.15	85.4	83.0	70.0-123			2.85	20
Ethylbenzene	5.00	4.34	4.09	86.8	81.8	79.0-123			5.93	20
Toluene	5.00	4.24	3.99	84.8	79.8	79.0-120			6.08	20
Xylenes, Total	15.0	12.7	12.0	84.7	80.0	79.0-123			5.67	20
Trichloroethene	5.00	4.40	4.27	88.0	85.4	78.0-124			3.00	20
cis-1,2-Dichloroethene	5.00	4.31	4.27	86.2	85.4	73.0-120			0.932	20
trans-1,2-Dichloroethene	5.00	4.27	3.95	85.4	79.0	73.0-120			7.79	20
Tetrachloroethene	5.00	4.21	3.99	84.2	79.8	72.0-132			5.37	20
Vinyl chloride	5.00	3.90	3.81	78.0	76.2	67.0-131			2.33	20
(S) Toluene-d8				*97.4*	*98.1*	*80.0-120*				
(S) 4-Bromofluorobenzene				*96.6*	*95.3*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*103*	*99.6*	*70.0-130*				

Method Blank (MB)

(MB) R4224723-2 05/31/25 02:37

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Ethylbenzene	U		0.137	1.00
Toluene	U		0.278	1.00
Xylenes, Total	U		0.174	3.00
Trichloroethene	U		0.190	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
Tetrachloroethene	U		0.300	1.00
Vinyl chloride	U		0.234	1.00
(S) Toluene-d8	*99.1*			*80.0-120*
(S) 4-Bromofluorobenzene	*89.8*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R4224723-1 05/31/25 01:56

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	5.00	5.43	109	70.0-123	
Ethylbenzene	5.00	5.08	102	79.0-123	
Toluene	5.00	5.31	106	79.0-120	
Xylenes, Total	15.0	14.9	99.3	79.0-123	
Trichloroethene	5.00	5.61	112	78.0-124	
cis-1,2-Dichloroethene	5.00	5.00	100	73.0-120	
trans-1,2-Dichloroethene	5.00	5.09	102	73.0-120	
Tetrachloroethene	5.00	5.13	103	72.0-132	
Vinyl chloride	5.00	4.65	93.0	67.0-131	
(S) Toluene-d8			*99.6*	*80.0-120*	
(S) 4-Bromofluorobenzene			*92.9*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*103*	*70.0-130*	

Method Blank (MB)

(MB) R4225291-3 06/03/25 23:52

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Ethylbenzene	U		0.137	1.00
Toluene	U		0.278	1.00
Xylenes, Total	U		0.174	3.00
Trichloroethene	U		0.190	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
Tetrachloroethene	U		0.300	1.00
Vinyl chloride	U		0.234	1.00
(S) Toluene-d8	*98.6*			*80.0-120*
(S) 4-Bromofluorobenzene	*90.1*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*

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

(LCS) R4225291-1 06/03/25 22:47 • (LCSD) R4225291-2 06/03/25 23:08

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	5.00	4.67	4.75	93.4	95.0	70.0-123			1.70	20
Ethylbenzene	5.00	4.62	4.57	92.4	91.4	79.0-123			1.09	20
Toluene	5.00	4.68	4.65	93.6	93.0	79.0-120			0.643	20
Xylenes, Total	15.0	13.5	13.4	90.0	89.3	79.0-123			0.744	20
Trichloroethene	5.00	4.53	4.52	90.6	90.4	78.0-124			0.221	20
cis-1,2-Dichloroethene	5.00	4.68	4.62	93.6	92.4	73.0-120			1.29	20
trans-1,2-Dichloroethene	5.00	4.45	4.26	89.0	85.2	73.0-120			4.36	20
Tetrachloroethene	5.00	4.91	4.78	98.2	95.6	72.0-132			2.68	20
Vinyl chloride	5.00	4.48	4.30	89.6	86.0	67.0-131			4.10	20
(S) Toluene-d8				*104*	*102*	*80.0-120*				
(S) 4-Bromofluorobenzene				*93.2*	*92.8*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*106*	*107*	*70.0-130*				

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.
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.

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	LAO000356
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.

Company Name/Address:
Engineering/Remediation Resources Group

15333 NE 90th Street

Billing Information:
Jennifer Sonnichsen | Accounts Payable
15333 NE 90th Street
Ste 100
Redmond, WA 98052

Report to:
Jennifer Sonnichsen 425-658-5026

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

Project Description: Former Circle K

City/State Collected: Seattle WA

Please Circle: (PT) MT CT ET

Regulatory Program(DOD,RCRA,DW,etc): E/M EDD

Client Project # 20230065

Lab Project # **ENGREMRWA-CIRCLE K**

Collected by (print): L. Burgs / S. Mdosek

Site/Facility ID # 1461

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

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/hubfs/pas-standard-terms.pdf

SDG # L1863104
H188

Acctnum: **ENGREMRWA**
Template: **T263464**
Prelogin: **P1152155**
PM: **3500 - Jennifer Gambill**
PB:
Shipped Via: **FedEx Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHGX 40mlAmb HCl	NWTPHGX 40mlAmb-HCl-Blk	V8260 40mlAmb-HCl	V8260 40mlAmb-HCl-Blk	Pres Chk	Remarks	Sample # (lab only)
MW-16	G	GW	—	5/23/25	0946	6	X		X				01
MW-17		GW	—		1120	6	X		X				02
MW-18		GW	—		1140	6	X		X				03
MW-19		GW	—		1315	6	X		X				04
MW-20		GW	—		1050	6	X		X				05
MW-21		GW	—		1243	6	X		X				06
RW-1		GW	—		1245	6	X		X				07
DUP-1		GW	—		1200	6	X		X				08
		GW				6	X		X				
		GW				6	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 # 4493 5929 2237

Sample Receipt Checklist

COC Seal Present/Intact:	NP	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

	Date:	Time:		
Relinquished by : (Signature)	5/23/25	1315	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	5/23/25	1530	Received by: (Signature)	Temp: TA°C Bottles Received: 3,1+4=3.5 B4
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Anna Mathew	Date: 5/24/25 Time: 0830

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Company Name/Address:
Engineering/Remediation Resources Group
15333 NE 90th Street

Billing Information:
Jennifer Sonnichsen | Accounts Payable
15333 NE 90th Street
Ste 100
Redmond, WA 98052

Report to: **Jennifer Sonnichsen 425-658-5026**

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

Project Description: Former Circle K

City/State Collected: Seattle WA

Please Circle: (PT) MT CT ET

Regulatory Program(DOD,RCRA,DW,etc): EIM EDD

Client Project # FBR 20230065

Lab Project # **ENGREMRWA-CIRCLE K**

Collected by (print): L. BURG / S. MROSICK

Site/Facility ID # 1461

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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

Analysis / Container / Preservative

Pres Chk

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHGX 40mlAmb HCl	NWTPHGX 40mlAmb-HCl-Blk	V8260 40mlAmb-HCl	V8260 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
MW-6	G	GW	—	5/23/25	1015	6	X		X			-09
MW-8		GW	—		1112	6	X		X			-10
MW-13		GW	—		1218	6	X		X			-11
MW-14		GW	—		1137	6	X		X			-12
MW-9		GW	—		1017	6	X		X			-13
MW-15		GW	—		1042	6	X		X			-14
TRIP BLANK TB-01		GW	—		1330	2		X		X		-15
TRIP BLANK TB-02		GW	—		1335	2		X		X		-16

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

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/hubfs/pas-standard-terms.pdf

SDG # L1863104

Table #

Acctnum: **ENGREMRWA**
Template: **T263464**
Prelogin: **P1152155**
PM: **3500 - Jennifer Gambill**
PB:

Shipped Via: **FedEX Ground**

* 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 # 4493 5929 2237

Sample Receipt Checklist

COC Seal Present/Intact:	NP	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

	Date:	Time:			
Relinquished by : (Signature)	5/23/25	1315	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Relinquished by : (Signature)	5/23/25	1530	Received by: (Signature)	Temp: 11.4°C Bottles Received: 3oil+4=8.5 84	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Alexa Mitchell	Date: 5/24/25 Time: 0830	Hold: Condition: NCF / OK

ANALYTICAL REPORT

May 21, 2025

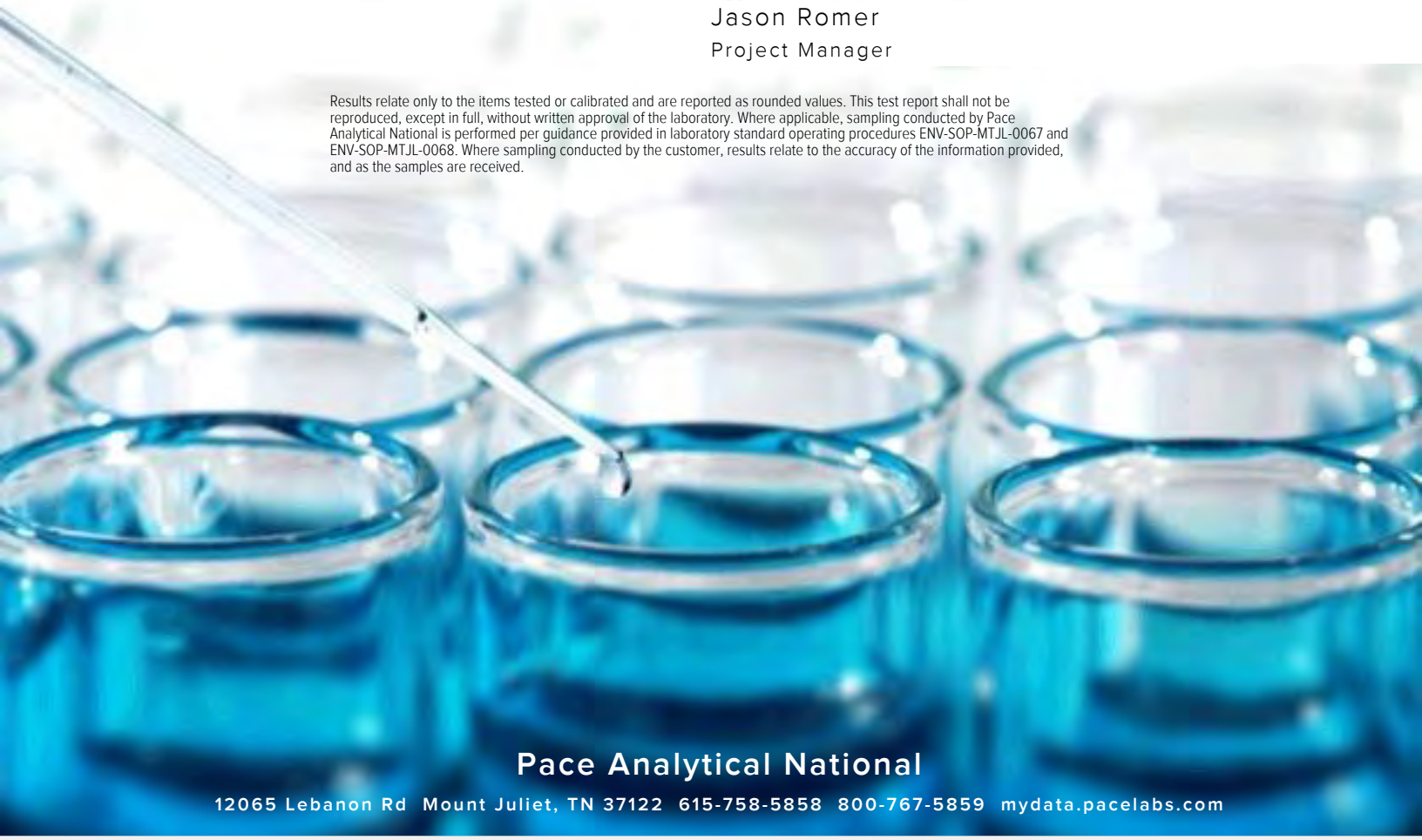
Engineering/Remediation Resources Group

Sample Delivery Group:	L1852469
Samples Received:	04/26/2025
Project Number:	20230065
Description:	Former Cicle K
Site:	1461
Report To:	Jennifer Sonnichsen 15333 NE 90th Street Ste 100 Redmond, WA 98052

Entire Report Reviewed By:

Jason Romer
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

LG-404-EFF-20250425 L1852469-01

Collected by: ERRG | Collected date/time: 04/25/25 11:25 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502873	1	04/29/25 21:37	04/29/25 21:37	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	1	04/30/25 09:27	04/30/25 09:27	ACG	Mt. Juliet, TN
Subcontracted Analyses	WG2501564	1	05/19/25 00:00	05/19/25 00:00	-	Minneapolis, MN 55414

DUP-1-20250425 L1852469-02

Collected by: ERRG | Collected date/time: 04/25/25 11:35 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502873	1	04/29/25 21:58	04/29/25 21:58	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	1	04/30/25 09:51	04/30/25 09:51	ACG	Mt. Juliet, TN
Subcontracted Analyses	WG2501564	1	05/19/25 00:00	05/19/25 00:00	-	Minneapolis, MN 55414

LG-402-MID-20250425 L1852469-03

Collected by: ERRG | Collected date/time: 04/25/25 12:00 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502873	1	04/29/25 22:20	04/29/25 22:20	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	1	04/30/25 10:15	04/30/25 10:15	ACG	Mt. Juliet, TN
Subcontracted Analyses	WG2501564	1	05/19/25 00:00	05/19/25 00:00	-	Minneapolis, MN 55414

LG-401-INF-20250425 L1852469-04

Collected by: ERRG | Collected date/time: 04/25/25 12:15 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502873	1	04/29/25 22:41	04/29/25 22:41	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503012	1	04/30/25 10:38	04/30/25 10:38	ACG	Mt. Juliet, TN
Subcontracted Analyses	WG2501564	1	05/19/25 00:00	05/19/25 00:00	-	Minneapolis, MN 55414

DUP-2-20250425 L1852469-05

Collected by: ERRG | Collected date/time: 04/25/25 11:45 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2501564	1	05/19/25 00:00	05/19/25 00:00	-	Minneapolis, MN 55414

TB-1-20250425 L1852469-06

Collected by: ERRG | Collected date/time: 04/25/25 12:30 | Received date/time: 04/26/25 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2502459	1	04/29/25 13:18	04/29/25 13:18	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2503621	1	04/30/25 18:10	04/30/25 18:10	KST	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.

Jason Romer
Project Manager

Project Narrative

L1852469 -01, -02, -03, -04, -05 contains subout data that is included after the chain of custody.

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	04/29/2025 21:37	WG2502873
(S) a,a,a-Trifluorotoluene(FID)	*92.5*		*78.0-120*		*04/29/2025 21:37*	WG2502873

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	04/30/2025 09:27	WG2503012
Ethylbenzene	ND		1.00	1	04/30/2025 09:27	WG2503012
Toluene	ND		1.00	1	04/30/2025 09:27	WG2503012
Xylenes, Total	ND		3.00	1	04/30/2025 09:27	WG2503012
Trichloroethene	ND		1.00	1	04/30/2025 09:27	WG2503012
cis-1,2-Dichloroethene	ND		1.00	1	04/30/2025 09:27	WG2503012
trans-1,2-Dichloroethene	ND		1.00	1	04/30/2025 09:27	WG2503012
Tetrachloroethene	ND		1.00	1	04/30/2025 09:27	WG2503012
Vinyl chloride	ND		1.00	1	04/30/2025 09:27	WG2503012
(S) Toluene-d8	*104*		*80.0-120*		*04/30/2025 09:27*	WG2503012
(S) 4-Bromofluorobenzene	*99.4*		*77.0-126*		*04/30/2025 09:27*	WG2503012
(S) 1,2-Dichloroethane-d4	*96.2*		*70.0-130*		*04/30/2025 09:27*	WG2503012

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	04/29/2025 21:58	WG2502873
(S) a,a,a-Trifluorotoluene(FID)	*93.8*		*78.0-120*		*04/29/2025 21:58*	WG2502873

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/30/2025 09:51	WG2503012
Ethylbenzene	ND		1.00	1	04/30/2025 09:51	WG2503012
Toluene	ND		1.00	1	04/30/2025 09:51	WG2503012
Xylenes, Total	ND		3.00	1	04/30/2025 09:51	WG2503012
Trichloroethene	ND		1.00	1	04/30/2025 09:51	WG2503012
cis-1,2-Dichloroethene	ND		1.00	1	04/30/2025 09:51	WG2503012
trans-1,2-Dichloroethene	ND		1.00	1	04/30/2025 09:51	WG2503012
Tetrachloroethene	ND		1.00	1	04/30/2025 09:51	WG2503012
Vinyl chloride	ND		1.00	1	04/30/2025 09:51	WG2503012
(S) Toluene-d8	*105*		*80.0-120*		*04/30/2025 09:51*	WG2503012
(S) 4-Bromofluorobenzene	*96.9*		*77.0-126*		*04/30/2025 09:51*	WG2503012
(S) 1,2-Dichloroethane-d4	*99.7*		*70.0-130*		*04/30/2025 09:51*	WG2503012

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	04/29/2025 22:20	WG2502873
(S) a,a,a-Trifluorotoluene(FID)	*94.0*		*78.0-120*		*04/29/2025 22:20*	WG2502873

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	04/30/2025 10:15	WG2503012
Ethylbenzene	ND		1.00	1	04/30/2025 10:15	WG2503012
Toluene	ND		1.00	1	04/30/2025 10:15	WG2503012
Xylenes, Total	ND		3.00	1	04/30/2025 10:15	WG2503012
Trichloroethene	ND		1.00	1	04/30/2025 10:15	WG2503012
cis-1,2-Dichloroethene	ND		1.00	1	04/30/2025 10:15	WG2503012
trans-1,2-Dichloroethene	ND		1.00	1	04/30/2025 10:15	WG2503012
Tetrachloroethene	ND		1.00	1	04/30/2025 10:15	WG2503012
Vinyl chloride	ND		1.00	1	04/30/2025 10:15	WG2503012
(S) Toluene-d8	*103*		*80.0-120*		*04/30/2025 10:15*	WG2503012
(S) 4-Bromofluorobenzene	*97.4*		*77.0-126*		*04/30/2025 10:15*	WG2503012
(S) 1,2-Dichloroethane-d4	*97.6*		*70.0-130*		*04/30/2025 10:15*	WG2503012

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	152		100	1	04/29/2025 22:41	WG2502873
(S) a,a,a-Trifluorotoluene(FID)	*94.2*		*78.0-120*		*04/29/2025 22:41*	WG2502873

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	04/30/2025 10:38	WG2503012
Ethylbenzene	ND		1.00	1	04/30/2025 10:38	WG2503012
Toluene	ND		1.00	1	04/30/2025 10:38	WG2503012
Xylenes, Total	ND		3.00	1	04/30/2025 10:38	WG2503012
Trichloroethene	ND		1.00	1	04/30/2025 10:38	WG2503012
cis-1,2-Dichloroethene	ND		1.00	1	04/30/2025 10:38	WG2503012
trans-1,2-Dichloroethene	ND		1.00	1	04/30/2025 10:38	WG2503012
Tetrachloroethene	15.9		1.00	1	04/30/2025 10:38	WG2503012
Vinyl chloride	ND		1.00	1	04/30/2025 10:38	WG2503012
(S) Toluene-d8	*102*		*80.0-120*		*04/30/2025 10:38*	WG2503012
(S) 4-Bromofluorobenzene	*105*		*77.0-126*		*04/30/2025 10:38*	WG2503012
(S) 1,2-Dichloroethane-d4	*94.9*		*70.0-130*		*04/30/2025 10:38*	WG2503012

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	04/29/2025 13:18	WG2502459
(S) a,a,a-Trifluorotoluene(FID)	*103*		*78.0-120*		*04/29/2025 13:18*	WG2502459

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	04/30/2025 18:10	WG2503621
Ethylbenzene	ND		1.00	1	04/30/2025 18:10	WG2503621
Toluene	ND		1.00	1	04/30/2025 18:10	WG2503621
Xylenes, Total	ND		3.00	1	04/30/2025 18:10	WG2503621
Trichloroethene	ND		1.00	1	04/30/2025 18:10	WG2503621
cis-1,2-Dichloroethene	ND		1.00	1	04/30/2025 18:10	WG2503621
trans-1,2-Dichloroethene	ND		1.00	1	04/30/2025 18:10	WG2503621
Tetrachloroethene	ND		1.00	1	04/30/2025 18:10	WG2503621
Vinyl chloride	ND		1.00	1	04/30/2025 18:10	WG2503621
(S) Toluene-d8	*102*		*80.0-120*		*04/30/2025 18:10*	WG2503621
(S) 4-Bromofluorobenzene	*93.9*		*77.0-126*		*04/30/2025 18:10*	WG2503621
(S) 1,2-Dichloroethane-d4	*124*		*70.0-130*		*04/30/2025 18:10*	WG2503621

Method Blank (MB)

(MB) R4207173-3 04/29/25 10:08

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*103*			*78.0-120*

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

(LCS) R4207173-1 04/29/25 09:08 • (LCSD) R4207173-2 04/29/25 09:28

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	5390	5430	108	109	70.0-124			0.739	20
(S) a,a,a-Trifluorotoluene(FID)				*107*	*107*	*78.0-120*				

Method Blank (MB)

(MB) R4207592-2 04/29/25 16:28

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*93.5*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R4207592-1 04/29/25 15:44

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5000	4480	89.6	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*99.7*	*78.0-120*	

Method Blank (MB)

(MB) R4207781-3 04/30/25 06:18

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Ethylbenzene	U		0.137	1.00
Toluene	U		0.278	1.00
Xylenes, Total	U		0.174	3.00
Trichloroethene	U		0.190	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
Tetrachloroethene	U		0.300	1.00
Vinyl chloride	U		0.234	1.00
(S) Toluene-d8	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*99.7*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*97.9*			*70.0-130*

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

(LCS) R4207781-1 04/30/25 05:07 • (LCSD) R4207781-2 04/30/25 05:30

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	5.00	5.12	5.41	102	108	70.0-123			5.51	20
Ethylbenzene	5.00	4.80	5.01	96.0	100	79.0-123			4.28	20
Toluene	5.00	5.08	5.27	102	105	79.0-120			3.67	20
Xylenes, Total	15.0	14.4	15.3	96.0	102	79.0-123			6.06	20
Trichloroethene	5.00	5.39	5.83	108	117	78.0-124			7.84	20
cis-1,2-Dichloroethene	5.00	4.91	5.22	98.2	104	73.0-120			6.12	20
trans-1,2-Dichloroethene	5.00	5.31	5.68	106	114	73.0-120			6.73	20
Tetrachloroethene	5.00	5.60	5.85	112	117	72.0-132			4.37	20
Vinyl chloride	5.00	5.18	5.56	104	111	67.0-131			7.08	20
(S) Toluene-d8				*104*	*103*	*80.0-120*				
(S) 4-Bromofluorobenzene				*104*	*103*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*92.8*	*94.8*	*70.0-130*				

Method Blank (MB)

(MB) R4207819-2 04/30/25 10:22

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Ethylbenzene	U		0.137	1.00
Toluene	U		0.278	1.00
Xylenes, Total	U		0.174	3.00
Trichloroethene	U		0.190	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
Tetrachloroethene	U		0.300	1.00
Vinyl chloride	U		0.234	1.00
(S) Toluene-d8	*102*			*80.0-120*
(S) 4-Bromofluorobenzene	*93.9*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R4207819-1 04/30/25 09:39

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	5.00	4.06	81.2	70.0-123	
Ethylbenzene	5.00	4.83	96.6	79.0-123	
Toluene	5.00	4.49	89.8	79.0-120	
Xylenes, Total	15.0	14.6	97.3	79.0-123	
Trichloroethene	5.00	4.33	86.6	78.0-124	
cis-1,2-Dichloroethene	5.00	4.45	89.0	73.0-120	
trans-1,2-Dichloroethene	5.00	4.72	94.4	73.0-120	
Tetrachloroethene	5.00	5.00	100	72.0-132	
Vinyl chloride	5.00	4.33	86.6	67.0-131	
(S) Toluene-d8			*99.9*	*80.0-120*	
(S) 4-Bromofluorobenzene			*101*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*115*	*70.0-130*	

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.
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
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

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	LAO000356
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.

Company Name/Address:
Engineering/Remediation Resources Group
15333 NE 90th Street

Billing Information:
Jennifer Sonnichsen | Accounts Payable
15333 NE 90th Street
Ste 100
Redmond, WA 98052

Pres Chk

Report to: Jennifer Sonnichsen 425-658-5026
Email To: jennifer.sonnichsen@errg.com;spencer.slomins

Project Description: FORMER CIRCLE K
City/State Collected: SEATTLE, WA
Please Circle: (PT) MT CT ET

Regulatory Program(DOD,RCRA,DW,etc): ECOLOGY - EIM
Client Project # 20230065
Lab Project # ENGREMRWA-CIRCLE K

Collected by (print): ERRG (FI)
Site/Facility ID # 1461
P.O. #

Collected by (signature):
Immediately Packed on Ice N ___ Y 1
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

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHGX 40mlAmb HCl	NWTPHGX 40mlAmb-HCl-Blk	OGHEX 1L-Clr-WT-HCl	V8260 40mlAmb-HCl	V8260 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
LG-404-EFF-20250425	GRAB	GW	N/A	4/25/25	1125	8	X		X	X		FOG IN COOLER 2/2	-01
DUP-1-20250425		GW			1135	8	X		X	X		FOG IN COOLER 2/2	-02
LG-402-MID-20250425		GW			1200	8	X		X	X			-03
LG-401-INF-20250425		GW			1215	8	X		X	X			-04
DUP-2-20250425		GW			1145	2			X			COOLER 2/2	-05
TRIP BLANK TB-1-20250425		GW			1220	3		X			X		-06

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

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/hubfs/pas-standard-terms.pdf

SDG # 852469
H016
Table
Acctnum: ENGREMRWA
Template: T263466
Prelogin: P1144783
PM: 3500 - Jennifer Gambill
PB: 4/15/25 mV
Shipped Via: FedEx Ground

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

Remarks: 8260 - BTEX, TCE, PCE, VC, cDCE, tDCE ONLY
COC in COOLER 1 OF 2
pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____
Tracking # 4439 2452 5378

Sample Receipt Checklist
COC Seal Present/Intact: __NP 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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeOH TBR	If preservation required by Login: Date/Time
FI ERRG	4/25/25	1430	FEDEX		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.9 °C Bottles Received: 1.5+0.4=1.9 34	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/26/25 Time: 0900	Hold: Condition: NCF / OK

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

May 19, 2025

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1852469 WG2501564
Pace Project No.: 10733305

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on May 06, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: L1852469 WG2501564
Pace Project No.: 10733305

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: L1852469 WG2501564
Pace Project No.: 10733305

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10733305001	**LG-404-EFF-20250425**	Water	04/25/25 11:25	05/06/25 08:50
10733305002	**DUP-1-20250425**	Water	04/25/25 11:35	05/06/25 08:50
10733305003	**LG-402-MID-20250425**	Water	04/25/25 12:00	05/06/25 08:50
10733305004	**LG-401-INF-20250425**	Water	04/25/25 12:15	05/06/25 08:50
10733305005	**DUP-2-20250425**	Water	04/25/25 11:45	05/06/25 08:50

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1852469 WG2501564
Pace Project No.: 10733305

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10733305001	**LG-404-EFF-20250425**	EPA 1664B OG	RM3	1	PASI-M
10733305002	**DUP-1-20250425**	EPA 1664B OG	RM3	1	PASI-M
10733305003	**LG-402-MID-20250425**	EPA 1664B OG	RM3	1	PASI-M
10733305004	**LG-401-INF-20250425**	EPA 1664B OG	RM3	1	PASI-M
10733305005	**DUP-2-20250425**	EPA 1664B OG	RM3	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1852469 WG2501564
Pace Project No.: 10733305

Sample: LG-404-EFF-20250425 **Lab ID: 10733305001** Collected: 04/25/25 11:25 Received: 05/06/25 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
1664B HEM, Oil and Grease	Analytical Method: EPA 1664B OG Pace Analytical Services - Minneapolis							
Oil and Grease	ND	mg/L	6.0	1		05/17/25 12:12		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1852469 WG2501564
Pace Project No.: 10733305

Sample: DUP-1-20250425 **Lab ID: 10733305002** Collected: 04/25/25 11:35 Received: 05/06/25 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
1664B HEM, Oil and Grease	Analytical Method: EPA 1664B OG Pace Analytical Services - Minneapolis							
Oil and Grease	ND	mg/L	5.8	1		05/17/25 12:12		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1852469 WG2501564
Pace Project No.: 10733305

Sample: LG-402-MID-20250425 **Lab ID: 10733305003** Collected: 04/25/25 12:00 Received: 05/06/25 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
1664B HEM, Oil and Grease	Analytical Method: EPA 1664B OG Pace Analytical Services - Minneapolis							
Oil and Grease	ND	mg/L	5.8	1		05/17/25 12:12		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1852469 WG2501564
Pace Project No.: 10733305

Sample: LG-401-INF-20250425 **Lab ID: 10733305004** Collected: 04/25/25 12:15 Received: 05/06/25 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
1664B HEM, Oil and Grease	Analytical Method: EPA 1664B OG Pace Analytical Services - Minneapolis							
Oil and Grease	**63.9**	mg/L	5.9	1		05/17/25 12:12		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1852469 WG2501564
Pace Project No.: 10733305

Sample: DUP-2-20250425 **Lab ID: 10733305005** Collected: 04/25/25 11:45 Received: 05/06/25 08:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
1664B HEM, Oil and Grease	Analytical Method: EPA 1664B OG Pace Analytical Services - Minneapolis							
Oil and Grease	ND	mg/L	5.9	1		05/17/25 12:12		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1852469 WG2501564
Pace Project No.: 10733305

QC Batch: 1007465
QC Batch Method: EPA 1664B OG
Analysis Method: EPA 1664B OG
Analysis Description: 1664B HEM, Oil and Grease
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10733305001, 10733305002, 10733305003, 10733305004, 10733305005

METHOD BLANK: 5252539 Matrix: Water
Associated Lab Samples: 10733305001, 10733305002, 10733305003, 10733305004, 10733305005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	05/17/25 12:12	

LABORATORY CONTROL SAMPLE: 5252540

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	40	43.2	108	78-114	

MATRIX SPIKE SAMPLE: 5252542

Parameter	Units	10733409001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	ND	42.6	39.1	90	78-114	

SAMPLE DUPLICATE: 5252541

Parameter	Units	10733357002 Result	Dup Result	RPD	Max RPD	Qualifiers
Oil and Grease	mg/L	<1.3	ND		18	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: L1852469 WG2501564
Pace Project No.: 10733305

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: 1007465

[BE] Batch extracted by solid phase extraction (SPE).

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1852469 WG2501564
Pace Project No.: 10733305

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10733305001	**LG-404-EFF-20250425**	EPA 1664B OG	1007465		
10733305002	**DUP-1-20250425**	EPA 1664B OG	1007465		
10733305005	**DUP-2-20250425**	EPA 1664B OG	1007465		
10733305003	**LG-402-MID-20250425**	EPA 1664B OG	1007465		
10733305004	**LG-401-INF-20250425**	EPA 1664B OG	1007465		

Sub-Contract Chain of Custody

Batch Date/Time: 04/28/25 08:25
Sub-Contract Lab: PACEMN
Address: 1700 Elm Street Suite 200 SE
City/State: Minneapolis, MN 55414
Contact: Tong.Lee@pacelabs.com
Owner Lab: PACEMTJL
Address: 12065 Lebanon Rd.
City/State: Mt. Juliet, TN 37122
Phone: (615) 773-9756
Fax: (615) 758-5859

WO: WG2501564
Email: MTJLSuboutTeam@pacelabs.com
Results Due Date: 05/09/25
ESC Purchase Order #: L1852469
Send Reports to: James C Huckaba

Pace Analytical®

12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

Sample ID Container ID	Matrix	State	Collect Date	Description	Method	Sample Number Lab Use Only	Sample Comments Lab Use Only
LG-404-EFF-20250425	GW	WA	04/25/25 11:25	Oil & Grease (Hexane Extr)	1664A	1. L1852469-01	01
DUP-1-20250425	GW	WA	04/25/25 11:35	Oil & Grease (Hexane Extr)	1664A	2. L1852469-02	02
LG-402-MID-20250425	GW	WA	04/25/25 12:00	Oil & Grease (Hexane Extr)	1664A	3. L1852469-03	03
LG-401-INF-20250425	GW	WA	04/25/25 12:00	Oil & Grease (Hexane Extr)	1664A	4. L1852469-04	04
DUP-2-20250425	GW	WA	04/25/25 11:45	Oil & Grease (Hexane Extr)	1664A	5. L1852469-05	05

*= Container used for multiple Samples and/or Analyses

Relinquished by: _____ **Date** 5-5-25

Received by: _____ **Date** 5/6/25 8:50 1.1, 1.0 °C

Relinquished by: _____ **Date** _____

Received by: _____ **Date** _____

WO# : 10733305

10733305

ENV-FRM-MIN4-0150 v19_Sample Condition Upon Receipt

Person Examining & Date: CRL 5/6/25 **PROJECT #:** **WO#: 10733305**

PM: TKL **Due Date: 05/09/25**

CLIENT: PASI-TN

Client Name: Pace MTJL

Custody Seal Present: ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO

Tracking Number: 4439 2457 5957, 4439 2457 5968 ☐ **See Exceptions form ENV-FRM-MIN4-0142.**

Courier: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace Courier/Field ☐ SpeeDee ☐ UPS ☐ USPS

Packing Material: ☑ Bubble Bags ☐ Bubble Wrap ☐ None ☐ Other: _____ **Biological Tissue Frozen:** ☐ YES ☑ NO

Thermometer: ☐ T1 (0461) ☐ T2 (0431) ☑ T3 (0459) ☐ T4 (0402) ☐ T5 (0187) ☐ T6 (0396) ☐ T7 (0377) ☐ T8 (0775) ☐ T9 (0428) ☐ 01339252 (0710)

Type of Ice: ☐ Blue ☐ Dry ☑ Wet ☐ Melted ☐ None

Temp Blank: ☐ YES ☐ NO

NOTE: Temp should be ≤ 6°C, but above freezing.

Read Temp w/Temp Blank: 1.6, 1.5 °C

Correction Factor: -0.5

Corrected Temp w/Temp Blank: 1.1, 1.0 °C

Did Samples Originate in West Virginia: ☐ YES ☑ NO (list temps on exception)

Were All Container Temps Taken: ☐ YES ☐ NO ☑ N/A

Average Corrected Temp (No Temp Blank Only): _____

☐ **See Exceptions form ENV-FRM-MIN4-0142.** ☐ 1 Container

USDA Regulated Soil: ☑ N/A – Water Sample/Other (describe): _____

Did Samples originate from one of the following states (check maps): ☐ YES ☐ NO

Circle State: AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, VA

Are samples from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO

NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

LOCATION (check one): ☐ **DULUTH** ☑ **MINNEAPOLIS** ☐ **VIRGINIA**

	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out? **(i.e., Analysis/ID/Date/Time)**	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☐	☑	☐	3.
Samples Arrived within Hold Time? If Fecal: ☐ <8 hrs ☐ >8 hr but <24 hr ☐ >24 hr	☑	☐		4.
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Turbidity ☐ Other: _____
Rush Turn Around Time Requested?	☑	☐		6. ☐ Same Day ☐ 1 Day ☐ 2 Day ☐ 3 Day ☐ 5 Day Due Date: _____
Sufficient Sample Volume? **(If NO, list approximate volume in section 7.)**	☑	☐		7.
Correct Containers Used? – Pace Containers Used?	☑ ☐	☐ ☑	☐	8.
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☑	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO
ID/Date/Time Match? **(If NO, fill out section 11.)** Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other	☑	☐	☐	11. ☐ **See Exceptions form ENV-FRM-MIN4-0142**
All containers needing acid/base preservation have been checked?	☐	☐	☑	12.

Sample #:

☐ HNO3 _____ ☐ H2SO4 _____ ☐ NaOH _____ ☐ Zinc Acetate _____

pH Paper Lot #:

☐ Residual Chlorine _____ ☐ 0-6 Roll _____ ☐ 0-6 Strip _____ ☐ 0-14 Strip _____

Positive for Residual Chlorine (NaOH containers only): ☐ YES ☐ NO

Preserved containers in compliance with EPA recommendations? (HNO3, H2SO4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☐	☐	☑	☐ **See Exceptions form ENV-FRM-MIN4-0142**
EXCECTIONS (water only): VOA, Coliform, TOC/DOC, Oil & Grease, Phenols, DRO/8015, Dioxins, and PFAS	☑	☐	☐	
Extra labels present on soil VOA or WIDRO containers? **(soil only)**	☐	☐	☑	13.
Headspace in Methyl Mercury Container?	☐	☐	☑	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☑	☐ **See Exceptions form ENV-FRM-MIN4-0140**
Trip Blanks Present?	☐	☐	☑	15.
Trip Blank Custody Seals Present?	☐	☐	☑	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION / RESOLUTION:

Labeled By: CRL **Line:** 3

Person Contacted & Date/Time: _____ **PM Review & Date:** 5/6/25

***NOTE:** When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office.*

ANALYTICAL REPORT

June 13, 2025

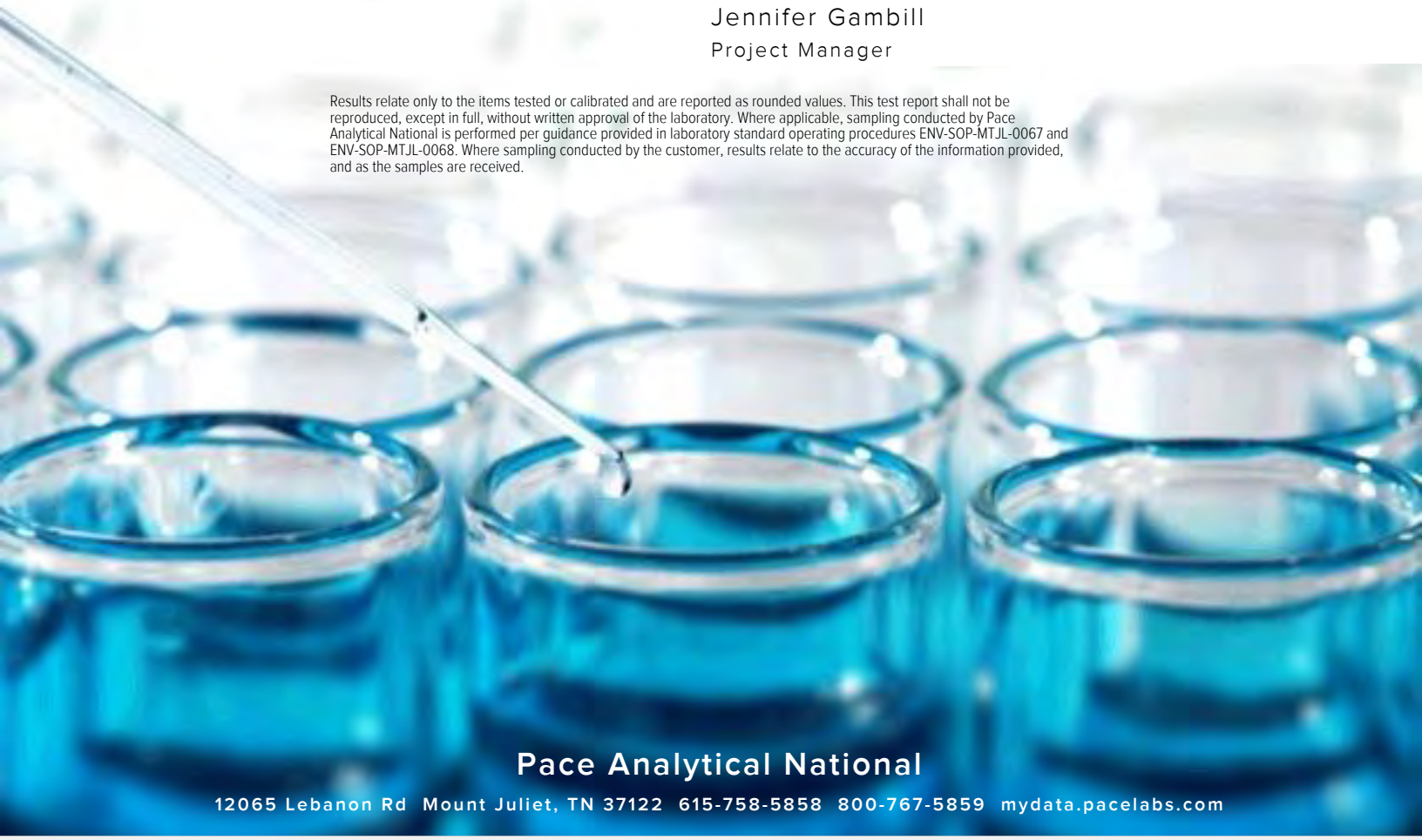
Engineering/Remediation Resources Group

Sample Delivery Group:	L1863045
Samples Received:	05/24/2025
Project Number:	20230065
Description:	Former Circle K

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

Entire Report Reviewed By:

Jennifer Gambill
Project Manager



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

TABLE OF CONTENTS

LG-401-INF-20250523 L1863045-01

Collected by: FL | Collected date/time: 05/23/25 12:15 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2526017	1	05/29/25 14:41	05/29/25 14:41	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2526626	1	05/30/25 12:11	05/30/25 12:11	JHH	Mt. Juliet, TN
Subcontracted Analyses	WG2526277	1	06/13/25 00:00	06/13/25 00:00	ANF	Minneapolis, MN 55414

LG-402-MID-20250523 L1863045-02

Collected by: FL | Collected date/time: 05/23/25 12:05 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2526017	1	05/29/25 15:01	05/29/25 15:01	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2526626	1	05/30/25 12:30	05/30/25 12:30	JHH	Mt. Juliet, TN
Subcontracted Analyses	WG2526277	1	06/13/25 00:00	06/13/25 00:00	ANF	Minneapolis, MN 55414

LG-404-EFF-20250523 L1863045-03

Collected by: FL | Collected date/time: 05/23/25 11:45 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2526017	1	05/29/25 15:21	05/29/25 15:21	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2527331	1	05/30/25 19:02	05/30/25 19:02	ACG	Mt. Juliet, TN
Subcontracted Analyses	WG2526277	1	06/13/25 00:00	06/13/25 00:00	ANF	Minneapolis, MN 55414

DUP-1-20250523 L1863045-04

Collected by: FL | Collected date/time: 05/23/25 11:50 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2526017	1	05/29/25 15:42	05/29/25 15:42	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2527331	1	05/30/25 19:23	05/30/25 19:23	ACG	Mt. Juliet, TN
Subcontracted Analyses	WG2526277	1	06/13/25 00:00	06/13/25 00:00	ANF	Minneapolis, MN 55414

DUP-2-20250523 L1863045-05

Collected by: FL | Collected date/time: 05/23/25 11:55 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG2526277	1	06/13/25 00:00	06/13/25 00:00	ANF	Minneapolis, MN 55414

TRIP BLANK L1863045-06

Collected by: FL | Collected date/time: 05/23/25 14:45 | Received date/time: 05/24/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2526017	1	05/29/25 11:21	05/29/25 11:21	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2527331	1	05/30/25 18:00	05/30/25 18:00	ACG	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

Project Narrative

L1863045 -01, -02, -03, -04, -05 contains subout data that is included after the chain of custody.

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	738		100	1	05/29/2025 14:41	WG2526017
(S) a,a,a-Trifluorotoluene(FID)	*102*		*78.0-120*		*05/29/2025 14:41*	WG2526017

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	05/30/2025 12:11	WG2526626
Ethylbenzene	ND		1.00	1	05/30/2025 12:11	WG2526626
Toluene	ND		1.00	1	05/30/2025 12:11	WG2526626
Xylenes, Total	7.94		3.00	1	05/30/2025 12:11	WG2526626
Trichloroethene	1.25		1.00	1	05/30/2025 12:11	WG2526626
cis-1,2-Dichloroethene	1.20		1.00	1	05/30/2025 12:11	WG2526626
trans-1,2-Dichloroethene	ND		1.00	1	05/30/2025 12:11	WG2526626
Tetrachloroethene	16.0		1.00	1	05/30/2025 12:11	WG2526626
Vinyl chloride	ND		1.00	1	05/30/2025 12:11	WG2526626
(S) Toluene-d8	*98.1*		*80.0-120*		*05/30/2025 12:11*	WG2526626
(S) 4-Bromofluorobenzene	*99.6*		*77.0-126*		*05/30/2025 12:11*	WG2526626
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*05/30/2025 12:11*	WG2526626

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	05/29/2025 15:01	WG2526017
(S) a,a,a-Trifluorotoluene(FID)	*104*		*78.0-120*		*05/29/2025 15:01*	WG2526017

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	05/30/2025 12:30	WG2526626
Ethylbenzene	ND		1.00	1	05/30/2025 12:30	WG2526626
Toluene	ND		1.00	1	05/30/2025 12:30	WG2526626
Xylenes, Total	ND		3.00	1	05/30/2025 12:30	WG2526626
Trichloroethene	ND		1.00	1	05/30/2025 12:30	WG2526626
cis-1,2-Dichloroethene	ND		1.00	1	05/30/2025 12:30	WG2526626
trans-1,2-Dichloroethene	ND		1.00	1	05/30/2025 12:30	WG2526626
Tetrachloroethene	ND		1.00	1	05/30/2025 12:30	WG2526626
Vinyl chloride	ND		1.00	1	05/30/2025 12:30	WG2526626
(S) Toluene-d8	*101*		*80.0-120*		*05/30/2025 12:30*	WG2526626
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*05/30/2025 12:30*	WG2526626
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*05/30/2025 12:30*	WG2526626

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	05/29/2025 15:21	WG2526017
(S) a,a,a-Trifluorotoluene(FID)	*104*		*78.0-120*		*05/29/2025 15:21*	WG2526017

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	05/30/2025 19:02	WG2527331
Ethylbenzene	ND		1.00	1	05/30/2025 19:02	WG2527331
Toluene	ND		1.00	1	05/30/2025 19:02	WG2527331
Xylenes, Total	ND		3.00	1	05/30/2025 19:02	WG2527331
Trichloroethene	ND		1.00	1	05/30/2025 19:02	WG2527331
cis-1,2-Dichloroethene	ND		1.00	1	05/30/2025 19:02	WG2527331
trans-1,2-Dichloroethene	ND		1.00	1	05/30/2025 19:02	WG2527331
Tetrachloroethene	ND		1.00	1	05/30/2025 19:02	WG2527331
Vinyl chloride	ND	C3 J4	1.00	1	05/30/2025 19:02	WG2527331
(S) Toluene-d8	*99.1*		*80.0-120*		*05/30/2025 19:02*	WG2527331
(S) 4-Bromofluorobenzene	*92.6*		*77.0-126*		*05/30/2025 19:02*	WG2527331
(S) 1,2-Dichloroethane-d4	*97.8*		*70.0-130*		*05/30/2025 19:02*	WG2527331

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	05/29/2025 15:42	WG2526017
(S) a,a,a-Trifluorotoluene(FID)	*104*		*78.0-120*		*05/29/2025 15:42*	WG2526017

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/30/2025 19:23	WG2527331
Ethylbenzene	ND		1.00	1	05/30/2025 19:23	WG2527331
Toluene	ND		1.00	1	05/30/2025 19:23	WG2527331
Xylenes, Total	ND		3.00	1	05/30/2025 19:23	WG2527331
Trichloroethene	ND		1.00	1	05/30/2025 19:23	WG2527331
cis-1,2-Dichloroethene	ND		1.00	1	05/30/2025 19:23	WG2527331
trans-1,2-Dichloroethene	ND		1.00	1	05/30/2025 19:23	WG2527331
Tetrachloroethene	ND		1.00	1	05/30/2025 19:23	WG2527331
Vinyl chloride	ND	C3 J4	1.00	1	05/30/2025 19:23	WG2527331
(S) Toluene-d8	*100*		*80.0-120*		*05/30/2025 19:23*	WG2527331
(S) 4-Bromofluorobenzene	*94.7*		*77.0-126*		*05/30/2025 19:23*	WG2527331
(S) 1,2-Dichloroethane-d4	*99.0*		*70.0-130*		*05/30/2025 19:23*	WG2527331

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	05/29/2025 11:21	WG2526017
(S) a,a,a-Trifluorotoluene(FID)	*102*		*78.0-120*		*05/29/2025 11:21*	WG2526017

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	05/30/2025 18:00	WG2527331
Ethylbenzene	ND		1.00	1	05/30/2025 18:00	WG2527331
Toluene	ND		1.00	1	05/30/2025 18:00	WG2527331
Xylenes, Total	ND		3.00	1	05/30/2025 18:00	WG2527331
Trichloroethene	ND		1.00	1	05/30/2025 18:00	WG2527331
cis-1,2-Dichloroethene	ND		1.00	1	05/30/2025 18:00	WG2527331
trans-1,2-Dichloroethene	ND		1.00	1	05/30/2025 18:00	WG2527331
Tetrachloroethene	ND		1.00	1	05/30/2025 18:00	WG2527331
Vinyl chloride	ND	C3 J4	1.00	1	05/30/2025 18:00	WG2527331
(S) Toluene-d8	*99.7*		*80.0-120*		*05/30/2025 18:00*	WG2527331
(S) 4-Bromofluorobenzene	*93.6*		*77.0-126*		*05/30/2025 18:00*	WG2527331
(S) 1,2-Dichloroethane-d4	*97.1*		*70.0-130*		*05/30/2025 18:00*	WG2527331

Method Blank (MB)

(MB) R4224392-2 05/29/25 10:29

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)	*103*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R4224392-1 05/29/25 09:26

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5000	4520	90.4	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*104*	*78.0-120*	

Method Blank (MB)

(MB) R4224989-3 05/30/25 05:49

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
Ethylbenzene	U		0.137	1.00
Toluene	U		0.278	1.00
Xylenes, Total	U		0.174	3.00
Trichloroethene	U		0.190	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
Tetrachloroethene	U		0.300	1.00
Vinyl chloride	U		0.234	1.00
(S) Toluene-d8	*99.3*			*80.0-120*
(S) 4-Bromofluorobenzene	*99.1*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*99.9*			*70.0-130*

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

(LCS) R4224989-1 05/30/25 04:52 • (LCSD) R4224989-2 05/30/25 05:11

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzene	5.00	5.26	5.08	105	102	70.0-123			3.48	20
Ethylbenzene	5.00	5.08	4.90	102	98.0	79.0-123			3.61	20
Toluene	5.00	5.06	4.56	101	91.2	79.0-120			10.4	20
Xylenes, Total	15.0	15.4	14.6	103	97.3	79.0-123			5.33	20
Trichloroethene	5.00	5.61	5.40	112	108	78.0-124			3.81	20
cis-1,2-Dichloroethene	5.00	5.37	5.61	107	112	73.0-120			4.37	20
trans-1,2-Dichloroethene	5.00	5.37	5.53	107	111	73.0-120			2.94	20
Tetrachloroethene	5.00	5.32	4.75	106	95.0	72.0-132			11.3	20
Vinyl chloride	5.00	5.60	5.57	112	111	67.0-131			0.537	20
(S) Toluene-d8				*100*	*96.7*	*80.0-120*				
(S) 4-Bromofluorobenzene				*97.0*	*101*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*99.9*	*102*	*70.0-130*				

L1863004-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1863004-03 05/30/25 10:54 • (MS) R4224989-4 05/30/25 12:49 • (MSD) R4224989-5 05/30/25 13:08

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Benzene	5.00	ND	4.44	3.89	86.7	75.7	1	17.0-158			13.2	27
Ethylbenzene	5.00	ND	4.22	3.69	84.4	73.8	1	30.0-155			13.4	27
Toluene	5.00	ND	4.10	3.70	82.0	74.0	1	26.0-154			10.3	28

L1863004-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1863004-03 05/30/25 10:54 • (MS) R4224989-4 05/30/25 12:49 • (MSD) R4224989-5 05/30/25 13:08

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	15.0	ND	12.6	10.9	84.0	72.7	1	29.0-154			14.5	28
Trichloroethene	5.00	13.2	16.8	16.5	72.0	66.0	1	10.0-160			1.80	25
cis-1,2-Dichloroethene	5.00	ND	5.38	4.66	90.9	76.5	1	10.0-160			14.3	27
trans-1,2-Dichloroethene	5.00	ND	4.58	4.03	91.6	80.6	1	17.0-153			12.8	27
Tetrachloroethene	5.00	ND	4.31	3.77	86.2	75.4	1	10.0-160			13.4	27
Vinyl chloride	5.00	ND	5.00	4.31	100	86.2	1	10.0-160			14.8	27
(S) Toluene-d8					*96.4*	*100*		*80.0-120*				
(S) 4-Bromofluorobenzene					*97.9*	*98.7*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*102*	*103*		*70.0-130*				

Method Blank (MB)

(MB) R4223207-3 05/30/25 14:57

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Ethylbenzene	U		0.137	1.00
Toluene	U		0.278	1.00
Xylenes, Total	U		0.174	3.00
Trichloroethene	U		0.190	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
Tetrachloroethene	U		0.300	1.00
Vinyl chloride	U		0.234	1.00
(S) Toluene-d8	*99.0*			*80.0-120*
(S) 4-Bromofluorobenzene	*95.5*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*97.4*			*70.0-130*

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

(LCS) R4223207-1 05/30/25 11:20 • (LCSD) R4223207-2 05/30/25 11:40

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	5.00	4.64	4.82	92.8	96.4	70.0-123			3.81	20
Ethylbenzene	5.00	4.20	4.42	84.0	88.4	79.0-123			5.10	20
Toluene	5.00	4.50	4.53	90.0	90.6	79.0-120			0.664	20
Xylenes, Total	15.0	13.0	13.4	86.7	89.3	79.0-123			3.03	20
Trichloroethene	5.00	4.72	4.84	94.4	96.8	78.0-124			2.51	20
cis-1,2-Dichloroethene	5.00	4.44	4.35	88.8	87.0	73.0-120			2.05	20
trans-1,2-Dichloroethene	5.00	4.47	4.49	89.4	89.8	73.0-120			0.446	20
Tetrachloroethene	5.00	4.62	4.64	92.4	92.8	72.0-132			0.432	20
Vinyl chloride	5.00	3.09	3.15	61.8	63.0	67.0-131	J4	J4	1.92	20
(S) Toluene-d8				*99.7*	*98.7*	*80.0-120*				
(S) 4-Bromofluorobenzene				*92.6*	*93.3*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*96.8*	*99.6*	*70.0-130*				

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.
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.
J4	The associated batch QC was outside the established quality control range for accuracy.

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	LAO000356
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.

Company Name/Address:
Engineering/Remediation Resources Group
15333 NE 90th Street

Billing Information:
Jennifer Sonnichsen | Accounts Payable
15333 NE 90th Street
Ste 100
Redmond, WA 98052

Pres Chk

Report to: **Jennifer Sonnichsen 425-658-5026**

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

Project Description: Former Circle K

City/State Collected: Seattle WA

Please Circle: PT MT CT ET

Regulatory Program(DOD,RCRA,DW,etc): EIM EDD

Client Project # 20230065

Lab Project # **ENGREMRWA-CIRCLE K**

Collected by (print): FJ

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y _/_

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

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHGX 40mlAmb HCl	NWTPHGX 40mlAmb-HCl-Blk	OGHEX 1L-Cl-WT-HCl	V8260 40mlAmb-HCl	V8260 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
LG-401-INF-20250523	GRAB	GW	N/A	5/23/25	1215	8	X		X	X			-01
LG-402-MID-20250523		GW			1205	8	X		X	X			-02
LG-404-EFF-20250523		GW			1145	8	X		X	X			-03
DUP-1-20250523		GW			1150	8	X		X	X			-04
DUP-2-20250523		GW			1155	2			X				-05
TRIP BLANK TB-01-20250523		~~TB~~ GW			1445	2		X			X		-06

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

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/hubfs/pas-standard-terms.pdf

SDG # 1863045
D087

Acctnum: **ENGREMRWA**
Template: **T263466**
Prelogin: **P1152157**
PM: **3500 - Jennifer Gambill**
PB:
Shipped Via: **FedEx Ground**

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

Remarks: VOCs - TCE, PCE, cDCE, +DCE, VC BTEX Only

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 4493 5929 2226

Sample Receipt Checklist
COC Seal Present/Intact: __NP 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: X __N

Relinquished by / (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: (Yes) / No HCL / MeoH TBR	If preservation required by Login: Date/Time
FJ	5/23/25	1450	FEDEX	2	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: TLA920104-24 34	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/24/25 Time: 0830	Hold: / Condition: NCF / OK

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

June 12, 2025

Client Services
Pace National
12065 Lebanon Rd
Mt. Juliet, TN 37122

RE: Project: L1863045 WG2526277
Pace Project No.: 10736794

Dear Client Services:

Enclosed are the analytical results for sample(s) received by the laboratory on May 31, 2025. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tong Lee
tong.lee@pacelabs.com
(612)473-6804
Project Manager

Enclosures

cc: Jimmy Huckaba, Pace Analytical National Center for Testing & Innovation

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: L1863045 WG2526277
Pace Project No.: 10736794

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification via A2LA #: R-036
North Dakota Certification via MN #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: L1863045 WG2526277
Pace Project No.: 10736794

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10736794001	**LG-401-INF-20250523**	Water	05/23/25 12:15	05/31/25 09:11
10736794002	**LG-402-MID-20250523**	Water	05/23/25 12:05	05/31/25 09:11
10736794003	**LG-404-EFF-20250523**	Water	05/23/25 11:45	05/31/25 09:11
10736794004	**DUP-1-20250523**	Water	05/23/25 11:50	05/31/25 09:11
10736794005	**DUP-2-20250523**	Water	05/23/25 11:55	05/31/25 09:11

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: L1863045 WG2526277
Pace Project No.: 10736794

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10736794001	**LG-401-INF-20250523**	EPA 1664B OG	RM3	1	PASI-M
10736794002	**LG-402-MID-20250523**	EPA 1664B OG	RM3	1	PASI-M
10736794003	**LG-404-EFF-20250523**	EPA 1664B OG	RM3	1	PASI-M
10736794004	**DUP-1-20250523**	EPA 1664B OG	RM3	1	PASI-M
10736794005	**DUP-2-20250523**	EPA 1664B OG	RM3	1	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1863045 WG2526277
Pace Project No.: 10736794

Sample: LG-401-INF-20250523 **Lab ID: 10736794001** Collected: 05/23/25 12:15 Received: 05/31/25 09:11 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
1664B HEM, Oil and Grease	Analytical Method: EPA 1664B OG Pace Analytical Services - Minneapolis							
Oil and Grease	**6.1**	mg/L	6.0	1		06/12/25 14:40		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1863045 WG2526277
Pace Project No.: 10736794

Sample: LG-402-MID-20250523 **Lab ID: 10736794002** Collected: 05/23/25 12:05 Received: 05/31/25 09:11 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
1664B HEM, Oil and Grease	Analytical Method: EPA 1664B OG Pace Analytical Services - Minneapolis							
Oil and Grease	**6.7**	mg/L	5.9	1		06/12/25 14:40		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1863045 WG2526277
Pace Project No.: 10736794

Sample: LG-404-EFF-20250523 **Lab ID: 10736794003** Collected: 05/23/25 11:45 Received: 05/31/25 09:11 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
1664B HEM, Oil and Grease	Analytical Method: EPA 1664B OG Pace Analytical Services - Minneapolis							
Oil and Grease	ND	mg/L	6.0	1		06/12/25 14:39		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1863045 WG2526277
Pace Project No.: 10736794

Sample: DUP-1-20250523 **Lab ID: 10736794004** Collected: 05/23/25 11:50 Received: 05/31/25 09:11 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
1664B HEM, Oil and Grease	Analytical Method: EPA 1664B OG Pace Analytical Services - Minneapolis							
Oil and Grease	ND	mg/L	6.0	1		06/12/25 14:39		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: L1863045 WG2526277
Pace Project No.: 10736794

Sample: DUP-2-20250523 **Lab ID: 10736794005** Collected: 05/23/25 11:55 Received: 05/31/25 09:11 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
1664B HEM, Oil and Grease	Analytical Method: EPA 1664B OG Pace Analytical Services - Minneapolis							
Oil and Grease	ND	mg/L	6.0	1		06/12/25 14:39		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: L1863045 WG2526277
Pace Project No.: 10736794

QC Batch: 1012643 | Analysis Method: EPA 1664B OG
QC Batch Method: EPA 1664B OG | Analysis Description: 1664B HEM, Oil and Grease
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10736794001, 10736794002, 10736794003, 10736794004, 10736794005

METHOD BLANK: 5278636 Matrix: Water
Associated Lab Samples: 10736794001, 10736794002, 10736794003, 10736794004, 10736794005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	06/12/25 14:28	

LABORATORY CONTROL SAMPLE: 5278637

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	40	38.2	96	78-114	

MATRIX SPIKE SAMPLE: 5278638

Parameter	Units	10736404001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	ND	40.4	34.7	85	78-114	

SAMPLE DUPLICATE: 5278639

Parameter	Units	10736415002 Result	Dup Result	RPD	Max RPD	Qualifiers
Oil and Grease	mg/L	<1.3	ND		18	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: L1863045 WG2526277
Pace Project No.: 10736794

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: 1012643

[BE] Batch extracted by solid phase extraction (SPE).

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L1863045 WG2526277
Pace Project No.: 10736794

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10736794003	**LG-404-EFF-20250523**	EPA 1664B OG	1012643		
10736794004	**DUP-1-20250523**	EPA 1664B OG	1012643		
10736794005	**DUP-2-20250523**	EPA 1664B OG	1012643		
10736794002	**LG-402-MID-20250523**	EPA 1664B OG	1012643		
10736794001	**LG-401-INF-20250523**	EPA 1664B OG	1012643		

Sub-Contract Chain of Custody

Batch Date/Time: 05/29/25 13:22
Sub-Contract Lab: PACEMN
Address: 1700 Elm Street Suite 200 SE
City/State: Minneapolis, MN 55414
Contact: Tong.Lee@pacelabs.com
Owner Lab: PACEMTJL
Address: 12065 Lebanon Rd.
City/State: Mt. Juliet, TN 37122
Phone: (615) 773-9756
Fax: (615) 758-5859

WO: WG2526277
Email: MTJLSuboutTeam@pacelabs.com
Results Due Date: 06/09/25
ESC Purchase Order #: L1863045
Send Reports to: James C Huckaba

Pace Analytical®

12065 Lebanon Rd.
Mt. Juliet, TN 37122
Phone:(615) 773-9756
Fax:(615) 758-5859

Sample ID Container ID	Matrix	State	Collect Date	Description	Method	Sample Number Lab Use Only	Sample Comments Lab Use Only
LG-401-INF-20250523 1L-Clr-WT-HCl - 52130454 1L-Clr-WT-HCl - 52130455	GW	WA	05/23/25 12:15	Oil & Grease (Hexane Extr)	1664A	1. L1863045-01	01
LG-402-MID-20250523 1L-Clr-WT-HCl - 52130456 1L-Clr-WT-HCl - 52130457	GW	WA	05/23/25 12:05	Oil & Grease (Hexane Extr)	1664A	2. L1863045-02	02
LG-404-EFF-20250523 1L-Clr-WT-HCl - 52130458 1L-Clr-WT-HCl - 52130459	GW	WA	05/23/25 11:45	Oil & Grease (Hexane Extr)	1664A	3. L1863045-03	03
DUP-1-20250523 1L-Clr-WT-HCl - 52130460 1L-Clr-WT-HCl - 52130461	GW	WA	05/23/25 11:50	Oil & Grease (Hexane Extr)	1664A	4. L1863045-04	04
DUP-2-20250523 1L-Clr-WT-HCl - 52130462 1L-Clr-WT-HCl - 52130463	GW	WA	05/23/25 11:55	Oil & Grease (Hexane Extr)	1664A	5. L1863045-05	05

*= Container used for multiple Samples and/or Analyses

Relinquished by: _____ **Date** 5-30-25
Received by: _____ **Date** 5/31/25 9:15
Relinquished by: _____ **Date** _____
Received by: _____ **Date** _____

(TJ) 2.0, 1.4

WO# : 10736794

10736794

ENV-FRM-MIN4-0150 v19_Sample Condition Upon Receipt

Person Examining & Date: JW 6/2/25 **PROJECT #:** **WO#: 10736794**

PM: TKL **Due Date: 06/16/25**

CLIENT: PASI-TN

Client Name: PACE MTJL

Custody Seal Present: ☑ YES ☐ NO **Seals Intact:** ☑ YES ☐ NO

Tracking Number: 4580 6305 6130 ☑ **See Exceptions form ENV-FRM-MIN4-0142.**

Courier: ☐ Client ☐ Commercial ☑ FedEx ☐ Pace Courier/Field ☐ SpeeDee ☐ UPS ☐ USPS

Packing Material: ☐ Bubble Bags ☐ Bubble Wrap ☐ None ☐ Other: _____ **Biological Tissue Frozen:** ☐ YES ☐ NO

Thermometer: ☑ T1 (0461) ☐ T2 (0431) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0187) ☐ T6 (0396) ☐ T7 (0377) ☐ T8 (0775) ☐ T9 (0428) ☐ 01339252 (0710)

Type of Ice: ☐ Blue ☐ Dry ☑ Wet ☐ Melted ☐ None

Temp Blank: ☑ YES ☐ NO

NOTE: Temp should be ≤ 6°C, but above freezing.

Read Temp w/Temp Blank: 2.0, 1.4 °C

Correction Factor: 0

Corrected Temp w/Temp Blank: 2.0, 1.4 °C

Did Samples Originate in West Virginia: ☐ YES ☑ NO **(list temps on exception)**

Were All Container Temps Taken: ☐ YES ☐ NO ☑ N/A

Average Corrected Temp (No Temp Blank Only): _____

☐ **See Exceptions form ENV-FRM-MIN4-0142.** ☐ 1 Container

USDA Regulated Soil: ☑ N/A ☐ Water Sample/Other (describe): _____

Did Samples originate from one of the following states (check maps): ☐ YES ☐ NO

Circle State: AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, VA

Are samples from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO

NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

LOCATION (check one): ☐ DULUTH ☑ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out? **(i.e., Analysis/ID/Date/Time)**	☑	☐		1.
Chain of Custody Relinquished?	☑	☐		2.
Sampler Name and/or Signature on COC?	☐	☐	☑	3. IR
Samples Arrived within Hold Time? If Fecal: ☐ <8 hrs ☐ >8 hr but <24 hr ☐ >24 hr	☑	☐		4.
Short Hold Time Analysis (<72 hr)?	☐	☑		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Turbidity ☐ Other:
Rush Turn Around Time Requested?	☐	☑		6. ☐ Same Day ☐ 1 Day ☐ 2 Day ☐ 3 Day ☐ 5 Day Due Date: 6/9/25
Sufficient Sample Volume? **(If NO, list approximate volume in section 7.)**	☑	☐		7.
Correct Containers Used? – Pace Containers Used?	☑ ☑	☐ ☐	☐	8. 2x 6NHCL/SAMPLE
Containers Intact?	☑	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☑	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO
ID/Date/Time Match? **(If NO, fill out section 11.)** Matrix: ☐ Oil ☐ Soil ☑ Water ☐ Other	☑	☐	☐	11. ☐ **See Exceptions form ENV-FRM-MIN4-0142**
All containers needing acid/base preservation have been checked?	☐	☐	☑	12.
Sample #: ☐ HNO3 _____ ☐ H2SO4 _____ ☐ NaOH _____ ☐ Zinc Acetate _____ **pH Paper Lot #:** ☐ Residual Chlorine _____ ☐ 0-6 Roll _____ ☐ 0-6 Strip _____ ☐ 0-14 Strip _____ **Positive for Residual Chlorine (NaOH containers only):** ☐ YES ☐ NO				
Preserved containers in compliance with EPA recommendations? (HNO3, H2SO4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide) **EXCECTIONS (water only):** VOA, Coliform, TOC/DOC, ~~Oil & Grease~~, Phenols, DRO/8015, Dioxins, and PFAS	☐ ☑	☐ ☐	☑ ☐	☐ **See Exceptions form ENV-FRM-MIN4-0142**
Extra labels present on soil VOA or WIDRO containers? **(soil only)**	☐	☐	☑	13.
Headspace in Methyl Mercury Container?	☐	☐	☑	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☑	☐ **See Exceptions form ENV-FRM-MIN4-0140**
Trip Blanks Present?	☐	☐	☑	15.
Trip Blank Custody Seals Present?	☐	☐	☑	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION / RESOLUTION: **Labeled By:** JZW **Line:** 2

Person Contacted & Date/Time: _____ **PM Review & Date:** 6/2/25

***NOTE:** When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office.*

ENV-FRM-MIN4-0142 v04_Sample Condition Upon Receipt - Exceptions

Workorder #: _____

No Temp Blank		
Read Temp	**Corrected Temp**	**Average temp**

PM Notified of Out of Temp Cooler? ☐ YES ☐ NO
If yes, indicate who was contacted, date and time. If no, indicate reason why.
Multiple Cooler Project? ☐ YES ☐ NO

If anything is OVER 6.0°C, you MUST document containers in this section HERE

Tracking Number	Temperature
4580 6305 6130	2.0
4580 6305 6129	1.4

Out of Temp Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples

Sample ID	Type Of Preserve	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance After Addition?		Initials
								YES	NO	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	

Comments:

ANALYTICAL REPORT

July 08, 2025

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

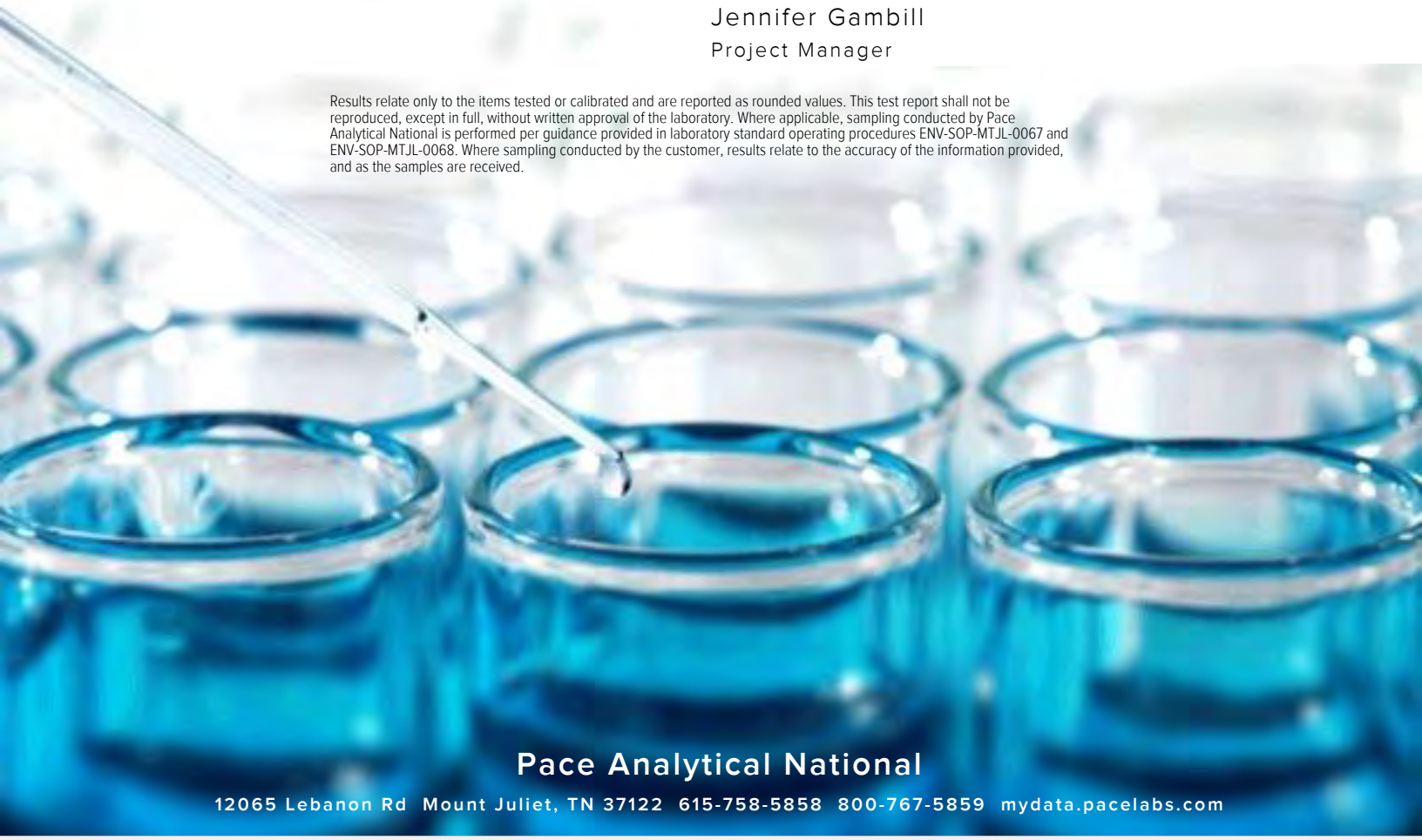
Engineering/Remediation Resources Group

Sample Delivery Group:	L1874324
Samples Received:	06/28/2025
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



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

TABLE OF CONTENTS

LG-404-EFF-20250627 L1874324-01

Collected by: FI | Collected date/time: 06/27/25 11:00 | Received date/time: 06/28/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 1664B	WG2553151	1	07/04/25 23:18	07/05/25 16:40	DGC	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2552809	1	07/04/25 09:08	07/04/25 09:08	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2551643	1	07/02/25 17:25	07/02/25 17:25	DYW	Mt. Juliet, TN

DUP-1-20250627 L1874324-02

Collected by: FI | Collected date/time: 06/27/25 11:05 | Received date/time: 06/28/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 1664B	WG2553151	1	07/04/25 23:18	07/05/25 16:40	DGC	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2552809	1	07/04/25 09:30	07/04/25 09:30	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2551643	1	07/02/25 17:46	07/02/25 17:46	DYW	Mt. Juliet, TN

LG-402-MID-20250627 L1874324-03

Collected by: FI | Collected date/time: 06/27/25 11:20 | Received date/time: 06/28/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 1664B	WG2553151	1	07/04/25 23:18	07/05/25 16:40	DGC	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2552809	1	07/04/25 09:52	07/04/25 09:52	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2551643	1	07/02/25 18:06	07/02/25 18:06	DYW	Mt. Juliet, TN

LG-401-INF-20250627 L1874324-04

Collected by: FI | Collected date/time: 06/27/25 11:30 | Received date/time: 06/28/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 1664B	WG2553151	1	07/04/25 23:18	07/05/25 16:40	DGC	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2552809	1	07/04/25 10:15	07/04/25 10:15	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2551643	1	07/02/25 18:27	07/02/25 18:27	DYW	Mt. Juliet, TN

DUP-2-20250627 L1874324-05

Collected by: FI | Collected date/time: 06/27/25 11:10 | Received date/time: 06/28/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 1664B	WG2553151	1	07/04/25 23:18	07/05/25 16:40	DGC	Mt. Juliet, TN

TB-01-20250627 L1874324-06

Collected by: FI | Collected date/time: 06/27/25 12:00 | Received date/time: 06/28/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2552809	1	07/04/25 08:01	07/04/25 08:01	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2551643	1	07/02/25 15:22	07/02/25 15:22	DYW	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)	ND		5.68	1	07/05/2025 16:40	WG2553151

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	07/04/2025 09:08	WG2552809
(S) a,a,a-Trifluorotoluene(FID)	*105*		*78.0-120*		*07/04/2025 09:08*	WG2552809

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	07/02/2025 17:25	WG2551643
Ethylbenzene	ND		1.00	1	07/02/2025 17:25	WG2551643
Toluene	ND		1.00	1	07/02/2025 17:25	WG2551643
Xylenes, Total	ND		3.00	1	07/02/2025 17:25	WG2551643
Trichloroethene	ND		1.00	1	07/02/2025 17:25	WG2551643
cis-1,2-Dichloroethene	ND		1.00	1	07/02/2025 17:25	WG2551643
trans-1,2-Dichloroethene	ND		1.00	1	07/02/2025 17:25	WG2551643
Tetrachloroethene	ND		1.00	1	07/02/2025 17:25	WG2551643
Vinyl chloride	ND		1.00	1	07/02/2025 17:25	WG2551643
(S) Toluene-d8	*92.8*		*80.0-120*		*07/02/2025 17:25*	WG2551643
(S) 4-Bromofluorobenzene	*93.9*		*77.0-126*		*07/02/2025 17:25*	WG2551643
(S) 1,2-Dichloroethane-d4	*97.1*		*70.0-130*		*07/02/2025 17:25*	WG2551643

Wet Chemistry by Method 1664B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Oil & Grease (Hexane Extr)	ND		5.75	1	07/05/2025 16:40	WG2553151

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	07/04/2025 09:30	WG2552809
(S) a,a,a-Trifluorotoluene(FID)	*105*		*78.0-120*		*07/04/2025 09:30*	WG2552809

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	07/02/2025 17:46	WG2551643
Ethylbenzene	ND		1.00	1	07/02/2025 17:46	WG2551643
Toluene	ND		1.00	1	07/02/2025 17:46	WG2551643
Xylenes, Total	ND		3.00	1	07/02/2025 17:46	WG2551643
Trichloroethene	ND		1.00	1	07/02/2025 17:46	WG2551643
cis-1,2-Dichloroethene	ND		1.00	1	07/02/2025 17:46	WG2551643
trans-1,2-Dichloroethene	ND		1.00	1	07/02/2025 17:46	WG2551643
Tetrachloroethene	ND		1.00	1	07/02/2025 17:46	WG2551643
Vinyl chloride	ND		1.00	1	07/02/2025 17:46	WG2551643
(S) Toluene-d8	*93.8*		*80.0-120*		*07/02/2025 17:46*	WG2551643
(S) 4-Bromofluorobenzene	*93.4*		*77.0-126*		*07/02/2025 17:46*	WG2551643
(S) 1,2-Dichloroethane-d4	*97.1*		*70.0-130*		*07/02/2025 17:46*	WG2551643

Wet Chemistry by Method 1664B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Oil & Grease (Hexane Extr)	ND		5.38	1	07/05/2025 16:40	WG2553151

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	07/04/2025 09:52	WG2552809
(S) a,a,a-Trifluorotoluene(FID)	*105*		*78.0-120*		*07/04/2025 09:52*	WG2552809

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	07/02/2025 18:06	WG2551643
Ethylbenzene	ND		1.00	1	07/02/2025 18:06	WG2551643
Toluene	ND		1.00	1	07/02/2025 18:06	WG2551643
Xylenes, Total	ND		3.00	1	07/02/2025 18:06	WG2551643
Trichloroethene	ND		1.00	1	07/02/2025 18:06	WG2551643
cis-1,2-Dichloroethene	ND		1.00	1	07/02/2025 18:06	WG2551643
trans-1,2-Dichloroethene	ND		1.00	1	07/02/2025 18:06	WG2551643
Tetrachloroethene	ND		1.00	1	07/02/2025 18:06	WG2551643
Vinyl chloride	ND		1.00	1	07/02/2025 18:06	WG2551643
(S) Toluene-d8	*95.4*		*80.0-120*		*07/02/2025 18:06*	WG2551643
(S) 4-Bromofluorobenzene	*94.8*		*77.0-126*		*07/02/2025 18:06*	WG2551643
(S) 1,2-Dichloroethane-d4	*96.0*		*70.0-130*		*07/02/2025 18:06*	WG2551643

Wet Chemistry by Method 1664B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Oil & Grease (Hexane Extr)	ND		6.17	1	07/05/2025 16:40	WG2553151

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Gasoline Range Organics-NWTPH	107		100	1	07/04/2025 10:15	WG2552809
(S) a,a,a-Trifluorotoluene(FID)	*106*		*78.0-120*		*07/04/2025 10:15*	WG2552809

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Benzene	ND		1.00	1	07/02/2025 18:27	WG2551643
Ethylbenzene	ND		1.00	1	07/02/2025 18:27	WG2551643
Toluene	ND		1.00	1	07/02/2025 18:27	WG2551643
Xylenes, Total	3.62		3.00	1	07/02/2025 18:27	WG2551643
Trichloroethene	ND		1.00	1	07/02/2025 18:27	WG2551643
cis-1,2-Dichloroethene	ND		1.00	1	07/02/2025 18:27	WG2551643
trans-1,2-Dichloroethene	ND		1.00	1	07/02/2025 18:27	WG2551643
Tetrachloroethene	ND		1.00	1	07/02/2025 18:27	WG2551643
Vinyl chloride	ND		1.00	1	07/02/2025 18:27	WG2551643
(S) Toluene-d8	*92.4*		*80.0-120*		*07/02/2025 18:27*	WG2551643
(S) 4-Bromofluorobenzene	*95.8*		*77.0-126*		*07/02/2025 18:27*	WG2551643
(S) 1,2-Dichloroethane-d4	*94.8*		*70.0-130*		*07/02/2025 18:27*	WG2551643

Wet Chemistry by Method 1664B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Oil & Grease (Hexane Extr)	ND		6.10	1	07/05/2025 16:40	WG2553151

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	07/04/2025 08:01	WG2552809
(S) a,a,a-Trifluorotoluene(FID)	*104*		*78.0-120*		*07/04/2025 08:01*	WG2552809

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	ND		1.00	1	07/02/2025 15:22	WG2551643
Ethylbenzene	ND		1.00	1	07/02/2025 15:22	WG2551643
Toluene	ND		1.00	1	07/02/2025 15:22	WG2551643
Xylenes, Total	ND		3.00	1	07/02/2025 15:22	WG2551643
Trichloroethene	ND		1.00	1	07/02/2025 15:22	WG2551643
cis-1,2-Dichloroethene	ND		1.00	1	07/02/2025 15:22	WG2551643
trans-1,2-Dichloroethene	ND		1.00	1	07/02/2025 15:22	WG2551643
Tetrachloroethene	ND		1.00	1	07/02/2025 15:22	WG2551643
Vinyl chloride	ND		1.00	1	07/02/2025 15:22	WG2551643
(S) Toluene-d8	*95.1*		*80.0-120*		*07/02/2025 15:22*	WG2551643
(S) 4-Bromofluorobenzene	*95.9*		*77.0-126*		*07/02/2025 15:22*	WG2551643
(S) 1,2-Dichloroethane-d4	*96.0*		*70.0-130*		*07/02/2025 15:22*	WG2551643

Method Blank (MB)

(MB) R4240906-1 07/05/25 16:40

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) R4240906-2 07/05/25 16:40 • (LCSD) R4240906-3 07/05/25 16:40

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	37.1	34.4	92.8	86.0	78.0-114			7.55	20

L1874338-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1874338-01 07/05/25 16:40 • (MS) R4240906-4 07/05/25 16:40

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	37.1	92.6	1	78.0-114	

Method Blank (MB)

(MB) R4241334-2 07/04/25 01:38

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)	*105*			*78.0-120*

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

(LCS) R4241334-1 07/04/25 00:13 • (LCSD) R4241334-5 07/04/25 07:18

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	4460	4430	89.2	88.6	70.0-124			0.675	20
(S) a,a,a-Trifluorotoluene(FID)				*115*	*114*	*78.0-120*				

L1874344-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1874344-03 07/04/25 03:39 • (MS) R4241334-3 07/04/25 06:12 • (MSD) R4241334-4 07/04/25 06:34

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	4310	4460	86.2	89.2	1	10.0-155			3.42	21
(S) a,a,a-Trifluorotoluene(FID)					*99.9*	*101*		*78.0-120*				

Method Blank (MB)

(MB) R4241984-5 07/02/25 14:01

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Ethylbenzene	U		0.137	1.00
Toluene	U		0.278	1.00
Xylenes, Total	U		0.174	3.00
Trichloroethene	U		0.190	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
Tetrachloroethene	U		0.300	1.00
Vinyl chloride	U		0.234	1.00
(S) Toluene-d8	*93.6*			*80.0-120*
(S) 4-Bromofluorobenzene	*94.4*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*95.1*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R4241984-1 07/02/25 11:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	5.00	5.55	111	70.0-123	
Ethylbenzene	5.00	4.90	98.0	79.0-123	
Toluene	5.00	5.03	101	79.0-120	
Xylenes, Total	15.0	15.0	100	79.0-123	
Trichloroethene	5.00	4.94	98.8	78.0-124	
cis-1,2-Dichloroethene	5.00	5.53	111	73.0-120	
trans-1,2-Dichloroethene	5.00	5.48	110	73.0-120	
Tetrachloroethene	5.00	5.21	104	72.0-132	
Vinyl chloride	5.00	5.48	110	67.0-131	
(S) Toluene-d8			*91.0*	*80.0-120*	
(S) 4-Bromofluorobenzene			*95.6*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*98.3*	*70.0-130*	

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

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

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	LAO000356
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.

Company Name/Address:
Engineering/Remediation Resources Group
15333 NE 90th Street

Billing Information:
Jennifer Sonnichsen | Accounts Payable
15333 NE 90th Street
Ste 100

Pres Chk

Chain of Custody Page 1 of 1

PACE — PEOPLE ADVANCING SCIENCE

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/hubfs/pas-standard-terms.pdf

Report to: Jennifer Sonnichsen 425-658-5026

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): ECOLOGY

Client Project #: 20230065

Lab Project #: ENGREMRWA-CIRCLE K

SDG # L1874324

D119

Collected by (print): FI

Site/Facility ID #

P.O. #

Acctnum: ENGREMRWA
Template: T263466
Prelogin: P1159303
PM: 3500 - Jennifer Gambill
PB:
Shipped Via: FedEX Ground

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

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

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHGX 40mlAmb HCl	NWTPHGX 40mlAmb-HCl-Blk	OGHEX 1L-Clr-WT-HCl	V8260 40mlAmb-HCl	V8260 40mlAmb-HCl-Blk					Remarks	Sample # (lab only)
LG-404-EFF-20250627	Grab	GW	N/A	6/27/25	1100	8	X		X	X							-01
DUP-1-20250627	↓	GW	↓	↓	1105	8	X		X	X							-02
LG-403-MID-20250627	↓	GW	↓	↓	1120	8	X		X	X							-03
LG-401-INF-20250627	↓	GW	↓	↓	1130	8	X		X	X							-04
DUP-2-20250627	↓	GW	↓	↓	1100	2			X								-05
TRIP BLANK TB-01-20250627	↓	GW	↓	↓	1200	3		X			X						-06

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

Remarks: Short List VOCs - BTEX + TCE, cDCE, tDCE, PCE, VC

pH ______ Temp ______

Flow ______ Other ______

Samples returned via:
__ UPS __ FedEx __ Courier __________

Tracking # 7918 1011 2790

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓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

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	
[signature]	6/27/25	1430	FEDEX	23	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C TLA90.1=0.1=1.1 Bottles Received: 34	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 6/28/25 Time: 0830	Hold: / Condition: NCF / OK

ANALYTICAL REPORT

April 24, 2025

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

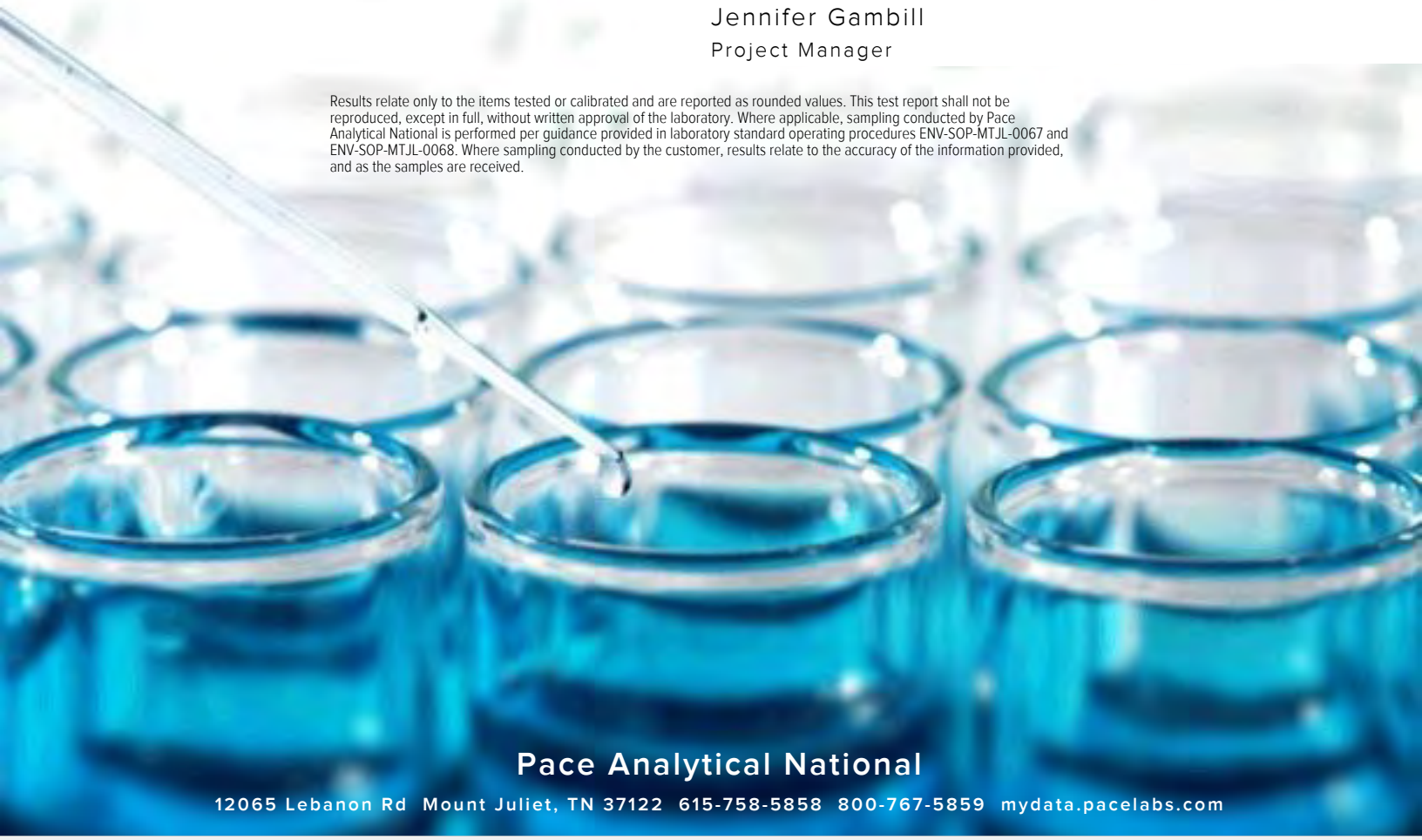
Engineering/Remediation Resources Group

Sample Delivery Group:	L1849945
Samples Received:	04/19/2025
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



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

TABLE OF CONTENTS

SAMPLE SUMMARY

VG-412-INF-20250418 L1849945-01 Air

Collected by: Fernando Idiarte
Collected date/time: 04/18/25 14:35
Received date/time: 04/19/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2495461	20	04/21/25 00:28	04/21/25 00:28	JAP	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2497943	500	04/23/25 18:05	04/23/25 18:05	DAH	Mt. Juliet, TN

VG-410-EFF-20250418 L1849945-02 Air

Collected by: Fernando Idiarte
Collected date/time: 04/18/25 14:45
Received date/time: 04/19/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2495461	1	04/20/25 22:34	04/20/25 22:34	JAP	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	ND	ND		20	WG2495461
Allyl chloride	107-05-1	76.53	4.00	12.5	ND	ND		20	WG2495461
Benzene	71-43-2	78.10	4.00	12.8	1620	5170		20	WG2495461
Benzyl Chloride	100-44-7	127	4.00	20.8	ND	ND		20	WG2495461
Bromodichloromethane	75-27-4	164	4.00	26.8	ND	ND		20	WG2495461
Bromoform	75-25-2	253	12.6	130	ND	ND		20	WG2495461
Bromomethane	74-83-9	94.90	4.00	15.5	ND	ND		20	WG2495461
1,3-Butadiene	106-99-0	54.10	40.0	88.5	ND	ND		20	WG2495461
Carbon disulfide	75-15-0	76.10	8.00	24.9	ND	ND		20	WG2495461
Carbon tetrachloride	56-23-5	154	4.00	25.2	ND	ND		20	WG2495461
Chlorobenzene	108-90-7	113	4.00	18.5	ND	ND		20	WG2495461
Chloroethane	75-00-3	64.50	4.00	10.6	ND	ND		20	WG2495461
Chloroform	67-66-3	119	4.00	19.5	ND	ND		20	WG2495461
Chloromethane	74-87-3	50.50	4.00	8.26	ND	ND		20	WG2495461
2-Chlorotoluene	95-49-8	126	4.00	20.6	ND	ND		20	WG2495461
Cyclohexane	110-82-7	84.20	100	344	1940	6680		500	WG2497943
Dibromochloromethane	124-48-1	208	4.00	34.0	ND	ND		20	WG2495461
1,2-Dibromoethane	106-93-4	188	4.00	30.8	ND	ND		20	WG2495461
1,2-Dichlorobenzene	95-50-1	147	4.00	24.0	ND	ND		20	WG2495461
1,3-Dichlorobenzene	541-73-1	147	4.00	24.0	ND	ND		20	WG2495461
1,4-Dichlorobenzene	106-46-7	147	4.00	24.0	ND	ND		20	WG2495461
1,2-Dichloroethane	107-06-2	99	4.00	16.2	17.8	72.1		20	WG2495461
1,1-Dichloroethane	75-34-3	98	4.00	16.0	ND	ND		20	WG2495461
1,1-Dichloroethene	75-35-4	96.90	4.00	15.9	ND	ND		20	WG2495461
cis-1,2-Dichloroethene	156-59-2	96.90	4.00	15.9	108	428		20	WG2495461
trans-1,2-Dichloroethene	156-60-5	96.90	4.00	15.9	ND	ND		20	WG2495461
1,2-Dichloropropane	78-87-5	113	4.00	18.5	ND	ND		20	WG2495461
cis-1,3-Dichloropropene	10061-01-5	111	4.00	18.2	ND	ND		20	WG2495461
trans-1,3-Dichloropropene	10061-02-6	111	4.00	18.2	ND	ND		20	WG2495461
1,4-Dioxane	123-91-1	88.10	12.6	45.4	ND	ND		20	WG2495461
Ethanol	64-17-5	46.10	50.0	94.3	ND	ND		20	WG2495461
Ethylbenzene	100-41-4	106	4.00	17.3	541	2350		20	WG2495461
4-Ethyltoluene	622-96-8	120	4.00	19.6	658	3230		20	WG2495461
Trichlorofluoromethane	75-69-4	137.40	4.00	22.5	ND	ND		20	WG2495461
Dichlorodifluoromethane	75-71-8	120.92	4.00	19.8	ND	ND		20	WG2495461
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	4.00	30.7	ND	ND		20	WG2495461
1,2-Dichlorotetrafluoroethane	76-14-2	171	4.00	28.0	ND	ND		20	WG2495461
Heptane	142-82-5	100	100	409	2740	11200		500	WG2497943
Hexachloro-1,3-butadiene	87-68-3	261	12.6	135	ND	ND	J3 J4	20	WG2495461
n-Hexane	110-54-3	86.20	315	1110	18000	63500		500	WG2497943
Isopropylbenzene	98-82-8	120.20	4.00	19.7	54.0	265		20	WG2495461
Methylene Chloride	75-09-2	84.90	4.00	13.9	ND	ND		20	WG2495461
Methyl Butyl Ketone	591-78-6	100	25.0	102	ND	ND		20	WG2495461
2-Butanone (MEK)	78-93-3	72.10	25.0	73.7	ND	ND		20	WG2495461
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	25.0	102	ND	ND		20	WG2495461
Methyl methacrylate	80-62-6	100.12	4.00	16.4	ND	ND		20	WG2495461
MTBE	1634-04-4	88.10	4.00	14.4	ND	ND		20	WG2495461
Naphthalene	91-20-3	128	12.6	66.0	55.4	290	J3	20	WG2495461
2-Propanol	67-63-0	60.10	25.0	61.5	ND	ND		20	WG2495461
Propene	115-07-1	42.10	25.0	43.0	ND	ND		20	WG2495461
Styrene	100-42-5	104	8.00	34.0	ND	ND		20	WG2495461
1,1,2,2-Tetrachloroethane	79-34-5	168	4.00	27.5	ND	ND		20	WG2495461
Tetrachloroethylene	127-18-4	166	4.00	27.2	767	5210		20	WG2495461
Tetrahydrofuran	109-99-9	72.10	4.00	11.8	ND	ND		20	WG2495461
Toluene	108-88-3	92.10	250	942	2630	9910		500	WG2497943
1,2,4-Trichlorobenzene	120-82-1	181	12.6	93.3	ND	ND	J3	20	WG2495461

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	WG2495461
1,1,2-Trichloroethane	79-00-5	133	4.00	21.8	ND	ND		20	WG2495461
Trichloroethylene	79-01-6	131	4.00	21.4	71.1	381		20	WG2495461
1,2,4-Trimethylbenzene	95-63-6	120	100	491	998	4900		500	WG2497943
1,3,5-Trimethylbenzene	108-67-8	120	4.00	19.6	1280	6280		20	WG2495461
2,2,4-Trimethylpentane	540-84-1	114.22	100	467	4570	21300		500	WG2497943
Vinyl chloride	75-01-4	62.50	4.00	10.2	8.77	22.4		20	WG2495461
Vinyl Bromide	593-60-2	106.95	4.00	17.5	ND	ND		20	WG2495461
Vinyl acetate	108-05-4	86.10	12.6	44.4	ND	ND		20	WG2495461
Xylenes, Total	1330-20-7	106.16	300	1300	6500	28200		500	WG2497943
m&p-Xylene		106	200	867	4680	20300		500	WG2497943
o-Xylene	95-47-6	106	100	434	1820	7890		500	WG2497943
TPH (GC/MS) Low Fraction	8006-61-9	101	100000	413000	141000	582000		500	WG2497943
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*112*				WG2495461
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*97.9*				WG2497943

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
Acetone	67-64-1	58.10	1.25	2.97	4.91	11.7		1	WG2495461
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2495461
Benzene	71-43-2	78.10	0.200	0.639	1.86	5.94		1	WG2495461
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2495461
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2495461
Bromoform	75-25-2	253	0.630	6.52	ND	ND		1	WG2495461
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2495461
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2495461
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		1	WG2495461
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2495461
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2495461
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2495461
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2495461
Chloromethane	74-87-3	50.50	0.200	0.413	0.342	0.706		1	WG2495461
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2495461
Cyclohexane	110-82-7	84.20	0.200	0.689	0.451	1.55		1	WG2495461
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2495461
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2495461
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2495461
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2495461
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2495461
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2495461
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2495461
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2495461
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	0.231	0.915		1	WG2495461
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2495461
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2495461
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2495461
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2495461
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2495461
Ethanol	64-17-5	46.10	2.50	4.71	5.38	10.1		1	WG2495461
Ethylbenzene	100-41-4	106	0.200	0.867	3.57	15.5		1	WG2495461
4-Ethyltoluene	622-96-8	120	0.200	0.982	12.3	60.4		1	WG2495461
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2495461
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	ND	ND		1	WG2495461
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2495461
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2495461
Heptane	142-82-5	100	0.200	0.818	0.993	4.06		1	WG2495461
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND	J3 J4	1	WG2495461
n-Hexane	110-54-3	86.20	0.630	2.22	1.04	3.67		1	WG2495461
Isopropylbenzene	98-82-8	120.20	0.200	0.983	0.572	2.81		1	WG2495461
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG2495461
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2495461
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	1.91	5.63		1	WG2495461
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2495461
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2495461
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2495461
Naphthalene	91-20-3	128	0.630	3.30	9.77	51.1	J3	1	WG2495461
2-Propanol	67-63-0	60.10	1.25	3.07	7.04	17.3		1	WG2495461
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2495461
Styrene	100-42-5	104	0.400	1.70	ND	ND		1	WG2495461
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2495461
Tetrachloroethylene	127-18-4	166	0.200	1.36	2.23	15.1		1	WG2495461
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	4.53	13.4		1	WG2495461
Toluene	108-88-3	92.10	0.500	1.88	9.70	36.5		1	WG2495461
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND	J3	1	WG2495461

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	WG2495461
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2495461
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG2495461
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	68.0	334		1	WG2495461
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	27.2	133		1	WG2495461
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	0.659	3.08		1	WG2495461
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2495461
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2495461
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2495461
Xylenes, Total	1330-20-7	106.16	0.600	2.61	99.9	434		1	WG2495461
m&p-Xylene		106	0.400	1.73	66.4	288		1	WG2495461
o-Xylene	95-47-6	106	0.200	0.867	33.5	145		1	WG2495461
TPH (GC/MS) Low Fraction	8006-61-9	101	200	826	252	1040		1	WG2495461
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*102*				WG2495461

Method Blank (MB)

(MB) R4203299-2 04/20/25 10:04

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

Method Blank (MB)

(MB) R4203299-2 04/20/25 10:04

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
Xylenes, Total	U		0.0887	0.600
m&p-Xylene	U		0.174	0.400
o-Xylene	U		0.0887	0.200
TPH (GC/MS) Low Fraction	U		68.3	200
(S) 1,4-Bromofluorobenzene	*98.8*			*60.0-140*

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

(LCS) R4203299-1 04/20/25 09:26 • (LCSD) R4203299-3 04/20/25 11:08

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	4.22	4.07	113	109	70.0-130			3.62	25
Allyl chloride	3.75	4.20	4.11	112	110	70.0-130			2.17	25
Benzene	3.75	3.90	3.76	104	100	70.0-130			3.66	25

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

(LCS) R4203299-1 04/20/25 09:26 • (LCSD) R4203299-3 04/20/25 11:08

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzyl Chloride	3.75	4.17	4.03	111	107	70.0-152			3.41	25
Bromodichloromethane	3.75	3.73	3.62	99.5	96.5	70.0-130			2.99	25
Bromoform	3.75	2.91	2.79	77.6	74.4	70.0-130			4.21	25
Bromomethane	3.75	3.37	3.36	89.9	89.6	70.0-130			0.297	25
1,3-Butadiene	3.75	3.49	3.43	93.1	91.5	70.0-130			1.73	25
Carbon disulfide	7.50	7.88	7.71	105	103	70.0-130			2.18	25
Carbon tetrachloride	3.75	3.77	3.67	101	97.9	70.0-130			2.69	25
Chlorobenzene	3.75	3.73	3.64	99.5	97.1	70.0-130			2.44	25
Chloroethane	3.75	3.75	3.40	100	90.7	70.0-130			9.79	25
Chloroform	3.75	3.81	3.69	102	98.4	70.0-130			3.20	25
Chloromethane	3.75	3.72	3.69	99.2	98.4	70.0-130			0.810	25
2-Chlorotoluene	3.75	4.12	3.90	110	104	70.0-130			5.49	25
Cyclohexane	3.75	4.14	3.97	110	106	70.0-130			4.19	25
Dibromochloromethane	3.75	3.52	3.43	93.9	91.5	70.0-130			2.59	25
1,2-Dibromoethane	3.75	3.93	3.79	105	101	70.0-130			3.63	25
1,2-Dichlorobenzene	3.75	3.91	3.78	104	101	70.0-130			3.38	25
1,3-Dichlorobenzene	3.75	3.92	3.81	105	102	70.0-130			2.85	25
1,4-Dichlorobenzene	3.75	3.96	3.84	106	102	70.0-130			3.08	25
1,2-Dichloroethane	3.75	3.65	3.66	97.3	97.6	70.0-130			0.274	25
1,1-Dichloroethane	3.75	3.83	3.68	102	98.1	70.0-130			3.99	25
1,1-Dichloroethene	3.75	4.00	3.79	107	101	70.0-130			5.39	25
cis-1,2-Dichloroethene	3.75	4.18	4.05	111	108	70.0-130			3.16	25
trans-1,2-Dichloroethene	3.75	3.95	3.83	105	102	70.0-130			3.08	25
1,2-Dichloropropane	3.75	3.74	3.66	99.7	97.6	70.0-130			2.16	25
cis-1,3-Dichloropropene	3.75	4.06	3.96	108	106	70.0-130			2.49	25
trans-1,3-Dichloropropene	3.75	3.98	3.81	106	102	70.0-130			4.36	25
1,4-Dioxane	3.75	4.01	3.86	107	103	70.0-140			3.81	25
Ethanol	3.75	4.70	4.51	125	120	55.0-148			4.13	25
Ethylbenzene	3.75	4.11	3.96	110	106	70.0-130			3.72	25
4-Ethyltoluene	3.75	4.34	4.11	116	110	70.0-130			5.44	25
Trichlorofluoromethane	3.75	3.79	3.66	101	97.6	70.0-130			3.49	25
Dichlorodifluoromethane	3.75	3.84	3.68	102	98.1	64.0-139			4.26	25
1,1,2-Trichlorotrifluoroethane	3.75	3.78	3.67	101	97.9	70.0-130			2.95	25
1,2-Dichlorotetrafluoroethane	3.75	3.92	3.76	105	100	70.0-130			4.17	25
Heptane	3.75	4.13	3.80	110	101	70.0-130			8.32	25
Hexachloro-1,3-butadiene	3.75	3.79	2.59	101	69.1	70.0-151		J3 J4	37.6	25
n-Hexane	3.75	4.23	4.07	113	109	70.0-130			3.86	25
Isopropylbenzene	3.75	4.41	4.21	118	112	70.0-130			4.64	25
Methylene Chloride	3.75	3.67	3.58	97.9	95.5	70.0-130			2.48	25
Methyl Butyl Ketone	3.75	4.30	4.18	115	111	70.0-149			2.83	25

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

(LCS) R4203299-1 04/20/25 09:26 • (LCSD) R4203299-3 04/20/25 11:08

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	4.07	3.87	109	103	70.0-130			5.04	25
4-Methyl-2-pentanone (MIBK)	3.75	4.08	3.92	109	105	70.0-139			4.00	25
Methyl methacrylate	3.75	3.99	3.79	106	101	70.0-130			5.14	25
MTBE	3.75	4.21	4.02	112	107	70.0-130			4.62	25
Naphthalene	3.75	4.99	3.38	133	90.1	70.0-159		J3	38.5	25
2-Propanol	3.75	3.88	3.75	103	100	70.0-139			3.41	25
Propene	3.75	3.63	3.45	96.8	92.0	64.0-144			5.08	25
Styrene	7.50	8.63	8.23	115	110	70.0-130			4.74	25
1,1,2,2-Tetrachloroethane	3.75	3.96	3.72	106	99.2	70.0-130			6.25	25
Tetrachloroethylene	3.75	3.88	3.67	103	97.9	70.0-130			5.56	25
Tetrahydrofuran	3.75	3.89	3.73	104	99.5	70.0-137			4.20	25
Toluene	3.75	4.07	3.93	109	105	70.0-130			3.50	25
1,2,4-Trichlorobenzene	3.75	3.88	2.64	103	70.4	70.0-160		J3	38.0	25
1,1,1-Trichloroethane	3.75	3.75	3.65	100	97.3	70.0-130			2.70	25
1,1,2-Trichloroethane	3.75	3.83	3.69	102	98.4	70.0-130			3.72	25
Trichloroethylene	3.75	3.90	3.76	104	100	70.0-130			3.66	25
1,2,4-Trimethylbenzene	3.75	4.25	4.15	113	111	70.0-130			2.38	25
1,3,5-Trimethylbenzene	3.75	4.23	3.98	113	106	70.0-130			6.09	25
2,2,4-Trimethylpentane	3.75	4.33	4.08	115	109	70.0-130			5.95	25
Vinyl chloride	3.75	3.60	3.47	96.0	92.5	70.0-130			3.68	25
Vinyl Bromide	3.75	3.98	3.82	106	102	70.0-130			4.10	25
Vinyl acetate	3.75	4.11	4.10	110	109	70.0-130			0.244	25
Xylenes, Total	11.3	12.9	12.2	114	108	70.0-130			5.58	25
m&p-Xylene	7.50	8.52	8.15	114	109	70.0-130			4.44	25
o-Xylene	3.75	4.34	4.06	116	108	70.0-130			6.67	25
TPH (GC/MS) Low Fraction	188	183	172	97.3	91.5	70.0-130			6.20	25
(S) 1,4-Bromofluorobenzene				*102*	*101*	*60.0-140*				

Method Blank (MB)

(MB) R4204297-2 04/23/25 10:03

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Cyclohexane	U		0.170	0.200
Heptane	U		0.114	0.200
n-Hexane	U		0.143	0.630
Toluene	U		0.130	0.500
1,2,4-Trimethylbenzene	U		0.0927	0.200
2,2,4-Trimethylpentane	U		0.0898	0.200
Xylenes, Total	U		0.0887	0.600
m&p-Xylene	U		0.174	0.400
o-Xylene	U		0.0887	0.200
TPH (GC/MS) Low Fraction	U		68.3	200
(S) 1,4-Bromofluorobenzene	*96.2*			*60.0-140*

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

(LCS) R4204297-1 04/23/25 09:24 • (LCSD) R4204297-3 04/23/25 11:05

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Cyclohexane	3.75	4.42	4.29	118	114	70.0-130			2.99	25
Heptane	3.75	4.34	4.17	116	111	70.0-130			4.00	25
n-Hexane	3.75	4.51	4.42	120	118	70.0-130			2.02	25
Toluene	3.75	4.44	4.32	118	115	70.0-130			2.74	25
1,2,4-Trimethylbenzene	3.75	4.63	4.53	123	121	70.0-130			2.18	25
2,2,4-Trimethylpentane	3.75	4.67	4.47	125	119	70.0-130			4.38	25
Xylenes, Total	11.3	13.7	13.5	121	119	70.0-130			1.47	25
m&p-Xylene	7.50	9.07	8.99	121	120	70.0-130			0.886	25
o-Xylene	3.75	4.65	4.48	124	119	70.0-130			3.72	25
TPH (GC/MS) Low Fraction	188	195	194	104	103	70.0-130			0.514	25
(S) 1,4-Bromofluorobenzene				*103*	*99.4*	*60.0-140*				

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.
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
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.

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	LAO000356
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

M022

Scan QR code for instructions

Company Name: Engineering/Remediation Resources Grou	Contact/Report To: Jennifer Sonnichsen
Street Address: 15333 NE 90th Street	Phone #: 425-658-5026
City, State Zip:	E-Mail: jennifer.sonnichsen@errg.com;spencer.slominski@errg.com;fernando.idiarte@errg.com
Customer Project #: 20230065	Cc E-Mail:
Project Name: FORMER CIRCLE K 1461	Invoice to:
Site Collection Info/Facility ID (as applicable): ENGREMRWA-CIRCLE K	Invoice E-Mail:
Time Zone Collected: [ ]AK [/]PT [ ]MT [ ]CT [ ]ET	Purchase Order # (if applicable):
Data Deliverables: [ ]Level II [ ]Level III [ ]Level IV [ ]EQUIS [ ]Other WA EIM	Quote #:
	State origin of sample(s): WA
	Regulatory Program (CAA, RCRA, etc.) as applicable: WA EIM ECOLOGY
	Rush (Pre-approval required): 2 Day 3 day 5 day Other
	Permit # as applicable:
	Date Results Requested:
	Units for Reporting: (ug/m³) PPBV mg/m³ PPMV

AN 4/16/25

Proj. Manager: 3500 - Jennifer Gambill

AcctNum / Client ID: ENGREMRWA

Table #:

Profile / Template: T262502

Prelog / Bottle Ord. ID: P1144784

Lab Use Only

* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)

Customer Sample ID	Matrix *	Summa Canister ID	Flow Controller ID	Begin Collection Date	Begin Collection Time	End Collection Date	End Collection Time	Start Pressure / Vacuum (in Hg)	End Pressure / Vacuum (in Hg)	Duration (minutes)	Flow Rate m³/min or L/min	Total Volume Sampled m³ or L	TO-15 Summa				Sample Comment
VG-412-INF-20250418	SV	22002	20808	4/18	1430	4/18	1435	30	4				X				L1849445-01
VG-410-EFF-20250418	SV	13949	9179	↓	1440	↓	1445	30	5				X				02

Field Information

Analyses Requested

Canister Pressure / Vacuum

PUF / FILTER

Sample Receipt Checklist

COC Seal Present/Intact: Y N NP
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Unused:

Airs Size: 2 1L 6L 1.4L

Tage Color: G W 2 P B

Condition: OK NCF

Customer Remarks / Special Conditions / Possible Hazards:

Collected By: ERRG
Printed Name: Fernando Idiarte
Signature:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Additional Instructions from Pace®:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	# Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C): AMB Corrected Temp. (°C):
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time: Tracking Number: 4416 7185 5650
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time: Delivered by: In- Person Courier FedEx UPS Other
Relinquished by/Company: ERRG	Date/Time: 4/18/25 1610	Received by/Company: FEDEX	Date/Time: 04/19 0830 Page: 1 of: 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ANALYTICAL REPORT

June 03, 2025

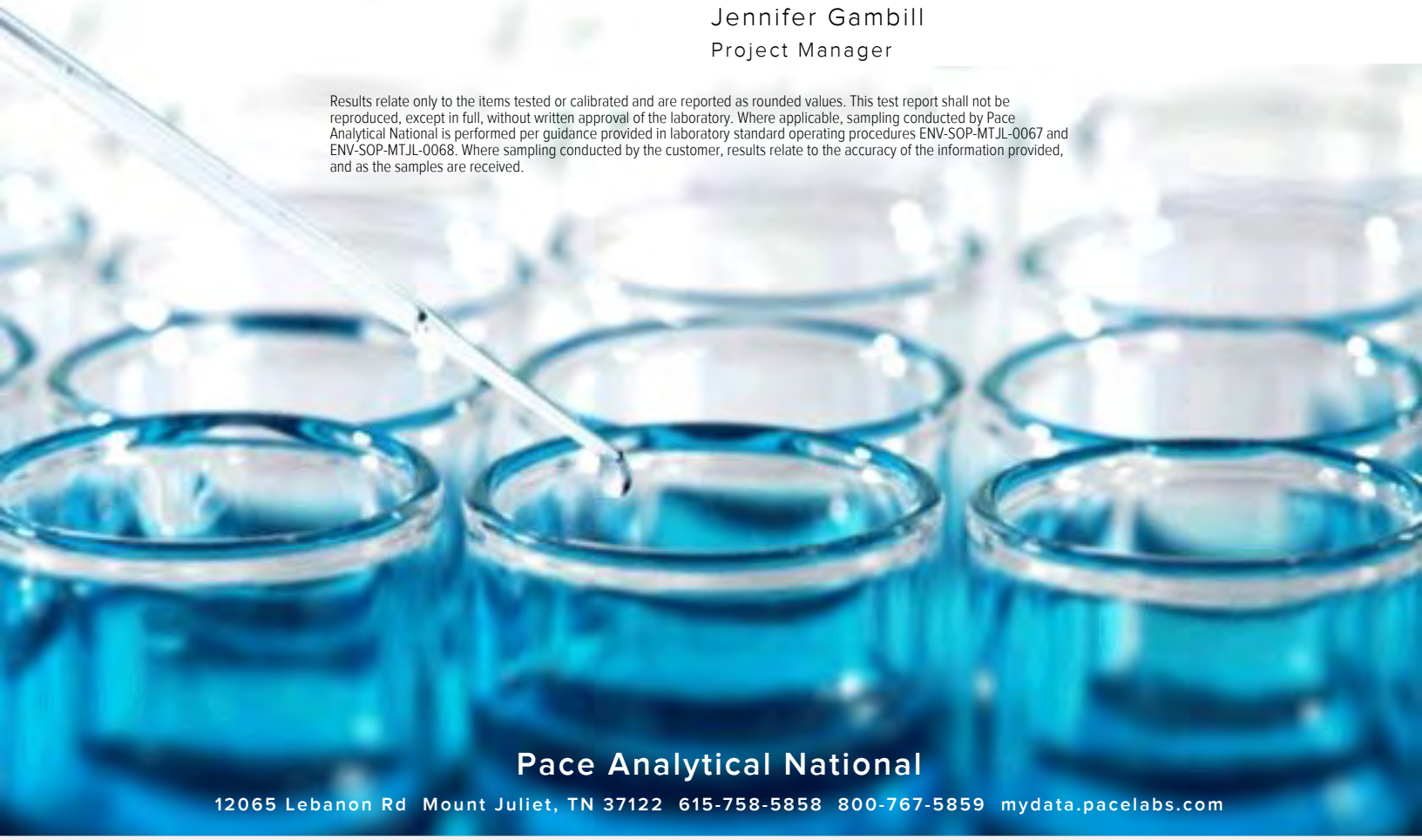
Engineering/Remediation Resources Group

Sample Delivery Group:	L1864793
Samples Received:	05/31/2025
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



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

TABLE OF CONTENTS

VG-401-INF-20250530 L1864793-01

Collected by	Collected date/time	Received date/time
	05/30/25 13:45	05/31/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2528220	10	06/01/25 20:46	06/01/25 20:46	CAM	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2529012	100	06/02/25 18:21	06/02/25 18:21	VJC	Mt. Juliet, TN

VG-404-EFF-20250530 L1864793-02

Collected by	Collected date/time	Received date/time
	05/30/25 13:55	05/31/25 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2528220	20	06/01/25 21:10	06/01/25 21:10	CAM	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2529012	100	06/02/25 18:48	06/02/25 18:48	VJC	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	12.5	29.7	ND	ND		10	WG2528220
Allyl chloride	107-05-1	76.53	2.00	6.26	ND	ND		10	WG2528220
Benzene	71-43-2	78.10	2.00	6.39	467	1490		10	WG2528220
Benzyl Chloride	100-44-7	127	2.00	10.4	ND	ND		10	WG2528220
Bromodichloromethane	75-27-4	164	2.00	13.4	ND	ND		10	WG2528220
Bromoform	75-25-2	253	6.30	65.2	ND	ND		10	WG2528220
Bromomethane	74-83-9	94.90	2.00	7.76	ND	ND		10	WG2528220
1,3-Butadiene	106-99-0	54.10	20.0	44.3	ND	ND		10	WG2528220
Carbon disulfide	75-15-0	76.10	4.00	12.4	10.1	31.4		10	WG2528220
Carbon tetrachloride	56-23-5	154	2.00	12.6	ND	ND		10	WG2528220
Chlorobenzene	108-90-7	113	2.00	9.24	3.21	14.8		10	WG2528220
Chloroethane	75-00-3	64.50	2.00	5.28	ND	ND		10	WG2528220
Chloroform	67-66-3	119	2.00	9.73	ND	ND		10	WG2528220
Chloromethane	74-87-3	50.50	2.00	4.13	ND	ND		10	WG2528220
2-Chlorotoluene	95-49-8	126	2.00	10.3	ND	ND		10	WG2528220
Cyclohexane	110-82-7	84.20	20.0	68.9	1500	5170		100	WG2529012
Dibromochloromethane	124-48-1	208	2.00	17.0	ND	ND		10	WG2528220
1,2-Dibromoethane	106-93-4	188	2.00	15.4	ND	ND		10	WG2528220
1,2-Dichlorobenzene	95-50-1	147	2.00	12.0	ND	ND		10	WG2528220
1,3-Dichlorobenzene	541-73-1	147	2.00	12.0	ND	ND		10	WG2528220
1,4-Dichlorobenzene	106-46-7	147	2.00	12.0	ND	ND		10	WG2528220
1,2-Dichloroethane	107-06-2	99	2.00	8.10	7.33	29.7		10	WG2528220
1,1-Dichloroethane	75-34-3	98	2.00	8.02	ND	ND		10	WG2528220
1,1-Dichloroethene	75-35-4	96.90	2.00	7.93	ND	ND		10	WG2528220
cis-1,2-Dichloroethene	156-59-2	96.90	2.00	7.93	29.1	115		10	WG2528220
trans-1,2-Dichloroethene	156-60-5	96.90	2.00	7.93	ND	ND		10	WG2528220
1,2-Dichloropropane	78-87-5	113	2.00	9.24	ND	ND		10	WG2528220
cis-1,3-Dichloropropene	10061-01-5	111	2.00	9.08	ND	ND		10	WG2528220
trans-1,3-Dichloropropene	10061-02-6	111	2.00	9.08	ND	ND		10	WG2528220
1,4-Dioxane	123-91-1	88.10	6.30	22.7	ND	ND		10	WG2528220
Ethanol	64-17-5	46.10	25.0	47.1	ND	ND		10	WG2528220
Ethylbenzene	100-41-4	106	2.00	8.67	ND	ND		10	WG2528220
4-Ethyltoluene	622-96-8	120	2.00	9.82	ND	ND		10	WG2528220
Trichlorofluoromethane	75-69-4	137.40	2.00	11.2	ND	ND		10	WG2528220
Dichlorodifluoromethane	75-71-8	120.92	2.00	9.89	ND	ND		10	WG2528220
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	2.00	15.3	ND	ND		10	WG2528220
1,2-Dichlorotetrafluoroethane	76-14-2	171	2.00	14.0	ND	ND		10	WG2528220
Heptane	142-82-5	100	20.0	81.8	1290	5280		100	WG2529012
Hexachloro-1,3-butadiene	87-68-3	261	6.30	67.3	ND	ND		10	WG2528220
n-Hexane	110-54-3	86.20	63.0	222	8710	30700		100	WG2529012
Isopropylbenzene	98-82-8	120.20	2.00	9.83	ND	ND		10	WG2528220
Methylene Chloride	75-09-2	84.90	2.00	6.94	ND	ND		10	WG2528220
Methyl Butyl Ketone	591-78-6	100	12.5	51.1	ND	ND		10	WG2528220
2-Butanone (MEK)	78-93-3	72.10	12.5	36.9	ND	ND		10	WG2528220
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	12.5	51.2	ND	ND		10	WG2528220
Methyl methacrylate	80-62-6	100.12	2.00	8.19	ND	ND		10	WG2528220
MTBE	1634-04-4	88.10	2.00	7.21	ND	ND		10	WG2528220
Naphthalene	91-20-3	128	6.30	33.0	ND	ND		10	WG2528220
2-Propanol	67-63-0	60.10	12.5	30.7	ND	ND		10	WG2528220
Propene	115-07-1	42.10	12.5	21.5	ND	ND		10	WG2528220
Styrene	100-42-5	104	4.00	17.0	ND	ND		10	WG2528220
1,1,2,2-Tetrachloroethane	79-34-5	168	2.00	13.7	ND	ND		10	WG2528220
Tetrachloroethylene	127-18-4	166	2.00	13.6	22.3	151		10	WG2528220
Tetrahydrofuran	109-99-9	72.10	2.00	5.90	ND	ND		10	WG2528220
Toluene	108-88-3	92.10	5.00	18.8	ND	ND		10	WG2528220
1,2,4-Trichlorobenzene	120-82-1	181	6.30	46.6	ND	ND		10	WG2528220

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	2.00	10.9	ND	ND		10	WG2528220
1,1,2-Trichloroethane	79-00-5	133	2.00	10.9	ND	ND		10	WG2528220
Trichloroethylene	79-01-6	131	2.00	10.7	10.1	54.1		10	WG2528220
1,2,4-Trimethylbenzene	95-63-6	120	2.00	9.82	ND	ND		10	WG2528220
1,3,5-Trimethylbenzene	108-67-8	120	2.00	9.82	ND	ND		10	WG2528220
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	4430	20700		100	WG2529012
Vinyl chloride	75-01-4	62.50	2.00	5.11	3.26	8.33		10	WG2528220
Vinyl Bromide	593-60-2	106.95	2.00	8.75	ND	ND		10	WG2528220
Vinyl acetate	108-05-4	86.10	6.30	22.2	ND	ND		10	WG2528220
Xylenes, Total	1330-20-7	106.16	6.00	26.1	ND	ND		10	WG2528220
m&p-Xylene		106	4.00	17.3	ND	ND		10	WG2528220
o-Xylene	95-47-6	106	2.00	8.67	ND	ND		10	WG2528220
TPH (GC/MS) Low Fraction	8006-61-9	101	2000	8260	28400	117000		10	WG2528220
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*87.9*				WG2528220
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*88.3*				WG2529012

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
Acetone	67-64-1	58.10	25.0	59.4	507	1200		20	WG2528220
Allyl chloride	107-05-1	76.53	4.00	12.5	ND	ND		20	WG2528220
Benzene	71-43-2	78.10	4.00	12.8	206	658		20	WG2528220
Benzyl Chloride	100-44-7	127	4.00	20.8	ND	ND		20	WG2528220
Bromodichloromethane	75-27-4	164	4.00	26.8	ND	ND		20	WG2528220
Bromoform	75-25-2	253	12.6	130	ND	ND		20	WG2528220
Bromomethane	74-83-9	94.90	4.00	15.5	ND	ND		20	WG2528220
1,3-Butadiene	106-99-0	54.10	40.0	88.5	ND	ND		20	WG2528220
Carbon disulfide	75-15-0	76.10	8.00	24.9	ND	ND		20	WG2528220
Carbon tetrachloride	56-23-5	154	4.00	25.2	ND	ND		20	WG2528220
Chlorobenzene	108-90-7	113	4.00	18.5	ND	ND		20	WG2528220
Chloroethane	75-00-3	64.50	4.00	10.6	ND	ND		20	WG2528220
Chloroform	67-66-3	119	4.00	19.5	ND	ND		20	WG2528220
Chloromethane	74-87-3	50.50	4.00	8.26	ND	ND		20	WG2528220
2-Chlorotoluene	95-49-8	126	4.00	20.6	ND	ND		20	WG2528220
Cyclohexane	110-82-7	84.20	4.00	13.8	740	2550		20	WG2528220
Dibromochloromethane	124-48-1	208	4.00	34.0	ND	ND		20	WG2528220
1,2-Dibromoethane	106-93-4	188	4.00	30.8	ND	ND		20	WG2528220
1,2-Dichlorobenzene	95-50-1	147	4.00	24.0	ND	ND		20	WG2528220
1,3-Dichlorobenzene	541-73-1	147	4.00	24.0	ND	ND		20	WG2528220
1,4-Dichlorobenzene	106-46-7	147	4.00	24.0	ND	ND		20	WG2528220
1,2-Dichloroethane	107-06-2	99	4.00	16.2	11.0	44.5		20	WG2528220
1,1-Dichloroethane	75-34-3	98	4.00	16.0	ND	ND		20	WG2528220
1,1-Dichloroethene	75-35-4	96.90	4.00	15.9	ND	ND		20	WG2528220
cis-1,2-Dichloroethene	156-59-2	96.90	4.00	15.9	6.07	24.1		20	WG2528220
trans-1,2-Dichloroethene	156-60-5	96.90	4.00	15.9	ND	ND		20	WG2528220
1,2-Dichloropropane	78-87-5	113	4.00	18.5	ND	ND		20	WG2528220
cis-1,3-Dichloropropene	10061-01-5	111	4.00	18.2	ND	ND		20	WG2528220
trans-1,3-Dichloropropene	10061-02-6	111	4.00	18.2	ND	ND		20	WG2528220
1,4-Dioxane	123-91-1	88.10	12.6	45.4	ND	ND		20	WG2528220
Ethanol	64-17-5	46.10	50.0	94.3	ND	ND		20	WG2528220
Ethylbenzene	100-41-4	106	4.00	17.3	464	2010		20	WG2528220
4-Ethyltoluene	622-96-8	120	4.00	19.6	692	3400		20	WG2528220
Trichlorofluoromethane	75-69-4	137.40	4.00	22.5	ND	ND		20	WG2528220
Dichlorodifluoromethane	75-71-8	120.92	4.00	19.8	ND	ND		20	WG2528220
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	4.00	30.7	ND	ND		20	WG2528220
1,2-Dichlorotetrafluoroethane	76-14-2	171	4.00	28.0	ND	ND		20	WG2528220
Heptane	142-82-5	100	4.00	16.4	822	3360		20	WG2528220
Hexachloro-1,3-butadiene	87-68-3	261	12.6	135	ND	ND		20	WG2528220
n-Hexane	110-54-3	86.20	63.0	222	6580	23200		100	WG2529012
Isopropylbenzene	98-82-8	120.20	4.00	19.7	48.0	236		20	WG2528220
Methylene Chloride	75-09-2	84.90	4.00	13.9	ND	ND		20	WG2528220
Methyl Butyl Ketone	591-78-6	100	25.0	102	ND	ND		20	WG2528220
2-Butanone (MEK)	78-93-3	72.10	25.0	73.7	ND	ND		20	WG2528220
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	25.0	102	29.8	122		20	WG2528220
Methyl methacrylate	80-62-6	100.12	4.00	16.4	ND	ND		20	WG2528220
MTBE	1634-04-4	88.10	4.00	14.4	ND	ND		20	WG2528220
Naphthalene	91-20-3	128	12.6	66.0	488	2550		20	WG2528220
2-Propanol	67-63-0	60.10	25.0	61.5	ND	ND		20	WG2528220
Propene	115-07-1	42.10	25.0	43.0	ND	ND		20	WG2528220
Styrene	100-42-5	104	8.00	34.0	ND	ND		20	WG2528220
1,1,2,2-Tetrachloroethane	79-34-5	168	4.00	27.5	ND	ND		20	WG2528220
Tetrachloroethylene	127-18-4	166	4.00	27.2	34.3	233		20	WG2528220
Tetrahydrofuran	109-99-9	72.10	4.00	11.8	ND	ND		20	WG2528220
Toluene	108-88-3	92.10	10.0	37.7	788	2970		20	WG2528220
1,2,4-Trichlorobenzene	120-82-1	181	12.6	93.3	ND	ND		20	WG2528220

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	WG2528220
1,1,2-Trichloroethane	79-00-5	133	4.00	21.8	ND	ND		20	WG2528220
Trichloroethylene	79-01-6	131	4.00	21.4	6.57	35.2		20	WG2528220
1,2,4-Trimethylbenzene	95-63-6	120	20.0	98.2	2050	10100		100	WG2529012
1,3,5-Trimethylbenzene	108-67-8	120	4.00	19.6	1300	6380		20	WG2528220
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	2780	13000		100	WG2529012
Vinyl chloride	75-01-4	62.50	4.00	10.2	ND	ND		20	WG2528220
Vinyl Bromide	593-60-2	106.95	4.00	17.5	ND	ND		20	WG2528220
Vinyl acetate	108-05-4	86.10	63.0	222	3170	11200		100	WG2529012
Xylenes, Total	1330-20-7	106.16	12.0	52.1	5290	23000		20	WG2528220
m&p-Xylene		106	8.00	34.7	3550	15400		20	WG2528220
o-Xylene	95-47-6	106	4.00	17.3	1740	7540		20	WG2528220
TPH (GC/MS) Low Fraction	8006-61-9	101	4000	16500	45900	190000		20	WG2528220
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*104*				WG2528220
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*101*				WG2529012

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

Method Blank (MB)

(MB) R4224237-3 06/01/25 10:09

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	0.824	J	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
Isopropylbenzene	U		0.0722	0.200

Method Blank (MB)

(MB) R4224237-3 06/01/25 10:09

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
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
Vinyl chloride	U		0.0826	0.200
Vinyl Bromide	U		0.0749	0.200
Vinyl acetate	U		0.0968	0.630
Xylenes, Total	U		0.0887	0.600
m&p-Xylene	U		0.174	0.400
o-Xylene	U		0.0887	0.200
TPH (GC/MS) Low Fraction	U		68.3	200
(S) 1,4-Bromofluorobenzene	*87.8*			*60.0-140*

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

(LCS) R4224237-1 06/01/25 09:13 • (LCSD) R4224237-2 06/01/25 09:42

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	4.52	4.45	121	119	70.0-130			1.56	25
Allyl chloride	3.75	3.63	3.66	96.8	97.6	70.0-130			0.823	25
Benzene	3.75	3.92	3.95	105	105	70.0-130			0.762	25
Benzyl Chloride	3.75	3.94	4.03	105	107	70.0-152			2.26	25
Bromodichloromethane	3.75	3.92	3.96	105	106	70.0-130			1.02	25

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

(LCS) R4224237-1 06/01/25 09:13 • (LCSD) R4224237-2 06/01/25 09:42

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromoform	3.75	4.32	4.28	115	114	70.0-130			0.930	25
Bromomethane	3.75	3.96	3.99	106	106	70.0-130			0.755	25
1,3-Butadiene	3.75	3.75	3.82	100	102	70.0-130			1.85	25
Carbon disulfide	7.50	7.84	7.94	105	106	70.0-130			1.27	25
Carbon tetrachloride	3.75	4.08	4.08	109	109	70.0-130			0.000	25
Chlorobenzene	3.75	4.14	4.15	110	111	70.0-130			0.241	25
Chloroethane	3.75	3.92	3.91	105	104	70.0-130			0.255	25
Chloroform	3.75	3.97	3.97	106	106	70.0-130			0.000	25
Chloromethane	3.75	3.59	3.74	95.7	99.7	70.0-130			4.09	25
2-Chlorotoluene	3.75	4.10	4.14	109	110	70.0-130			0.971	25
Cyclohexane	3.75	3.97	3.97	106	106	70.0-130			0.000	25
Dibromochloromethane	3.75	4.19	4.20	112	112	70.0-130			0.238	25
1,2-Dibromoethane	3.75	4.13	4.16	110	111	70.0-130			0.724	25
1,2-Dichlorobenzene	3.75	4.39	4.39	117	117	70.0-130			0.000	25
1,3-Dichlorobenzene	3.75	4.38	4.45	117	119	70.0-130			1.59	25
1,4-Dichlorobenzene	3.75	4.42	4.44	118	118	70.0-130			0.451	25
1,2-Dichloroethane	3.75	3.95	3.95	105	105	70.0-130			0.000	25
1,1-Dichloroethane	3.75	3.80	3.73	101	99.5	70.0-130			1.86	25
1,1-Dichloroethene	3.75	3.84	3.89	102	104	70.0-130			1.29	25
cis-1,2-Dichloroethene	3.75	3.84	3.85	102	103	70.0-130			0.260	25
trans-1,2-Dichloroethene	3.75	3.91	3.87	104	103	70.0-130			1.03	25
1,2-Dichloropropane	3.75	3.89	3.82	104	102	70.0-130			1.82	25
cis-1,3-Dichloropropene	3.75	4.06	4.14	108	110	70.0-130			1.95	25
trans-1,3-Dichloropropene	3.75	3.96	3.98	106	106	70.0-130			0.504	25
1,4-Dioxane	3.75	4.09	4.10	109	109	70.0-140			0.244	25
Ethanol	3.75	3.15	3.15	84.0	84.0	55.0-148			0.000	25
Ethylbenzene	3.75	4.05	4.09	108	109	70.0-130			0.983	25
4-Ethyltoluene	3.75	4.49	4.47	120	119	70.0-130			0.446	25
Trichlorofluoromethane	3.75	4.06	4.02	108	107	70.0-130			0.990	25
Dichlorodifluoromethane	3.75	3.95	3.97	105	106	64.0-139			0.505	25
1,1,2-Trichlorotrifluoroethane	3.75	4.04	4.04	108	108	70.0-130			0.000	25
1,2-Dichlorotetrafluoroethane	3.75	3.99	3.98	106	106	70.0-130			0.251	25
Heptane	3.75	3.83	3.91	102	104	70.0-130			2.07	25
Hexachloro-1,3-butadiene	3.75	4.11	4.21	110	112	70.0-151			2.40	25
Isopropylbenzene	3.75	4.27	4.26	114	114	70.0-130			0.234	25
Methylene Chloride	3.75	3.68	3.73	98.1	99.5	70.0-130			1.35	25
Methyl Butyl Ketone	3.75	3.56	3.51	94.9	93.6	70.0-149			1.41	25
2-Butanone (MEK)	3.75	3.95	3.95	105	105	70.0-130			0.000	25
4-Methyl-2-pentanone (MIBK)	3.75	3.25	3.38	86.7	90.1	70.0-139			3.92	25
Methyl methacrylate	3.75	4.00	4.07	107	109	70.0-130			1.73	25

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

(LCS) R4224237-1 06/01/25 09:13 • (LCSD) R4224237-2 06/01/25 09:42

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
MTBE	3.75	3.89	3.87	104	103	70.0-130			0.515	25
Naphthalene	3.75	3.72	3.86	99.2	103	70.0-159			3.69	25
2-Propanol	3.75	3.50	3.44	93.3	91.7	70.0-139			1.73	25
Propene	3.75	3.55	3.62	94.7	96.5	64.0-144			1.95	25
Styrene	7.50	9.25	9.39	123	125	70.0-130			1.50	25
1,1,2,2-Tetrachloroethane	3.75	4.08	4.08	109	109	70.0-130			0.000	25
Tetrachloroethylene	3.75	4.45	4.45	119	119	70.0-130			0.000	25
Tetrahydrofuran	3.75	3.59	3.57	95.7	95.2	70.0-137			0.559	25
Toluene	3.75	4.09	4.08	109	109	70.0-130			0.245	25
1,2,4-Trichlorobenzene	3.75	3.79	3.87	101	103	70.0-160			2.09	25
1,1,1-Trichloroethane	3.75	4.02	4.04	107	108	70.0-130			0.496	25
1,1,2-Trichloroethane	3.75	4.10	4.12	109	110	70.0-130			0.487	25
Trichloroethylene	3.75	4.06	4.07	108	109	70.0-130			0.246	25
1,2,4-Trimethylbenzene	3.75	4.52	4.55	121	121	70.0-130			0.662	25
1,3,5-Trimethylbenzene	3.75	4.52	4.60	121	123	70.0-130			1.75	25
Vinyl chloride	3.75	3.81	3.80	102	101	70.0-130			0.263	25
Vinyl Bromide	3.75	4.09	4.03	109	107	70.0-130			1.48	25
Vinyl acetate	3.75	3.73	3.76	99.5	100	70.0-130			0.801	25
Xylenes, Total	11.3	13.2	13.3	117	118	70.0-130			0.755	25
m&p-Xylene	7.50	8.75	8.77	117	117	70.0-130			0.228	25
o-Xylene	3.75	4.49	4.56	120	122	70.0-130			1.55	25
TPH (GC/MS) Low Fraction	188	184	185	97.9	98.4	70.0-130			0.542	25
(S) 1,4-Bromofluorobenzene				*97.9*	*97.9*	*60.0-140*				

Method Blank (MB)

(MB) R4224474-3 06/02/25 10:06

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Cyclohexane	U		0.170	0.200
Heptane	U		0.114	0.200
n-Hexane	U		0.143	0.630
1,2,4-Trimethylbenzene	U		0.0927	0.200
2,2,4-Trimethylpentane	U		0.0898	0.200
Vinyl acetate	U		0.0968	0.630
(S) 1,4-Bromofluorobenzene	*92.6*			*60.0-140*

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

(LCS) R4224474-1 06/02/25 09:12 • (LCSD) R4224474-2 06/02/25 09:39

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Cyclohexane	3.75	3.77	3.69	101	98.4	70.0-130			2.14	25
Heptane	3.75	4.09	4.01	109	107	70.0-130			1.98	25
n-Hexane	3.75	3.88	3.99	103	106	70.0-130			2.80	25
1,2,4-Trimethylbenzene	3.75	3.99	3.96	106	106	70.0-130			0.755	25
2,2,4-Trimethylpentane	3.75	4.06	4.07	108	109	70.0-130			0.246	25
Vinyl acetate	3.75	3.46	3.65	92.3	97.3	70.0-130			5.34	25
(S) 1,4-Bromofluorobenzene				*101*	*100*	*60.0-140*				

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.
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.

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	LAO000356
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): Pace

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

M198

Scan QR code for instructions

Company Name: Engineering/Remediation Resources Grou

Contact/Report To: Jennifer Sonnichsen

Street Address: 15330 NE 90th Street

Phone #: 425-658-5026

E-Mail: jennifer.sonnichsen@errg.com;spencer.slominski@errg.com;fernando.idiarte@errg.com

Cc E-Mail:

City, State Zip:

Invoice to:

Customer Project #: 20230065

Invoice E-Mail:

Project Name: FORMER CIRCLE K 1461

Purchase Order # (if applicable):

Site Collection Info/Facility ID (as applicable): ENGREMRWA-CIRCLE K

Quote #:

Time Zone Collected: [ ] AK [X] PT [ ] MT [ ] CT [ ] ET

State origin of sample(s): WA

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other EIM

Regulatory Program (CAA, RCRA, etc.) as applicable: WA EIM ECOLOGY

Rush (Pre-approval required): (2 Day) 3 day 5 day Other

Permit # as applicable:

Date Results Requested:

Units for Reporting: (ug/m³) (PPBV) mg/m³ PPMV

AN 5/28/25

Proj. Manager: 3500 - Jennifer Gambill

AcctNum / Client ID: ENGREMRWA

Table #:

Profile / Template: T262502

Prelog / Bottle Ord. ID: P1155812

Lab Use Only

Field Information

Analyses Requested

Customer Sample ID	Matrix *	Summa Canister ID	Flow Controller ID	Begin Collection Date	Begin Collection Time	End Collection Date	End Collection Time	Canister Pressure / Vacuum: Start Pressure / Vacuum (in Hg)	Canister Pressure / Vacuum: End Pressure / Vacuum (in Hg)	PUF / FILTER: Duration (minutes)	PUF / FILTER: Flow Rate m³/min or L/min	PUF / FILTER: Total Volume Sampled m³ or L	TO-15 Summa				Sample Comment
VG-401-INF-20250530	SV	28137	24845	5/30	1340	5/30	1345	>30	10				X				Pressure reading 5 when zeroed -01
VG-404-EFF-20250530	SV	28762	29489	5/30	1350	5/30	1355	>30	5				X				-02

* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)

Sample Receipt Checklist

COC Seal Present/Intact: Y N NP Size: 2 1L 6L 1.4L Airs

COC Signed/Accurate: Y N

Bottles arrive intact: Y N Tage Color: G W 2 P B

Correct bottles used: Y N Condition: OK NCF

Unused:

Customer Remarks / Special Conditions / Possible Hazards: FLOW controller 24845 was way past 30 inHg at start, read 5 inHg when zero check

Collected By: ERRG

Printed Name: F I

Signature:

Additional Instructions from Pace®:

Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C): AMB Corrected Temp. (°C):

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
ERRG	5/30/25 1515	FEDEX		4072 9210 4982
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: In- Person Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	FedEX UPS Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time: 05/31 0845	Page: 1 of: 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ANALYTICAL REPORT

June 30, 2025

Engineering/Remediation Resources Group

Sample Delivery Group:	L1872064
Samples Received:	06/21/2025
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

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

TABLE OF CONTENTS

VG-411-INF-20250620 L1872064-01

Collected by	Collected date/time	Received date/time
	06/20/25 12:45	06/21/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2544253	1	06/22/25 15:23	06/22/25 15:23	GH	Mt. Juliet, TN

VG-412-EFF-20250620 L1872064-02

Collected by	Collected date/time	Received date/time
	06/20/25 13:00	06/21/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2544253	1	06/22/25 16:10	06/22/25 16:10	GH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2547350	100	06/26/25 15:14	06/26/25 15:14	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2548800	500	06/28/25 12:17	06/28/25 12:17	CAM	Mt. Juliet, TN

VP-3-20250620 L1872064-03

Collected by	Collected date/time	Received date/time
	06/20/25 13:25	06/21/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2548292	1	06/27/25 16:16	06/27/25 16:16	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2548922	10	06/28/25 16:21	06/28/25 16:21	DBB	Mt. Juliet, TN

VP-4-20250620 L1872064-04

Collected by	Collected date/time	Received date/time
	06/20/25 13:40	06/21/25 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG2544253	1	06/22/25 17:46	06/22/25 17:46	GH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG2548825	200	06/28/25 11:07	06/28/25 11:07	VJC	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	1.25	2.97	24.5	58.2		1	WG2544253
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2544253
Benzene	71-43-2	78.10	0.200	0.639	0.324	1.03		1	WG2544253
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2544253
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2544253
Bromoform	75-25-2	253	0.630	6.52	ND	ND		1	WG2544253
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2544253
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2544253
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		1	WG2544253
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2544253
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2544253
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2544253
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2544253
Chloromethane	74-87-3	50.50	0.200	0.413	0.303	0.626		1	WG2544253
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2544253
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG2544253
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2544253
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2544253
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2544253
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2544253
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2544253
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2544253
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2544253
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2544253
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG2544253
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2544253
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2544253
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2544253
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2544253
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2544253
Ethanol	64-17-5	46.10	2.50	4.71	2.78	5.24		1	WG2544253
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG2544253
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG2544253
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2544253
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	ND	ND		1	WG2544253
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2544253
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2544253
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2544253
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2544253
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2544253
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2544253
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG2544253
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2544253
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2544253
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2544253
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2544253
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2544253
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2544253
2-Propanol	67-63-0	60.10	1.25	3.07	ND	ND		1	WG2544253
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2544253
Styrene	100-42-5	104	0.400	1.70	ND	ND		1	WG2544253
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2544253
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG2544253
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2544253
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG2544253
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2544253

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	WG2544253
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2544253
Trichloroethylene	79-01-6	131	0.200	1.07	0.753	4.03		1	WG2544253
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG2544253
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG2544253
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	0.280	1.31		1	WG2544253
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2544253
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2544253
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2544253
Xylenes, Total	1330-20-7	106.16	0.600	2.61	ND	ND		1	WG2544253
m&p-Xylene		106	0.400	1.73	ND	ND		1	WG2544253
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG2544253
TPH (GC/MS) Low Fraction	8006-61-9	101	200	826	ND	ND		1	WG2544253
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.6*				WG2544253

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
Acetone	67-64-1	58.10	125	297	ND	ND		100	WG2547350
Allyl chloride	107-05-1	76.53	20.0	62.6	ND	ND		100	WG2547350
Benzene	71-43-2	78.10	20.0	63.9	616	1970		100	WG2547350
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2544253
Bromodichloromethane	75-27-4	164	20.0	134	ND	ND		100	WG2547350
Bromoform	75-25-2	253	0.630	6.52	ND	ND		1	WG2544253
Bromomethane	74-83-9	94.90	20.0	77.6	ND	ND		100	WG2547350
1,3-Butadiene	106-99-0	54.10	200	443	ND	ND		100	WG2547350
Carbon disulfide	75-15-0	76.10	40.0	124	ND	ND		100	WG2547350
Carbon tetrachloride	56-23-5	154	20.0	126	ND	ND		100	WG2547350
Chlorobenzene	108-90-7	113	20.0	92.4	ND	ND		100	WG2547350
Chloroethane	75-00-3	64.50	20.0	52.8	ND	ND		100	WG2547350
Chloroform	67-66-3	119	20.0	97.3	ND	ND		100	WG2547350
Chloromethane	74-87-3	50.50	20.0	41.3	ND	ND		100	WG2547350
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2544253
Cyclohexane	110-82-7	84.20	20.0	68.9	2440	8400		100	WG2547350
Dibromochloromethane	124-48-1	208	20.0	170	ND	ND		100	WG2547350
1,2-Dibromoethane	106-93-4	188	20.0	154	ND	ND		100	WG2547350
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2544253
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2544253
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2544253
1,2-Dichloroethane	107-06-2	99	20.0	81.0	ND	ND		100	WG2547350
1,1-Dichloroethane	75-34-3	98	20.0	80.2	ND	ND		100	WG2547350
1,1-Dichloroethene	75-35-4	96.90	20.0	79.3	ND	ND		100	WG2547350
cis-1,2-Dichloroethene	156-59-2	96.90	20.0	79.3	ND	ND		100	WG2547350
trans-1,2-Dichloroethene	156-60-5	96.90	20.0	79.3	ND	ND		100	WG2547350
1,2-Dichloropropane	78-87-5	113	20.0	92.4	ND	ND		100	WG2547350
cis-1,3-Dichloropropene	10061-01-5	111	20.0	90.8	ND	ND		100	WG2547350
trans-1,3-Dichloropropene	10061-02-6	111	20.0	90.8	ND	ND		100	WG2547350
1,4-Dioxane	123-91-1	88.10	63.0	227	ND	ND		100	WG2547350
Ethanol	64-17-5	46.10	250	471	ND	ND		100	WG2547350
Ethylbenzene	100-41-4	106	20.0	86.7	960	4160		100	WG2547350
4-Ethyltoluene	622-96-8	120	20.0	98.2	368	1810		100	WG2547350
Trichlorofluoromethane	75-69-4	137.40	20.0	112	ND	ND		100	WG2547350
Dichlorodifluoromethane	75-71-8	120.92	20.0	98.9	ND	ND		100	WG2547350
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	20.0	153	ND	ND		100	WG2547350
1,2-Dichlorotetrafluoroethane	76-14-2	171	20.0	140	ND	ND		100	WG2547350
Heptane	142-82-5	100	20.0	81.8	3870	15800		100	WG2547350
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2544253
n-Hexane	110-54-3	86.20	315	1110	11100	39100		500	WG2548800
Isopropylbenzene	98-82-8	120.20	0.200	0.983	65.2	321		1	WG2544253
Methylene Chloride	75-09-2	84.90	20.0	69.4	ND	ND		100	WG2547350
Methyl Butyl Ketone	591-78-6	100	125	511	ND	ND		100	WG2547350
2-Butanone (MEK)	78-93-3	72.10	125	369	ND	ND		100	WG2547350
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	125	512	ND	ND		100	WG2547350
Methyl methacrylate	80-62-6	100.12	20.0	81.9	ND	ND		100	WG2547350
MTBE	1634-04-4	88.10	20.0	72.1	ND	ND		100	WG2547350
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2544253
2-Propanol	67-63-0	60.10	125	307	6820	16800		100	WG2547350
Propene	115-07-1	42.10	125	215	ND	ND		100	WG2547350
Styrene	100-42-5	104	0.400	1.70	ND	ND		1	WG2544253
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2544253
Tetrachloroethylene	127-18-4	166	20.0	136	ND	ND		100	WG2547350
Tetrahydrofuran	109-99-9	72.10	20.0	59.0	ND	ND		100	WG2547350
Toluene	108-88-3	92.10	50.0	188	2660	10000		100	WG2547350
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2544253

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	20.0	109	ND	ND		100	WG2547350
1,1,2-Trichloroethane	79-00-5	133	20.0	109	ND	ND		100	WG2547350
Trichloroethylene	79-01-6	131	20.0	107	ND	ND		100	WG2547350
1,2,4-Trimethylbenzene	95-63-6	120	20.0	98.2	1150	5640		100	WG2547350
1,3,5-Trimethylbenzene	108-67-8	120	20.0	98.2	784	3850		100	WG2547350
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	9430	44100		100	WG2547350
Vinyl chloride	75-01-4	62.50	20.0	51.1	ND	ND		100	WG2547350
Vinyl Bromide	593-60-2	106.95	20.0	87.5	ND	ND		100	WG2547350
Vinyl acetate	108-05-4	86.10	63.0	222	ND	ND		100	WG2547350
Xylenes, Total	1330-20-7	106.16	60.0	261	9150	39700		100	WG2547350
m&p-Xylene		106	40.0	173	6490	28100		100	WG2547350
o-Xylene	95-47-6	106	20.0	86.7	2660	11500		100	WG2547350
TPH (GC/MS) Low Fraction	8006-61-9	101	20000	82600	176000	727000		100	WG2547350
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*512*		J1		WG2544253
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*101*				WG2547350
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*95.1*				WG2548800

Sample Narrative:

L1872064-02 WG2544253: Surrogate failure due to matrix interference

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	11.8	28.0		1	WG2548292
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2548292
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2548292
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2548292
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2548292
Bromoform	75-25-2	253	0.630	6.52	ND	ND		1	WG2548292
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2548292
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2548292
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		1	WG2548292
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2548292
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2548292
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2548292
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG2548292
Chloromethane	74-87-3	50.50	0.200	0.413	0.396	0.818		1	WG2548292
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2548292
Cyclohexane	110-82-7	84.20	0.200	0.689	27.1	93.3		1	WG2548292
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2548292
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2548292
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2548292
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG2548292
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG2548292
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2548292
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2548292
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2548292
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	0.911	3.61		1	WG2548292
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG2548292
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2548292
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2548292
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2548292
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2548292
Ethanol	64-17-5	46.10	2.50	4.71	16.6	31.3		1	WG2548292
Ethylbenzene	100-41-4	106	0.200	0.867	11.1	48.1		1	WG2548292
4-Ethyltoluene	622-96-8	120	0.200	0.982	5.03	24.7		1	WG2548292
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG2548292
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.474	2.34		1	WG2548292
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2548292
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2548292
Heptane	142-82-5	100	0.200	0.818	46.6	191		1	WG2548292
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2548292
n-Hexane	110-54-3	86.20	6.30	22.2	162	571		10	WG2548922
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG2548292
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG2548292
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2548292
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	4.86	14.3		1	WG2548292
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2548292
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2548292
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2548292
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2548292
2-Propanol	67-63-0	60.10	1.25	3.07	16.5	40.6		1	WG2548292
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG2548292
Styrene	100-42-5	104	0.400	1.70	ND	ND		1	WG2548292
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2548292
Tetrachloroethylene	127-18-4	166	0.200	1.36	98.3	667		1	WG2548292
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2548292
Toluene	108-88-3	92.10	0.500	1.88	31.1	117		1	WG2548292
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2548292

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	WG2548292
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2548292
Trichloroethylene	79-01-6	131	0.200	1.07	16.8	90.0		1	WG2548292
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	14.0	68.7		1	WG2548292
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	9.06	44.5		1	WG2548292
2,2,4-Trimethylpentane	540-84-1	114.22	2.00	9.34	187	874		10	WG2548922
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2548292
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2548292
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2548292
Xylenes, Total	1330-20-7	106.16	0.600	2.61	102	443		1	WG2548292
m&p-Xylene		106	0.400	1.73	71.2	309		1	WG2548292
o-Xylene	95-47-6	106	0.200	0.867	30.4	132		1	WG2548292
TPH (GC/MS) Low Fraction	8006-61-9	101	200	826	2250	9290		1	WG2548292
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*100*				WG2548292
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*100*				WG2548922

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
Acetone	67-64-1	58.10	1.25	2.97	4.33	10.3		1	WG2544253
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG2544253
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG2544253
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG2544253
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG2544253
Bromoform	75-25-2	253	0.630	6.52	ND	ND		1	WG2544253
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG2544253
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG2544253
Carbon disulfide	75-15-0	76.10	0.400	1.24	ND	ND		1	WG2544253
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG2544253
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG2544253
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG2544253
Chloroform	67-66-3	119	0.200	0.973	11.1	54.0		1	WG2544253
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG2544253
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG2544253
Cyclohexane	110-82-7	84.20	0.200	0.689	78.7	271		1	WG2544253
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG2544253
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG2544253
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG2544253
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	0.401	2.41	B	1	WG2544253
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	2.26	13.6		1	WG2544253
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG2544253
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG2544253
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG2544253
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	4.18	16.6		1	WG2544253
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	0.900	3.57		1	WG2544253
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG2544253
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG2544253
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG2544253
1,4-Dioxane	123-91-1	88.10	0.630	2.27	ND	ND		1	WG2544253
Ethanol	64-17-5	46.10	2.50	4.71	6.15	11.6		1	WG2544253
Ethylbenzene	100-41-4	106	0.200	0.867	0.789	3.42		1	WG2544253
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.998	4.90		1	WG2544253
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.320	1.80		1	WG2544253
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	5.10	25.2		1	WG2544253
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG2544253
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG2544253
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG2544253
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG2544253
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG2544253
Isopropylbenzene	98-82-8	120.20	0.200	0.983	3.95	19.4		1	WG2544253
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG2544253
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG2544253
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG2544253
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG2544253
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG2544253
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG2544253
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG2544253
2-Propanol	67-63-0	60.10	1.25	3.07	4.06	9.98		1	WG2544253
Propene	115-07-1	42.10	1.25	2.15	15.1	26.0		1	WG2544253
Styrene	100-42-5	104	0.400	1.70	ND	ND		1	WG2544253
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG2544253
Tetrachloroethylene	127-18-4	166	40.0	272	4890	33200		200	WG2548825
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG2544253
Toluene	108-88-3	92.10	0.500	1.88	2.13	8.02		1	WG2544253
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG2544253

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	0.343	1.87		1	WG2544253
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG2544253
Trichloroethylene	79-01-6	131	0.200	1.07	47.9	257		1	WG2544253
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.941	4.62		1	WG2544253
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.634	3.11		1	WG2544253
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG2544253
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG2544253
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG2544253
Vinyl acetate	108-05-4	86.10	0.630	2.22	ND	ND		1	WG2544253
Xylenes, Total	1330-20-7	106.16	0.600	2.61	1.91	8.29		1	WG2544253
m&p-Xylene		106	0.400	1.73	0.810	3.51		1	WG2544253
o-Xylene	95-47-6	106	0.200	0.867	1.10	4.77		1	WG2544253
TPH (GC/MS) Low Fraction	8006-61-9	101	200	826	1460	6030		1	WG2544253
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*107*				WG2544253
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*92.4*				WG2548825

Method Blank (MB)

(MB) R4235996-3 06/22/25 14:25

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	0.127	J	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	0.139	J	0.0734	0.200
1,3-Dichlorobenzene	0.129	J	0.0753	0.200
1,4-Dichlorobenzene	0.167	J	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	0.224	J	0.0800	0.630
n-Hexane	U		0.143	0.630

Method Blank (MB)

(MB) R4235996-3 06/22/25 14:25

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	0.157	J	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	0.489	J	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
Xylenes, Total	U		0.0887	0.600
m&p-Xylene	U		0.174	0.400
o-Xylene	U		0.0887	0.200
TPH (GC/MS) Low Fraction	U		68.3	200
(S) 1,4-Bromofluorobenzene	*99.6*			*60.0-140*

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

(LCS) R4235996-1 06/22/25 09:24 • (LCSD) R4235996-2 06/22/25 10:14

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	3.93	3.98	105	106	70.0-130			1.26	25
Allyl chloride	3.75	4.13	4.25	110	113	70.0-130			2.86	25
Benzene	3.75	3.90	3.92	104	105	70.0-130			0.512	25

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

(LCS) R4235996-1 06/22/25 09:24 • (LCSD) R4235996-2 06/22/25 10:14

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzyl Chloride	3.75	4.16	4.11	111	110	70.0-152			1.21	25
Bromodichloromethane	3.75	3.87	3.85	103	103	70.0-130			0.518	25
Bromoform	3.75	3.90	3.92	104	105	70.0-130			0.512	25
Bromomethane	3.75	3.79	3.83	101	102	70.0-130			1.05	25
1,3-Butadiene	3.75	4.08	4.14	109	110	70.0-130			1.46	25
Carbon disulfide	7.50	7.91	8.14	105	109	70.0-130			2.87	25
Carbon tetrachloride	3.75	3.91	3.93	104	105	70.0-130			0.510	25
Chlorobenzene	3.75	3.82	3.89	102	104	70.0-130			1.82	25
Chloroethane	3.75	4.38	4.38	117	117	70.0-130			0.000	25
Chloroform	3.75	3.87	3.86	103	103	70.0-130			0.259	25
Chloromethane	3.75	4.01	4.01	107	107	70.0-130			0.000	25
2-Chlorotoluene	3.75	4.04	4.06	108	108	70.0-130			0.494	25
Cyclohexane	3.75	3.98	4.02	106	107	70.0-130			1.00	25
Dibromochloromethane	3.75	3.83	3.90	102	104	70.0-130			1.81	25
1,2-Dibromoethane	3.75	3.90	3.98	104	106	70.0-130			2.03	25
1,2-Dichlorobenzene	3.75	3.95	3.92	105	105	70.0-130			0.762	25
1,3-Dichlorobenzene	3.75	4.10	4.02	109	107	70.0-130			1.97	25
1,4-Dichlorobenzene	3.75	4.02	3.99	107	106	70.0-130			0.749	25
1,2-Dichloroethane	3.75	3.94	3.90	105	104	70.0-130			1.02	25
1,1-Dichloroethane	3.75	3.98	4.00	106	107	70.0-130			0.501	25
1,1-Dichloroethene	3.75	3.97	3.97	106	106	70.0-130			0.000	25
cis-1,2-Dichloroethene	3.75	3.97	3.96	106	106	70.0-130			0.252	25
trans-1,2-Dichloroethene	3.75	3.94	3.97	105	106	70.0-130			0.759	25
1,2-Dichloropropane	3.75	3.95	3.94	105	105	70.0-130			0.253	25
cis-1,3-Dichloropropene	3.75	4.04	3.98	108	106	70.0-130			1.50	25
trans-1,3-Dichloropropene	3.75	4.00	3.97	107	106	70.0-130			0.753	25
1,4-Dioxane	3.75	3.96	3.90	106	104	70.0-140			1.53	25
Ethanol	3.75	3.70	3.71	98.7	98.9	55.0-148			0.270	25
Ethylbenzene	3.75	3.94	3.96	105	106	70.0-130			0.506	25
4-Ethyltoluene	3.75	4.05	3.96	108	106	70.0-130			2.25	25
Trichlorofluoromethane	3.75	3.86	3.95	103	105	70.0-130			2.30	25
Dichlorodifluoromethane	3.75	3.82	3.73	102	99.5	64.0-139			2.38	25
1,1,2-Trichlorotrifluoroethane	3.75	3.99	3.97	106	106	70.0-130			0.503	25
1,2-Dichlorotetrafluoroethane	3.75	4.21	4.16	112	111	70.0-130			1.19	25
Heptane	3.75	4.15	4.10	111	109	70.0-130			1.21	25
Hexachloro-1,3-butadiene	3.75	4.08	4.06	109	108	70.0-151			0.491	25
n-Hexane	3.75	4.02	3.99	107	106	70.0-130			0.749	25
Isopropylbenzene	3.75	4.19	3.94	112	105	70.0-130			6.15	25
Methylene Chloride	3.75	3.84	3.85	102	103	70.0-130			0.260	25
Methyl Butyl Ketone	3.75	4.03	3.99	107	106	70.0-149			0.998	25

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

(LCS) R4235996-1 06/22/25 09:24 • (LCSD) R4235996-2 06/22/25 10:14

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	4.16	4.17	111	111	70.0-130			0.240	25
4-Methyl-2-pentanone (MIBK)	3.75	3.86	3.89	103	104	70.0-139			0.774	25
Methyl methacrylate	3.75	3.88	3.94	103	105	70.0-130			1.53	25
MTBE	3.75	3.96	3.99	106	106	70.0-130			0.755	25
Naphthalene	3.75	4.19	4.15	112	111	70.0-159			0.959	25
2-Propanol	3.75	3.87	3.85	103	103	70.0-139			0.518	25
Propene	3.75	4.08	4.13	109	110	64.0-144			1.22	25
Styrene	7.50	8.25	8.18	110	109	70.0-130			0.852	25
1,1,2,2-Tetrachloroethane	3.75	4.07	4.07	109	109	70.0-130			0.000	25
Tetrachloroethylene	3.75	3.83	3.86	102	103	70.0-130			0.780	25
Tetrahydrofuran	3.75	4.12	4.05	110	108	70.0-137			1.71	25
Toluene	3.75	3.87	3.92	103	105	70.0-130			1.28	25
1,2,4-Trichlorobenzene	3.75	4.15	4.14	111	110	70.0-160			0.241	25
1,1,1-Trichloroethane	3.75	3.85	3.91	103	104	70.0-130			1.55	25
1,1,2-Trichloroethane	3.75	3.90	3.95	104	105	70.0-130			1.27	25
Trichloroethylene	3.75	3.85	3.90	103	104	70.0-130			1.29	25
1,2,4-Trimethylbenzene	3.75	4.06	3.95	108	105	70.0-130			2.75	25
1,3,5-Trimethylbenzene	3.75	4.13	4.07	110	109	70.0-130			1.46	25
2,2,4-Trimethylpentane	3.75	3.99	4.03	106	107	70.0-130			0.998	25
Vinyl chloride	3.75	4.02	4.09	107	109	70.0-130			1.73	25
Vinyl Bromide	3.75	4.00	4.03	107	107	70.0-130			0.747	25
Vinyl acetate	3.75	4.07	4.06	109	108	70.0-130			0.246	25
Xylenes, Total	11.3	12.1	12.1	107	107	70.0-130			0.000	25
m&p-Xylene	7.50	8.04	8.07	107	108	70.0-130			0.372	25
o-Xylene	3.75	4.04	4.01	108	107	70.0-130			0.745	25
TPH (GC/MS) Low Fraction	188	184	186	97.9	98.9	70.0-130			1.08	25
(S) 1,4-Bromofluorobenzene				*99.3*	*99.3*	*60.0-140*				

Method Blank (MB)

(MB) R4237127-3 06/26/25 11:11

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
Bromodichloromethane	U		0.0695	0.200
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
Cyclohexane	U		0.170	0.200
Dibromochloromethane	U		0.0696	0.200
1,2-Dibromoethane	U		0.0690	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
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
2-Propanol	U		0.680	1.25
Propene	U		0.214	1.25

Method Blank (MB)

(MB) R4237127-3 06/26/25 11:11

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Tetrachloroethylene	U		0.111	0.200
Tetrahydrofuran	U		0.164	0.200
Toluene	U		0.130	0.500
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
Xylenes, Total	U		0.0887	0.600
m&p-Xylene	U		0.174	0.400
o-Xylene	U		0.0887	0.200
TPH (GC/MS) Low Fraction	U		68.3	200
(S) 1,4-Bromofluorobenzene	*94.5*			*60.0-140*

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

(LCS) R4237127-1 06/26/25 09:36 • (LCSD) R4237127-2 06/26/25 10:25

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	4.03	4.05	107	108	70.0-130			0.495	25
Allyl chloride	3.75	4.45	4.66	119	124	70.0-130			4.61	25
Benzene	3.75	4.51	4.47	120	119	70.0-130			0.891	25
Bromodichloromethane	3.75	4.36	4.29	116	114	70.0-130			1.62	25
Bromomethane	3.75	4.05	4.09	108	109	70.0-130			0.983	25
1,3-Butadiene	3.75	3.99	4.01	106	107	70.0-130			0.500	25
Carbon disulfide	7.50	9.11	9.11	121	121	70.0-130			0.000	25
Carbon tetrachloride	3.75	4.21	4.20	112	112	70.0-130			0.238	25
Chlorobenzene	3.75	4.41	4.35	118	116	70.0-130			1.37	25
Chloroethane	3.75	4.39	4.32	117	115	70.0-130			1.61	25
Chloroform	3.75	4.26	4.28	114	114	70.0-130			0.468	25
Chloromethane	3.75	3.84	3.90	102	104	70.0-130			1.55	25
Cyclohexane	3.75	4.33	4.35	115	116	70.0-130			0.461	25
Dibromochloromethane	3.75	4.33	4.27	115	114	70.0-130			1.40	25
1,2-Dibromoethane	3.75	4.39	4.36	117	116	70.0-130			0.686	25
1,2-Dichloroethane	3.75	4.38	4.42	117	118	70.0-130			0.909	25

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

(LCS) R4237127-1 06/26/25 09:36 • (LCSD) R4237127-2 06/26/25 10:25

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1-Dichloroethane	3.75	4.45	4.45	119	119	70.0-130			0.000	25
1,1-Dichloroethene	3.75	4.41	4.44	118	118	70.0-130			0.678	25
cis-1,2-Dichloroethene	3.75	4.36	4.38	116	117	70.0-130			0.458	25
trans-1,2-Dichloroethene	3.75	4.51	4.50	120	120	70.0-130			0.222	25
1,2-Dichloropropane	3.75	4.46	4.51	119	120	70.0-130			1.11	25
cis-1,3-Dichloropropene	3.75	4.35	4.36	116	116	70.0-130			0.230	25
trans-1,3-Dichloropropene	3.75	4.44	4.38	118	117	70.0-130			1.36	25
1,4-Dioxane	3.75	4.48	4.40	119	117	70.0-140			1.80	25
Ethanol	3.75	3.38	3.48	90.1	92.8	55.0-148			2.92	25
Ethylbenzene	3.75	4.45	4.47	119	119	70.0-130			0.448	25
4-Ethyltoluene	3.75	4.49	4.41	120	118	70.0-130			1.80	25
Trichlorofluoromethane	3.75	4.11	4.13	110	110	70.0-130			0.485	25
Dichlorodifluoromethane	3.75	3.86	3.92	103	105	64.0-139			1.54	25
1,1,2-Trichlorotrifluoroethane	3.75	4.58	4.59	122	122	70.0-130			0.218	25
1,2-Dichlorotetrafluoroethane	3.75	4.15	4.15	111	111	70.0-130			0.000	25
Heptane	3.75	4.29	4.37	114	117	70.0-130			1.85	25
Methylene Chloride	3.75	4.28	4.26	114	114	70.0-130			0.468	25
Methyl Butyl Ketone	3.75	4.44	4.52	118	121	70.0-149			1.79	25
2-Butanone (MEK)	3.75	4.41	4.63	118	123	70.0-130			4.87	25
4-Methyl-2-pentanone (MIBK)	3.75	4.44	4.52	118	121	70.0-139			1.79	25
Methyl methacrylate	3.75	4.32	4.29	115	114	70.0-130			0.697	25
MTBE	3.75	4.28	4.28	114	114	70.0-130			0.000	25
2-Propanol	3.75	4.09	4.10	109	109	70.0-139			0.244	25
Propene	3.75	3.80	3.81	101	102	64.0-144			0.263	25
Tetrachloroethylene	3.75	4.42	4.36	118	116	70.0-130			1.37	25
Tetrahydrofuran	3.75	4.27	4.37	114	117	70.0-137			2.31	25
Toluene	3.75	4.46	4.40	119	117	70.0-130			1.35	25
1,1,1-Trichloroethane	3.75	4.24	4.25	113	113	70.0-130			0.236	25
1,1,2-Trichloroethane	3.75	4.37	4.38	117	117	70.0-130			0.229	25
Trichloroethylene	3.75	4.52	4.42	121	118	70.0-130			2.24	25
1,2,4-Trimethylbenzene	3.75	4.64	4.63	124	123	70.0-130			0.216	25
1,3,5-Trimethylbenzene	3.75	4.58	4.73	122	126	70.0-130			3.22	25
2,2,4-Trimethylpentane	3.75	4.29	4.33	114	115	70.0-130			0.928	25
Vinyl chloride	3.75	4.04	4.14	108	110	70.0-130			2.44	25
Vinyl Bromide	3.75	4.12	4.07	110	109	70.0-130			1.22	25
Vinyl acetate	3.75	4.14	4.14	110	110	70.0-130			0.000	25
Xylenes, Total	11.3	13.4	13.6	119	120	70.0-130			1.48	25
m&p-Xylene	7.50	8.91	8.98	119	120	70.0-130			0.783	25
o-Xylene	3.75	4.51	4.57	120	122	70.0-130			1.32	25
TPH (GC/MS) Low Fraction	188	198	195	105	104	70.0-130			1.53	25

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

(LCS) R4237127-1 06/26/25 09:36 • (LCSD) R4237127-2 06/26/25 10:25

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
(S) 1,4-Bromofluorobenzene				*93.5*	*96.2*	*60.0-140*				

Method Blank (MB)

(MB) R4237678-3 06/27/25 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
Isopropylbenzene	U		0.0722	0.200

Method Blank (MB)

(MB) R4237678-3 06/27/25 11:16

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
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
Vinyl chloride	U		0.0826	0.200
Vinyl Bromide	U		0.0749	0.200
Vinyl acetate	U		0.0968	0.630
Xylenes, Total	U		0.0887	0.600
m&p-Xylene	U		0.174	0.400
o-Xylene	U		0.0887	0.200
TPH (GC/MS) Low Fraction	U		68.3	200
(S) 1,4-Bromofluorobenzene	*96.1*			*60.0-140*

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

(LCS) R4237678-1 06/27/25 09:54 • (LCSD) R4237678-2 06/27/25 10:36

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	3.81	3.78	102	101	70.0-130			0.791	25
Allyl chloride	3.75	3.95	3.84	105	102	70.0-130			2.82	25
Benzene	3.75	3.46	3.46	92.3	92.3	70.0-130			0.000	25
Benzyl Chloride	3.75	3.75	3.70	100	98.7	70.0-152			1.34	25
Bromodichloromethane	3.75	3.45	3.41	92.0	90.9	70.0-130			1.17	25

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

(LCS) R4237678-1 06/27/25 09:54 • (LCSD) R4237678-2 06/27/25 10:36

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromoform	3.75	3.50	3.45	93.3	92.0	70.0-130			1.44	25
Bromomethane	3.75	3.08	3.14	82.1	83.7	70.0-130			1.93	25
1,3-Butadiene	3.75	2.99	3.01	79.7	80.3	70.0-130			0.667	25
Carbon disulfide	7.50	7.21	7.17	96.1	95.6	70.0-130			0.556	25
Carbon tetrachloride	3.75	3.48	3.46	92.8	92.3	70.0-130			0.576	25
Chlorobenzene	3.75	3.52	3.48	93.9	92.8	70.0-130			1.14	25
Chloroethane	3.75	2.91	2.98	77.6	79.5	70.0-130			2.38	25
Chloroform	3.75	3.40	3.36	90.7	89.6	70.0-130			1.18	25
Chloromethane	3.75	3.10	3.12	82.7	83.2	70.0-130			0.643	25
2-Chlorotoluene	3.75	3.58	3.54	95.5	94.4	70.0-130			1.12	25
Cyclohexane	3.75	3.52	3.50	93.9	93.3	70.0-130			0.570	25
Dibromochloromethane	3.75	3.51	3.45	93.6	92.0	70.0-130			1.72	25
1,2-Dibromoethane	3.75	3.53	3.52	94.1	93.9	70.0-130			0.284	25
1,2-Dichlorobenzene	3.75	3.56	3.55	94.9	94.7	70.0-130			0.281	25
1,3-Dichlorobenzene	3.75	3.61	3.55	96.3	94.7	70.0-130			1.68	25
1,4-Dichlorobenzene	3.75	3.63	3.60	96.8	96.0	70.0-130			0.830	25
1,2-Dichloroethane	3.75	3.43	3.37	91.5	89.9	70.0-130			1.76	25
1,1-Dichloroethane	3.75	3.33	3.34	88.8	89.1	70.0-130			0.300	25
1,1-Dichloroethene	3.75	3.65	3.62	97.3	96.5	70.0-130			0.825	25
cis-1,2-Dichloroethene	3.75	3.37	3.36	89.9	89.6	70.0-130			0.297	25
trans-1,2-Dichloroethene	3.75	3.39	3.37	90.4	89.9	70.0-130			0.592	25
1,2-Dichloropropane	3.75	3.40	3.40	90.7	90.7	70.0-130			0.000	25
cis-1,3-Dichloropropene	3.75	3.53	3.46	94.1	92.3	70.0-130			2.00	25
trans-1,3-Dichloropropene	3.75	3.49	3.44	93.1	91.7	70.0-130			1.44	25
1,4-Dioxane	3.75	3.48	3.41	92.8	90.9	70.0-140			2.03	25
Ethanol	3.75	2.78	2.76	74.1	73.6	55.0-148			0.722	25
Ethylbenzene	3.75	3.51	3.48	93.6	92.8	70.0-130			0.858	25
4-Ethyltoluene	3.75	3.68	3.63	98.1	96.8	70.0-130			1.37	25
Trichlorofluoromethane	3.75	3.30	3.29	88.0	87.7	70.0-130			0.303	25
Dichlorodifluoromethane	3.75	3.08	2.95	82.1	78.7	64.0-139			4.31	25
1,1,2-Trichlorotrifluoroethane	3.75	4.01	3.14	107	83.7	70.0-130			24.3	25
1,2-Dichlorotetrafluoroethane	3.75	3.41	3.29	90.9	87.7	70.0-130			3.58	25
Heptane	3.75	3.51	3.44	93.6	91.7	70.0-130			2.01	25
Hexachloro-1,3-butadiene	3.75	3.57	3.62	95.2	96.5	70.0-151			1.39	25
Isopropylbenzene	3.75	3.75	3.69	100	98.4	70.0-130			1.61	25
Methylene Chloride	3.75	3.18	3.20	84.8	85.3	70.0-130			0.627	25
Methyl Butyl Ketone	3.75	3.67	3.61	97.9	96.3	70.0-149			1.65	25
2-Butanone (MEK)	3.75	3.31	3.29	88.3	87.7	70.0-130			0.606	25
4-Methyl-2-pentanone (MIBK)	3.75	3.63	3.53	96.8	94.1	70.0-139			2.79	25
Methyl methacrylate	3.75	3.50	3.42	93.3	91.2	70.0-130			2.31	25

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

(LCS) R4237678-1 06/27/25 09:54 • (LCSD) R4237678-2 06/27/25 10:36

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
MTBE	3.75	3.60	3.58	96.0	95.5	70.0-130			0.557	25
Naphthalene	3.75	3.69	3.69	98.4	98.4	70.0-159			0.000	25
2-Propanol	3.75	3.50	3.50	93.3	93.3	70.0-139			0.000	25
Propene	3.75	3.20	3.16	85.3	84.3	64.0-144			1.26	25
Styrene	7.50	7.61	7.50	101	100	70.0-130			1.46	25
1,1,2,2-Tetrachloroethane	3.75	3.43	3.36	91.5	89.6	70.0-130			2.06	25
Tetrachloroethylene	3.75	3.53	3.53	94.1	94.1	70.0-130			0.000	25
Tetrahydrofuran	3.75	3.29	3.26	87.7	86.9	70.0-137			0.916	25
Toluene	3.75	3.55	3.51	94.7	93.6	70.0-130			1.13	25
1,2,4-Trichlorobenzene	3.75	3.54	3.56	94.4	94.9	70.0-160			0.563	25
1,1,1-Trichloroethane	3.75	3.45	3.45	92.0	92.0	70.0-130			0.000	25
1,1,2-Trichloroethane	3.75	3.45	3.43	92.0	91.5	70.0-130			0.581	25
Trichloroethylene	3.75	3.48	3.45	92.8	92.0	70.0-130			0.866	25
1,2,4-Trimethylbenzene	3.75	3.71	3.67	98.9	97.9	70.0-130			1.08	25
1,3,5-Trimethylbenzene	3.75	3.72	3.68	99.2	98.1	70.0-130			1.08	25
Vinyl chloride	3.75	3.08	3.10	82.1	82.7	70.0-130			0.647	25
Vinyl Bromide	3.75	3.21	3.25	85.6	86.7	70.0-130			1.24	25
Vinyl acetate	3.75	3.09	3.05	82.4	81.3	70.0-130			1.30	25
Xylenes, Total	11.3	10.9	10.8	96.5	95.6	70.0-130			0.922	25
m&p-Xylene	7.50	7.30	7.16	97.3	95.5	70.0-130			1.94	25
o-Xylene	3.75	3.64	3.60	97.1	96.0	70.0-130			1.10	25
TPH (GC/MS) Low Fraction	188	179	181	95.2	96.3	70.0-130			1.11	25
(S) 1,4-Bromofluorobenzene				*97.5*	*97.5*	*60.0-140*				

Method Blank (MB)

(MB) R4238084-2 06/28/25 08:14

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
n-Hexane	U		0.143	0.630
(S) 1,4-Bromofluorobenzene	*94.3*			*60.0-140*

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

(LCS) R4238084-1 06/28/25 07:36 • (LCSD) R4238084-3 06/28/25 08:58

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	4.47	4.44	119	118	70.0-130			0.673	25
(S) 1,4-Bromofluorobenzene				*94.8*	*95.0*	*60.0-140*				

Method Blank (MB)

(MB) R4237951-3 06/28/25 07:29

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Tetrachloroethylene	U		0.111	0.200
(S) 1,4-Bromofluorobenzene	*96.9*			*60.0-140*

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

(LCS) R4237951-1 06/28/25 06:32 • (LCSD) R4237951-2 06/28/25 07:01

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Tetrachloroethylene	3.75	3.57	3.48	95.2	92.8	70.0-130			2.55	25
(S) 1,4-Bromofluorobenzene				*100*	*100*	*60.0-140*				

Method Blank (MB)

(MB) R4237870-3 06/28/25 07:38

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
n-Hexane	U		0.143	0.630
2,2,4-Trimethylpentane	U		0.0898	0.200
(S) 1,4-Bromofluorobenzene	*94.4*			*60.0-140*

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

(LCS) R4237870-1 06/28/25 06:44 • (LCSD) R4237870-2 06/28/25 07:13

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	3.88	3.72	103	99.2	70.0-130			4.21	25
2,2,4-Trimethylpentane	3.75	4.01	3.87	107	103	70.0-130			3.55	25
(S) 1,4-Bromofluorobenzene				*102*	*103*	*60.0-140*				

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
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.

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	LAO000356
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.

M010

Pace* Location Requested (City/State): Pace

Air CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login

Scan QR code for instructions

AN 6/17/25

Company Name: **Engineering/Remediation Resources Grou**

Street Address: **15333 NE 90th Street**

City, State Zip:

Customer Project #: 20230065

Project Name: FORMER CIRCLE K 146

Site Collection Info/Facility ID (as applicable): **ENGREMRWA-CIRCLE K**

Time Zone Collected: [ ] AK [X] PT [ ] MT [ ] CT [ ] ET

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EDD [ ] Other EIM WA

Contact/Report To: **Jennifer Sonnichsen**

Phone #: **425-658-5026**

E-Mail: **jennifer.sonnichsen@errg.com;spencer.slominski@errg.com;fernando.idiarte@errg.com**

Cc E-Mail:

Invoice to:

Invoice E-Mail:

Purchase Order # (if applicable):

Quote #:

State origin of sample(s): WA

Regulatory Program (CAA, RCRA, etc.) as applicable: ECOLOGY

Rush (Pre-approval required): 2 Day 3 day 5 day Other

Permit # as applicable:

Date Results Requested:

Units for Reporting: ug/m³ PPBV mg/m³ PPMV

Field Information

Analyses Requested

Lab Use Only

Proj. Manager: **3500 - Jennifer Gambill**

AcctNum / Client ID: **ENGREMRWA**

Table #:

Profile / Template: **T262502**

Prelog / Bottle Ord. ID: **P1159305**

* Matrix Codes (Insert in Matrix box below): Ambient (A), Indoor (I), Soil Vapor (SV), Other (O)

Customer Sample ID	Matrix *	Summa Canister ID	Flow Controller ID	Begin Collection Date	Begin Collection Time	End Collection Date	End Collection Time	Start Pressure / Vacuum (in Hg)	End Pressure / Vacuum (in Hg)	PUF / FILTER Duration (minutes)	PUF / FILTER Flow Rate m³/min or L/min	PUF / FILTER Total Volume Sampled m³ or L	TO-15 Summa				Sample Comment
VG-411-INF-20250620	SV	22967	29064	6/20	1240	6/20	1245	30	4				X				L1872064-01
VG-412-EFF-20250620	SV	15175	11376	6/20	1255	6/20	1300	29	5				X				02
VP-3-20250620	SV	22911	15759	6/20	1320	6/20	1325	29	5				X				03
VP-4-20250620	SV	15426	22529	6/20	1335	6/20	1340	30	5				X				04

Sample Receipt Checklist

COC Seal Present/Intact: Y N NP

COC Signed/Accurate: Y N

Bottles arrive intact: Y N

Correct bottles used: Y N

Unused: 0 1L 0 6L 0 1.4L

Size: 4 1L 6L 1.4L Airs

Tape Color: G W 4 P B

Condition: OK N/C

Customer Remarks / Special Conditions / Possible Hazards:

Collected By: ERRG FI

Printed Name:

Signature: jet

Additional Instructions from Pace®:

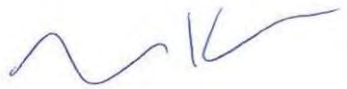
Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C) Corrected Temp. (°C)

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
jet	6/20/25 1530	FEDEX		4916 7193 0340
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: In- Person Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	FedEx UPS Other
Relinquished by/Company: (Signature)	Date/Time:	Elijah Wilson	06/21/25 0830	Page: 1 of: 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Appendix C.
Data Validation Reports During Reporting Period

DATA VALIDATION CHECKLIST – STAGE 2A

Site Name	Circle K	**Project Name**	O&M – Groundwater Sampling
Data Reviewer (signature and date)	Amanda Wolff 6/3/2025	**Technical Reviewer (signature and date)**	 6/4/2025
Laboratory Report No.	L1852466 (samples collected 4/25/2025)	**Laboratory**	Pace Analytical
Analyses	VOCs by Method NWTPHGX and Method 8260B		
Sample and Matrix	RW-1 (GW) L1852466-01 MW-14 (GW) L1852466-02 MW-9 (GW) L1852466-03 MW-16 (GW) L1852466-04 MW-8 (GW) L1852466-05 MW-15 (GW) L1852466-06 MW-6 (GW) L1852466-07 MW-19 (GW) L1852466-08 MW-21 (GW) L1852466-09 MW-17 (GW) L1852466-10 MW-18 (GW) L1852466-11 MW-13 (GW) L1852466-12 MW-20 (GW) L1852466-13 DUP-1 (GW) L1852466-14 TB-1 (Water) L1852466-15 TB-2 (Water) L1852466-16		
Field Duplicate Pairs	DUP-1 is a duplicate of MW-6.		
Field Blanks	Two trip blanks were identified in this SDG. No 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
N	Method blanks were analyzed as required by the method. No contaminants were found in the method blanks except for those noted below:

Sample IDs	Analyte	Method Blank Result (µ/L)	Quantitation Limit (QL) µ/L	Qualifier
RW-1, MW-14, MW-8, MW-6, MW-19, MW-21, MW-17, MW-18	Gasoline Range Organics	52.4 (between MDL and RDL)	100	If the sample result is less than the quantitation limit, then report at QL and qualify as U. If the sample result is greater than the QL, then qualify J+
MW-9, MW-16, MW-15	Gasoline Range Organics	59.9 (between MDL and RDL)	100	

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 RPD were within QC limits.

Field duplicates:

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

RPD Calculation [|R1-R2| ÷ ((R1+R2) ÷ 2)] x 100]

Field Duplicate Pair	Analyte	RPD Calculation	New Qualifier
MW-6 and DUP-1	Benzene	[|2.28-5.91| ÷ ((2.28+5.91) ÷ 2)]*100 = 88.64	J qualifier for all detects UJ qualifier for all non-detects
	cis-1,2-Dichloroethene	[|1.11-2.41| ÷ ((1.11+2.41) ÷ 2)]*100 = 73.86	
	Vinyl chloride	[|2.47-4.29| ÷ ((2.47+4.29) ÷ 2)]*100 = 53.84	

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	RW-1 analyzed for VOCs by 8260B was diluted by a factor of 10. MW-9 analyzed for VOCs by 8260B was diluted by a factor of 20 and analyzed for Gasoline Range Organics-NWTPH, which was diluted by a factor of 5. MW-8 analyzed for VOCs by 8260B was diluted by a factor of 50 and analyzed for Gasoline Range Organics-NWTPH, which was diluted by a factor of 5. MW-19 analyzed for VOCs by 8260B was diluted by a factor of 100 and analyzed for Gasoline Range Organics-NWTPH, which was diluted by a factor of 10. MW-21 analyzed for VOCs by 8260B was diluted by a factor of 500 and analyzed for Gasoline Range Organics-NWTPH, which was diluted by a factor of 10. MW-17 analyzed for VOCs by 8260B was diluted by a factor of 25.

	MW-13 analyzed for VOCs by 8260B was diluted by a factor of 50 and analyzed for Gasoline Range Organics-NWTPH, which was diluted by a factor of 10. MW-20 analyzed for VOCs by 8260B was diluted by a factor of 250 and analyzed for Gasoline Range Organics-NWTPH, which 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.

DATA VALIDATION CHECKLIST – STAGE 2A

Site Name	Circle K	**Project Name**	O&M – Groundwater Sampling
Data Reviewer (signature and date)	6/26/2025	**Technical Reviewer (signature and date)**	6/30/2025
Laboratory Report No.	L1863104 (samples collected 5/23/2025)	**Laboratory**	Pace Analytical
Analyses	VOCs by Method NWTPHGX and Method 8260B		
Sample and Matrix	MW-16 (GW) L1863104-01 MW-17 (GW) L1863104-02 MW-18 (GW) L1863104-03 MW-19 (GW) L1863104-04 MW-20 (GW) L1863104-05 MW-21 (GW) L1863104-06 RW-1 (GW) L1863104-07 DUP-1 (GW) L1863104-08 MW-6 (GW) L1863104-09 MW-8 (GW) L1863104-10 MW-13 (GW) L1863104-11 MW-14 (GW) L1863104-12 MW-9 (GW) L1863104-13 MW-15 (GW) L1863104-14 TB-1 (Water) L1863104-15 TB-2 (Water) L1863104-16		
Field Duplicate Pairs	DUP-1 is a duplicate of MW-15.		
Field Blanks	Two trip blanks were identified in this SDG. No 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. Sample TB-01 was analyzed from a VOA vial containing headspace.

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.

Field duplicates:

Within Criteria	Exceedance/Notes
Y	Field duplicate sample analysis was performed. No analytes were detected in the primary or duplicate sample so no RPD was calculated.

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	MW-17 analyzed for VOCs by 8260B was diluted by a factor of 25. MW-19 analyzed for VOCs by 8260B was diluted by a factor of 100 and analyzed for Gasoline Range Organics-NWTPH, which was diluted by a factor of 10. MW-20 analyzed for VOCs by 8260B was diluted by a factor of 50 and analyzed for Gasoline Range Organics-NWTPH, which was diluted by a factor of 10. MW-21 analyzed for VOCs by 8260B was diluted by a factor of 500 and analyzed for Gasoline Range Organics-NWTPH, which was diluted by a factor of 10. RW-1 analyzed for VOCs by 8260B was diluted by a factor of 10. MW-8 analyzed for VOCs by 8260B was diluted by a factor of 50 and analyzed for Gasoline Range Organics-NWTPH, which was diluted by a factor of 5. MW-13 analyzed for VOCs by 8260B was diluted by a factor of 50 and analyzed for Gasoline Range Organics-NWTPH, which was diluted by a factor of 10. MW-9 analyzed for VOCs by 8260B was diluted by a factor of 20 and analyzed for Gasoline Range Organics-NWTPH, which was diluted by a factor of 5.

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.

DATA VALIDATION CHECKLIST – STAGE 2A

Site Name	Circle K	**Project Name**	O&M – Monthly Water System
Data Reviewer (signature and date)	Amanda Wolff 6/3/2025	**Technical Reviewer (signature and date)**	6/4/2025
Laboratory Report No.	L1852469	**Laboratory**	Pace Analytical
Analyses	VOCs by Method NWTPHGX and Method 8260B and Oil and Grease HEM by Method 1664B		
Sample and Matrix	LG-404-EFF-20250425 L1852469-01 DUP-1-20250425 L1852469-02 LG-402-MID-20250425 L1852469-03 LG-401-INF-20250425 L1852469-04 DUP-2-20250425 L1852469-05 TB-1-20250425 L1852469-06		
Field Duplicate Pairs	DUP-1-20250425 and DUP-2-20250425 are duplicates of LG-404-EFF-20250425. DUP-2-20250425 was only analyzed for Oil and Grease HEM by Method 1664B.		
Field Blanks	One trip blank was identified in this SDG. No 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 Trip Blank TB-1-20250425 resulted in non-detects.

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
Y	Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was not performed on an associated project sample. MS/MSD analysis was performed on the sample batch submitted for Oil and Grease HEM by Method 1664B. All %R were within criteria.

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	All sample analytes were not detected in the primary and 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 – Monthly Water System
Data Reviewer (signature and date)	6/26/2025	**Technical Reviewer (signature and date)**	6/30/2025
Laboratory Report No.	L1863045	**Laboratory**	Pace Analytical
Analyses	VOCs by Method NWTPHGX and Method 8260B and Oil and Grease HEM by Method 1664B		
Sample and Matrix	LG-401-INF-20250523 L1863045-01 LG-402-MID -20250523 L1863045-02 LG-404-EFF-20250523 L1863045-03 DUP-1-20250523 L1863045-04 DUP-2-20250523 L1863045-05 TB-1-20250523 L1863045-06		
Field Duplicate Pairs	DUP-1-20250523 and DUP-2-20250523 are duplicates of LG-404-EFF-20250523. DUP-2-20250523 was only analyzed for Oil and Grease HEM by Method 1664B.		
Field Blanks	One trip blank was identified in this SDG. No 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	No analytes were detected in the Trip Blank.

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
Y	Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was not performed on an associated project sample. MS/MSD analysis was performed on the sample batch submitted for Oil and Grease HEM by Method 1664B. All percent recoveries (%R) were within criteria.

Laboratory Control Samples:

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

Sample ID	Analyte	LCS %R	LCSD %R	QC Limits	RPD	RPD Limit	New Qualifier
L1863045-03, L1863045-04 and L1863045-06	Vinyl chloride	61.8	63.0	67-131	1.92	20	J – all detections UJ – non-detects

Field duplicates:

Within Criteria	Exceedance/Notes
Y	No analytes were detected in the primary and 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	

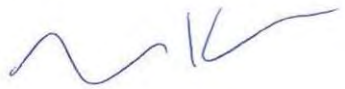
Overall Qualifications:

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 – Monthly Water System
Data Reviewer (signature and date)	Brandon Berger 7/29/2025	**Technical Reviewer (signature and date)**	 7/31/2025
Laboratory Report No.	L1874324	**Laboratory**	Pace Analytical
Analyses	VOCs by Method NWTPHGX and Method 8260B and Oil and Grease HEM by Method 1664B		
Sample and Matrix	LG-404-EFF-20250627 L1874324-01 DUP-1-20250627 L1874324-02 LG-402-MID-20250627 L1874324-03 LG-401-INF-20250627 L1874324-04 DUP-2-20250627 L1874324-05 TB-01-20250627 L1874324-06		
Field Duplicate Pairs	DUP-1-20250627 and DUP-2-20250627 are duplicates of LG-404-EFF-20250627. DUP-2-20250627 was only analyzed for Oil and Grease HEM by Method 1664B.		
Field Blanks	One trip blank was identified in this SDG. No 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 methods. No contaminants were found in the method blanks.

Field Blanks:

Within Criteria	Exceedance/Notes
Y	No analytes were detected in the Trip Blank.

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
Y	Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was not performed on an associated project sample. MS/MSD analysis was performed on the sample batch submitted for Oil and Grease HEM by Method 1664B. All percent recoveries (%R) were within criteria.

Laboratory Control Samples:

Within Criteria	Exceedance/Notes
Y	Laboratory control samples (LCS) and laboratory control sample duplicate (LCSD) sample analysis were performed. %R and Relative Percent Difference (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 – Monthly Vapor System
Data Reviewer (signature and date)	5/12/2025	**Technical Reviewer (signature and date)**	5/19/2025
Laboratory Report No.	L1849945	**Laboratory**	Pace Analytical
Analyses	VOCs by TO-15 Summa		
Sample and Matrix	VG-412-INF-20250418 L1849945--01 VG-410-EFF-20250418 L1849945--02		
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 noted below:

Samples Affected	Analyte	LCSD %R	%R Limits	RPD (%)	RPD Limits (%)	New Qualifier
VG-412-INF-20250418 (L1849945-01) VG-410-EFF-20250418 (L1849945-02)	Hexachloro-1,3-butadiene	69.1	70.0-151	37.6	25	J for detections; UJ for non-detects
	Naphthalene	NA	NA	38.5	25	J for detections; no qualification for non-detects
	1,2,4-Trichlorobenzene	NA	NA	38	25	

Field duplicates:

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

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	VG-412-INF-20250418 (L1849945-1) was diluted by a factor of 20 for all analytes except for Cyclohexane, Heptane, n-Hexane, Toluene, 1,2,4-Trimethylbenzene, 2,2,4-Trimethylpentane, Xylenes (Total), m&p-Xylene, o-Xylene, and TPH (GC/MS) Low Fraction which were diluted by a factor of 500.

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 Vapor System
Data Reviewer (signature and date)	6/4/2025	**Technical Reviewer (signature and date)**	6/12/2025
Laboratory Report No.	L1864793 (samples collected 5/30/2025)	**Laboratory**	Pace Analytical
Analyses	VOCs by TO-15 Summa		
Sample and Matrix	VG-401-INF-20250530 L1864793--01 VG-404-EFF-20250530 L1864793--02		
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
N	Method blanks were analyzed as required by the method. No contaminants were found in the method blanks except for those noted below.

Sample IDs	Analyte	Method Blank Result (ppbv)	Quantitation Limit (QL) ppbv	Qualifier
VG-401-INF-20250530 and VG-404-EFF-20250530	Acetone	0.824 (between MDL and RDL)	1.25	If the sample result is less than the quantitation limit, then report at QL and qualify as U. If the sample result is greater than the QL but less than 2x the Blank Result for common laboratory Contaminants, then report at QL and qualify U. If the sample result is greater than QL and greater than 2x Blank Result for common laboratory contaminants, then report at sample result and qualify J+.

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
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
NA	Field duplicate sample analysis was not performed.

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	VG-401-INF-20250530 was diluted by a factor of 10 for all analytes except for Cyclohexane, Heptane, n-Hexane, Toluene, and 2,2,4-Trimethylpentane, which were diluted by a factor of 100. VG-404-EFF-20250530 was diluted by a factor of 20 for all analytes except for n-Hexane, 1,2,4-Trimethylbenzene, 2,2,4-Trimethylpentane, and Vinyl acetate which were diluted by a factor of 100.

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	

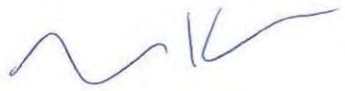
Overall Qualifications:

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 Vapor System
Data Reviewer (signature and date)	Brandon Berger 7/02/2025	**Technical Reviewer (signature and date)**	 7/11/2025
Laboratory Report No.	L1872064 (samples collected 6/20/2025)	**Laboratory**	Pace Analytical
Analyses	VOCs by TO-15 Summa		
Sample and Matrix	VG-412-EFF-20250620 L1872064--01 VG-411-INF-20250620 L1872064--02 VP-3-20250620 L1872064--03 VP-4-20250620 L1872064--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
N	Method blanks were analyzed as required by the method. No contaminants were found in the method blanks except for those noted below.

Sample IDs	Analyte	Method Blank Result (ppbv)	Quantitation Limit (QL) ppbv	Qualifier
VG-412-EFF-20250620, VG-411-INF-20250620 VP-4-20250620	Benzyl Chloride (2-Chlorotoluene)	0.127 (between MDL and RDL)	0.2	If the sample result is less than the quantitation limit, then report at QL and qualify as U. If the sample result is greater than QL, then report at sample result and qualify J+.
	1,2-Dichlorobenzene	0.139 (between MDL and RDL)	0.2	

Sample IDs	Analyte	Method Blank Result (ppbv)	Quantitation Limit (QL) ppbv	Qualifier
VG-412-EFF-20250620 VG-411-INF-20250620 VP-4-20250620	1,3-Dichlorobenzene	0.129 (between MDL and RDL)	0.2	If the sample result is less than the quantitation limit, then report at QL and qualify as U. If the sample result is greater than QL, then report at sample result and qualify J+.
	1,4-Dichlorobenzene	0.167 (between MDL and RDL)	0.2	
	Hexachloro-1,3-butadiene	0.224 (between MDL and RDL)	0.63	
	Styrene	0.157 (between MDL and RDL)	0.4	
	1,2,4-Trichlorobenzene	0.489 (between MDL and RDL)	0.63	

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 except for one surrogate recovery, 1,4-Bromofluorobenzene in VG-412-EFF-20250260. The surrogate failed above QC limits due to matrix interference; however, two additional surrogate analysis were ran on VG-412-EFF-20250260 and were within QC limits, therefore, no data qualifiers are recommended.

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
NA	Field duplicate sample analysis was not performed.

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	VG-411-INF -20250620 was diluted by a factor of 100 for all analytes except for Benzyl Chloride, Bromoform, 2-Chlorotoluene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Hexachloro-1,3-butadiene, Isopropylbenzene, Naphthalene, Styrene, 1,1,2,2-Tetrachloroethane and 1,2,4-Trichlorobenzene which were not diluted and n-hexane which was diluted by a factor of 500. VP-3-20250620 was diluted by a factor of 10 for n-Hexane and 2,2,4-Trimethylpentane. VP-4-20250620 was diluted by a factor of 200 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.

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

July 14th, 2025
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: 25307 - dated 06/12/2025

Date of Receipt: 06-12-25

Qty, Container type & Weight: 3 – Supersacks- 5,079 pounds

Reactivation Date: 07/14/2025

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