FINAL
March 2024

2023 ANNUAL GROUNDWATER MONITORING REPORT

FIRE TRAINING PIT (FTP) AND TRACKED VEHICLE REPAIR/OLD MOBILIZATION AND TRAINING EQUIPMENT SITE (TVR/OLD MATES)

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ABBREVIATIONS AND ACRONYMS

µg/L	micrograms per liter
bgs	below ground surface
cis-1,2-DCE	cis-1,2-dichloroethylene
COC	contaminant of concern
cPAH	carcinogenic polycyclic aromatic hydrocarbon
E&E	Ecology & Environment
Ecology	Washington State Department of Ecology
ERP	Environmental Restoration Program
Fremont	Fremont Analytical
FTP	fire training pit
IEJV	INNOVEX-ERRG Joint Venture
JBLM	Joint Base Lewis-McChord
LC	laboratory control
LCD	laboratory control duplicate
mg/kg	milligram per kilogram
MMP	main motor pool
MS	Matrix Spike
MSD	Matrix Spike Duplicate
MTCA	Model Toxics Control Act
Old MATES	Old Mobilization and Training Equipment Site
ORC	Oxygen release compound
Pace	Pace Analytical Laboratory
PAH	polycyclic aromatic hydrocarbon
PAIC	Pomona Artesian Irrigation Company
PCB	polychlorinated biphenyl
PDB	passive diffusion bag
Pegasus	Pegasus Environmental Management Services
QC	quality control
RCRA	Resource Conservation and Recovery Act
RFA	RCRA facility assessment

SAIC	Science Applications International Corporation
SI	site investigation
SVOC	semivolatile organic compound
SWMU	Solid Waste Management Unit
TCE	trichloroethylene
TCLP	Toxicity Characteristic Leaching Procedure
TPH	total petroleum hydrocarbons
TPH-D	total petroleum hydrocarbons – diesel range
TPH-G	total petroleum hydrocarbons – gasoline range
TPH-O	total petroleum hydrocarbons – heavy oil range
TEC	toxic equivalent concentration
TVR	Tracked Vehicle Repair
UFP-QAPP	Uniform Federal Policy-Quality Assurance Project Plan
U.S.	United States
UST	underground storage tank
VOA	volatile organic analyte
VOC	volatile organic compound
WAC	Washington Administrative Code
YTC	Yakima Training Center

1. INTRODUCTION

This Annual Groundwater Monitoring Report documents the March (Spring) and September (Fall) 2023 semiannual groundwater monitoring events conducted at the Yakima Training Center (YTC) former Fire Training Pit (FTP) and the Tracked Vehicle Repair/Old Mobilization and Training Equipment Site (TVR/Old MATES).

This report presents sampling procedures, water level measurements, and analytical results for groundwater monitoring activities conducted at the FTP and TVR/Old MATES sites in 2023. This report was prepared for Joint Base Lewis-McChord (JBLM) Public Works by INNOVEX-ERRG Joint Venture (IEJV). This work was completed in accordance with the Site-Specific Uniform Federal Policy–Quality Assurance Project Plan (UFP-QAPP) (IEJV 2023), and Washington Administrative Code (WAC) Chapters 173-340-810 and 173-340-820 (WAC 2023).

Long-term management remedies, including land-use controls and groundwater monitoring to monitor natural attenuation of site contaminants for the foreseeable future, were selected and are implemented at the former FTP site and TVR/Old MATES facilities in accordance with their respective Decision Documents (Fort Lewis Environmental Restoration Program [ERP] 2007a and 2007b). Groundwater monitoring for site-related contaminants will continue until contaminant concentrations fall below Model Toxics Control Act (MTCA) Method A/Standard Method B groundwater cleanup levels (JBLM 2017).

Site-related contaminants are petroleum hydrocarbons, volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs) at the former FTP site and VOCs at TVR/Old MATES. Well construction details are included in Table 1. MTCA groundwater cleanup levels for selected contaminants of concern (COCs) are included in Tables 2, 3, 4, and 5.

The objectives of the groundwater monitoring program at FTP and TVR/Old MATES are to:

- Evaluate the groundwater concentrations of COCs at select monitoring wells.
- Determine whether COCs in groundwater are increasing, decreasing, or otherwise show evidence of offsite migration.

Based on these objectives, this report summarizes groundwater sampling activities conducted in 2023 to evaluate whether the existing groundwater monitoring program is adequate to characterize the extent of groundwater contamination or if changes to the monitoring network and/or monitoring frequency are required to meet regulatory objectives.

1.1 YTC BACKGROUND

YTC is an active United States (U.S.) Army sub-installation of JBLM located approximately 5 miles northeast of the City of Yakima (Figure 1). YTC has been used for training military

artillery, infantry, and engineering units since 1941. Expansion of YTC occurred in the early 1950s with the acquisition of additional land and permanent construction of the Cantonment Area in the southwest portion of YTC. An expansion of YTC to the north occurred in the early 1990s. Currently, YTC has an area of 327,231 acres.

1.2 SITE DESCRIPTIONS

1.2.1 Former Fire Training Pit

The former FTP is located in the northeast portion of the Cantonment Area (Figure 2). The former FTP was used to practice extinguishing fires two to three times per year from an unknown start date until 1987 with a single training event in 1990 (Shapiro & Associates 1991). Practice events consisted of saturating an open, unlined earthen pit with water, adding and igniting 500 to 1,000 gallons of waste JP-4 aviation fuel, diesel fuel, or motor gasoline and then extinguishing the fire (Shapiro & Associates 1991).

Although reports of the releases differ slightly (Ecology & Environment [E&E] 1993, Science Applications International Corporation [SAIC] 1995), petroleum products were released to site soils as a result of past fire training practices. During the 1990s, the site was used for storing stockpiles of waste sand-filter material and sediments from the adjacent vehicle wash rack treatment system (E&E 1993) as well as storing fuel bladders (Shannon & Wilson 2001). Currently the site is vacant and is not being used by YTC.

The groundwater monitoring network at the former FTP includes wells FTP-1, FTP-13, FTP-14, FTP-15, and FTP-16 (Figure 3). The wells, excluding well FTP-13, are located downgradient of the contamination source. FTP-13 is located approximately cross gradient (south) of the contamination source. Well construction details for the monitoring wells are presented in Table 1.

1.2.2 TVR/Old MATES

TVR/Old MATES is located in the west central portion of the Cantonment Area (Figure 2). Trichloroethylene (TCE) was detected during a 1993 Site Investigation (SI) conducted by E&E in two monitoring wells installed near the TVR facility, two monitoring wells installed near the Old MATES, and the Marie well (a domestic drinking water production well decommissioned in the late 1990s) (E&E 1993).

The monitoring well network at TVR/Old MATES includes wells MTS-1, MTS-2, MTS-3, MTS-4, TVR-1, TVR-2, TVR-3, TVR-4, TVR-5, TVR-6, TVR-7, 815-2, and MMP-1, as well as two currently active water supply wells (Pomona drinking water production well and the Pomona Artesian Irrigation Company [PAIC] drinking water production well, Figure 6). Monitoring wells MTS-1, MTS-2, MTS-4, TVR-1 through TVR-7, MMP-1, 815-2, the Pomona drinking water production well, and the PAIC drinking water production well are located downgradient of the contaminant source. TCE and other VOCs have not been detected in either of the currently active water supply wells. MTS-3 is located approximately cross gradient (east) of the

contamination source. Well construction details for the monitoring wells are presented in Table 1.

Vehicle maintenance has been conducted and de-greasing solvents have been used since approximately 1968 at Building 845, and since 1975 at Building 951 (Shapiro & Associates 1991, Figure 6). Four 250-gallon underground storage tanks (USTs) for waste oil were in use at Building 845 from 1975 until 1991 (Shapiro & Associates 1991, Pegasus Environmental Management Services [Pegasus] 1993, SAIC 1995). A fifth waste oil UST (650 gallons) was used at Building 845 from 1980 until 1991 (Shapiro & Associates 1991, Pegasus 1993, SAIC 1995). One 2,000-gallon waste oil UST removed from Building 951 in 1995 was thought to be in operation since 1968 (Shapiro & Associates 1991, SAIC 1995). All six of these former waste oil USTs have been removed. Three of the five waste oil tanks at Building 845 and the 2,000-gallon waste oil UST at Building 951 were "clean closed" with soil concentrations below cleanup levels promulgated under the MTCA (CEcon Corporation 1994, SAIC 1995). However, as discussed in the investigation chronology section (Section 1.4), soil contamination from waste oil USTs 845-3 and 845-4 remained under adjacent structures following tank removal activities. A downgradient monitoring well (TVR-2) is located as close to the UST 845-3/4 excavation as possible. It should also be noted that a former floor drain from Building 845 discharged immediately adjacent to the current location of monitoring well TVR-1 (Cory 2004).

1.3 SITE GEOLOGY AND HYDROGEOLOGY

Structurally and physiographically, YTC is located within the Yakima Fold Belt, which is characterized by northwest/southeast-trending anticlines and synclines. Most of the YTC Cantonment area is located within the synclinal valley between the anticlinal Yakima and Umtanum Ridges.

Lithologically, YTC is underlain by a thick sequence of basalt flows known as the Columbia River Basalt Group. From youngest to oldest, the four formations that comprise the Columbia River Basalt Group are the Saddle Mountain Basalt, Wanapum Basalt, Grande Ronde Basalt, and Imnaha Basalt (Schuster et al. 1997). Portions of the YTC Cantonment area have sedimentary rocks/deposits of the Ellensburg Formation and/or quaternary deposits on top of the basalt flows (Schuster et al. 1997).

1.3.1 Former Fire Training Pit

The uppermost sediments underlying the former FTP site consist of localized fill materials and up to 12 feet of alluvium comprised primarily of unconsolidated silty sand and unconsolidated soils of the Ellensburg Formation (Shannon & Wilson 2001). The uppermost bedrock unit at the former FTP site is the Pomona Flow of the Saddle Mountain Basalt Formation (E&E 1993, Schuster et al. 1997, Shannon & Wilson 2001). In general, this unit is present at a depth of approximately 5 to 10 feet below ground surface (bgs) at the site (E&E 1993, Shannon & Wilson 2001). Basalt apparently extends to an approximate depth of 150 feet bgs without significant interbeds (E&E 1993, Shannon & Wilson 2001).

The former FTP site has perched groundwater located in fractured basalt near the top of the Pomona Basalt flow (E&E 1993, Shannon & Wilson 2001). Depth-to-water at the site is approximately 10 to 27.5 feet bgs (Shannon & Wilson 2001 and this report). The direction of the shallow groundwater flow is towards the southwest and generally mirrors the surface topography. The next deepest groundwater-bearing unit is at approximately 150 feet below the site (Shannon & Wilson 2001).

1.3.2 TVR/Old MATES

The unconsolidated sediments underlying TVR/Old MATES consist of localized fill, alluvium comprised primarily of unconsolidated silty sand, and unconsolidated soils of the Ellensburg Formation (Shannon & Wilson 2001). Together, the alluvium and Ellensburg sediments are up to 50 feet thick at the Old MATES facility. The uppermost bedrock unit beneath the sediments in the TVR/Old MATES area is the Pomona Flow of the Saddle Mountain Basalt Formation (E&E 1993, Shannon & Wilson 2001). In general, this unit was encountered at depths between 10 and 45 feet bgs in the six monitoring wells at TVR, MTS (Old MATES wells), and main motor pool (MMP) (E&E 1993). Saddle Mountain Basalt extends beneath the site without significant interbeds to a depth of greater than 100 feet bgs (E&E 1993).

Depth-to-water at the site is approximately 25 to 105 feet bgs (this report). The direction of groundwater flow is to the west towards the Yakima River (E&E 1993).

1.4 INVESTIGATION CHRONOLOGY

1.4.1 Facility-Wide Investigations

A facility-wide preliminary assessment of YTC was completed in the early 1990s by Shapiro & Associates, Inc. (Shapiro & Associates 1991). The preliminary assessment documented the aforementioned site uses, identified potential receptors, and concluded that the two sites covered by this report could potentially be releasing hazardous substances to groundwater as a result of historical activities.

A Site Screening Inspection and Hazard Ranking System Score for YTC were completed in January 1993 by Resource Applications, Inc. (1993a, 1993b). A Hazard Ranking System Score was calculated; however, it was not high enough for YTC to be considered for inclusion on the Comprehensive Environmental Response, Compensation, and Liability Act National Priorities List.

Yakima Health District collected groundwater samples from 12 private domestic wells located downgradient of YTC and analyzed those samples for VOCs in 1995 (Yakima Health District 1995). The PAIC Well (located on YTC across the street from YTC's Pomona Well) was one of the 12 wells sampled. No contaminants were detected in the wells, with the exception of styrene in a single well at a concentration equal to the detection limit of 0.1 micrograms per liter (µg/L) (Yakima Health District 1995).

The final Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) Report was completed in September 1995 by SAIC (SAIC 1995). The RFA for the entire installation was a result of a RCRA Part B Permit Application for the Range 14 open burning/open detonation area. The 1995 RFA indicated a high potential for releases to soil and possibly groundwater at the former FTP. As a result, there was a recommendation to remediate contaminated soil and the petroleum product in well FTP-1. Although the 1995 RFA did not explicitly address TCE in groundwater in the TVR/Old MATES area, the RFA recommended a corrective action for soil contamination that remained under a building adjacent to waste oil USTs 845-3 (Solid Waste Management Unit [SWMU] 43) and 845-4 (SWMU 44). RCRA corrective actions that were recommended or implied by the RFA need to satisfy MTCA regulations in accordance with WAC 173-303-646(3) (WAC 2020).

In October 2012, YTC had its first 5-year periodic review regarding six sites currently managed by the JBLM Installation FTP and TVR/Old MATESProgram. The review focused on sites where environmental remedies are currently in place; however, the COCs were still above their respective cleanup levels (U.S. Army Corps of Engineers 2012). Both the former FTP and the TVR/Old MATES sites were part of this periodic review. No significant concerns regarding the monitoring network were noted for the former FTP site and no recommendations were made. One concern was noted regarding the TVR/Old MATES monitoring network. TCE concentrations had been increasing over time in samples collected from monitoring well TVR-6, located on the western end of the monitoring network. It was suggested that if TCE concentrations continued to increase in TVR-6, it may warrant installing additional downgradient monitoring wells. However, since TCE concentrations at TVR-6 have consistently been below the MTCA Method A Cleanup Level of 5 µg/L since March 2017, the addition of wells near TVR-6 may no longer be warranted.

A second 5-year periodic review occurred in 2017 and concluded that remedies at the former TVR/Old MATES sites are protective of human health and the environment through land use controls. However, it did recommend that the installation of one or two additional downgradient wells should be considered to better define the downgradient plume extent and confirm that TCE is not migrating off YTC (U.S. Army Corps of Engineers 2017).

A third 5-year periodic review occurred in 2021 and concluded that remedies at the former TVR/Old MATES sites are protective of human health and the environment through land use controls. However, it did recommend removing monitoring wells FTP-14, FTP-15, and FTP-16 at the FTP site and 815-2, MMP-1, TVR-2 and TVR-5 at the TVR/Old Mates site from the sampling program. Additionally, the report stated that the installation of additional downgradient wells to better define the downgradient TCE plume extent and confirm that TCE is not migrating off YTC was unnecessary and not required (U.S. Army Corps of Engineers 2021).

The UFP-QAPP for the former FTP and TVR/Old MATES sites was updated in 2023 and incorporated the recommendations to eliminate specific wells from the groundwater sampling program (IEJV 2023).

1.4.2 Fire Training Pit

1.4.2.1 Investigations

The former FTP was one of the YTC facilities/sites investigated and summarized in the E&E SI Report (E&E 1993). Monitoring well FTP-1 was installed and four grab surface or near-surface soil samples and two composite surface soil samples were collected during the E&E SI. Significant groundwater was not encountered during the drilling of the FTP-1 borehole to a depth of approximately 140 feet. However, when it came time to decommission the FTP-1 borehole, several gallons of petroleum product were discovered on top of a column of water. As a result, FTP-1 was completed to a depth of approximately 20 feet in the shallow groundwater, located within the weathered portion of the uppermost basalt flow with a screen interval depth of 8 to 18 feet.

A RCRA facility investigation to further delineate the nature and extent of contamination at the former FTP site was completed in November 2001 by Shannon & Wilson (Shannon & Wilson 2001). Monitoring wells FTP-13 through FTP-16 were installed in 1999 in the perched groundwater located at the fractured top of the uppermost basalt flow. Groundwater monitoring events were conducted in July 1999, November 2000, and May 2001. Nine other soil borings were also advanced during the investigation.

1.4.2.2 Soil Removal

An interim remedial action was completed at the former FTP site in 2003 to remove soil contamination that exceeded MTCA Method A/Standard Method B cleanup levels. The cleanup action was documented in a January 2004 report (Bay West 2004). Soil was excavated during three separate mobilizations: July 2003, September 2003, and October 2003. The total excavation area was approximately 5,000 square feet and extended downward until the underlying basalt was encountered. Soil (1,351 tons) was disposed off-site in November 2003. Contaminant concentrations in confirmation soil samples were below MTCA Method A/Standard Method B cleanup levels except for gasoline and diesel range total petroleum hydrocarbons (TPH) (total petroleum hydrocarbons – gasoline range [TPH-G] and total petroleum hydrocarbons – diesel range [TPH-D], respectively) in two samples collected from the soil/basalt interface. The excavation was backfilled with clean soil.

The terrestrial ecological pathway was closed as described in the April 2006 terrestrial ecological evaluation by Pacific Northwest National Laboratory (Pacific Northwest National Laboratory 2006).

1.4.2.3 Groundwater Monitoring

The Fort Lewis ERP conducted groundwater monitoring events in January 2004, March and August 2005, March and August 2006, March and September 2007, and March and September 2008 (ERP 2007a). Between March 2005 and March 2007, 4-inch diameter “socks” containing Oxygen Release Compound (ORC) were installed by Fort Lewis ERP in well FTP-1 between 11 to 18 feet bgs. During the deployment of ORC at FTP-1, depth-to-water ranged from 11.54 feet bgs in August 2006 to 15.59 feet bgs in March 2007.

Groundwater monitoring has been conducted semi-annually at well FTP-1 since 2005. One sampling event, considered the "wet season," or Spring event, is typically conducted in February or March of each year. The second sampling event, considered the "dry season," or Fall event, is typically conducted in August or September of each year. Groundwater samples are collected for analysis of hydrocarbons and depth-to-water is measured during each event.

TPH concentrations in samples from FTP-14, FTP-15, and FTP-16 were generally below the MTCA cleanup levels since monitoring began at the FTP (EA Engineering, Science, and Technology, Inc. [EA] 2020). Sampling for TPH-G, TPH-D, and TPH – heavy oil range (TPH-O) was reduced from semiannual to annual in 2018 with Washington State Department of Ecology (Ecology) concurrence. Sampling was then discontinued at these wells in 2019 with Ecology concurrence.

1.4.3 TVR/Old MATES

1.4.3.1 UST Removal

In October 1991, Pegasus evacuated, excavated, removed, cleaned, and disposed of five waste oil USTs at Building 845 (TVR) (Pegasus 1993). Pegasus noted visible surface contamination associated with three of the UST excavations. Soil samples from all excavations were analyzed for TPH, benzene, toluene, ethylbenzene, xylenes, Toxicity Characteristic Leaching Procedure (TCLP) VOCs, and TCLP metals. TPH concentrations exceeding 10,000 milligrams per kilogram (mg/kg) were detected in samples collected from all five UST excavations. TCLP TCE and TCLP tetrachloroethylene were detected at 20 milligrams per liter (mg/L) in the sample from UST 845-5, and 17 mg/L in the sample from UST 845-6, respectively. No TCLP VOCs were detected in samples collected from USTs 845-3 (SWMU 43) and 845-4 (SWMU 44) excavations. No additional corrective action was taken by Pegasus due to contract limitations.

1.4.3.2 Soil Removal

CEcon Corporation was contracted to excavate and remove contaminated soil left in place following the tank removal activities by Pegasus (CEcon 1994). CEcon Corporation removed approximately 1,000 cubic yards of soil while excavating contaminated soil from the five Building 845 waste oil tank sites in October 1993. Confirmation samples collected by CEcon Corporation verified that no further action was required for USTs 845-2 (SWMU 42), 845-5 (SWMU 45), and 845-6 (SWMU 46); however, some TPH contaminated soil was left in place on the north and east sidewalls of the UST 845-3/4 (SWMUs 43/44) excavation, since existing structures (Building 845 lube rack and oil-water separator) prevented further excavation in those directions (over 400 cubic yards of soil had already been removed). Although all confirmation samples collected by CEcon Corporation were analyzed for potential contaminants suspected at the time, no confirmation samples were analyzed for VOCs.

1.4.3.3 Additional Investigation

TVR, Old MATES, and MMP were among the facilities investigated in the September 1993 SI by E&E (E&E 1993). Groundwater samples were collected from the two TVR, two Old MATES, and two MMP monitoring wells as well as the Pomona, PAIC, and Marie drinking

water production wells. In addition, soil samples were collected from each monitoring well borehole during drilling and analyzed for VOCs, SVOCs, pesticides/polychlorinated biphenyls (PCBs), metals, and TPH. Based on the presence of TCE in groundwater at TVR and Old MATES and the absence of contamination in corresponding soil samples, the SI Report concluded that TCE contamination in groundwater "may indicate migration from an unidentified source at the YTC facility."

1.4.3.4 Groundwater Monitoring

Fort Lewis ERP conducted a groundwater monitoring event in January 2004 and installed monitoring wells MTS-3, MTS-4, TVR-3, and TVR-4 between October and November 2004 (ERP 2007b). The ERP conducted groundwater monitoring events in March 2005 and August 2005 and installed additional monitoring wells TVR-5, TVR-6, TVR-7, and 815-2 in October 2005.

Groundwater monitoring has been conducted semi-annually since 2005 at wells MTS-1, MTS-2, MTS-4, TVR-1, TVR-3, TVR-6, and TVR-7, as well as the two currently active water supply wells (Pomona and the PAIC drinking water production wells). Sampling events typically coincide with FTP sampling events. Beginning in August 2005, groundwater samples have been collected using disposable passive diffusion bags (PDBs). PDBs are sealed, low density polyethylene bags filled with de-ionized water. PDBs are hung so that the top of the PDBs are approximately 3 feet off the bottom of monitoring wells using a dedicated stainless-steel cable and clip. PDBs are hung at least two weeks prior to sampling to allow VOC concentrations in groundwater and the water inside of the PDB to reach equilibrium (Interstate Technology and Regulatory Council 2004). During each sampling event, samples are analyzed for VOCs and depth-to-water is measured.

Sampling at wells 815-2, MMP-1, TVR-2, and TVR-5 was discontinued in 2020 with the Ecology concurrence. Contaminant concentrations were consistently below the MTCA Method A cleanup level since at least 2015, and all wells exhibited statistically significant downward trends in TCE concentrations (EA 2020).

1.5 POTENTIAL GROUNDWATER RECEPTORS

The nearest potential groundwater receptors to the FTP and TVR/Old MATES sites are the Pomona and PAIC drinking water production wells. The Pomona and PAIC wells are domestic water supply wells located approximately 1 mile southwest of the FTP site and approximately 250 feet southwest of well TVR-1. Over the past decade, additional residential drinking water production wells have been installed west of the YTC boundary, approximately 1,500 to 3,000 feet northwest of the TVR/Old MATES TCE plume (Figure 2).

The Pomona well is an artesian well used by YTC as a primary production source for the Pomona water distribution system. The Pomona well is completed in the Wanapum and/or Grande Ronde Formation (HongWest & Associates 1996) with open borehole completion between depths of approximately 353 and 407 feet bgs (Fain 2000, Cory 2004). Sources of information provided incorrect information about the well construction details of the Pomona

Well (including a typo in Table 2-1 of the current Water System Plan) (Cory 2004). A downhole video survey conducted by YTC in 1995 is considered to be the most accurate source of construction detail information for the Pomona Well to date. In addition to indicating the open interval referenced above, the video survey also indicated that water was entering the Pomona Well at approximately 401 feet bgs (Fain 2000).

The PAIC well is an artesian well used by PAIC as the sole production well for the PAIC water system serving approximately 60 homes and businesses located west of YTC (Wilson 2004). It appears that the PAIC well was constructed in an identical fashion as the Pomona well. Both wells were installed by the PAIC in 1913 by the same driller within 100 feet of each other (Fain 2000). Well logs from pumping tests conducted in 1940 indicate identical (although very generic) well construction details for the Pomona well and PAIC well (Fain 2000). The construction details on the 1940 well logs were 10-inch diameter casings to a depth of 60 feet bgs and 6 $^{5}/_{8}$-inch diameter casings from 60 to 430 feet bgs for both wells. Since the video survey of the Pomona well showed the 1940 well log and other sources of post-drilling anecdotal information to be incorrect with respect to the actual well construction details of the well, it is reasonable to assume that the video survey is also a more accurate representation of well construction details for the PAIC well than the 1940 well log.

The basis for assuming nearly identical well construction details for the two wells are 1) both wells are artesian, 2) both wells have similar production capacities, 3) both wells were installed at the same time and location by the same well driller for the same water system, and 4) both wells have identical 1940 well logs.

Given the distance of both wells from the FTP site and the hydraulic separation between the shallow groundwater and the aquifer(s) where the water supply wells are completed, it is unlikely that these potential receptors are being impacted by the FTP site. It is also unlikely that either water supply well would be impacted by TCE contamination in the TVR/Old MATES area given the relatively low TCE concentrations detected in samples collected from monitoring wells and the hydraulic separation between the Selah Interbed and the aquifer(s) in which the water supply wells are completed. Existing water quality data from both the Pomona and PAIC wells support this conclusion.

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2. FIELD ACTIVITIES

This section presents field activities conducted in Spring and Fall 2023. Copies of completed field notes and forms for 2023 sampling events are included in Appendix A.

2.1 WELL MAINTENANCE, GROUNDWATER MEASUREMENT, SAMPLING, AND ANALYSIS

2.1.1 Well Maintenance

Each monitoring well was inspected for damage or other maintenance needs. Missing or damaged bolts, well caps, locks or other issues were documented in the field notes or forms that are provided in Appendix A. Similarly, when damaged items were replaced, this was documented in the field notes.

2.1.2 Groundwater Flow

Static water level measurements were measured using an electronic water level indicator (water level meter or interface probe) at each well location. Water level measurements were recorded to the nearest 0.01 feet from the top of the well casing at each well location and recorded in the field logbook. The electronic instrument was decontaminated before use, between wells, and at the end of the day.

2.1.3 Groundwater Sampling Tasks

Groundwater sampling was conducted during the first quarter (spring/wet season) and third quarter (fall/dry season). Sample containers were provided by the analytical laboratories (Pace Analytical Laboratory of Mt. Juliet, Tennessee and Fremont Analytical of Seattle, Washington) prior to sampling. Groundwater samples were transported to Pace Analytical Laboratory (Pace) and Fremont Analytical (Fremont) under chain-of-custody. Copies of the chains-of-custody are included in the laboratory analytical reports in Appendix A.

2.1.3.1 Former Fire Training Pit Site

Monitoring well FTP-1 was purged and sampled using low-flow sampling methods with a peristaltic pump during both 2023 sampling events. Equipment used during low-flow purging and sampling included an electronic water level indicator (water level meter or interface probe), a water quality meter (Horiba® U-22 or equivalent) equipped with a flow-through cell, peristaltic pump, and dedicated Teflon-lined polyethylene tubing. Water quality meters were calibrated in accordance with the manufacturer's recommended instructions. Requirements for calibration, maintenance, testing, and inspection of field equipment are summarized in the QAPP (IEJV 2023). Prior to use, the affected portions of the non-dedicated equipment (water quality meter and water level indicator) were decontaminated using distilled water and Alconox.

The total depth of the well (feet bgs) and depth to static water level (feet bgs) were measured before sampling equipment entered the well. If the casing cap was airtight, sufficient time was allowed prior to the water level measurement to allow equilibration of pressures after the cap was removed. Measurements were repeated until the water level was stabilized (i.e., water level was plus or minus 0.05 feet over consecutive measurements).

The pump intake was set approximately two to three feet above the bottom of the monitoring well screen in order to prevent agitation of sediment that may be present in the well. Purging and sampling were performed in a manner that minimizes aeration in the well and the agitation of sediments in the well and formation. Equipment was not allowed to free-fall into the well.

During purging, relative water levels were measured with an electronic water level indicator to monitor drawdown. The pump controller was used to limit the flow rate during sampling to less than 0.5 liters per minute to minimize drawdown. Depth-to-water measurements recorded during 2023 are presented in Table 2.

Water quality parameters (pH, temperature, oxidation-reduction potential, dissolved oxygen, specific conductance, and turbidity were recorded and reported using a water quality meter (Horiba® U-22 or equivalent) and flow-through cell to verify stabilization. Readings were taken every 5 minutes until water quality parameters stabilized. Copies of field forms are included in Appendix A.

The sampler wore clean, protective nitrile gloves while collecting samples. Sample containers containing hydrochloric acid as a preservative were provided by the analytical laboratory prior to sampling (as outlined in the QAPP, IEJV 2023). Sample bottles for VOC analysis (40 mililiter volume volatile organic analyte [VOA] vials) were filled to a positive meniscus so that the containers did not contain headspace. Following collection of the samples, the containers were labeled with the sample name, date and time of collection as well as the sampler's initials, then placed in a cooler containing ice pending transport to the analytical laboratory.

In Spring and Fall 2023, groundwater samples from well FTP-1 were analyzed for the following COCs.

- VOCs by EPA Method 8260D and 8260D SIM.
- SVOCs by EPA Method 8270E and 8270E SIM.
- Gasoline-range TPH by Ecology Method NWTPH-Gx.
- Diesel-range TPH by Ecology Method NWTPH-Dx.
- Heavy oil-range TPH by Ecology Method NWTPH-Dx.

Samples aliquots for the analysis of volatile analytes (VOCs and TPH-G) were collected before the others.

2.1.3.2 Tracked Vehicle Repair/Old Mobilization and Training Equipment Site

Groundwater samples from the Pomona Well and the PAIC Well were collected from taps on each well while the pumps were running. Samples were collected for VOC analysis and were analyzed by EPA Methods 8260D and 8260D SIM. Water quality parameters were not collected during sampling.

Monitoring wells at the TVR/Old MATES were sampled using disposable PDBs. PDBs were deployed into wells a minimum of two weeks prior to sampling to achieve aquifer equilibrium. A dedicated harness was used to position PDB samplers at approximately 2 to 5 feet above the bottom of each well screen. Following the two-week (minimum) equilibration period, the PDBs were extracted, and samples were collected for VOC analysis by EPA Methods 8260D and 8260D SIM. Water quality parameters were not collected during sampling. PDB installation dates and sampling information were recorded in the field logbook (Appendix A).

2.1.4 Equipment Decontamination Tasks

Non-disposable equipment that directly or indirectly contacted samples, such as electronic water level indicators, was decontaminated between well/sampling locations.

2.1.5 Investigation-Derived Waste

Investigation-derived waste generated during sampling activities was limited to purge water at the former FTP site, decontamination fluids, used PDBs, and personal protective equipment (e.g., nitrile gloves). Purge water and decontamination water was containerized and discharged to the oil-water separator at the main vehicle washrack catch basin. Investigation-derived waste disposal was coordinated with YTC Wastewater Treatment Plant Operator prior to disposal. Personal protective equipment, used PDBs, and other garbage was disposed of in a designated collection bin as part of the normal solid waste stream.

2.1.6 Field Quality Control Tasks

Quality control (QC) tasks were overseen by IEJV's Field Team Leader and/or QC Manager. Field QC samples are intended to provide an indication of the consistency of sample collection and analyses over the course of the program. Field and laboratory QC samples included field duplicates, matrix spike/matrix spike duplicates, and trip blanks.

One field duplicate sample was collected annually at the FTP site, and one field duplicate sample was collected per sampling event at TVR/Old MATES. Matrix spike (MS)/matrix spike duplicate (MSD) samples were collected at each site at a rate of 5 percent of primary samples (1 set per 20 field samples). One laboratory-supplied trip blank accompanied each cooler containing samples sent to the laboratory for VOC analysis.

2.2 DEVIATIONS FROM THE UFP-QAPP

No deviations from the Site-Specific Quality Assurance Project Plan (IEJV 2023) were noted, except for the following.

- Monitoring well FTP-1 was purged using a low-flow peristaltic pump instead of an adjustable submersible pump during the sampling events. Samples were collected using low-flow sampling methods for the sampling events, in accordance with the QAPP.

- Additionally, monitoring well FTP-1 was sampled in both March and May of 2023. This was due to an omission of analytical requests during the March sampling. In March, the collected sample was submitted for VOC and SVOC analyses. In May, the collected groundwater sample was submitted for NWTPH-Gx and NWTPH-Dx.

- Monitoring well TVR-6 was not sampled during Spring 2023. Upon opening the well, the PDB hanger and PDB were not present. In May 2023, the slip cap was replaced with a J-plug and one new PDB was deployed. The well was sampled in Fall 2023.

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3. RESULTS AND DISCUSSION

This section presents groundwater elevation measurements and the analytical results from the 2023 sampling events, as well as the results of statistical analysis performed on data from the former FTP site and TVR/Old MATES. Copies of field notes, groundwater sampling logs, laboratory analytical reports, and data validation reports for both 2023 sampling events are included in Appendix A.

Historical data and graphs of historical TCE results for each site are included in Appendix B. Histograms, linear regression graphs, and Mann-Kendall plots are also presented in Appendix C.

3.1 DATA QUALITY REVIEW AND VERIFICATION

A data quality review was completed on the laboratory data from the Spring and Fall 2023 sampling events. The data quality review documentation is included in Appendix A. The data was reviewed by a party independent from the laboratory for adherence to the project quality control requirements and for usability. The review found that the data quality objectives were met for both the FTP and TVR/Old MATES sites during the Spring and Fall events. The data are considered acceptable for use and for comparison with other site data with the exceptions below.

Non-detect results for vinyl chloride in samples YTC-FTP-1-20230328 and YTC-FTP-1-20230915 (Table 3) are recommended for exclusion due to surrogate recovery failure. Additionally, the lab noted that the surrogates associated with these samples failed as a result of matrix interference. This is consistent with previous sampling results for this well.

3.2 FORMER FTP SITE

3.2.1 Groundwater Elevations and Sampling Results

Measurable amounts of light non-aqueous phase liquid or dense non-aqueous phase liquid were not observed in well FTP-1 during either event. Table 2 presents the 2023 depth-to-water measurements and summaries of contaminant concentrations compared to MTCA Method A cleanup levels. Figure 3 presents inferred groundwater elevation contours and groundwater flow direction for the former FTP site based on depth-to-water elevations measured during the Spring and Fall 2023 monitoring events. Figures 4 and 5 present the TPH concentrations for the Spring and Fall sampling events, respectively.

Current contaminant concentrations in groundwater samples from FTP-1 remain above the MTCA Method A Cleanup Levels. TPH concentrations near FTP-1 appear localized and do not appear to be migrating. This suggests a residual contaminant source near the top of the weathered basalt. Historical TPH-G, TPH-D, and TPH-O concentrations in groundwater samples from well FTP-1 are presented in Appendix B. At downgradient wells, historical concentrations of TPH-G, TPH-D, and TPH-O are well below MTCA Method A cleanup levels (Appendix B).

3.2.1.1 TPH-G

TPH-G was detected at 907 µg/L (Spring) and 1,460 µg/L (Fall) in samples collected from FTP-1. These concentrations exceed the 800 µg/L MTCA Method A cleanup level for TPH-G.

3.2.1.2 TPH-D

TPH-D was detected at 5,000 J µg/L (Spring) and 4,580 J µg/L (Fall) in samples collected from FTP-1. These concentrations exceed the 500 µg/L MTCA Method A cleanup level for TPH-D.

3.2.1.3 TPH-O

TPH-O was detected at 841 µg/L (Spring) and 769 J µg/L (Fall) in samples collected from FTP-1. These concentrations exceed the 500 µg/L MTCA Method A cleanup level for TPH-O.

3.2.1.4 Other Chemicals of Concern

Other COCs detected in groundwater samples from well FTP-1 include the following (Tables 2 and 3):

- Ethylbenzene at 1.26 µg/L (Spring) and 1.17 µg/L (Fall)
- Total naphthalenes at 2.41 J µg/L (Fall)

Concentrations of these contaminants did not exceed the applicable MTCA Method A or Method B cleanup levels during either 2023 sampling event.

Total polycyclic aromatic hydrocarbons (PAHs) were 1.48 µg/L (Spring) and 2.47 µg/L (Fall) in samples collected from FTP-1. The total PAH concentrations are calculated from the sum of 17 PAHs (see Note 2, Table 4 for the included analytes), including the level of detection (LOD) value if the constituent was not detected above the LOD. There is no cleanup level defined for total PAHs.

While various PAHs were detected in Spring and Fall samples, no carcinogenic PAHs (cPAHs) were detected in the samples. Therefore, the total toxic equivalent concentration (TEC) (as outlined by WAC Chapter 173-340-708(8)(e)) was not calculated.

3.2.2 Statistical Results

TPH data from FTP-1 was statistically analyzed as described in Appendix C. Statistical analysis was only performed on data from FTP-1 as it is the only well that is currently sampled and with TPH-G, TPH-D, and TPH-O concentrations above the MTCA Method A cleanup levels of 800 µg/L, 500 µg/L, and 500 µg/L, respectively. Historical data and concentration graphs are included in Appendix B. Histograms, linear regressions, and Mann–Kendall scatter plots are included in Appendix C. Results from the statistical analyses of the data are compiled in Table 6 and summarized below:

- A statistically significant downward trend for TPH-G concentrations in samples collected from FTP-1.

- A non-statistically significant downward trend in TPH-D concentrations in samples collected from FTP-1.

- A statistically significant upward trend in TPH-O concentrations in samples collected from FTP-1.

3.3 TVR/OLD MATES SITE

3.3.1 Groundwater Elevations and Sampling Results

Table 5 presents both depth-to-water measurements and a summary of the concentrations of TCE and cis-1,2-dichloroethene (cis-1,2-DCE) for the site. Figure 6 presents inferred groundwater elevation contours and groundwater flow direction based on measured elevations from the Spring and Fall 2023 monitoring events for the TVR/Old MATES site. Figure 7 presents TCE concentrations of samples collected during the 2023 Spring and Fall sampling events.

Groundwater samples from two of the monitoring wells (MTS-2 and TVR-1) had TCE concentrations above the 5 µg/L MTCA Method A cleanup level during one or both of the 2023 sampling events. TCE was either not detected above the LOD or was detected below the cleanup level during the 2023 Spring and Fall events in samples from the remaining five sampled monitoring wells (MTS-1, MTS-4, TVR-3, TVR-6, and TVR-7). Overall, the TCE concentrations reported in groundwater are not significantly elevated. The highest TCE concentration in 2023 was reported in well TVR-1 at 7.12 µg/L (Fall).

Cis-1,2-DCE was not detected above the LOD of 0.5 µg/L in any well sampled during 2023. Historical data and concentration graphs are included in Appendix B. Consistent with historical data, TCE and cis-DCE were not detected in samples collected from the PAIC and Pomona domestic drinking water production wells during 2023 sampling events.

3.3.2 Statistical Results

TCE data from TVR/Old MATES wells were statistically analyzed as described in Appendix C. Histograms, linear regressions, and a Mann–Kendall Correlation scatter plots are included in Appendix C. Results from the statistical analyses of the data are compiled in Table 6 and summarized below:

- Statistically significant downward trends for TCE concentrations were observed in the seven TVR/Old MATES wells with detected concentrations of TCE (MTS-1, MTS-2, MTS-4, TVR-1, TVR-3, TVR-6, and TVR-7).

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4. CONCLUSIONS AND RECOMMENDATIONS

4.1 FORMER FTP SITE

Groundwater levels and flow direction beneath the FTP site in Spring and Fall 2023 were consistent with observations from previous years.

Concentrations of TPH-G, TPH-D, and TPH-O in samples from well FTP-1 continue to be detected above MTCA Method A cleanup levels. The consistently elevated concentrations suggest a residual contaminant source near the top of the weathered basalt. These results are consistent with recent historical data. Statistical analyses continue to indicate a downward trend for TPH-G and TPH-D and an upward trend for TPH-O.

The total PAH concentrations are calculated from the sum of 17 PAHs (see Note 2, Table 4 for the included analytes), including the LOD value if the constituent was not detected above the LOD. There is no cleanup level defined for total PAHs. Total polycyclic aromatic hydrocarbons (PAHs) were 1.48 µg/L (Spring) and 2.47 µg/L (Fall) in samples collected from FTP-1. These concentrations are lower than the detected concentrations from the previous sampling events.

While various PAHs were detected in Spring and Fall samples, no carcinogenic PAHs (cPAHs) were detected in the samples. Therefore, the total TEC (as outlined by WAC Chapter 173-340-708(8)(e)) was not calculated.

It is recommended that groundwater monitoring at the former FTP site continue in accordance with the UFP-QAPP (IEJV 2023).

4.2 TVR/OLD MATES

Groundwater levels and flow direction beneath TVR/Old MATES in Spring and Fall 2023 were consistent with observations from previous years.

TCE results from samples collected from monitoring wells at the TVR/Old MATES sites are below the MTCA Method A cleanup level except for samples collected from monitoring wells MTS-2 and TVR-1. Overall, the TCE concentrations reported in groundwater are not significantly elevated. Statistically significant downward trends for TCE concentrations were observed in the monitoring wells with detected concentrations of TCE.

Additionally, cis-1,2-DCE was not detected above the LOD in any well sampled during 2023.

It is recommended that groundwater monitoring at the TVR/OLD MATES sites continue in accordance with the UFP-QAPP (IEJV 2023).

Monitoring wells TVR-1 and TVR-2 have cracks in the concrete pads surrounding the monuments, compromising the surface seals. These wells should be refurbished to restore the

integrity of the surface seal. Additionally, other wells from this program that are no longer being sampled or gauged (TVR-4, MMP-2, and MRC-2) should be properly decommissioned in accordance with applicable regulations.

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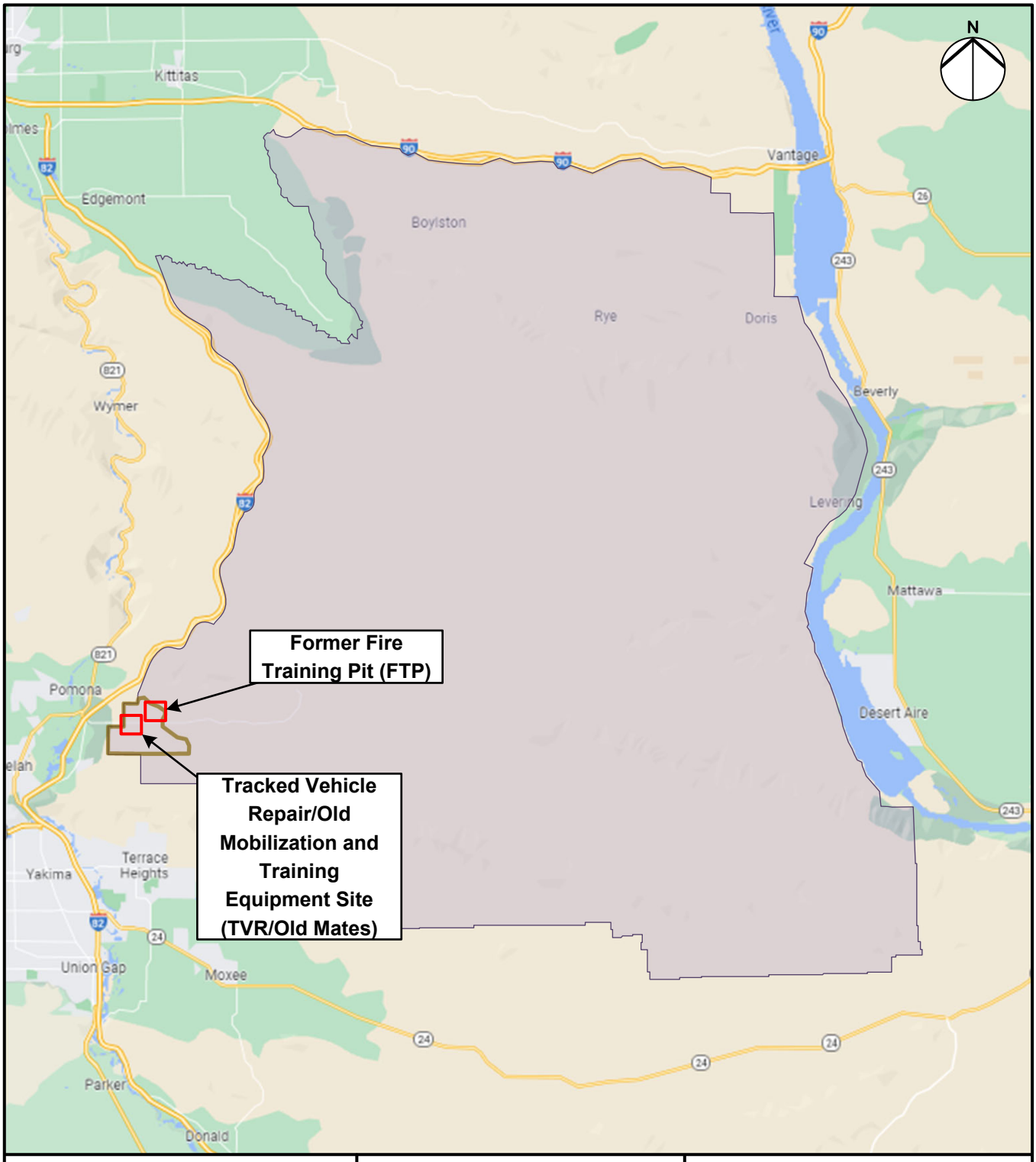
FIGURES



LEGEND

- Approximate Yakima Training Center (YTC) Boundary
- Approximate Site Locations
- Approximate Cantonment Area Boundary

Scale: 1" = 5.0 miles

0 mil. 3.0 mi. 5.0 mi. 10.0 mi.

INNOVEX-ERRG Joint Venture

1800 Sutter Street, Suite 860
Concord, CA 94520

Drawing Date: 2/1/2024

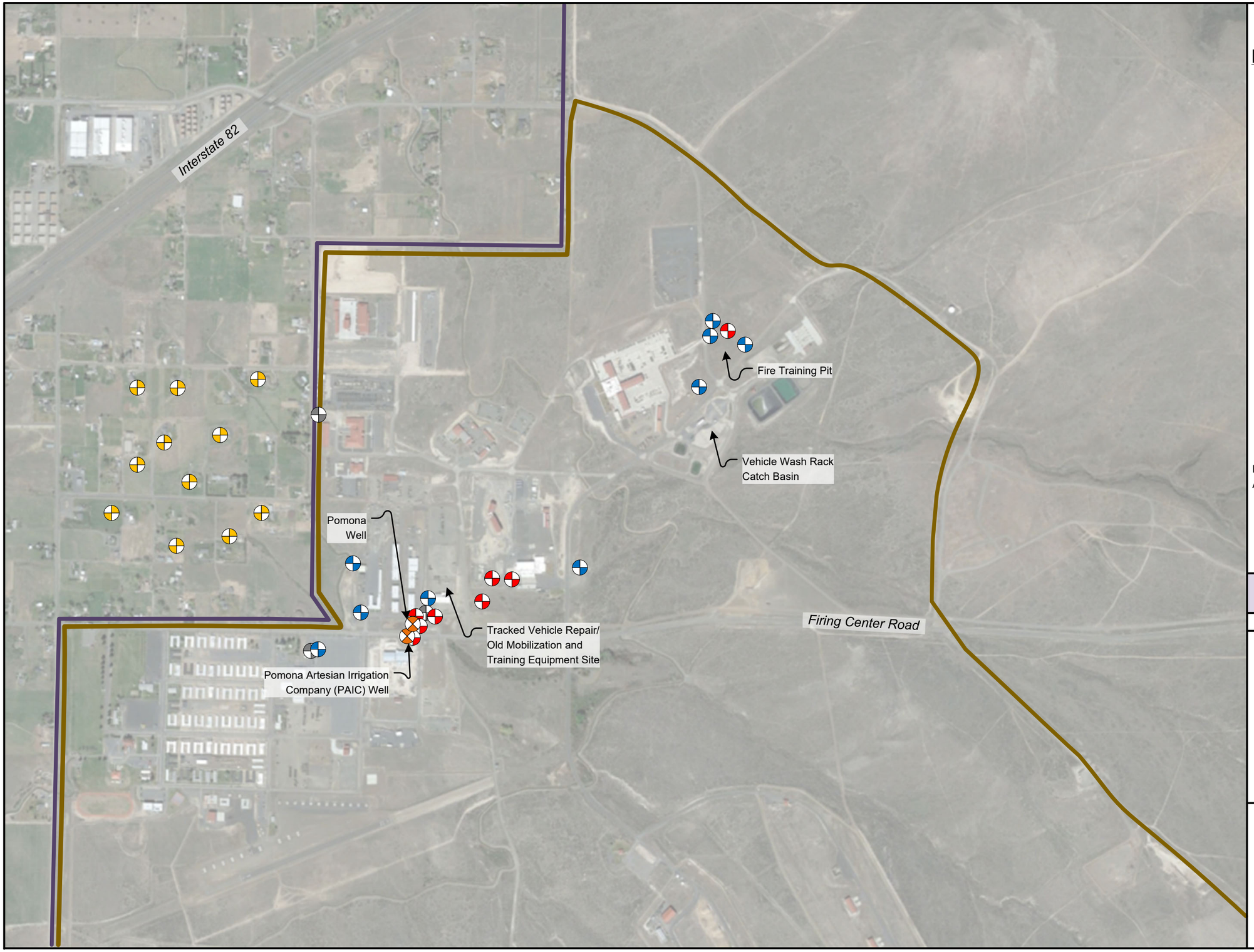
Figure and notations are in color. Black and white copies may not be suitable for use.

Figure 1

FTP and TVR/Old MATES
Location Map

Yakima Training Center
Yakima, WA

Drawing References: Google Maps (2024 Map)



N

Legend

- Yakima Training Center Boundary
- Cantonment Area Boundary
- Groundwater Monitoring Well Location
- Groundwater Monitoring Well Location (Depth to Water Measurements Only)
- Residential Drinking Water Well Location
- Production Well Location
- Former Groundwater Monitoring Well Location

Notes:
All locations are approximate

Scale: 1" = 1,000'

0 ft. 600 ft. 1000 ft. 2000 ft.

Figure and notations are in color. Black and white copies may not be suitable for use.

Drawing Date: 2/1/2024

Figure 2

FTP and TVR/old MATES
Site Locations Map

Yakima Training Center
Yakima, WA

INNOVEX-ERRG Joint Venture
1800 Sutter Street, Suite 860
Concord, CA 94520

Drawing References: Google Earth (2021 Aerial Photograph)

Legend

- **FTP-1** Approximate Groundwater Monitoring Well Location
- 1450 Spring 2023 Inferred Groundwater Elevation Contours (ASML)
- Spring 2023 Inferred Groundwater Flow Direction
- 1450 Fall 2023 inferred Groundwater Elevation Contours (ASML)
- Fall 2023 inferred Groundwater Flow Direction

Scale: 1" = 100'

0 ft. 60 ft. 100 ft. 200 ft.

Figure and notations are in color. Black and white copies may not be suitable for use.

Drawing Date: 2/1/2024

Figure 3

Former Fire Training Pit
Spring/Fall 2023
Groundwater Elevation Contours

Yakima Training Center
Yakima, WA

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Concord, CA 94520

Drawing References: Google Earth (2021 Aerial Photograph)

N

Legend

FTP-1 Approximate Monitoring Well Location

FTP-15 Approximate Monitoring Well Location (Depth to Water Measurements Only)

Monitoring Well Name

Detected Contaminant Concentration in µg/L

FTP-1
TPH-G – **907**
Benzene – 0.500 U
Ethylbenzene – **1.26**

Contaminant

Notes:
TPH = Total Petroleum Hydrocarbons
TPH-G = Gasoline-Range Organics
TPH-D = Diesel-Range Organics
TPH-R = Residual-Range Organics
µg/L = micrograms per liter
BOLD = Contaminant Detected Below Cleanup Level
RED = Contaminant Detected Above Cleanup Level
J = Estimated Concentration
U = Analyte not detected above limit of detection shown
See Table 2 for full analytical results

Scale: 1" = 100'

0 ft. 60 ft. 100 ft. 200 ft.

Figure and notations are in color. Black and white copies may not be suitable for use.

Drawing Date: 2/1/2024

Figure 4

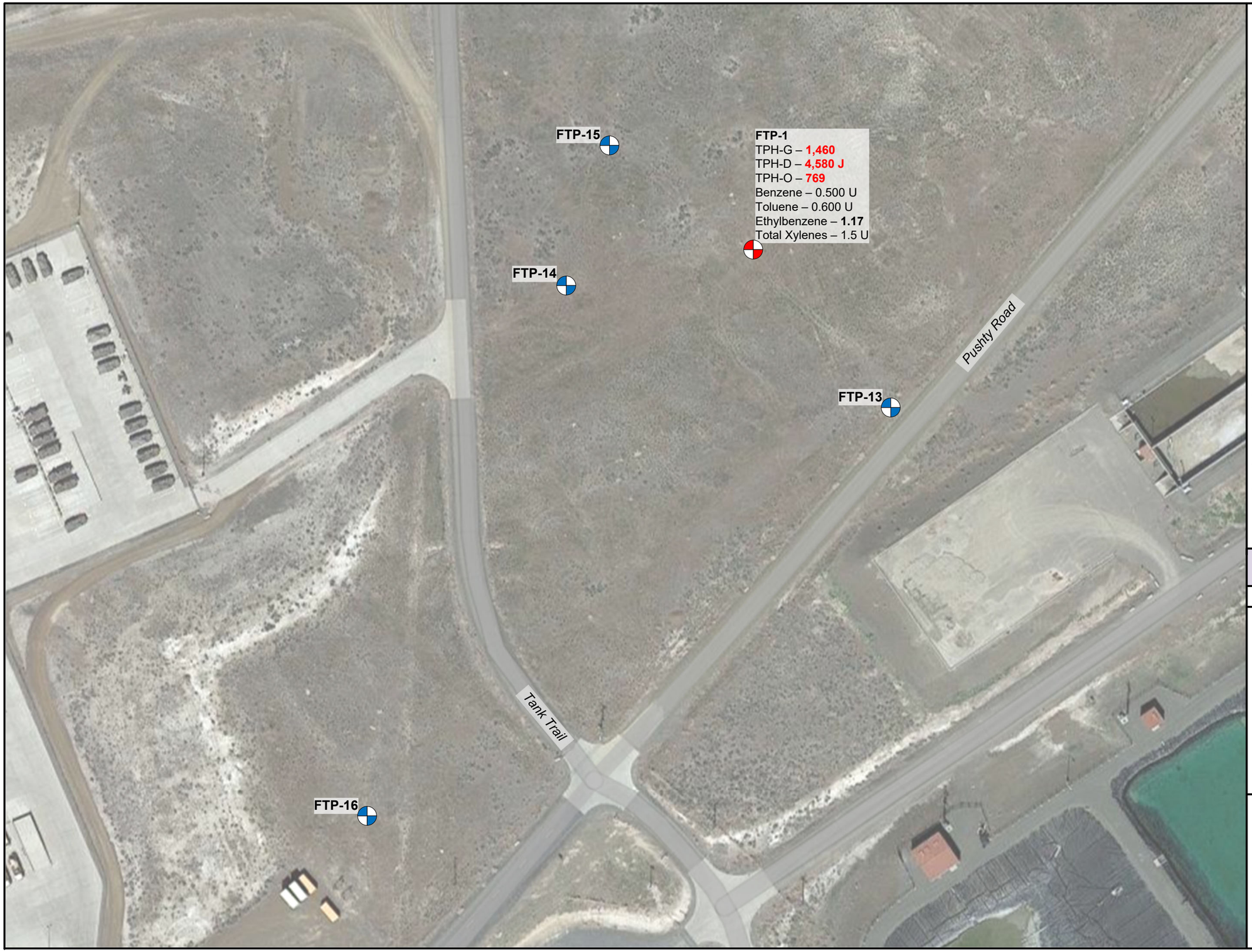
Former Fire Training Pit
Spring 2023
TPH-G, TPH-D, TPH-O, and BTEX Concentrations

Yakima Training Center
Yakima, WA

INNOVEX-ERRG Joint Venture

1800 Sutter Street, Suite 860
Concord, CA 94520

Drawing References: Google Maps (2021 Aerial Photograph)



N

Legend

FTP-1 Approximate Monitoring Well Location

FTP-15 Approximate Monitoring Well Location (Depth to Water Measurements Only)

Monitoring Well Name

Detected Contaminant Concentration in µg/L

FTP-1
TPH-G – **1,460**
Benzene – 0.500 U
Ethylbenzene – **1.17**

Contaminant

Notes:
TPH = Total Petroleum Hydrocarbons
TPH-G = Gasoline-Range Organics
TPH-D = Diesel-Range Organics
TPH-R = Residual-Range Organics
µg/L = micrograms per liter
BOLD = Contaminant Detected Below Cleanup Level
RED = Contaminant Detected Above Cleanup Level
J = Estimated Concentration
U = Analyte not detected above limit of detection shown
See Table 2 for full analytical results

Scale: 1" = 100'

0 ft. 60 ft. 100 ft. 200 ft.

Figure and notations are in color. Black and white copies may not be suitable for use.

Drawing Date: 2/1/2024

Figure 5

Former Fire Training Pit
Fall 2023
TPH-G, TPH-D, TPH-O, and BTEX Concentrations

Yakima Training Center- IRP
Yakima, WA

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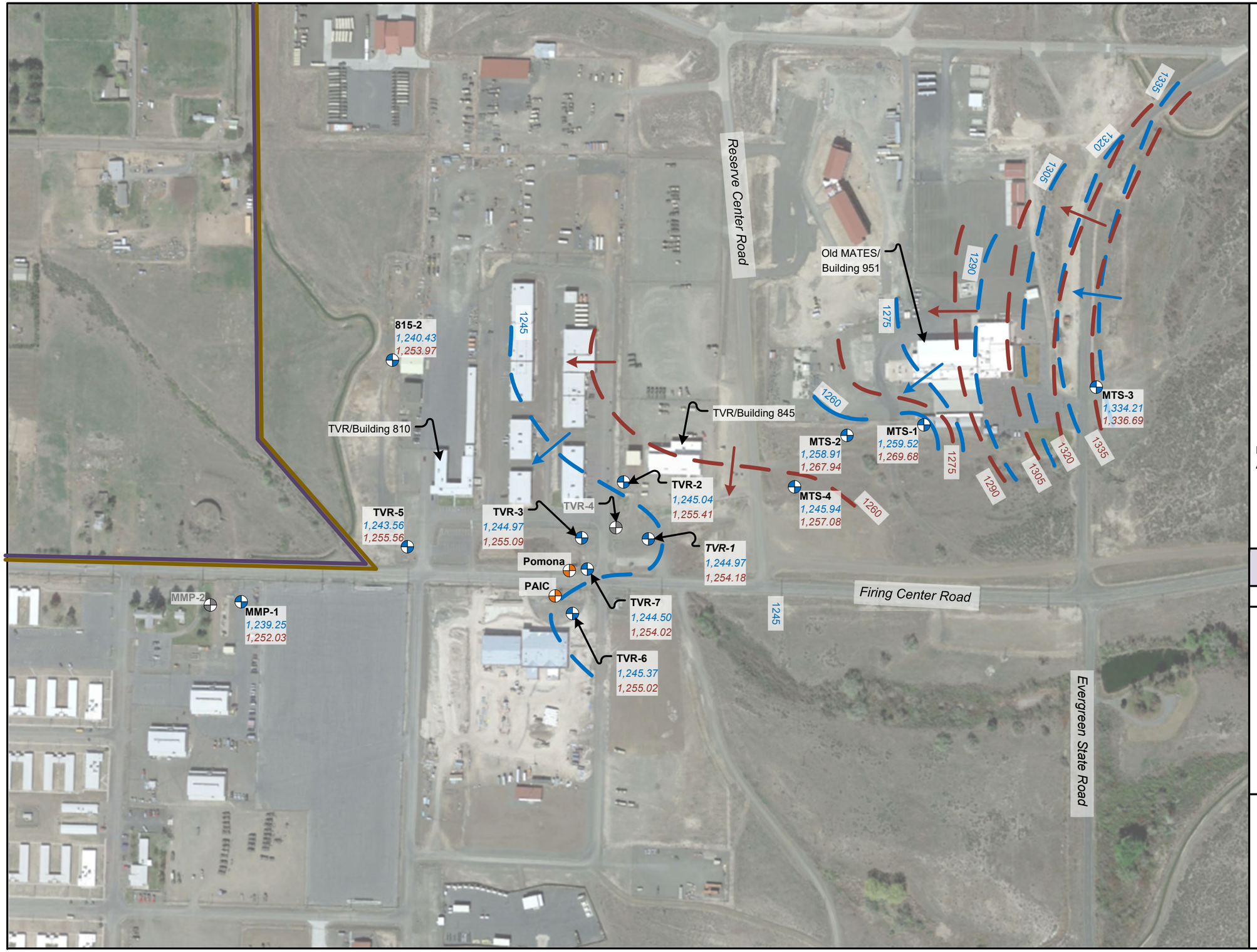
Drawing References: Google Maps (2021 Aerial Photograph)



Legend

N

- Yakima Training Center Boundary
- Cantonment Area Boundary
- TVR-1 — Groundwater Monitoring Well
- PAIC — Production Well
- TVR-4 — Former Groundwater Monitoring Well
- Spring 2023 inferred groundwater elevation contours (ASML)
- Spring 2023 inferred groundwater flow direction
- Fall 2023 inferred groundwater elevation contours (ASML)
- Fall 2023 inferred groundwater flow direction

Notes:
All locations are approximate.

Scale: 1" = 300'

0 ft. 180 ft. 300 ft. 600 ft.

Figure and notations are in color. Black and white copies may not be suitable for use.

Drawing Date: 2/1/2024

Figure 6

TVR/ Old Mates Area
Spring/Fall 2023
Groundwater Elevation Contours

Yakima Training Center,
Yakima, WA

INNOVEX-ERRG Joint Venture

1800 Sutter Street, Suite 860
Concord, CA 94520

Drawing References: Google Earth (2021 Aerial Photograph)

Legend

N

- Yakima Training Center Boundary
- Cantonment Area Boundary
- MTS-1 — Groundwater Monitoring Well
- TVR-1 — Groundwater Monitoring Well (Depth to Water Measurements Only)
- PAIC — Production Well
- TVR-4 — Former Groundwater Monitoring Well
- 3.16J — Spring 2023 TCE Concentrations
- 2.83 — Fall 2023 TCE Concentrations
- Inferred TCE Plume, Based on Fall 2023 Concentrations

Notes:
All locations are approximate
ns = not sampled
µg/L = micrograms/Liter
TCE = Trichloroethene
Bold: Contaminant Detected Above Cleanup Level
U = Analyte not detected above limit of detection shown
J = Estimated Concentration
See Table 5 for full analytical results.

Scale: 1" = 300'

0 ft. 180 ft. 300 ft. 600 ft.

Figure and notations are in color. Black and white copies may not be suitable for use.

Drawing Date: 2/1/2024

Figure 7

TVR/ Old Mates Area
Spring/Fall 2023
TCE Concentrations

Yakima Training Center,
Yakima, WA

INNOVEX-ERRG Joint Venture

1800 Sutter Street, Suite 860
Concord, CA 94520

Drawing References: Google Earth (2021 Aerial Photograph)

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TABLES

Table 1
Monitoring Well Construction Details, Sampling Analyses, and Methods
Fire Training Pit and TVR/Old MATES, Yakima Training Center, Washington

Well ID	Elevation at TOC (ft AMSL)	Ground Surface Elevation (ft AMSL)	Easting UTM (m)	Northing UTM (m)	Total Depth (ft)	Screen Interval (ft bgs)	Depth to Water Measured	Sample Analyses[1]	Sampling Methods[1]
Fire Training Pit Monitoring Wells									
FTP-1	1,467.72	1,464.59	695828.3	5173198.0	21.00	8 – 18	X	VOCs, SVOCs/PAHs, TPH-G, TPH-D, and TPH-O	Water-level meter and low-flow pump
FTP-13	1,473.07	1,470.96	695878.5	5173153.0	25.00	10 – 20	X	---	
FTP-14	1,457.48	1,455.35	695771.4	5173185.2	22.00	12 – 22	X	---	
FTP-15	1,460.88	1,458.72	695783.1	5173228.9	20.00	10 – 20	X	---	
FTP-16	1,444.81	1,442.68	695722.0	5173050.7	30.00	20 – 30	X	---	
TVR/Old Mates Monitoring Wells									
815-2	1,304.28	1,301.86	694687.7	5172445.5	132.00	115 – 130	X	---	Water -level meter and PDB
MMP-1	1,301.37	1,298.39	694553.4	5172215.3	100.50	88 – 98	X	---	
MTS-1	1,361.02	1,359.05	695196.9	5172404.6	127.00	115 – 125	X	VOCs	
MTS-2	1,351.88	1,348.79	695135.9	5172405.4	113.00	101 – 111	X	VOCs	
MTS-3	1,362.36	1,362.62	695366.1	5172439.6	72.00	62 – 72	X	---	
MTS-4	1,331.88	1,332.14	695078.6	5172347.7	97.00	82 – 97	X	VOCs	
TVR-1	1,320.17	1,317.32	694936.0	5172286.6	105.00	93 – 103	X	VOCs	
TVR-2	1,317.56	1,314.18	694910.0	5172337.7	95.00	83 – 93	X	---	
TVR-3	1,310.60	1,310.86	694872.9	5172282.5	158.00	143 – 158	X	VOCs	
TVR-5	1,302.04	1,299.42	694704.2	5172275.0	142.00	132 – 142	X	---	
TVR-6	1,310.06	1,310.30	694866.4	5172214.0	139.00	139 – 149	X	---	
TVR-7	1,310.95	1,311.63	694882.5	5172255.6	140.00	140 – 150	X	---	
Pomona Well	---	---	---	---	---	---	---	VOCs	Grab sample from tap
PAIC Well	---	---	---	---	---	---	---	VOCs	

Notes:

ft AMSL = feet above mean sea level

ft bgs = feet below ground surface

ID = identification

m = meter

TOC = top-of-casing

UTM = Universal Transverse Mercator

1 = In accordance with the Site-Specific UFP-QAPP

--- = not applicable

Table 2
FTP Depth-to-Water Measurements and Petroleum Hydrocarbon Concentrations
Fire Training Pit, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MTCA Method A Cleanup Level				800	500	500	5	1,000	700	1,000
FTP-1	29-Mar-23	14.79	1452.93	–	–	–	0.500 U	0.600 U	**1.26**	1.5 U
Duplicate	29-Mar-23	14.79	1452.93	–	–	–	0.500 U	0.600 U	**1.14**	1.5 U
	2-May-23	14.93	1452.79	**907**	**5,000 J**	**841**	–	–	–	–
Duplicate	2-May-23	14.93	1452.79	**821**	**5,240 J**	**939 J**	–	–	–	–
	15-Sep-23	14.37	1453.35	**1,460**	**4,580 J**	**769**	0.500 U	0.600 U	**1.17**	1.5 U
FTP-13	29-Mar-23	16.01	1457.06	–	–	–	–	–	–	–
	15-Sep-23	15.24	1457.83	–	–	–	–	–	–	–
FTP-14	29-Mar-23	18.94	1438.54	–	–	–	–	–	–	–
	15-Sep-23	18.92	1438.56	–	–	–	–	–	–	–
FTP-15	29-Mar-23	18.03	1442.85	–	–	–	–	–	–	–
	15-Sep-23	17.90	1442.98	–	–	–	–	–	–	–
FTP-16	29-Mar-23	26.71	1418.13	–	–	–	–	–	–	–
	15-Sep-23	27.38	1417.46	–	–	–	–	–	–	–

Notes: Please refer to laboratory reports for analytical methods used.

ID = identification

TOC (ft AMSL) = top-of-casing elevation (feet above mean sea level)

DTW = depth-to-water

ft bgs = feet below ground surface

ft AMSL = feet above mean sea level

TPH-G = total petroleum hydrocarbons – gasoline range

TPH-D = total petroleum hydrocarbons – diesel range

TPH-O = total petroleum hydrocarbons – heavy oil range

µg/L = micrograms per liter

– Not applicable, not sampled

BOLD Analyte detected above laboratory reporting limit.

SHADE Analyte detected above Model Toxics Control Act (MTCA) cleanup level.

J = estimated concentration

J+ = the result was an estimated quantity, but the result may be biased high

L = The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.

ND = non-detect

U = Analyte not detected above laboratory practical quantitation limit (PQL). Beginning in 2018, value listed is the reporting limit.

Y = The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.

Z = The chromatographic fingerprint does not resemble a petroleum product.

Table 3
FTP Selected VOC, PAH, and PCB Concentrations
Fire Training Pit, Yakima Training Center, Washington

Well ID	Date	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)	Methylene Chloride (µg/L)	Bis-(2-ethylhexyl) phthalate (µg/L)	Fluorene (µg/L)	Total Naphthalenes[1] (µg/L)	Total PCBs (µg/L)
MTCA Method A Cleanup Level		5	–	0.2	5	–	–	160	0.1
MTCA Standard Method B Cleanup Level		–	70	–	–	6	640	–	–
FTP-1	28-Mar-23	0.500 U	0.500 U	0.028 X	2.00 U	2.00 U	0.0500 U	1.00 U	–
Duplicate	28-Mar-23	0.500 U	0.500 U	–	2.00 U	2.00 U	0.0500 U	1.00 U	–
	15-Sep-23	0.500 U	0.500 U	0.005 X	2.00 U	2.00 U	0.0500 U	**2.41 J**	–

Notes:

Please refer to laboratory reports for analytical methods used.

VOCs = Volatile Organic Compounds

PAHs = polycyclic aromatic hydrocarbon

PCBs = polychlorinated biphenyls

ID = identification

TCE = trichloroethylene

cis-DCE = cis 1,2-dichloroetheylene

µg/L = micrograms per liter

BOLD Analyte detected above laboratory reporting limit.

SHADE Analyte detected above Model Toxics Control Act (MTCA) cleanup level.

(1) total naphthalenes = total of naphthalene, 1-methyl naphthalene, and 2-methyl naphthalene.

– = Not applicable, not sampled

B = The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC Standards.

J = estimated concentration

J+ = the result was an estimated quantity, but the result may be biased high

ND = non-detect

U = Analyte not detected above laboratory limit of detection (LOD). Beginning in 2018, value listed is the reporting limit.

X = The presence or absence of the analyte cannot be substantiated by the data provided. Exclusion of the data is recommended.

Table 4
FTP Carcinogenic PAH and Total PAH Concentrations
Fire Training Pit, Yakima Training Center, Washington

Well ID	Date	Benzo(a) anthracene	Benzo(a) pyrene (µg/L)	Benzo(b) fluoranthene (µg/L)	Benzo(k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz(a,h) anthracene (µg/L)	Indeno(1,2,3-cd) pyrene (µg/L)	TEC Total[1] (µg/L)	Total PAHs[2] (µg/L)
MTCA Method A Cleanup Level		–	0.1	–	–	–	–	–	0.1	–
TEF		0.1	1	0.1	0.1	0.01	0.1	0.1	–	–
FTP-1	29-Mar-23	0.0500 U	0.0500 U	0.0500 U	0.125 U	0.0500 U	0.0500 U	0.0400 U	ND	**1.48**
Duplicate	29-Mar-23	0.0500 U	0.0500 U	0.0500 U	0.125 U	0.0500 U	0.0500 U	0.0400 U	ND	**1.75**
	15-Sep-23	0.0500 U	0.0500 U	0.0500 U	0.125 U	0.0500 U	0.0500 U	0.0400 U	ND	**2.47**

Notes:

Please refer to laboratory reports for analytical methods used.

PAHs = polycyclic aromatic hydrocarbon

ID = identification

µg/L = micrograms per liter

– = not applicable, not sampled

TTEC = total toxic equivalent concentration (TTEC) of cPAHs in benzo(a)pyrene, as defined by WAC Chapter 173-340-708(8)(e).

(1) TEC = (Benzo[a]anthrace*0.1) + benzo[a]pyrene + (benzo[b]fluoranthene*0.1) + (benzo[k]fluoranthene*0.1) + (chrysene*0.01) + (dibenz[a, h]anthracene*0.1) + (indeno[1,2,3-cd]pyrene*0.1).
Non-detects are not included in this calculation.

(2) Total PAHs includes naphthalene, 1-methylnaphthalene, 2-methylnaphthalene, acenaphthene. acenaphthylene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(123-cd)pyrene, dibenz(ah)anthracene, benzo(ghi)perylene. Beginning in 2018, non-detects are included in this total at the detection limit.

TEF – toxicity equivalency factor. Used to convert the concentration of a cPAH to an equivilent concentration of benzo(a)pyrene for a given sample. Defined by Table 708-2 in WAC Chapter 173-340-900.

BOLD = Analyte detected above laboratory reporting limit.

SHADE = Analyte detected above Model Toxics Control Act (MTCA) cleanup level.

ND = non-detect

U = Analyte not detected above laboratory LOD. Beginning in 2018, value listed is the reporting limit.

Table 5
TVR/Old Mates Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
815-2	29-Mar-23	63.85	1,240.43	–	–
	14-Sep-23	50.31	1,253.97	–	–
MMP-1	29-Mar-23	62.12	1,239.25	–	–
	14-Sep-23	49.34	1,252.03	–	–
MTS-1	28-Mar-23	101.50	1,259.52	**3.16 J**	0.500 U
	14-Sep-23	91.34	1,269.68	**2.83**	0.500 U
MTS-2	28-Mar-23	92.97	1,258.91	**3.16**	0.500 U
	14-Sep-23	83.94	1,267.94	**5.74**	0.500 U
Duplicate	14-Sep-23	83.94	1,267.94	**5.92**	0.500 U
MTS-3	28-Mar-23	28.15	1,334.21	–	–
	14-Sep-23	25.67	1,336.69	–	–
MTS-4	28-Mar-23	85.94	1,245.94	**4.87 J**	0.500 U
	14-Sep-23	74.80	1,257.08	**3.58**	0.500 U
TVR-1	28-Mar-23	75.20	1,244.97	**6.68 J**	0.500 U
	14-Sep-23	65.99	1,254.18	**7.12**	0.500 U
TVR-2	28-Mar-23	72.52	1,245.04	–	–
	14-Sep-23	62.15	1,255.41	–	–
TVR-3	28-Mar-23	65.63	1,244.97	**4.03 J**	0.500 U
Duplicate	28-Mar-23	65.63	1,244.97	**4.19 J**	0.500 U
	14-Sep-23	55.51	1,255.09	**2.11**	0.500 U
TVR-5	28-Mar-23	58.48	1,243.56	-	-
	14-Sep-23	46.35	1,255.69	-	-
TVR-6	28-Mar-23	65.23	1,245.37	-	-
	14-Sep-23	55.58	1,255.02	0.500 U	0.500 U
TVR-7	28-Mar-23	66.10	1,244.50	**2.65 J**	0.500 U
	14-Sep-23	56.58	1,254.02	**2.75**	0.500 U
PAIC Well	28-Mar-23	–	–	0.500 U	0.500 U
	14-Sep-23	–	–	0.500 U	0.500 U
Pomona Well	28-Mar-23	–	–	0.500 U	0.500 U
	14-Sep-23	–	–	0.500 U	0.500 U

Notes:

Please refer to laboratory reports for analytical methods used.

TCE = trichloroethylene

cis-DCE = cis 1,2-dichloroetheylene

ID = identification

TOC = top-of-casing elevation

DTW = depth-to-water

ft bgs = feet below ground surface

ft AMSL = feet above mean sea level

µg/L = micrograms per liter

– = not applicable, not sampled

BOLD = Analyte detected above laboratory LOD.

SHADE = Analyte detected above Model Toxics Control Act (MTCA) cleanup level.

J = estimated concentration

J+ = the result was an estimated quantity, but the result may be biased high

ND = non-detect

U = Analyte not detected above laboratory LOD. Beginning in 2018, value listed is the reporting limit.

Table 6
FTP and TVR/Old MATES Statistics
Fire Training Pit and TVR/Old MATES, Yakima Training Center, Washington

Site	Fire Training Pit			TVR / Old MATES						
Well ID	FTP-1			MTS-1	MTS-2	MTS-4	TVR-1	TVR-3	TVR-6	TVR-7
Compound	TPH-G	TPH-D	TPH-O	TCE	TCE	TCE	TCE	TCE	TCE	TCE
Descriptive Statistics										
First Sample Date	30-Jan-04			1-Jan-04	1-Jan-04	23-Mar-05	1-Jan-04	23-Mar-05	21-Mar-06	21-Mar-06
Last Sample Date	15-Sep-23			26-Sep-22	26-Sep-22	26-Sep-22	26-Sep-22	26-Sep-22	27-Sep-22	26-Sep-22
Number of Samples	38			39	39	38	39	38	35	36
Number of Non-Detects	1	0	7	0	0	0	0	0	3	0
Sample Mean	2,737	22,640	2,605	4.32	16.2	6.87	7.51	10.5	4.64	13.4
Standard Deviation	4,019	18,501	2,962	1.35	15.9	2.97	2.12	9.14	3.85	11.9
Minimum Concentration	518	4,350	93	2.70	3.16	0.52	3.20	1.90	0.130	0.400
Maximum Concentration	25,100	110,000	13,000	7.60	76.0	15.0	12.0	43.0	13.0	43.0
Date*	22-Aug-05	20-Mar-13	20-Aug-12	23-Mar-05	1-Aug-06	23-Mar-05	19-Sep-07	23-Mar-05	28-Sep-10	1-Aug-06
Distribution of Data										
P Value	<0.0001	<0.0001	<0.0001	0.0006	<0.0001	0.0046	0.0782	<0.0001	0.0066	0.0004
Normally Distributed?	No	No	No	No	No	No	Yes	No	No	No
Log P Value	0.0069	0.3112	0.2000	0.0244	<0.0001	<0.0001	-	0.4924	0.0057	0.1470
Log Normally Distributed?	No	Yes	Yes	No	No	No	-	Yes	No	Yes
Trend Analysis (Linear Regression)										
Linear Regression P Value	-	0.2043	0.0049	-	-	-	0.0041	<0.0001	-	<0.0001
Slope	-	-7.32E-05	2.77E-04	-	-	-	-4.54E-04	-3.83E-04	-	-4.49E-04
Trend**	-	Down	Up	-	-	-	Down	Down	-	Down
Statistically Significant?	-	No	Yes	-	-	-	Yes	Yes	-	Yes
Trend Analysis (Mann-Kendall Test for Trend)										
Tau Statistic	-0.448	-	-	-0.624	-0.336	-0.591	-	-	-0.430	-
Two Tailed P Value	<0.0001	-	-	<0.0001	0.0027	<0.0001	-	-	0.0003	-
Trend	Down	-	-	Down	Down	Down	-	-	Down	-
Statistically Significant?	Yes	-	-	Yes	Yes	Yes	-	-	Yes	-

Notes:

* = Date sample with highest concentration of TPH or TCE was collected from monitoring well

** = Trend for entire dataset not taking discontinuities into consideration

TPH-G – gasoline range total petroleum hydrocarbons in micrograms per liter

TPH-D – diesel range total petroleum hydrocarbons in micrograms per liter

TPH-O – heavy oil range total petroleum hydrocarbons in micrograms per liter

TCE – trichloroethylene in micrograms per liter

- = Not applicable; analysis not performed. Statistical analysis not performed on datasets composed of greater than 50% non-detects.

Distribution of Data - Data was tested for normal distribution using the Shapiro-Wilk test for normality. P values were generated by the Shapiro-Wilk test; P values equal to or less than 0.05 were not considered normally distributed. Logarithmic transformation was performed on datasets not considered normally distributed and again tested for normality using the Shapiro-Wilk test.

Trend Analysis (Linear Regression) - Performed on datasets considered normally or log-normally distributed. Trends with a P Value of less than 0.05 were considered statistically significant.

Trend Analysis (Mann-Kendall Test for Trend) - Performed on datasets not considered normally or log-normally distributed (non-parametric data). Trends with a Two-Tailed P Value of less than 0.05 or greater than 0.95 were considered statistically significant.

Additional discussion of statistical approach is included in Appendix B.

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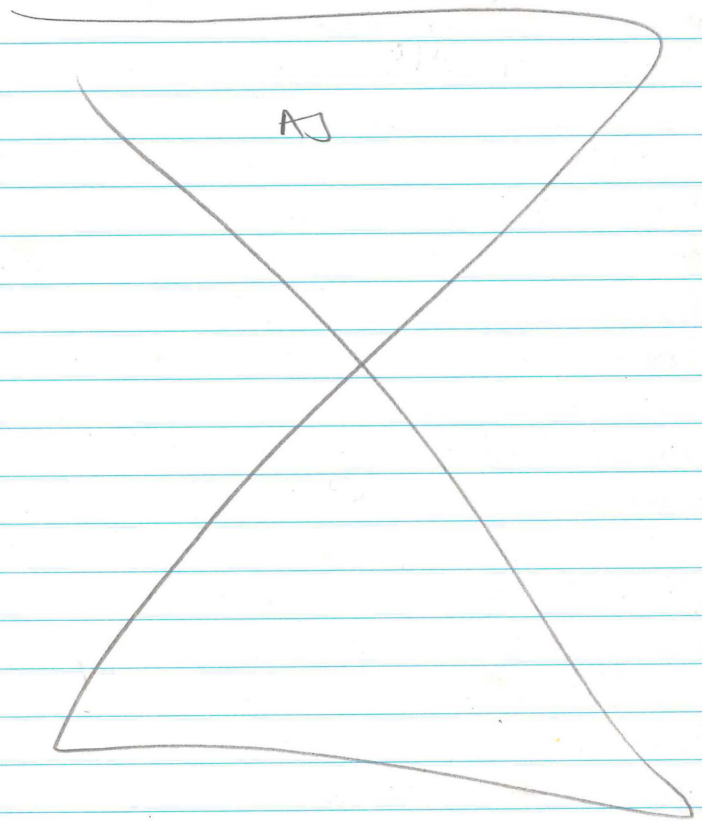
APPENDIX A COMPLETED FIELD FORMS AND LABORATORY ANALYTICAL REPORTS

9/27/22

* H. Carter moved to ship samples

* A. Jordan moved to Centralized Fuel Station to start LUC inspections

* left site @ 2[45]



3/28/2023

1000 VMH arrive @ YTC LPL

1010

* MW-07 dry TD: 109.4

1015

* MW-05 dry TD: 102.2

* MW06 DTW: 39.76

Sample time 1145

MW04 DTW: 67.28

SAMPLE TIME 1300 & 1330

Krista to FedEx @ 1330

IRP SITE

* MTS-3 DTW: 28.15'

* TVR-3 DTW: 65.63'

1430 No bolts or cap. Good cond. NO WATER in Mon

IPDB DEPLOYED DUP @ 1435

* TVR-7 DTW: 66.10

1440 Both, H2O in well Mon. Good. NO CAP.

* PAIC

1500

3128/23 4TC Cont

TVR-1
1515 DTW 75.20
sample time 1525

1525 TVR-6 DTW 65.23
PDB and hanger gone

TVR-2 DTW 72.52
1530

MTS-4 DTW 85.94
no bolts, slip cap, no lock
1535

* MTS-1 DTW: 101.50'
1550

MTS-2 DTW: 92.97'
1600

TVR-5
1625 DTW: 58.48

3/29/23
WLH @ 0855
arrive @ 4TC
50°F, light wind, overcast

815-2 DTW: 63.85
@ 0900 TD: 135.5
well no lock, cap, slip cover, has eco label

MMP-1 DTW: 62.12
@ 0910 TD: 107.2
no lock, slip cover, no ecology well label

FTP-14 DTW: 18.94
@ 1010 TD: 24.0
no lock, has ecology label, cap, 4 inch

FTP-15 DTW: 18.03
@ 1235 TD: 22.65
no lock, has ecology label, cap, bailer

FTP-16 DTW: 26.71
@ 1250 TD: ~34
no lock, has eco label, cap, bailer

FTP-13 DTW: 16.01
@ 1255 TD: 23.25
no lock, has eco label,

Rite in the R

YTC-1RP 5/2/23

*arrived @ 0930
↳ conf: call w/ ERR6 re: LPL & YHD until 1135

*Peter Dell unlocked gates @ PAIC well earlier so I could access TVR-6 to redeploy PDB, but temp constr. fencing is down, so wasn't needed

TVR-6

DTW 65.1' 0/2 bolts, gasket present, no H_2O in monument
slip cap on well
replaced w/ J-Plug & redeployed 1 PDB @ 1150

*moving to FTP-1 @ 1200
DTW: 14.93 TD: 23.82
started purging @ 1227 0.5 L/min

	DTW	°C	DO%	SPC uS/cm	pH	ORP	NTU
1230	15.22	14.5	5.9	958	6.4	95.8	9.06
1235	15.71	14.1	2.5	939	6.77	41.6	3.79
1240	16.10	14.1	2.2	937	6.84	27.2	9.86
1245	16.41	14.3	2.0	937	6.91	11.7	9.33

1250

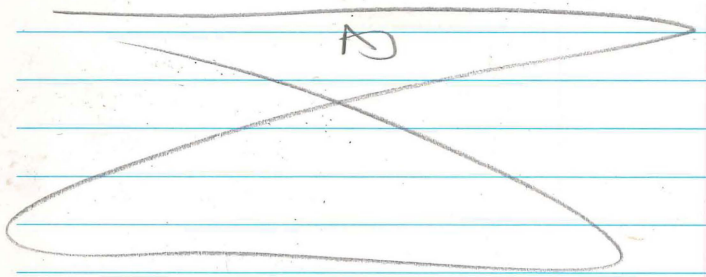
5/2/23

	DTW	°C	DO%	SPC	pH	ORP	NTU
1250	16.69	14.2	1.9	938	6.94	3.6	7.39
1255	16.90	14.1	1.9	937	6.95	-2.9	6.70
1300	17.23	14.2	1.8	941	6.96	-3.1	6.10
1305	17.45	14.2	1.7	942	6.97	-3.2	5.13
1310	17.71	14.4	1.6	944	6.98	-3.3	4.50
1315	17.87	14.4	1.5	949	6.99	-3.5	2.95

stopped purging @ 1316 to allow to recharge to 80% (16.71' DTW)
1345 sample FTP-1-20230502 MS/MSD
1350 " -1A- " (dupe)
*reduced pumping rate to 0.25 L/min to try to slow drawdown

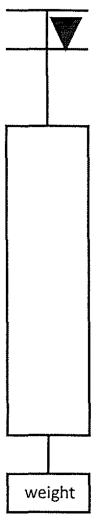
*moved to washrack to dump IDW.

*2:30 - left site to get ice & return to office. Too late to ship samples today.



Rite in the Rain

Well Identification: TVR-3



Total Well Depth: _____

Site Location:	YTC
Project Number:	20506
Well Diameter:	4"
PDB Installation Date:	9/26/2022
PDB Installation Time:	1545
DTW at Installation	60.91

Sample Information

Sample No:	YTC-TVR3- 20230328
Sample Date:	3/28/2023
DTW at Sampling:	65.63
Sample Time:	1430
Sampled By:	HC
Biofilm Present:	Yes / (No)
New PDB Deployed :	(Yes) / No

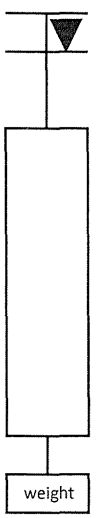
Well Condition

Well Monument Locked?:	Yes / No
Monument Condition:	(Good) / Fair / Poor
Water Inside Monument?:	Yes / (No)
Casing Plug Locked:	Yes / (No)
Casing Plug Condition:	Good / Fair / Poor none

Comments:

duplicate: YTC-TVR3a-20230328
no bolts or cap

Well Identification: TVR-6



Total Well Depth: _____

Site Location:	YTC
Project Number:	20506
Well Diameter:	2"
PDB Installation Date:	9/27/2022
PDB Installation Time:	1140
DTW at Installation	60.72

Sample Information

Sample No:	YTC-TVR6- 20230328
Sample Date:	3/28/2023
DTW at Sampling:	65.23
Sample Time:	
Sampled By:	
Biofilm Present:	Yes / No
New PDB Deployed :	Yes / No

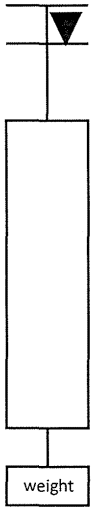
Well Condition

Well Monument Locked?:	Yes / No
Monument Condition:	Good / Fair / Poor
Water Inside Monument?:	Yes / No
Casing Plug Locked:	Yes / No
Casing Plug Condition:	Good / Fair / Poor

Comments:

* PDB + hanger gone, no sample

Well Identification: TVR-7



Total Well Depth: _____

Site Location:	YTC
Project Number:	20506
Well Diameter:	2"
PDB Installation Date:	9/26/2022
PDB Installation Time:	1530
DTW at Installation	61.68

Sample Information

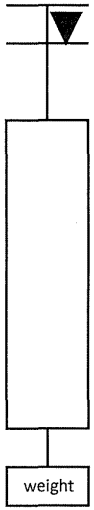
Sample No:	YTC-TVR7-20230328
Sample Date:	3/28/2023
DTW at Sampling:	66.10
Sample Time:	1440
Sampled By:	3/28/2023
Biofilm Present:	Yes / (No)
New PDB Deployed :	(Yes) / No

Well Condition

Well Monument Locked?:	Yes / No
Monument Condition:	(Good) / Fair / Poor
Water Inside Monument?:	(Yes) / No
Casing Plug Locked:	Yes / (No)
Casing Plug Condition:	Good / Fair / Poor none
Comments:	

1 bolt

Well Identification: MTS-4



Total Well Depth: _____

Site Location:	YTC
Project Number:	20506
Well Diameter:	4"
PDB Installation Date:	9/26/2022
PDB Installation Time:	1620
DTW at Installation	81.27

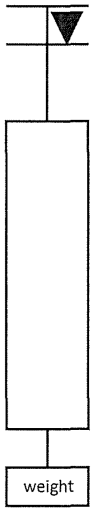
Sample Information

Sample No:	YTC-MTS4-20230328
Sample Date:	3/28/2023
DTW at Sampling:	85.94
Sample Time:	1535
Sampled By:	KLH, HC
Biofilm Present:	Yes / (No)
New PDB Deployed :	(Yes) / No

Well Condition

Well Monument Locked?:	Yes / (No)
Monument Condition:	Good / (Fair) / Poor
Water Inside Monument?:	Yes / No
Casing Plug Locked:	Yes / (No)
Casing Plug Condition:	Good / Fair / Poor none
Comments:	no bolts, slip cap

Well Identification: TVR-1



Total Well Depth: _____

Site Location:	YTC
Project Number:	20506
Well Diameter:	2"
PDB Installation Date:	9/26/2022
PDB Installation Time:	1555
DTW at Installation	71.91

Sample Information

Sample No:	YTC-TVR1
Sample Date:	3/28/2023
DTW at Sampling:	75.20
Sample Time:	1515
Sampled By:	KLH, HC
Biofilm Present:	Yes / (No)
New PDB Deployed :	(Yes) / No

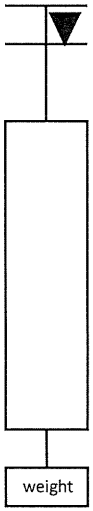
Well Condition

Well Monument Locked?:	Yes / No
Monument Condition:	Good / Fair / Poor
Water Inside Monument?:	Yes / No
Casing Plug Locked:	Yes / No
Casing Plug Condition:	Good / Fair / Poor
Comments:	

Passive Diffusion Bag Sampling Form

YTC

Well Identification: MTS-1



Total Well Depth: _____

Site Location:	YTC
Project Number:	20506
Well Diameter:	4"
PDB Installation Date:	9/26/2022
PDB Installation Time:	1630
DTW at Installation	94.8

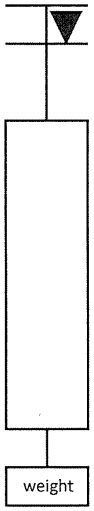
Sample Information

Sample No:	YTC-MTS1-20230328
Sample Date:	3/28/2023
DTW at Sampling:	101.50'
Sample Time:	1550
Sampled By:	KLH, HC
Biofilm Present:	Yes / (No)
New PDB Deployed :	(Yes) / No

Well Condition

Well Monument Locked?:	Yes / No
Monument Condition:	(Good) / Fair / Poor
Water Inside Monument?:	Yes / No
Casing Plug Locked:	Yes / No
Casing Plug Condition:	Good / Fair / Poor
Comments:	

Well Identification: MTS-2



Total Well Depth: _____

Site Location:	YTC
Project Number:	20506
Well Diameter:	4"
PDB Installation Date:	9/26/2022
PDB Installation Time:	1610
DTW at Installation	86.68

Sample Information

Sample No:	YTC-MTS2-20230328
Sample Date:	3/28/2023
DTW at Sampling:	92.97
Sample Time:	1600
Sampled By:	KLH, HC
Biofilm Present:	Yes / (No)
New PDB Deployed :	(Yes) / No

Well Condition

Well Monument Locked?:	Yes / No
Monument Condition:	(Good) / Fair / Poor
Water Inside Monument?:	Yes / No
Casing Plug Locked:	Yes / No
Casing Plug Condition:	Good / Fair / Poor
Comments:	

INNOVEX
ENVIRONMENTAL MANAGEMENT, INC.

Project Number:	
Project Name:	YTC
Well Name:	FTP-1
Date:	3/29/2023

Sampler's Name:	KLH		
Purge Method:		**Sample Equipment:**	peristaltic pump
Site conditions/weather:			
Well Diameter (in.):	4"	**LNAPL thickness:**	
Depth to Water (ft.):	14.79	**DNAPL thickness:**	
Well Depth (ft.):	25.3	**Volume in Well (gallons):**	
Water Column Ht (ft):		**Volume to be purged:**	
Screened Interval:		**Volume purged:**	

WELL CASING VOLUMES (Gal/ft)

1" = 0.41 / 2.0" = 0.16 / 4" = 0.65 / 6" = 1.47 / 8" = 2.61

Time Interval	Volume Purged (L)	DTW	Temperature (°C) ± 3%	Conductivity (µS/cm) ±10 if <1,000 or ±20 if >1,000 µS/cm	D.O. (~~mg/L~~ %) if<1 mg/L ±0.05 , or >1 mg/L then ±0.2	pH ± 0.1	ORP ± 10 mv	Turbidity (NTU) ± 5% or <20 NTUs
1030	0	~~25.3~~ 14.79	13.4	1039	14.2	7.56	-34.2	13.6
1035	2.5	15.44	13.5	1075	8.0	7.55	-34.7	14.1
1040	5	15.84	13.4	1076	6.1	7.55	-32.9	12.4
1045	7.5	16.40	13.5	1075	3.8	7.54	-35.7	12.5
1050	10	17.1	13.5	1075	3.0	7.53	-43.7	10.4
1055	12.5	17.5	13.5	1078	2.5	7.53	-42.2	9.61
1355	0	15.63	13.6	1092	15.7	7.55	-29.2	6.96
1400	2.5	16.20	13.6	1094	7.3	7.54	-34.4	7.66
1405	5	16.42	13.6	1096	4.7	7.54	-35.0	4.45
1410	7.5	16.79	13.6	1097	4.4	7.54	-35.5	4.78
1415	10	16.88	13.5	1098	4.3	7.55	-35.6	4.60

Wait for 80% well volume recovery prior to sampling

Calculate 80% of original well volume

Original height of water column (10.51) x 0.8 = (8.43) - Well Depth = (~~16.89~~ 17.8) depth to water

Sample Name:	YTC-FTP-1A	Duplicate Name:	YTC-FTP-1A
Sample Time:	1115 / 1420 (Fremont)	Duplicate Time:	1130

Well condition: stand up monument, no lock, cap, bailer in place, no ecology lable

Notes: Had to come back for Fremont VOAS, no duplicate for Fremont

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Innovex
Anna Jordan
16310 NE 80th St.
Redmond, WA 98052

RE: JBLM - YTC IRP
Work Order Number: 2303709

April 14, 2023

Attention Anna Jordan:

Fremont Analytical, Inc. received 11 sample(s) on 3/31/2023 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method 8260D SIM

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *08/28/2023*

CLIENT: Innovex
Project: JBLM - YTC IRP
Work Order: 2303709

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2303709-001	YTC-FTP-1-20230328	03/29/2023 2:20 PM	03/31/2023 2:01 PM
2303709-002	YTC-MTS-1-20230328	03/28/2023 3:50 PM	03/31/2023 2:01 PM
2303709-003	YTC-MTS-2-20230328	03/28/2023 4:00 PM	03/31/2023 2:01 PM
2303709-004	YTC-MTS-4-20230328	03/28/2023 3:35 PM	03/31/2023 2:01 PM
2303709-005	YTC-TVR-1-20230328	03/28/2023 3:25 PM	03/31/2023 2:01 PM
2303709-006	YTC-TVR-3A-20230328	03/28/2023 2:35 PM	03/31/2023 2:01 PM
2303709-007	YTC-TVR-3-20230328	03/28/2023 2:30 PM	03/31/2023 2:01 PM
2303709-008	YTC-TVR-7-20230328	03/28/2023 2:40 PM	03/31/2023 2:01 PM
2303709-009	YTC-Pomona-20230328	03/28/2023 2:00 PM	03/31/2023 2:01 PM
2303709-010	YTC-PAIC-20230328	03/28/2023 3:00 PM	03/31/2023 2:01 PM
2303709-011	YTC-TripBlankQ1-20230328	03/29/2023 12:00 AM	03/31/2023 2:01 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2303709**
Date: **4/14/2023**

CLIENT: Innovex
Project: JBLM - YTC IRP

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

8/28/2023: Revision 1 includes a correction to a sample ID per client request.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below LOQ
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
U - Not detected above the LOD

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DL - Detection Limit
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
LOD - Limit of Detection
LOQ - Limit of Quantitation
MB or MBLANK - Method Blank
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2303709**
Date Reported: **4/14/2023**

Client: Innovex
Collection Date: 3/29/2023 2:20:00 PM
Project: JBLM - YTC IRP
Lab ID: 2303709-001
Matrix: Water
Client Sample ID: **YTC-FTP-1-20230328**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 39943		Analyst: CC
Vinyl chloride	0.0280	0.100	0.0280	0.0138	U	µg/L	1	4/10/2023 7:39:46 AM
Surr: Dibromofluoromethane	0	80-119%	0	0	S	%Rec	1	4/10/2023 7:39:46 AM
Surr: Toluene-d8	0	89-112%	0	0	S	%Rec	1	4/10/2023 7:39:46 AM
Surr: 1-Bromo-4-fluorobenzene	63.6	85-114%	0	0	S	%Rec	1	4/10/2023 7:39:46 AM

Prep Method	Prep Date	Prep Initials
SW5030	4/6/2023 12:46:42 PM	SH

NOTES:
S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Analytical Report

Work Order: **2303709**
Date Reported: **4/14/2023**

Client: Innovex
Collection Date: 3/28/2023 3:50:00 PM
Project: JBLM - YTC IRP
Lab ID: 2303709-002
Matrix: Water
Client Sample ID: **YTC-MTS-1-20230328**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 39943		Analyst: CC
Vinyl chloride	0.0280	0.100	0.0280	0.0138	U	µg/L	1	4/10/2023 8:17:35 AM
Surr: Dibromofluoromethane	103	80-119%	0	0		%Rec	1	4/10/2023 8:17:35 AM
Surr: Toluene-d8	95.4	89-112%	0	0		%Rec	1	4/10/2023 8:17:35 AM
Surr: 1-Bromo-4-fluorobenzene	108	85-114%	0	0		%Rec	1	4/10/2023 8:17:35 AM

Prep Method	Prep Date	Prep Initials
SW5030	4/6/2023 12:46:42 PM	SH

Analytical Report

Work Order: **2303709**
Date Reported: **4/14/2023**

Client: Innovex
Collection Date: 3/28/2023 4:00:00 PM
Project: JBLM - YTC IRP
Lab ID: 2303709-003
Matrix: Water
Client Sample ID: **YTC-MTS-2-20230328**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 39943		Analyst: CC
Vinyl chloride	0.0280	0.100	0.0280	0.0138	U	µg/L	1	4/10/2023 9:33:16 AM
Surr: Dibromofluoromethane	104	80-119%	0	0		%Rec	1	4/10/2023 9:33:16 AM
Surr: Toluene-d8	94.6	89-112%	0	0		%Rec	1	4/10/2023 9:33:16 AM
Surr: 1-Bromo-4-fluorobenzene	103	85-114%	0	0		%Rec	1	4/10/2023 9:33:16 AM

Prep Method	Prep Date	Prep Initials
SW5030	4/6/2023 12:46:42 PM	SH

Analytical Report

Work Order: **2303709**
Date Reported: **4/14/2023**

Client: Innovex
Collection Date: 3/28/2023 3:35:00 PM
Project: JBLM - YTC IRP
Lab ID: 2303709-004
Matrix: Water
Client Sample ID: **YTC-MTS-4-20230328**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 39943		Analyst: CC
Vinyl chloride	0.0280	0.100	0.0280	0.0138	U	µg/L	1	4/10/2023 10:11:15 AM
Surr: Dibromofluoromethane	103	80-119%	0	0		%Rec	1	4/10/2023 10:11:15 AM
Surr: Toluene-d8	96.4	89-112%	0	0		%Rec	1	4/10/2023 10:11:15 AM
Surr: 1-Bromo-4-fluorobenzene	103	85-114%	0	0		%Rec	1	4/10/2023 10:11:15 AM

Prep Method	Prep Date	Prep Initials
SW5030	4/6/2023 12:46:42 PM	SH

Analytical Report

Work Order: **2303709**
Date Reported: **4/14/2023**

Client: Innovex
Collection Date: 3/28/2023 3:25:00 PM
Project: JBLM - YTC IRP
Lab ID: 2303709-005
Matrix: Water
Client Sample ID: **YTC-TVR-1-20230328**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 39943		Analyst: CC
Vinyl chloride	0.0280	0.100	0.0280	0.0138	U	µg/L	1	4/10/2023 10:49:17 AM
Surr: Dibromofluoromethane	103	80-119%	0	0		%Rec	1	4/10/2023 10:49:17 AM
Surr: Toluene-d8	95.9	89-112%	0	0		%Rec	1	4/10/2023 10:49:17 AM
Surr: 1-Bromo-4-fluorobenzene	102	85-114%	0	0		%Rec	1	4/10/2023 10:49:17 AM

Prep Method	Prep Date	Prep Initials
SW5030	4/6/2023 12:46:42 PM	SH

Analytical Report

Work Order: **2303709**
Date Reported: **4/14/2023**

Client: Innovex
Collection Date: 3/28/2023 2:35:00 PM
Project: JBLM - YTC IRP
Lab ID: 2303709-006
Matrix: Water
Client Sample ID: **YTC-TVR-3A-20230328**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 39943		Analyst: CC
Vinyl chloride	0.0280	0.100	0.0280	0.0138	U	µg/L	1	4/10/2023 11:27:25 AM
Surr: Dibromofluoromethane	102	80-119%	0	0		%Rec	1	4/10/2023 11:27:25 AM
Surr: Toluene-d8	96.5	89-112%	0	0		%Rec	1	4/10/2023 11:27:25 AM
Surr: 1-Bromo-4-fluorobenzene	103	85-114%	0	0		%Rec	1	4/10/2023 11:27:25 AM

Prep Method	Prep Date	Prep Initials
SW5030	4/6/2023 12:46:42 PM	SH

Analytical Report

Work Order: **2303709**
Date Reported: **4/14/2023**

Client: Innovex
Collection Date: 3/28/2023 2:30:00 PM
Project: JBLM - YTC IRP
Lab ID: 2303709-007
Matrix: Water
Client Sample ID: **YTC-TVR-3-20230328**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 39943		Analyst: CC
Vinyl chloride	0.0280	0.100	0.0280	0.0138	U	µg/L	1	4/10/2023 12:05:29 PM
Surr: Dibromofluoromethane	101	80-119%	0	0		%Rec	1	4/10/2023 12:05:29 PM
Surr: Toluene-d8	96.3	89-112%	0	0		%Rec	1	4/10/2023 12:05:29 PM
Surr: 1-Bromo-4-fluorobenzene	103	85-114%	0	0		%Rec	1	4/10/2023 12:05:29 PM

Prep Method	Prep Date	Prep Initials
SW5030	4/6/2023 12:46:42 PM	SH

Analytical Report

Work Order: **2303709**
Date Reported: **4/14/2023**

Client: Innovex
Collection Date: 3/28/2023 2:40:00 PM
Project: JBLM - YTC IRP
Lab ID: 2303709-008
Matrix: Water
Client Sample ID: **YTC-TVR-7-20230328**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 39943		Analyst: CC
Vinyl chloride	0.0280	0.100	0.0280	0.0138	U	µg/L	1	4/10/2023 12:43:38 PM
Surr: Dibromofluoromethane	101	80-119%	0	0		%Rec	1	4/10/2023 12:43:38 PM
Surr: Toluene-d8	95.7	89-112%	0	0		%Rec	1	4/10/2023 12:43:38 PM
Surr: 1-Bromo-4-fluorobenzene	103	85-114%	0	0		%Rec	1	4/10/2023 12:43:38 PM

Prep Method	Prep Date	Prep Initials
SW5030	4/6/2023 12:46:42 PM	SH

Analytical Report

Work Order: **2303709**
Date Reported: **4/14/2023**

Client: Innovex
Collection Date: 3/28/2023 2:00:00 PM
Project: JBLM - YTC IRP
Lab ID: 2303709-009
Matrix: Water
Client Sample ID: **YTC-Pomona-20230328**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 39943		Analyst: CC
Vinyl chloride	0.0280	0.100	0.0280	0.0138	U	µg/L	1	4/10/2023 1:21:56 PM
Surr: Dibromofluoromethane	100	80-119%	0	0		%Rec	1	4/10/2023 1:21:56 PM
Surr: Toluene-d8	96.8	89-112%	0	0		%Rec	1	4/10/2023 1:21:56 PM
Surr: 1-Bromo-4-fluorobenzene	103	85-114%	0	0		%Rec	1	4/10/2023 1:21:56 PM

Prep Method	Prep Date	Prep Initials
SW5030	4/6/2023 12:46:42 PM	SH

Analytical Report

Work Order: **2303709**
Date Reported: **4/14/2023**

Client: Innovex
Collection Date: 3/28/2023 3:00:00 PM
Project: JBLM - YTC IRP
Lab ID: 2303709-010
Matrix: Water
Client Sample ID: **YTC-PAIC-20230328**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 39943		Analyst: CC
Vinyl chloride	0.0280	0.100	0.0280	0.0138	U	µg/L	1	4/10/2023 2:00:19 PM
Surr: Dibromofluoromethane	99.5	80-119%	0	0		%Rec	1	4/10/2023 2:00:19 PM
Surr: Toluene-d8	96.4	89-112%	0	0		%Rec	1	4/10/2023 2:00:19 PM
Surr: 1-Bromo-4-fluorobenzene	103	85-114%	0	0		%Rec	1	4/10/2023 2:00:19 PM

Prep Method	Prep Date	Prep Initials
SW5030	4/6/2023 12:46:42 PM	SH

Analytical Report

Work Order: **2303709**
Date Reported: **4/14/2023**

Client: Innovex
Collection Date: 3/29/2023
Project: JBLM - YTC IRP
Lab ID: 2303709-011
Matrix: Water
Client Sample ID: **YTC-TripBlankQ1-20230328**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 39943		Analyst: CC
Vinyl chloride	0.0280	0.100	0.0280	0.0138	U	µg/L	1	4/10/2023 6:24:46 AM
Surr: Dibromofluoromethane	102	80-119%	0	0		%Rec	1	4/10/2023 6:24:46 AM
Surr: Toluene-d8	98.8	89-112%	0	0		%Rec	1	4/10/2023 6:24:46 AM
Surr: 1-Bromo-4-fluorobenzene	96.8	85-114%	0	0		%Rec	1	4/10/2023 6:24:46 AM

Prep Method	Prep Date	Prep Initials
SW5030	4/6/2023 12:46:42 PM	SH

Work Order: 2303709
CLIENT: Innovex
Project: JBLM - YTC IRP

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D SIM

Sample ID: **LCS-39943**	SampType: **LCS**	Units: **µg/L**	Prep Date: **4/6/2023**	RunNo: **83089**
Client ID: **LCSW**	Batch ID: **39943**		Analysis Date: **4/10/2023**	SeqNo: **1729411**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	4.38	0.100	5.000	0	87.7	58	137				
Surr: Dibromofluoromethane	10.1	0	10.00		101	80	119				
Surr: Toluene-d8	10.0	0	10.00		100	89	112				
Surr: 1-Bromo-4-fluorobenzene	10.4	0	10.00		104	85	114				

Sample ID: **MB-39943**	SampType: **MBLK**	Units: **µg/L**	Prep Date: **4/6/2023**	RunNo: **83089**
Client ID: **MBLKW**	Batch ID: **39943**		Analysis Date: **4/10/2023**	SeqNo: **1729407**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.100									U
Surr: Dibromofluoromethane	10.1	0	10.00		101	80	119				
Surr: Toluene-d8	9.77	0	10.00		97.7	89	112				
Surr: 1-Bromo-4-fluorobenzene	9.42	0	10.00		94.2	85	114				

Sample ID: **2303709-002ADUP**	SampType: **DUP**	Units: **µg/L**	Prep Date: **4/6/2023**	RunNo: **83089**
Client ID: **YTC-MTS-1-20230328**	Batch ID: **39943**		Analysis Date: **4/10/2023**	SeqNo: **1729394**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.100						0	0	30	U
Surr: Dibromofluoromethane	10.3	0	10.00		103	80	119		0		
Surr: Toluene-d8	9.49	0	10.00		94.9	89	112		0		
Surr: 1-Bromo-4-fluorobenzene	10.4	0	10.00		104	85	114		0		

Sample ID: **2303709-001AMS**	SampType: **MS**	Units: **µg/L**	Prep Date: **4/6/2023**	RunNo: **83089**
Client ID: **YTC-FTP-1-20230328**	Batch ID: **39943**		Analysis Date: **4/10/2023**	SeqNo: **1729391**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.100	5.000	0	0	58	137				SU
Surr: Dibromofluoromethane	0	0	10.00		0	80	119				S
Surr: Toluene-d8	0	0	10.00		0	89	112				S

Work Order: 2303709
CLIENT: Innovex
Project: JBLM - YTC IRP

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D SIM

Sample ID: **2303709-001AMS** SampType: **MS** Units: **µg/L** Prep Date: **4/6/2023** RunNo: **83089**
Client ID: **YTC-FTP-1-20230328** Batch ID: **39943** Analysis Date: **4/10/2023** SeqNo: **1729391**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	11.3	0	10.00		113	85	114				

NOTES:
S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: **2303709-009AMS** SampType: **MS** Units: **µg/L** Prep Date: **4/6/2023** RunNo: **83089**
Client ID: **YTC-Pomona-20230328** Batch ID: **39943** Analysis Date: **4/10/2023** SeqNo: **1729402**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	5.30	0.100	5.000	0	106	58	137				
Surr: Dibromofluoromethane	8.32	0	10.00		83.2	80	119				
Surr: Toluene-d8	9.54	0	10.00		95.4	89	112				
Surr: 1-Bromo-4-fluorobenzene	10.9	0	10.00		109	85	114				

Sample ID: **2303709-009AMSD** SampType: **MSD** Units: **µg/L** Prep Date: **4/6/2023** RunNo: **83089**
Client ID: **YTC-Pomona-20230328** Batch ID: **39943** Analysis Date: **4/10/2023** SeqNo: **1729403**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	5.19	0.100	5.000	0	104	58	137	5.299	2.14	30	
Surr: Dibromofluoromethane	8.96	0	10.00		89.6	80	119		0		
Surr: Toluene-d8	9.61	0	10.00		96.1	89	112		0		
Surr: 1-Bromo-4-fluorobenzene	10.4	0	10.00		104	85	114		0		

Sample ID: **2303709-001AMSD** SampType: **MSD** Units: **µg/L** Prep Date: **4/6/2023** RunNo: **83089**
Client ID: **YTC-FTP-1-20230328** Batch ID: **39943** Analysis Date: **4/10/2023** SeqNo: **1729716**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.100	5.000	0	0	58	137	0	0	30	SU
Surr: Dibromofluoromethane	0	0	10.00		0	80	119		0		S
Surr: Toluene-d8	0	0	10.00		0	89	112		0		S
Surr: 1-Bromo-4-fluorobenzene	9.23	0	10.00		92.3	85	114		0		

Work Order: 2303709
CLIENT: Innovex
Project: JBLM - YTC IRP

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D SIM

Sample ID: **2303709-001AMSD** SampType: **MSD** Units: **µg/L** Prep Date: **4/6/2023** RunNo: **83089**
Client ID: **YTC-FTP-1-20230328** Batch ID: **39943** Analysis Date: **4/10/2023** SeqNo: **1729716**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:
S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Fremont Analytical
An Alliance Technical Group Company

Sample Log-In Check List

Client Name:	INNO	Work Order Number:	2303709
Logged by:	Clare Griggs	Date Received:	3/31/2023 2:01:00 PM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☑	No ☐	Not Present ☐
4.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☑	NA ☐
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

16.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

Item Information

Item #	Temp °C
Sample	6.0

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: Page: 1 of: 2

Laboratory Project No (internal): 2303789

Project Name: JBLM - YTC IRP

Special Remarks:

Project No: 20506

Client: Innovex

Collected by: HC / KKH

Address: 16310 NE 80th St.

Location: YTC, Yakima, WA

City, State, Zip: Redmond, WA 98052

Report To (PM): A. Jordan

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Telephone: 206-949-3010

PM Email: anna.jordan@innovex.net

Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	DoD/DoE 8260D SIM*				Comments
1 YTC-PTP-1-20230328	3/29/23	1420	W	3													X				MS/MSD * vinyl chloride only
2 YTC-FTP-1A-20230328																	X				
3 YTC-MTS-1-20230328	3/28/23	1550		3													X				
4 YTC-MTS-2-20230328	3/28/23	1600		3													X				
5 YTC-MTS-4-20230328	3/28/23	1535		3													X				
6 YTC-TVR-1-20230328	3/28/23	1525		3													X				
7 YTC-TVR-3A-20230328	3/28/23	1435		3													X				
8 YTC-TVR-3-20230328	3/28/23	1430		3													X				
9 [illegible]																	X				
10 YTC-TVR-7-20230328	3/28/23	1440	V	3													X				

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:
☒ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day ☐ (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x [signature]	Krista Keski-Hynnila	3/31/2023 1100	x [signature]	MASON P	3/31/23 2:01
x [signature]	Krista Keski-Hynnila	3/31/2023 1100	x		

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: Page: 2 of: 2

Laboratory Project No (internal): 2303709

Project Name: JBLM-YTC IRP

Special Remarks:

Client: Innovex

Project No: 20506

Address:

Collected by: HC / KKH

City, State, Zip:

Location: Yakima, WA

Telephone:

Report To (PM): A Jordan

Sample Disposal: ☐ Return to client ☑ Disposal by lab (after 30 days)

Fax:

PM Email: anna.jordan@innovex.net

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8) Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	DUPLVC 8260D SIM*				Comments
1 YTC-Pomona-20230328	3/28/23	1400	W	9												X				MS / MSD
2 YTC-PAK-20230328	3/28/23	1500	↓	3												X				~~DUP~~
3 YTC-TripBlankQ1-20230328	3/29/23	—	↓	1																
4																				
5																				* Vinyl Chloride only
6																				
7																				
8																				
9																				
10																				

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:
☑ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x			x		
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x			x		

DATA VALIDATION CHECKLIST – STAGE 2A

Site Name	JBLM	**Project Name**	YTC IRP
Data Reviewer (signature and date)	Anna J Jordan 10/11/2023	**Technical Reviewer (signature and date)**	J Sinica 10/18/2023
Laboratory Report No.	2303709	**Laboratory**	Fremont Analytical
Analyses	DOD8260D-SIM		
Sample and Matrix	YTC-FTP-1-20230328 (GW) 2303709-001 YTC-MTS-1-20230328 (GW) 2303709-002 YTC-MTS-2-20230328 (GW) 2303709-003 YTC-MTS-4-20230328 (GW) 2303709-004 YTC-TVR-1-20230328 (GW) 2303709-005 YTC-TVR-3A-20230328 (GW) 2303709-006 YTC-TVR-3-20230328 (GW) 2303709-007 YTC-TVR-7-20230328 (GW) 2303709-008 YTC-Pomona-20230328 (GW) 2303709-009 YTC-PAIC-20230328 (GW) 2303709-010 YTC-TripBlankQ1-20230328 (GW) 2303709-011		
Field Duplicate Pairs	YTC-TVR-3-20230328 and YTC-TVR-3A-20230328		
Field Blanks	One trip blank was 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) National Functional Guidelines for Organic and Inorganic Superfund Methods Data Review (November 2020). Analytical data were evaluated in general accordance with this document.

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
N/A	One trip blank was analyzed, and analytes were not detected above the LOD.

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 those noted below. The lab noted the surrogates associated with sample YTC-FTP-1-20230328 failed due to possible matrix interference.

Surrogate	Method	Project Sample ID	Result	QC Limits	New Qualifier
Dibromofluoromethane	8260D-SIM	YTC-FTP-1-20230328	0	80-119	J- (all detects) X (all non-detects)
Toluene-d8			0	89-112	
1-Bromo-4-fluorobenzene			63.6	85-114	J- (all detects) No qualification (all non-detects)

MS/MSD:

Within Criteria	Exceedance/Notes
Y	Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project samples. Percent recoveries (%R) were within QC limits.

Laboratory control:

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 differences (RPD) were within QC limits (<20%).

Field duplicates:

Within Criteria	Exceedance/Notes
Y	Field duplicate sample analysis was performed. Relative percent differences (RPD) were within QC limits (<35%) (RPDs are only calculated for detected analytes).

Sample dilutions:

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

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
N/A	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	Detections between the LOD and MDL (if present) were qualified as not detected (flagged U).

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
N/A	

Other [none]:

Within Criteria	Exceedance/Notes
N/A	

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.

ANALYTICAL REPORT

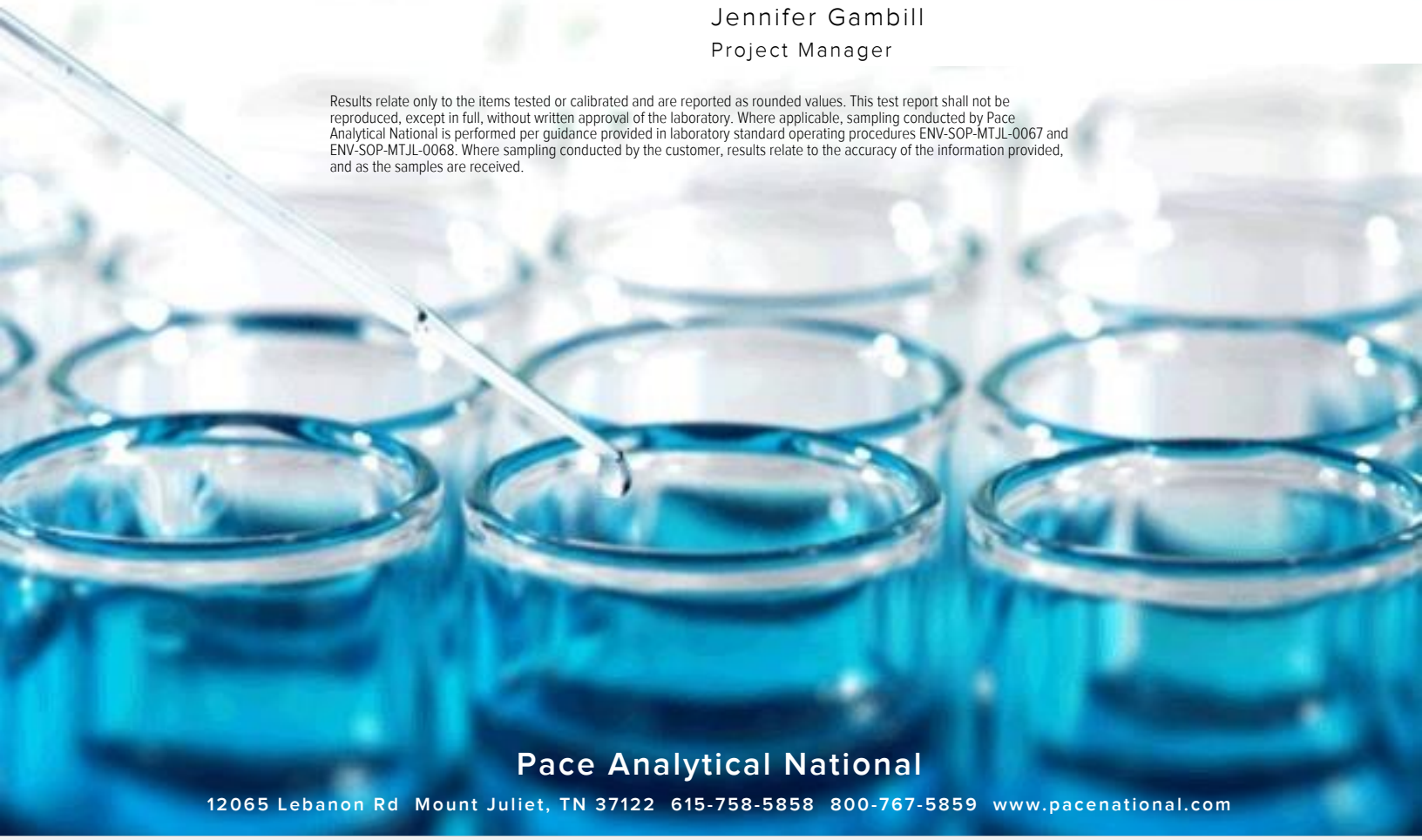
April 10, 2023

INNOVEX/ERRG Joint Venture - Redmond, WA

Sample Delivery Group:	L1600194
Samples Received:	03/31/2023
Project Number:	20506
Description:	JBLM-YTC
Site:	YTC IRP
Report To:	Anna Jordan 16310 NE 80th St. Ste 104 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 www.pacenational.com

TABLE OF CONTENTS

YTC-MTS-1-20230328 L1600194-01 GW

Collected by: HC/KKH | Collected date/time: 03/28/23 15:50 | Received date/time: 03/31/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2035371	1	04/05/23 02:17	04/05/23 02:17	ADM	Mt. Juliet, TN

YTC-MTS-2-20230328 L1600194-02 GW

Collected by: HC/KKH | Collected date/time: 03/28/23 16:00 | Received date/time: 03/31/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2035371	1	04/05/23 02:36	04/05/23 02:36	ADM	Mt. Juliet, TN

YTC-MTS-4-20230328 L1600194-03 GW

Collected by: HC/KKH | Collected date/time: 03/28/23 15:35 | Received date/time: 03/31/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2035743	1	04/05/23 13:44	04/05/23 13:44	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2038028	1	04/07/23 23:28	04/07/23 23:28	ADM	Mt. Juliet, TN

YTC-TVR-1-20230328 L1600194-04 GW

Collected by: HC/KKH | Collected date/time: 03/28/23 15:25 | Received date/time: 03/31/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2035743	1	04/05/23 14:06	04/05/23 14:06	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2038028	1	04/07/23 23:50	04/07/23 23:50	ADM	Mt. Juliet, TN

YTC-TVR-3A-20230328 L1600194-05 GW

Collected by: HC/KKH | Collected date/time: 03/28/23 14:35 | Received date/time: 03/31/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2035743	1	04/05/23 14:27	04/05/23 14:27	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2038028	1	04/08/23 00:11	04/08/23 00:11	ADM	Mt. Juliet, TN

YTC-TVR-3-20230328 L1600194-06 GW

Collected by: HC/KKH | Collected date/time: 03/28/23 14:30 | Received date/time: 03/31/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2035743	1	04/05/23 14:49	04/05/23 14:49	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2038028	1	04/08/23 00:33	04/08/23 00:33	ADM	Mt. Juliet, TN

YTC-TVR-7-20230328 L1600194-07 GW

Collected by: HC/KKH | Collected date/time: 03/28/23 14:40 | Received date/time: 03/31/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2035743	1	04/05/23 15:10	04/05/23 15:10	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2038028	1	04/08/23 00:54	04/08/23 00:54	ADM	Mt. Juliet, TN

YTC-POMONA-20230328 L1600194-08 GW

Collected by	Collected date/time	Received date/time
HC/KKH	03/28/23 14:00	03/31/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2035743	1	04/05/23 15:32	04/05/23 15:32	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2038028	1	04/08/23 01:15	04/08/23 01:15	ADM	Mt. Juliet, TN

YTC-PAIC-20230328 L1600194-09 GW

Collected by	Collected date/time	Received date/time
HC/KKH	03/28/23 15:00	03/31/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2035743	1	04/05/23 15:54	04/05/23 15:54	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2038028	1	04/08/23 01:37	04/08/23 01:37	ADM	Mt. Juliet, TN

YTC-TRIPBLANKQ1-20230328 L1600194-10 GW

Collected by	Collected date/time	Received date/time
HC/KKH	03/28/23 00:00	03/31/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2035743	1	04/05/23 13:00	04/05/23 13:00	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2038028	1	04/07/23 23:07	04/07/23 23:07	ADM	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/MS) by Method 8260D

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	04/05/2023 02:17	WG2035371
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	04/05/2023 02:17	WG2035371
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	04/05/2023 02:17	WG2035371
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	04/05/2023 02:17	WG2035371
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	04/05/2023 02:17	WG2035371
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	04/05/2023 02:17	WG2035371
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	04/05/2023 02:17	WG2035371
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	04/05/2023 02:17	WG2035371
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	04/05/2023 02:17	WG2035371
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	04/05/2023 02:17	WG2035371
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	04/05/2023 02:17	WG2035371
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	04/05/2023 02:17	WG2035371
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	04/05/2023 02:17	WG2035371
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	04/05/2023 02:17	WG2035371
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	04/05/2023 02:17	WG2035371
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	04/05/2023 02:17	WG2035371
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	04/05/2023 02:17	WG2035371

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
Trichloroethene	79-01-6	0.00316		0.000190	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	04/05/2023 02:17	WG2035371
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	04/05/2023 02:17	WG2035371
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	04/05/2023 02:17	WG2035371
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	04/05/2023 02:17	WG2035371
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	04/05/2023 02:17	WG2035371
(S) Toluene-d8	*2037-26-5*	*103*				*89.0-112*		*04/05/2023 02:17*	WG2035371
(S) 4-Bromofluorobenzene	*460-00-4*	*95.4*				*85.0-114*		*04/05/2023 02:17*	WG2035371
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*110*				*81.0-118*		*04/05/2023 02:17*	WG2035371

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	04/05/2023 02:36	WG2035371
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	04/05/2023 02:36	WG2035371
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	04/05/2023 02:36	WG2035371
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	04/05/2023 02:36	WG2035371
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	04/05/2023 02:36	WG2035371
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	04/05/2023 02:36	WG2035371
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	04/05/2023 02:36	WG2035371
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
cis-1,2-Dichloroethene	156-59-2	0.000277	J	0.000126	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	04/05/2023 02:36	WG2035371
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	04/05/2023 02:36	WG2035371
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	04/05/2023 02:36	WG2035371
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	04/05/2023 02:36	WG2035371
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	04/05/2023 02:36	WG2035371
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	04/05/2023 02:36	WG2035371
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	04/05/2023 02:36	WG2035371
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	04/05/2023 02:36	WG2035371
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	04/05/2023 02:36	WG2035371
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	04/05/2023 02:36	WG2035371

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
Trichloroethene	79-01-6	0.00717		0.000190	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	04/05/2023 02:36	WG2035371
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	04/05/2023 02:36	WG2035371
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	04/05/2023 02:36	WG2035371
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	04/05/2023 02:36	WG2035371
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	04/05/2023 02:36	WG2035371
(S) Toluene-d8	*2037-26-5*	*107*				*89.0-112*		*04/05/2023 02:36*	WG2035371
(S) 4-Bromofluorobenzene	*460-00-4*	*99.6*				*85.0-114*		*04/05/2023 02:36*	WG2035371
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*112*				*81.0-118*		*04/05/2023 02:36*	WG2035371

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	04/05/2023 13:44	WG2035743
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	04/07/2023 23:28	WG2038028
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	04/07/2023 23:28	WG2038028
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	04/05/2023 13:44	WG2035743
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	04/05/2023 13:44	WG2035743
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	04/05/2023 13:44	WG2035743
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	04/05/2023 13:44	WG2035743
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	04/07/2023 23:28	WG2038028
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
cis-1,2-Dichloroethene	156-59-2	0.000136	J	0.000126	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	04/07/2023 23:28	WG2038028
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	04/05/2023 13:44	WG2035743
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	04/05/2023 13:44	WG2035743
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	04/05/2023 13:44	WG2035743
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	04/05/2023 13:44	WG2035743
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	04/05/2023 13:44	WG2035743
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	04/05/2023 13:44	WG2035743
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	04/05/2023 13:44	WG2035743
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	04/07/2023 23:28	WG2038028
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	04/05/2023 13:44	WG2035743
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	04/05/2023 13:44	WG2035743

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
Trichloroethene	79-01-6	0.00487		0.000190	0.000500	0.00100	1	04/05/2023 13:44	WG2035743
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	04/07/2023 23:28	WG2038028
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	04/05/2023 13:44	WG2035743
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	04/07/2023 23:28	WG2038028
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	04/05/2023 13:44	WG2035743
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	04/05/2023 13:44	WG2035743
(S) Toluene-d8	*2037-26-5*	*105*				*89.0-112*		*04/05/2023 13:44*	WG2035743
(S) Toluene-d8	*2037-26-5*	*103*				*89.0-112*		*04/07/2023 23:28*	WG2038028
(S) 4-Bromofluorobenzene	*460-00-4*	*97.2*				*85.0-114*		*04/05/2023 13:44*	WG2035743
(S) 4-Bromofluorobenzene	*460-00-4*	*98.6*				*85.0-114*		*04/07/2023 23:28*	WG2038028
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*103*				*81.0-118*		*04/05/2023 13:44*	WG2035743
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*94.2*				*81.0-118*		*04/07/2023 23:28*	WG2038028

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	04/05/2023 14:06	WG2035743
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	04/07/2023 23:50	WG2038028
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	04/07/2023 23:50	WG2038028
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	04/05/2023 14:06	WG2035743
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	04/05/2023 14:06	WG2035743
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	04/05/2023 14:06	WG2035743
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	04/05/2023 14:06	WG2035743
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	04/07/2023 23:50	WG2038028
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	04/07/2023 23:50	WG2038028
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	04/05/2023 14:06	WG2035743
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	04/05/2023 14:06	WG2035743
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	04/05/2023 14:06	WG2035743
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	04/05/2023 14:06	WG2035743
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	04/05/2023 14:06	WG2035743
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	04/05/2023 14:06	WG2035743
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	04/05/2023 14:06	WG2035743
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	04/07/2023 23:50	WG2038028
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	04/05/2023 14:06	WG2035743
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	04/05/2023 14:06	WG2035743

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
Trichloroethene	79-01-6	0.00668		0.000190	0.000500	0.00100	1	04/05/2023 14:06	WG2035743
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	04/07/2023 23:50	WG2038028
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	04/05/2023 14:06	WG2035743
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	04/07/2023 23:50	WG2038028
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	04/05/2023 14:06	WG2035743
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	04/05/2023 14:06	WG2035743
(S) Toluene-d8	*2037-26-5*	*108*				*89.0-112*		*04/05/2023 14:06*	WG2035743
(S) Toluene-d8	*2037-26-5*	*105*				*89.0-112*		*04/07/2023 23:50*	WG2038028
(S) 4-Bromofluorobenzene	*460-00-4*	*99.0*				*85.0-114*		*04/05/2023 14:06*	WG2035743
(S) 4-Bromofluorobenzene	*460-00-4*	*97.4*				*85.0-114*		*04/07/2023 23:50*	WG2038028
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*103*				*81.0-118*		*04/05/2023 14:06*	WG2035743
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*91.5*				*81.0-118*		*04/07/2023 23:50*	WG2038028

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	04/05/2023 14:27	WG2035743
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	04/08/2023 00:11	WG2038028
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	04/08/2023 00:11	WG2038028
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	04/05/2023 14:27	WG2035743
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	04/05/2023 14:27	WG2035743
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	04/05/2023 14:27	WG2035743
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	04/05/2023 14:27	WG2035743
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	04/08/2023 00:11	WG2038028
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	04/08/2023 00:11	WG2038028
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	04/05/2023 14:27	WG2035743
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	04/05/2023 14:27	WG2035743
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	04/05/2023 14:27	WG2035743
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	04/05/2023 14:27	WG2035743
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	04/05/2023 14:27	WG2035743
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	04/05/2023 14:27	WG2035743
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	04/05/2023 14:27	WG2035743
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	04/08/2023 00:11	WG2038028
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	04/05/2023 14:27	WG2035743
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	04/05/2023 14:27	WG2035743

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
Trichloroethene	79-01-6	0.00419		0.000190	0.000500	0.00100	1	04/05/2023 14:27	WG2035743
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	04/08/2023 00:11	WG2038028
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	04/05/2023 14:27	WG2035743
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	04/08/2023 00:11	WG2038028
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	04/05/2023 14:27	WG2035743
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	04/05/2023 14:27	WG2035743
(S) Toluene-d8	*2037-26-5*	*106*				*89.0-112*		*04/05/2023 14:27*	WG2035743
(S) Toluene-d8	*2037-26-5*	*100*				*89.0-112*		*04/08/2023 00:11*	WG2038028
(S) 4-Bromofluorobenzene	*460-00-4*	*99.6*				*85.0-114*		*04/05/2023 14:27*	WG2035743
(S) 4-Bromofluorobenzene	*460-00-4*	*97.4*				*85.0-114*		*04/08/2023 00:11*	WG2038028
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*102*				*81.0-118*		*04/05/2023 14:27*	WG2035743
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*98.5*				*81.0-118*		*04/08/2023 00:11*	WG2038028

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	04/05/2023 14:49	WG2035743
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	04/08/2023 00:33	WG2038028
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	04/08/2023 00:33	WG2038028
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	04/05/2023 14:49	WG2035743
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	04/05/2023 14:49	WG2035743
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	04/05/2023 14:49	WG2035743
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	04/05/2023 14:49	WG2035743
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	04/08/2023 00:33	WG2038028
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	04/08/2023 00:33	WG2038028
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	04/05/2023 14:49	WG2035743
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	04/05/2023 14:49	WG2035743
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	04/05/2023 14:49	WG2035743
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	04/05/2023 14:49	WG2035743
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	04/05/2023 14:49	WG2035743
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	04/05/2023 14:49	WG2035743
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	04/05/2023 14:49	WG2035743
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	04/08/2023 00:33	WG2038028
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	04/05/2023 14:49	WG2035743
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	04/05/2023 14:49	WG2035743

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
Trichloroethene	79-01-6	0.00403		0.000190	0.000500	0.00100	1	04/05/2023 14:49	WG2035743
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	04/08/2023 00:33	WG2038028
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	04/05/2023 14:49	WG2035743
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	04/08/2023 00:33	WG2038028
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	04/05/2023 14:49	WG2035743
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	04/05/2023 14:49	WG2035743
(S) Toluene-d8	*2037-26-5*	*106*				*89.0-112*		*04/05/2023 14:49*	WG2035743
(S) Toluene-d8	*2037-26-5*	*107*				*89.0-112*		*04/08/2023 00:33*	WG2038028
(S) 4-Bromofluorobenzene	*460-00-4*	*97.2*				*85.0-114*		*04/05/2023 14:49*	WG2035743
(S) 4-Bromofluorobenzene	*460-00-4*	*101*				*85.0-114*		*04/08/2023 00:33*	WG2038028
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*103*				*81.0-118*		*04/05/2023 14:49*	WG2035743
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*99.5*				*81.0-118*		*04/08/2023 00:33*	WG2038028

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	04/05/2023 15:10	WG2035743
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	04/08/2023 00:54	WG2038028
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	04/08/2023 00:54	WG2038028
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	04/05/2023 15:10	WG2035743
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	04/05/2023 15:10	WG2035743
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	04/05/2023 15:10	WG2035743
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	04/05/2023 15:10	WG2035743
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	04/08/2023 00:54	WG2038028
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	04/08/2023 00:54	WG2038028
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	04/05/2023 15:10	WG2035743
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	04/05/2023 15:10	WG2035743
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	04/05/2023 15:10	WG2035743
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	04/05/2023 15:10	WG2035743
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	04/05/2023 15:10	WG2035743
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	04/05/2023 15:10	WG2035743
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	04/05/2023 15:10	WG2035743
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	04/08/2023 00:54	WG2038028
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	04/05/2023 15:10	WG2035743
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	04/05/2023 15:10	WG2035743

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
Trichloroethene	79-01-6	0.00265		0.000190	0.000500	0.00100	1	04/05/2023 15:10	WG2035743
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	04/08/2023 00:54	WG2038028
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	04/05/2023 15:10	WG2035743
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	04/08/2023 00:54	WG2038028
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	04/05/2023 15:10	WG2035743
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	04/05/2023 15:10	WG2035743
(S) Toluene-d8	*2037-26-5*	*104*				*89.0-112*		*04/05/2023 15:10*	WG2035743
(S) Toluene-d8	*2037-26-5*	*103*				*89.0-112*		*04/08/2023 00:54*	WG2038028
(S) 4-Bromofluorobenzene	*460-00-4*	*93.4*				*85.0-114*		*04/05/2023 15:10*	WG2035743
(S) 4-Bromofluorobenzene	*460-00-4*	*98.2*				*85.0-114*		*04/08/2023 00:54*	WG2038028
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*101*				*81.0-118*		*04/05/2023 15:10*	WG2035743
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*95.3*				*81.0-118*		*04/08/2023 00:54*	WG2038028

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	04/05/2023 15:32	WG2035743
Benzene	71-43-2	0.000500	J3 J5 U	0.0000941	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
Bromobenzene	108-86-1	0.000500	J3 U	0.000118	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
Bromochloromethane	74-97-5	0.000500	J3 J5 U	0.000128	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	04/08/2023 01:15	WG2038028
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	04/08/2023 01:15	WG2038028
n-Butylbenzene	104-51-8	0.000500	J3 U	0.000157	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
sec-Butylbenzene	135-98-8	0.000500	J3 U	0.000125	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
tert-Butylbenzene	98-06-6	0.000500	J3 U	0.000127	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
Carbon disulfide	75-15-0	0.000500	J3 U	0.0000960	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
Carbon tetrachloride	56-23-5	0.000500	J3 U	0.000128	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
Chlorobenzene	108-90-7	0.000500	J3 J5 U	0.000116	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
Chloroethane	75-00-3	0.00200	J3 U	0.000192	0.00200	0.00500	1	04/05/2023 15:32	WG2035743
Chloroform	67-66-3	0.00200	J3 J5 U	0.000111	0.00200	0.00500	1	04/05/2023 15:32	WG2035743
Chloromethane	74-87-3	0.00200	J3 J5 U	0.000960	0.00200	0.00400	1	04/05/2023 15:32	WG2035743
2-Chlorotoluene	95-49-8	0.000500	J3 U	0.000106	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
4-Chlorotoluene	106-43-4	0.000500	J3 U	0.000114	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	04/05/2023 15:32	WG2035743
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
1,2-Dichlorobenzene	95-50-1	0.000500	J3 J5 U	0.000107	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
1,3-Dichlorobenzene	541-73-1	0.000500	J3 U	0.000110	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
1,4-Dichlorobenzene	106-46-7	0.000500	J3 U	0.000120	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	04/08/2023 01:15	WG2038028
1,1-Dichloroethane	75-34-3	0.000500	J3 J5 U	0.000100	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
1,1-Dichloroethene	75-35-4	0.000500	J3 J5 U	0.000188	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
cis-1,2-Dichloroethene	156-59-2	0.000500	J5 U	0.000126	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
trans-1,2-Dichloroethene	156-60-5	0.000500	J3 U	0.000149	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
1,2-Dichloropropane	78-87-5	0.000500	J3 J5 U	0.000149	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
1,3-Dichloropropane	142-28-9	0.000500	J5 U	0.000110	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	04/08/2023 01:15	WG2038028
1,1-Dichloropropene	563-58-6	0.000500	J3 J5 U	0.000142	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
cis-1,3-Dichloropropene	10061-01-5	0.000500	J3 U	0.000111	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
Ethylbenzene	100-41-4	0.000500	J3 U	0.000137	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
Hexachloro-1,3-butadiene	87-68-3	0.000750	J3 J5 U	0.000337	0.000750	0.00150	1	04/05/2023 15:32	WG2035743
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	04/05/2023 15:32	WG2035743
Isopropylbenzene	98-82-8	0.000500	J3 U	0.000105	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
p-Isopropyltoluene	99-87-6	0.000500	J3 U	0.000120	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
2-Butanone (MEK)	78-93-3	0.00500	J5 U	0.00119	0.00500	0.0100	1	04/05/2023 15:32	WG2035743
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	04/05/2023 15:32	WG2035743
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	04/05/2023 15:32	WG2035743
n-Propylbenzene	103-65-1	0.000500	J3 U	0.0000993	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
Styrene	100-42-5	0.000500	J3 U	0.000118	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	J5 U	0.000133	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
Tetrachloroethene	127-18-4	0.000600	J3 U	0.000300	0.000600	0.00120	1	04/05/2023 15:32	WG2035743
Toluene	108-88-3	0.000600	J3 U	0.000278	0.000600	0.00120	1	04/05/2023 15:32	WG2035743
1,2,3-Trichlorobenzene	87-61-6	0.000500	J3 U	0.000230	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	04/08/2023 01:15	WG2038028
1,2,4-Trimethylbenzene	95-63-6	0.00100	J3 U	0.000322	0.00100	0.00200	1	04/05/2023 15:32	WG2035743
1,3,5-Trimethylbenzene	108-67-8	0.000500	J3 U	0.000104	0.000500	0.00100	1	04/05/2023 15:32	WG2035743

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	J3 U	0.000149	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
1,1,2-Trichloroethane	79-00-5	0.000500	J5 U	0.000158	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
Trichloroethene	79-01-6	0.000500	J5 U	0.000190	0.000500	0.00100	1	04/05/2023 15:32	WG2035743
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	04/08/2023 01:15	WG2038028
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	04/05/2023 15:32	WG2035743
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	04/08/2023 01:15	WG2038028
m&p-Xylene	1330-20-7	0.000500	J3 U	0.000430	0.000500	0.00200	1	04/05/2023 15:32	WG2035743
Xylenes, Total	1330-20-7	0.00150	J3 U	0.000174	0.00150	0.00300	1	04/05/2023 15:32	WG2035743
(S) Toluene-d8	*2037-26-5*	*103*				*89.0-112*		*04/05/2023 15:32*	WG2035743
(S) Toluene-d8	*2037-26-5*	*104*				*89.0-112*		*04/08/2023 01:15*	WG2038028
(S) 4-Bromofluorobenzene	*460-00-4*	*97.6*				*85.0-114*		*04/05/2023 15:32*	WG2035743
(S) 4-Bromofluorobenzene	*460-00-4*	*102*				*85.0-114*		*04/08/2023 01:15*	WG2038028
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*103*				*81.0-118*		*04/05/2023 15:32*	WG2035743
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*100*				*81.0-118*		*04/08/2023 01:15*	WG2038028

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	04/05/2023 15:54	WG2035743
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	04/08/2023 01:37	WG2038028
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	04/08/2023 01:37	WG2038028
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	04/05/2023 15:54	WG2035743
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	04/05/2023 15:54	WG2035743
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	04/05/2023 15:54	WG2035743
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	04/05/2023 15:54	WG2035743
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	04/08/2023 01:37	WG2038028
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	04/08/2023 01:37	WG2038028
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	04/05/2023 15:54	WG2035743
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	04/05/2023 15:54	WG2035743
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	04/05/2023 15:54	WG2035743
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	04/05/2023 15:54	WG2035743
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	04/05/2023 15:54	WG2035743
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	04/05/2023 15:54	WG2035743
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	04/05/2023 15:54	WG2035743
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	04/08/2023 01:37	WG2038028
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	04/05/2023 15:54	WG2035743
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	04/05/2023 15:54	WG2035743

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
Trichloroethene	79-01-6	0.000500	U	0.000190	0.000500	0.00100	1	04/05/2023 15:54	WG2035743
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	04/08/2023 01:37	WG2038028
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	04/05/2023 15:54	WG2035743
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	04/08/2023 01:37	WG2038028
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	04/05/2023 15:54	WG2035743
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	04/05/2023 15:54	WG2035743
(S) Toluene-d8	*2037-26-5*	*107*				*89.0-112*		*04/05/2023 15:54*	WG2035743
(S) Toluene-d8	*2037-26-5*	*105*				*89.0-112*		*04/08/2023 01:37*	WG2038028
(S) 4-Bromofluorobenzene	*460-00-4*	*98.8*				*85.0-114*		*04/05/2023 15:54*	WG2035743
(S) 4-Bromofluorobenzene	*460-00-4*	*101*				*85.0-114*		*04/08/2023 01:37*	WG2038028
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*104*				*81.0-118*		*04/05/2023 15:54*	WG2035743
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*94.9*				*81.0-118*		*04/08/2023 01:37*	WG2038028

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	04/05/2023 13:00	WG2035743
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	04/07/2023 23:07	WG2038028
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	04/07/2023 23:07	WG2038028
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
Carbon disulfide	75-15-0	0.000110	J	0.0000960	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	04/05/2023 13:00	WG2035743
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	04/05/2023 13:00	WG2035743
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	04/05/2023 13:00	WG2035743
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	04/05/2023 13:00	WG2035743
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	04/07/2023 23:07	WG2038028
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	04/07/2023 23:07	WG2038028
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	04/05/2023 13:00	WG2035743
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	04/05/2023 13:00	WG2035743
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	04/05/2023 13:00	WG2035743
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	04/05/2023 13:00	WG2035743
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	04/05/2023 13:00	WG2035743
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	04/05/2023 13:00	WG2035743
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	04/05/2023 13:00	WG2035743
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	04/07/2023 23:07	WG2038028
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	04/05/2023 13:00	WG2035743
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	04/05/2023 13:00	WG2035743

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
Trichloroethene	79-01-6	0.000500	U	0.000190	0.000500	0.00100	1	04/05/2023 13:00	WG2035743
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	04/07/2023 23:07	WG2038028
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	04/05/2023 13:00	WG2035743
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	04/07/2023 23:07	WG2038028
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	04/05/2023 13:00	WG2035743
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	04/05/2023 13:00	WG2035743
(S) Toluene-d8	*2037-26-5*	*105*				*89.0-112*		*04/05/2023 13:00*	WG2035743
(S) Toluene-d8	*2037-26-5*	*104*				*89.0-112*		*04/07/2023 23:07*	WG2038028
(S) 4-Bromofluorobenzene	*460-00-4*	*99.5*				*85.0-114*		*04/05/2023 13:00*	WG2035743
(S) 4-Bromofluorobenzene	*460-00-4*	*103*				*85.0-114*		*04/07/2023 23:07*	WG2038028
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*103*				*81.0-118*		*04/05/2023 13:00*	WG2035743
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*98.8*				*81.0-118*		*04/07/2023 23:07*	WG2038028

Method Blank (MB)

(MB) R3909365-3 04/05/23 00:18

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Acetone	0.0250	U	0.0113	0.0250	0.0500
Benzene	0.000500	U	0.0000941	0.000500	0.00100
Bromobenzene	0.000500	U	0.000118	0.000500	0.00100
Bromochloromethane	0.000500	U	0.000128	0.000500	0.00100
Bromodichloromethane	0.000500	U	0.000136	0.000500	0.00100
Bromoform	0.000500	U	0.000129	0.000500	0.00100
Bromomethane	0.00200	U	0.000605	0.00200	0.00500
n-Butylbenzene	0.000500	U	0.000157	0.000500	0.00100
sec-Butylbenzene	0.000500	U	0.000125	0.000500	0.00100
tert-Butylbenzene	0.000500	U	0.000127	0.000500	0.00100
Carbon disulfide	0.000500	U	0.0000960	0.000500	0.00100
Carbon tetrachloride	0.000500	U	0.000128	0.000500	0.00100
Chlorobenzene	0.000500	U	0.000116	0.000500	0.00100
Chlorodibromomethane	0.000500	U	0.000140	0.000500	0.00100
Chloroethane	0.00200	U	0.000192	0.00200	0.00500
Chloroform	0.00200	U	0.000111	0.00200	0.00500
Chloromethane	0.00200	U	0.000960	0.00200	0.00400
2-Chlorotoluene	0.000500	U	0.000106	0.000500	0.00100
4-Chlorotoluene	0.000500	U	0.000114	0.000500	0.00100
1,2-Dibromoethane	0.000500	U	0.000126	0.000500	0.00100
1,2-Dibromo-3-Chloropropane	0.00200	U	0.000276	0.00200	0.00500
Dibromomethane	0.000500	U	0.000122	0.000500	0.00100
1,2-Dichlorobenzene	0.000500	U	0.000107	0.000500	0.00100
1,3-Dichlorobenzene	0.000500	U	0.000110	0.000500	0.00100
1,4-Dichlorobenzene	0.000500	U	0.000120	0.000500	0.00100
Dichlorodifluoromethane	0.00200	U	0.000374	0.00200	0.00500
1,1-Dichloroethane	0.000500	U	0.000100	0.000500	0.00100
1,2-Dichloroethane	0.000500	U	0.0000819	0.000500	0.00100
1,1-Dichloroethene	0.000500	U	0.000188	0.000500	0.00100
cis-1,2-Dichloroethene	0.000500	U	0.000126	0.000500	0.00100
trans-1,2-Dichloroethene	0.000500	U	0.000149	0.000500	0.00100
1,2-Dichloropropane	0.000500	U	0.000149	0.000500	0.00100
1,3-Dichloropropane	0.000500	U	0.000110	0.000500	0.00100
2,2-Dichloropropane	0.000500	U	0.000161	0.000500	0.00100
1,1-Dichloropropene	0.000500	U	0.000142	0.000500	0.00100
cis-1,3-Dichloropropene	0.000500	U	0.000111	0.000500	0.00100
trans-1,3-Dichloropropene	0.000500	U	0.000118	0.000500	0.00100
Total 1,3-Dichloropropene	0.000500	U	0.000118	0.000500	0.00100
Ethylbenzene	0.000500	U	0.000137	0.000500	0.00100
Hexachloro-1,3-butadiene	0.000750	U	0.000337	0.000750	0.00150

Method Blank (MB)

(MB) R3909365-3 04/05/23 00:18

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
2-Hexanone	0.00500	U	0.000787	0.00500	0.0100
Isopropylbenzene	0.000500	U	0.000105	0.000500	0.00100
p-Isopropyltoluene	0.000500	U	0.000120	0.000500	0.00100
2-Butanone (MEK)	0.00500	U	0.00119	0.00500	0.0100
Methylene Chloride	0.00200	U	0.000430	0.00200	0.00500
4-Methyl-2-pentanone (MIBK)	0.00500	U	0.000478	0.00500	0.0100
n-Propylbenzene	0.000500	U	0.0000993	0.000500	0.00100
Styrene	0.000500	U	0.000118	0.000500	0.00100
1,1,1,2-Tetrachloroethane	0.000500	U	0.000147	0.000500	0.00100
1,1,2,2-Tetrachloroethane	0.000500	U	0.000133	0.000500	0.00100
Tetrachloroethene	0.000600	U	0.000300	0.000600	0.00120
Toluene	0.000600	U	0.000278	0.000600	0.00120
1,2,3-Trichlorobenzene	0.000500	U	0.000230	0.000500	0.00100
1,2,4-Trichlorobenzene	0.00100	U	0.000481	0.00100	0.00200
1,2,4-Trimethylbenzene	0.00100	U	0.000322	0.00100	0.00200
1,3,5-Trimethylbenzene	0.000500	U	0.000104	0.000500	0.00100
1,1,1-Trichloroethane	0.000500	U	0.000149	0.000500	0.00100
1,1,2-Trichloroethane	0.000500	U	0.000158	0.000500	0.00100
Trichloroethene	0.000500	U	0.000190	0.000500	0.00100
Trichlorofluoromethane	0.00200	U	0.000160	0.00200	0.00500
1,2,3-Trichloropropane	0.00100	U	0.000237	0.00100	0.00250
o-Xylene	0.000500	U	0.000174	0.000500	0.00100
m&p-Xylenes	0.000500	U	0.000430	0.000500	0.00200
Xylenes, Total	0.00150	U	0.000174	0.00150	0.00300
(S) Toluene-d8	*104*				*89.0-112*
(S) 4-Bromofluorobenzene	*102*				*85.0-114*
(S) 1,2-Dichloroethane-d4	*113*				*81.0-118*

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

(LCS) R3909365-1 04/04/23 22:10 • (LCSD) R3909365-2 04/04/23 23:08

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 %
Acetone	0.0250	0.0263	0.0282	105	113	39.0-160			6.97	20
Benzene	0.00500	0.00447	0.00435	89.4	87.0	79.0-120			2.72	20
Bromobenzene	0.00500	0.00523	0.00506	105	101	80.0-120			3.30	20
Bromochloromethane	0.00500	0.00477	0.00475	95.4	95.0	78.0-123			0.420	20
Bromodichloromethane	0.00500	0.00493	0.00490	98.6	98.0	79.0-125			0.610	20
Bromoform	0.00500	0.00520	0.00507	104	101	66.0-130			2.53	20

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

(LCS) R3909365-1 04/04/23 22:10 • (LCSD) R3909365-2 04/04/23 23:08

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 %
Bromomethane	0.00500	0.00408	0.00392	81.6	78.4	53.0-141			4.00	20
n-Butylbenzene	0.00500	0.00511	0.00488	102	97.6	75.0-128			4.60	20
sec-Butylbenzene	0.00500	0.00503	0.00501	101	100	77.0-126			0.398	20
tert-Butylbenzene	0.00500	0.00529	0.00496	106	99.2	78.0-124			6.44	20
Carbon disulfide	0.00500	0.00404	0.00391	80.8	78.2	64.0-133			3.27	20
Carbon tetrachloride	0.00500	0.00525	0.00505	105	101	72.0-136			3.88	20
Chlorobenzene	0.00500	0.00489	0.00483	97.8	96.6	82.0-118			1.23	20
Chlorodibromomethane	0.00500	0.00504	0.00505	101	101	74.0-126			0.198	20
Chloroethane	0.00500	0.00408	0.00410	81.6	82.0	60.0-138			0.489	20
Chloroform	0.00500	0.00510	0.00468	102	93.6	79.0-124			8.59	20
Chloromethane	0.00500	0.00492	0.00455	98.4	91.0	50.0-139			7.81	20
2-Chlorotoluene	0.00500	0.00505	0.00483	101	96.6	79.0-122			4.45	20
4-Chlorotoluene	0.00500	0.00518	0.00503	104	101	78.0-122			2.94	20
1,2-Dibromoethane	0.00500	0.00471	0.00473	94.2	94.6	77.0-121			0.424	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00523	0.00540	105	108	62.0-128			3.20	20
Dibromomethane	0.00500	0.00472	0.00467	94.4	93.4	79.0-123			1.06	20
1,2-Dichlorobenzene	0.00500	0.00498	0.00485	99.6	97.0	80.0-119			2.64	20
1,3-Dichlorobenzene	0.00500	0.00493	0.00477	98.6	95.4	80.0-119			3.30	20
1,4-Dichlorobenzene	0.00500	0.00503	0.00481	101	96.2	79.0-118			4.47	20
Dichlorodifluoromethane	0.00500	0.00617	0.00588	123	118	32.0-152			4.81	20
1,1-Dichloroethane	0.00500	0.00466	0.00466	93.2	93.2	77.0-125			0.000	20
1,2-Dichloroethane	0.00500	0.00542	0.00538	108	108	73.0-128			0.741	20
1,1-Dichloroethene	0.00500	0.00499	0.00487	99.8	97.4	71.0-131			2.43	20
cis-1,2-Dichloroethene	0.00500	0.00470	0.00447	94.0	89.4	78.0-123			5.02	20
trans-1,2-Dichloroethene	0.00500	0.00424	0.00395	84.8	79.0	75.0-124			7.08	20
1,2-Dichloropropane	0.00500	0.00456	0.00450	91.2	90.0	78.0-122			1.32	20
1,3-Dichloropropane	0.00500	0.00464	0.00453	92.8	90.6	80.0-119			2.40	20
2,2-Dichloropropane	0.00500	0.00521	0.00502	104	100	60.0-139			3.71	20
1,1-Dichloropropene	0.00500	0.00469	0.00484	93.8	96.8	79.0-125			3.15	20
cis-1,3-Dichloropropene	0.00500	0.00489	0.00492	97.8	98.4	75.0-124			0.612	20
trans-1,3-Dichloropropene	0.00500	0.00478	0.00471	95.6	94.2	73.0-127			1.48	20
Ethylbenzene	0.00500	0.00447	0.00452	89.4	90.4	79.0-121			1.11	20
Hexachloro-1,3-butadiene	0.00500	0.00568	0.00545	114	109	66.0-134			4.13	20
2-Hexanone	0.0250	0.0250	0.0249	100	99.6	57.0-139			0.401	20
Isopropylbenzene	0.00500	0.00498	0.00482	99.6	96.4	72.0-131			3.27	20
p-Isopropyltoluene	0.00500	0.00520	0.00497	104	99.4	77.0-127			4.52	20
2-Butanone (MEK)	0.0250	0.0249	0.0276	99.6	110	56.0-143			10.3	20
Methylene Chloride	0.00500	0.00414	0.00399	82.8	79.8	74.0-124			3.69	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0279	0.0279	112	112	67.0-130			0.000	20
n-Propylbenzene	0.00500	0.00518	0.00496	104	99.2	76.0-126			4.34	20

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

(LCS) R3909365-1 04/04/23 22:10 • (LCSD) R3909365-2 04/04/23 23:08

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 %
Styrene	0.00500	0.00477	0.00470	95.4	94.0	78.0-123			1.48	20
1,1,1,2-Tetrachloroethane	0.00500	0.00495	0.00492	99.0	98.4	78.0-124			0.608	20
1,1,2,2-Tetrachloroethane	0.00500	0.00515	0.00498	103	99.6	71.0-121			3.36	20
Tetrachloroethene	0.00500	0.00476	0.00487	95.2	97.4	74.0-129			2.28	20
Toluene	0.00500	0.00441	0.00445	88.2	89.0	80.0-121			0.903	20
1,2,3-Trichlorobenzene	0.00500	0.00505	0.00571	101	114	69.0-129			12.3	20
1,2,4-Trichlorobenzene	0.00500	0.00478	0.00577	95.6	115	69.0-130			18.8	20
1,2,4-Trimethylbenzene	0.00500	0.00510	0.00482	102	96.4	76.0-124			5.65	20
1,3,5-Trimethylbenzene	0.00500	0.00506	0.00480	101	96.0	75.0-124			5.27	20
1,1,1-Trichloroethane	0.00500	0.00495	0.00491	99.0	98.2	74.0-131			0.811	20
1,1,2-Trichloroethane	0.00500	0.00441	0.00445	88.2	89.0	80.0-119			0.903	20
Trichloroethene	0.00500	0.00470	0.00471	94.0	94.2	79.0-123			0.213	20
Trichlorofluoromethane	0.00500	0.00571	0.00539	114	108	65.0-141			5.77	20
1,2,3-Trichloropropane	0.00500	0.00509	0.00500	102	100	73.0-122			1.78	20
o-Xylene	0.00500	0.00494	0.00473	98.8	94.6	78.0-122			4.34	20
m&p-Xylenes	0.0100	0.00945	0.00926	94.5	92.6	80.0-121			2.03	20
Xylenes, Total	0.0150	0.0144	0.0140	96.0	93.3	79.0-121			2.82	20
(S) Toluene-d8				*102*	*104*	*89.0-112*				
(S) 4-Bromofluorobenzene				*96.6*	*97.9*	*85.0-114*				
(S) 1,2-Dichloroethane-d4				*117*	*115*	*81.0-118*				

Method Blank (MB)

(MB) R3910661-3 04/05/23 11:59

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Acetone	0.0250	U	0.0113	0.0250	0.0500
Benzene	0.000500	U	0.0000941	0.000500	0.00100
Bromobenzene	0.000500	U	0.000118	0.000500	0.00100
Bromochloromethane	0.000500	U	0.000128	0.000500	0.00100
Bromodichloromethane	0.000500	U	0.000136	0.000500	0.00100
n-Butylbenzene	0.000500	U	0.000157	0.000500	0.00100
sec-Butylbenzene	0.000500	U	0.000125	0.000500	0.00100
tert-Butylbenzene	0.000500	U	0.000127	0.000500	0.00100
Carbon disulfide	0.000500	U	0.0000960	0.000500	0.00100
Carbon tetrachloride	0.000500	U	0.000128	0.000500	0.00100
Chlorobenzene	0.000500	U	0.000116	0.000500	0.00100
Chlorodibromomethane	0.000500	U	0.000140	0.000500	0.00100
Chloroethane	0.00200	U	0.000192	0.00200	0.00500
Chloroform	0.00200	U	0.000111	0.00200	0.00500
Chloromethane	0.00200	U	0.000960	0.00200	0.00400
2-Chlorotoluene	0.000500	U	0.000106	0.000500	0.00100
4-Chlorotoluene	0.000500	U	0.000114	0.000500	0.00100
1,2-Dibromoethane	0.000500	U	0.000126	0.000500	0.00100
1,2-Dibromo-3-Chloropropane	0.00200	U	0.000276	0.00200	0.00500
Dibromomethane	0.000500	U	0.000122	0.000500	0.00100
1,2-Dichlorobenzene	0.000500	U	0.000107	0.000500	0.00100
1,3-Dichlorobenzene	0.000500	U	0.000110	0.000500	0.00100
1,4-Dichlorobenzene	0.000500	U	0.000120	0.000500	0.00100
1,1-Dichloroethane	0.000500	U	0.000100	0.000500	0.00100
1,2-Dichloroethane	0.000500	U	0.0000819	0.000500	0.00100
1,1-Dichloroethene	0.000500	U	0.000188	0.000500	0.00100
cis-1,2-Dichloroethene	0.000500	U	0.000126	0.000500	0.00100
trans-1,2-Dichloroethene	0.000500	U	0.000149	0.000500	0.00100
1,2-Dichloropropane	0.000500	U	0.000149	0.000500	0.00100
1,3-Dichloropropane	0.000500	U	0.000110	0.000500	0.00100
1,1-Dichloropropene	0.000500	U	0.000142	0.000500	0.00100
cis-1,3-Dichloropropene	0.000500	U	0.000111	0.000500	0.00100
trans-1,3-Dichloropropene	0.000500	U	0.000118	0.000500	0.00100
Total 1,3-Dichloropropene	0.000500	U	0.000118	0.000500	0.00100
Ethylbenzene	0.000500	U	0.000137	0.000500	0.00100
Hexachloro-1,3-butadiene	0.000750	U	0.000337	0.000750	0.00150
2-Hexanone	0.00500	U	0.000787	0.00500	0.0100
Isopropylbenzene	0.000500	U	0.000105	0.000500	0.00100
p-Isopropyltoluene	0.000500	U	0.000120	0.000500	0.00100
2-Butanone (MEK)	0.00500	U	0.00119	0.00500	0.0100

Method Blank (MB)

(MB) R3910661-3 04/05/23 11:59

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Methylene Chloride	0.00200	U	0.000430	0.00200	0.00500
4-Methyl-2-pentanone (MIBK)	0.00500	U	0.000478	0.00500	0.0100
n-Propylbenzene	0.000500	U	0.0000993	0.000500	0.00100
Styrene	0.000500	U	0.000118	0.000500	0.00100
1,1,1,2-Tetrachloroethane	0.000500	U	0.000147	0.000500	0.00100
1,1,2,2-Tetrachloroethane	0.000500	U	0.000133	0.000500	0.00100
Tetrachloroethene	0.000600	U	0.000300	0.000600	0.00120
Toluene	0.000600	U	0.000278	0.000600	0.00120
1,2,3-Trichlorobenzene	0.000500	U	0.000230	0.000500	0.00100
1,2,4-Trimethylbenzene	0.00100	U	0.000322	0.00100	0.00200
1,3,5-Trimethylbenzene	0.000500	U	0.000104	0.000500	0.00100
1,1,1-Trichloroethane	0.000500	U	0.000149	0.000500	0.00100
1,1,2-Trichloroethane	0.000500	U	0.000158	0.000500	0.00100
Trichloroethene	0.000500	U	0.000190	0.000500	0.00100
1,2,3-Trichloropropane	0.00100	U	0.000237	0.00100	0.00250
m&p-Xylene	0.000500	U	0.000430	0.000500	0.00200
Xylenes, Total	0.00150	U	0.000174	0.00150	0.00300
(S) Toluene-d8	*107*				*89.0-112*
(S) 4-Bromofluorobenzene	*98.3*				*85.0-114*
(S) 1,2-Dichloroethane-d4	*101*				*81.0-118*

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

(LCS) R3910661-1 04/05/23 10:54 • (LCSD) R3910661-2 04/05/23 11:16

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 %
Acetone	0.0250	0.0266	0.0262	106	105	39.0-160			1.52	20
Benzene	0.00500	0.00487	0.00492	97.4	98.4	79.0-120			1.02	20
Bromobenzene	0.00500	0.00441	0.00442	88.2	88.4	80.0-120			0.227	20
Bromochloromethane	0.00500	0.00501	0.00488	100	97.6	78.0-123			2.63	20
Bromodichloromethane	0.00500	0.00450	0.00458	90.0	91.6	79.0-125			1.76	20
n-Butylbenzene	0.00500	0.00412	0.00403	82.4	80.6	75.0-128			2.21	20
sec-Butylbenzene	0.00500	0.00459	0.00434	91.8	86.8	77.0-126			5.60	20
tert-Butylbenzene	0.00500	0.00443	0.00426	88.6	85.2	78.0-124			3.91	20
Carbon disulfide	0.00500	0.00494	0.00510	98.8	102	64.0-133			3.19	20
Carbon tetrachloride	0.00500	0.00482	0.00505	96.4	101	72.0-136			4.66	20
Chlorobenzene	0.00500	0.00469	0.00478	93.8	95.6	82.0-118			1.90	20
Chlorodibromomethane	0.00500	0.00449	0.00468	89.8	93.6	74.0-126			4.14	20
Chloroethane	0.00500	0.00419	0.00451	83.8	90.2	60.0-138			7.36	20

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

(LCS) R3910661-1 04/05/23 10:54 • (LCSD) R3910661-2 04/05/23 11:16

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 %
Chloroform	0.00500	0.00467	0.00471	93.4	94.2	79.0-124			0.853	20
Chloromethane	0.00500	0.00629	0.00669	126	134	50.0-139			6.16	20
2-Chlorotoluene	0.00500	0.00449	0.00451	89.8	90.2	79.0-122			0.444	20
4-Chlorotoluene	0.00500	0.00427	0.00413	85.4	82.6	78.0-122			3.33	20
1,2-Dibromoethane	0.00500	0.00479	0.00496	95.8	99.2	77.0-121			3.49	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00444	0.00454	88.8	90.8	62.0-128			2.23	20
Dibromomethane	0.00500	0.00466	0.00475	93.2	95.0	79.0-123			1.91	20
1,2-Dichlorobenzene	0.00500	0.00459	0.00454	91.8	90.8	80.0-119			1.10	20
1,3-Dichlorobenzene	0.00500	0.00440	0.00439	88.0	87.8	80.0-119			0.228	20
1,4-Dichlorobenzene	0.00500	0.00455	0.00457	91.0	91.4	79.0-118			0.439	20
1,1-Dichloroethane	0.00500	0.00504	0.00496	101	99.2	77.0-125			1.60	20
1,2-Dichloroethane	0.00500	0.00487	0.00513	97.4	103	73.0-128			5.20	20
1,1-Dichloroethene	0.00500	0.00485	0.00510	97.0	102	71.0-131			5.03	20
cis-1,2-Dichloroethene	0.00500	0.00459	0.00474	91.8	94.8	78.0-123			3.22	20
trans-1,2-Dichloroethene	0.00500	0.00485	0.00471	97.0	94.2	75.0-124			2.93	20
1,2-Dichloropropane	0.00500	0.00497	0.00513	99.4	103	78.0-122			3.17	20
1,3-Dichloropropane	0.00500	0.00487	0.00524	97.4	105	80.0-119			7.32	20
1,1-Dichloropropene	0.00500	0.00486	0.00502	97.2	100	79.0-125			3.24	20
cis-1,3-Dichloropropene	0.00500	0.00459	0.00479	91.8	95.8	75.0-124			4.26	20
trans-1,3-Dichloropropene	0.00500	0.00430	0.00439	86.0	87.8	73.0-127			2.07	20
Ethylbenzene	0.00500	0.00455	0.00463	91.0	92.6	79.0-121			1.74	20
Hexachloro-1,3-butadiene	0.00500	0.00540	0.00536	108	107	66.0-134			0.744	20
2-Hexanone	0.0250	0.0242	0.0251	96.8	100	57.0-139			3.65	20
Isopropylbenzene	0.00500	0.00442	0.00452	88.4	90.4	72.0-131			2.24	20
p-Isopropyltoluene	0.00500	0.00452	0.00441	90.4	88.2	77.0-127			2.46	20
2-Butanone (MEK)	0.0250	0.0291	0.0293	116	117	56.0-143			0.685	20
Methylene Chloride	0.00500	0.00465	0.00469	93.0	93.8	74.0-124			0.857	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0255	0.0259	102	104	67.0-130			1.56	20
n-Propylbenzene	0.00500	0.00442	0.00438	88.4	87.6	76.0-126			0.909	20
Styrene	0.00500	0.00424	0.00437	84.8	87.4	78.0-123			3.02	20
1,1,1,2-Tetrachloroethane	0.00500	0.00449	0.00483	89.8	96.6	78.0-124			7.30	20
1,1,2,2-Tetrachloroethane	0.00500	0.00449	0.00424	89.8	84.8	71.0-121			5.73	20
Tetrachloroethene	0.00500	0.00458	0.00482	91.6	96.4	74.0-129			5.11	20
Toluene	0.00500	0.00471	0.00497	94.2	99.4	80.0-121			5.37	20
1,2,3-Trichlorobenzene	0.00500	0.00480	0.00478	96.0	95.6	69.0-129			0.418	20
1,2,4-Trimethylbenzene	0.00500	0.00421	0.00424	84.2	84.8	76.0-124			0.710	20
1,3,5-Trimethylbenzene	0.00500	0.00436	0.00421	87.2	84.2	75.0-124			3.50	20
1,1,1-Trichloroethane	0.00500	0.00496	0.00489	99.2	97.8	74.0-131			1.42	20
1,1,2-Trichloroethane	0.00500	0.00490	0.00498	98.0	99.6	80.0-119			1.62	20
Trichloroethene	0.00500	0.00494	0.00489	98.8	97.8	79.0-123			1.02	20

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

(LCS) R3910661-1 04/05/23 10:54 • (LCSD) R3910661-2 04/05/23 11:16

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 %
1,2,3-Trichloropropane	0.00500	0.00463	0.00454	92.6	90.8	73.0-122			1.96	20
m&p-Xylene	0.0100	0.00910	0.00932	91.0	93.2	80.0-121			2.39	20
Xylenes, Total	0.0150	0.0131	0.0136	87.3	90.7	79.0-121			3.75	20
(S) Toluene-d8				*103*	*106*	*89.0-112*				
(S) 4-Bromofluorobenzene				*100*	*104*	*85.0-114*				
(S) 1,2-Dichloroethane-d4				*98.6*	*101*	*81.0-118*				

L1600194-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1600194-08 04/05/23 15:32 • (MS) R3910661-4 04/05/23 20:12 • (MSD) R3910661-5 04/05/23 20:33

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0250	0.0368	0.0357	147	143	1	39.0-160			3.03	20
Benzene	0.00500	0.000500	0.00507	0.00630	101	126	1	79.0-120		J3 J5	21.6	20
Bromobenzene	0.00500	0.000500	0.00432	0.00574	86.4	115	1	80.0-120		J3	28.2	20
Bromochloromethane	0.00500	0.000500	0.00516	0.00639	103	128	1	78.0-123		J3 J5	21.3	20
Bromodichloromethane	0.00500	0.000500	0.00496	0.00598	99.2	120	1	79.0-125			18.6	20
n-Butylbenzene	0.00500	0.000500	0.00420	0.00571	84.0	114	1	75.0-128		J3	30.5	20
sec-Butylbenzene	0.00500	0.000500	0.00444	0.00571	88.8	114	1	77.0-126		J3	25.0	20
tert-Butylbenzene	0.00500	0.000500	0.00410	0.00555	82.0	111	1	78.0-124		J3	30.1	20
Carbon disulfide	0.00500	0.000500	0.00461	0.00593	92.2	119	1	64.0-133		J3	25.0	20
Carbon tetrachloride	0.00500	0.000500	0.00480	0.00649	96.0	130	1	72.0-136		J3	29.9	20
Chlorobenzene	0.00500	0.000500	0.00464	0.00595	92.8	119	1	82.0-118		J3 J5	24.7	20
Chlorodibromomethane	0.00500	0.000500	0.00504	0.00577	101	115	1	74.0-126			13.5	20
Chloroethane	0.00500	0.00200	0.00421	0.00560	84.2	112	1	60.0-138		J3	28.3	20
Chloroform	0.00500	0.00200	0.00493	0.00641	98.6	128	1	79.0-124		J3 J5	26.1	20
Chloromethane	0.00500	0.00200	0.00653	0.00836	131	167	1	50.0-139		J3 J5	24.6	20
2-Chlorotoluene	0.00500	0.000500	0.00438	0.00577	87.6	115	1	79.0-122		J3	27.4	20
4-Chlorotoluene	0.00500	0.000500	0.00409	0.00549	81.8	110	1	78.0-122		J3	29.2	20
1,2-Dibromoethane	0.00500	0.000500	0.00547	0.00605	109	121	1	77.0-121			10.1	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00200	0.00534	0.00583	107	117	1	62.0-128			8.77	20
Dibromomethane	0.00500	0.000500	0.00522	0.00604	104	121	1	79.0-123			14.6	20
1,2-Dichlorobenzene	0.00500	0.000500	0.00473	0.00598	94.6	120	1	80.0-119		J3 J5	23.3	20
1,3-Dichlorobenzene	0.00500	0.000500	0.00443	0.00556	88.6	111	1	80.0-119		J3	22.6	20
1,4-Dichlorobenzene	0.00500	0.000500	0.00435	0.00589	87.0	118	1	79.0-118		J3	30.1	20
1,1-Dichloroethane	0.00500	0.000500	0.00529	0.00672	106	134	1	77.0-125		J3 J5	23.8	20
1,2-Dichloroethane	0.00500	0.000500	0.00537	0.00626	107	125	1	73.0-128			15.3	20
1,1-Dichloroethene	0.00500	0.000500	0.00504	0.00659	101	132	1	71.0-131		J3 J5	26.7	20
cis-1,2-Dichloroethene	0.00500	0.000500	0.00709	0.00682	142	136	1	78.0-123	J5	J5	3.88	20

L1600194-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1600194-08 04/05/23 15:32 • (MS) R3910661-4 04/05/23 20:12 • (MSD) R3910661-5 04/05/23 20:33

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
trans-1,2-Dichloroethene	0.00500	0.000500	0.00471	0.00604	94.2	121	1	75.0-124		J3	24.7	20
1,2-Dichloropropane	0.00500	0.000500	0.00531	0.00651	106	130	1	78.0-122		J3 J5	20.3	20
1,3-Dichloropropane	0.00500	0.000500	0.00535	0.00620	107	124	1	80.0-119		J5	14.7	20
1,1-Dichloropropene	0.00500	0.000500	0.00495	0.00669	99.0	134	1	79.0-125		J3 J5	29.9	20
cis-1,3-Dichloropropene	0.00500	0.000500	0.00437	0.00567	87.4	113	1	75.0-124		J3	25.9	20
trans-1,3-Dichloropropene	0.00500	0.000500	0.00460	0.00538	92.0	108	1	73.0-127			15.6	20
Ethylbenzene	0.00500	0.000500	0.00445	0.00563	89.0	113	1	79.0-121		J3	23.4	20
Hexachloro-1,3-butadiene	0.00500	0.000750	0.00552	0.00759	110	152	1	66.0-134		J3 J5	31.6	20
2-Hexanone	0.0250	0.00500	0.0285	0.0304	114	122	1	57.0-139			6.45	20
Isopropylbenzene	0.00500	0.000500	0.00431	0.00554	86.2	111	1	72.0-131		J3	25.0	20
p-Isopropyltoluene	0.00500	0.000500	0.00439	0.00583	87.8	117	1	77.0-127		J3	28.2	20
2-Butanone (MEK)	0.0250	0.00500	0.0360	0.0388	144	155	1	56.0-143	J5	J5	7.49	20
Methylene Chloride	0.00500	0.00200	0.00490	0.00592	98.0	118	1	74.0-124			18.9	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.00500	0.0302	0.0322	121	129	1	67.0-130			6.41	20
n-Propylbenzene	0.00500	0.000500	0.00411	0.00562	82.2	112	1	76.0-126		J3	31.0	20
Styrene	0.00500	0.000500	0.00434	0.00537	86.8	107	1	78.0-123		J3	21.2	20
1,1,1,2-Tetrachloroethane	0.00500	0.000500	0.00495	0.00594	99.0	119	1	78.0-124			18.2	20
1,1,2,2-Tetrachloroethane	0.00500	0.000500	0.00531	0.00609	106	122	1	71.0-121		J5	13.7	20
Tetrachloroethene	0.00500	0.000600	0.00457	0.00590	91.4	118	1	74.0-129		J3	25.4	20
Toluene	0.00500	0.000600	0.00445	0.00591	89.0	118	1	80.0-121		J3	28.2	20
1,2,3-Trichlorobenzene	0.00500	0.000500	0.00489	0.00611	97.8	122	1	69.0-129		J3	22.2	20
1,2,4-Trimethylbenzene	0.00500	0.00100	0.00405	0.00542	81.0	108	1	76.0-124		J3	28.9	20
1,3,5-Trimethylbenzene	0.00500	0.000500	0.00405	0.00559	81.0	112	1	75.0-124		J3	32.0	20
1,1,1-Trichloroethane	0.00500	0.000500	0.00510	0.00633	102	127	1	74.0-131		J3	21.5	20
1,1,2-Trichloroethane	0.00500	0.000500	0.00531	0.00625	106	125	1	80.0-119		J5	16.3	20
Trichloroethene	0.00500	0.000500	0.00707	0.00777	141	155	1	79.0-123	J5	J5	9.43	20
1,2,3-Trichloropropane	0.00500	0.00100	0.00508	0.00563	102	113	1	73.0-122			10.3	20
m&p-Xylene	0.0100	0.000500	0.00924	0.0116	92.4	116	1	80.0-121		J3	22.6	20
Xylenes, Total	0.0150	0.00150	0.0134	0.0169	89.3	113	1	79.0-121		J3	23.1	20
(S) Toluene-d8					*102*	*100*		*89.0-112*				
(S) 4-Bromofluorobenzene					*101*	*96.7*		*85.0-114*				
(S) 1,2-Dichloroethane-d4					*102*	*102*		*81.0-118*				

Method Blank (MB)

(MB) R3910900-3 04/07/23 22:30

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Bromoform	0.000500	U	0.000129	0.000500	0.00100
Bromomethane	0.00200	U	0.000605	0.00200	0.00500
Dichlorodifluoromethane	0.00200	U	0.000374	0.00200	0.00500
2,2-Dichloropropane	0.000500	U	0.000161	0.000500	0.00100
1,2,4-Trichlorobenzene	0.00100	U	0.000481	0.00100	0.00200
Trichlorofluoromethane	0.00200	U	0.000160	0.00200	0.00500
o-Xylene	0.000500	U	0.000174	0.000500	0.00100
(S) Toluene-d8	*101*				*89.0-112*
(S) 4-Bromofluorobenzene	*94.9*				*85.0-114*
(S) 1,2-Dichloroethane-d4	*96.6*				*81.0-118*

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

(LCS) R3910900-1 04/07/23 21:26 • (LCSD) R3910900-2 04/07/23 21:47

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 %
Bromoform	0.00500	0.00457	0.00478	91.4	95.6	66.0-130			4.49	20
Bromomethane	0.00500	0.00480	0.00585	96.0	117	53.0-141			19.7	20
Dichlorodifluoromethane	0.00500	0.00452	0.00441	90.4	88.2	32.0-152			2.46	20
2,2-Dichloropropane	0.00500	0.00418	0.00503	83.6	101	60.0-139			18.5	20
1,2,4-Trichlorobenzene	0.00500	0.00413	0.00481	82.6	96.2	69.0-130			15.2	20
Trichlorofluoromethane	0.00500	0.00464	0.00436	92.8	87.2	65.0-141			6.22	20
o-Xylene	0.00500	0.00444	0.00489	88.8	97.8	78.0-122			9.65	20
(S) Toluene-d8				*103*	*100*	*89.0-112*				
(S) 4-Bromofluorobenzene				*97.5*	*97.4*	*85.0-114*				
(S) 1,2-Dichloroethane-d4				*95.8*	*103*	*81.0-118*				

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

DL	Detection Limit.
LOD	Limit of Detection.
LOQ	Limit of Quantitation.
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.
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
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

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

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

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

Company Name/Address:
INNOVEX/ERRG Joint Venture -
Redmond, WA
16310 NE 80th St.

Billing Information:
Accounts Payable
1800 Sutter Street
Concord, CA 94520

Pres Chk

Report to: **Anna Jordan**

Email To: **anna.jordan@innovex.net**

Project Description: JBLM-YTC

City/State Collected: **YTC, WA**

Please Circle: PT MT CT ET

Phone: **206-949-3010**

Client Project # **20506**

Lab Project # **IEJVRWA-JBLM-YTC**

Collected by (print): **HC/KKH**

Site/Facility ID # **YTC IRP**

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
Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace
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12065 Lebanon Rd Mount Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859
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 # L1600194
B175

Acctnum:
Template: T213823
Prelogin:
PM:
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	DODNWTPH-Gx	DODNWTPH-DxNOSGT	DODPAH8270ESIM*	DODVOCS8260D**	DODSVOCS8270E	Remarks	Sample # (lab only)
~~YTC-FTP-1-20230328~~		GW		3/28/23	1145	36	X	X	X	X	X	MS/MSD	
~~YTC-FTP-1A-20230328~~		GW		3/28/23	1130	18	X	X	X	X	X		
YTC-MTS-1-20230328		GW		3/28/23	1550	3				X			-01
YTC-MTS-2-20230328		GW		3/28/23	1600	3				X			-02
YTC-MTS-4-20230328		GW		3/28/23	1535	3				X			-03
YTC-TVR-1-20230328		GW		3/28/23	1525	3				X			-04
YTC-TVR-1A-20230328		GW		3/28/23	1435	3				X			-05
YTC-TVR-3-20230328		GW		3/28/23	1430	3				X			-06
~~YTC-TVR-6-20230328~~		GW		3/28/23		3				X			-07
YTC-TVR-7-20230328		GW		3/28/23	1440	3				X			-07

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

Remarks:
*PAHs only **Full VOCs except for VC

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

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
	3/30/23	1630		Ø	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 4.4+0=4.4 21	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3/31/23 Time: 1000	Hold: Condition: NCF (OK)

Company Name/Address:
INNOVEX/ERRG Joint Venture -
Redmond, WA
16310 NE 80th St.

Billing Information:
Accounts Payable
1800 Sutter Street
Concord, CA 94520

Pres Chk

Report to: **Anna Jordan**

Email To: **anna.jordan@innovex.net**

Project Description: JBLM-YTC

City/State Collected: **YTC, WA**

Please Circle: PT MT CT ET

Phone: **206-949-3010**

Client Project # **20506**

Lab Project # **IEJVRWA-JBLM-YTC**

Collected by (print): **HC/KKH**

Site/Facility ID # **YTC IRP**

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

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	DODNWTPH-Gx	DODNWTPH-DxNOSGT	DODPAH8270ESIM*	DODVOCS8260D**	DODSVOCS8270E
YTC-Pomona-20230328		GW		3/28/23	1400	3 9 NF				X	
YTC-PAIC-20230328		GW		3/28/23	1500	3				X	
YTC-TripBlankQ1-20230328		OT		3/28/23	2400	3				X	

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

12065 Lebanon Rd Mount Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859

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 # L1600194
B173

Acctnum:
Template: T213823
Prelogin:
PM:
PB:
Shipped Via:

Remarks	Sample # (lab only)
MS/MSD	-08
	-09 -09
	-03 -10

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

Remarks:
***PAHs only** ****Full VOCs except for VC**

pH ____ Temp ____
Flow ____ Other ____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

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	
				3	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.4 4.4 °C	Bottles Received: 12
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3/31/23	Time: 1000

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

DATA VALIDATION CHECKLIST – STAGE 2A

Site Name	JBLM	**Project Name**	YTC IRP
Data Reviewer (signature and date)	Anna J Jordan 8/25/2023	**Technical Reviewer (signature and date)**	J Sinica 10/18/2023
Laboratory Report No.	L1600194	**Laboratory**	Pace Analytical
Analyses	DODVOC8260		
Sample and Matrix	YTC-MTS-1-20230328 (GW) L1600194-01 YTC-MTS-2-20230328 (GW) L1600194-02 YTC-MTS-4-20230328 (GW) L1600194-03 YTC-TVR-1-20230328 (GW) L1600194-04 YTC-TVR-3A-20230328 (GW) L1600194-05 YTC-TVR-3-20230328 (GW) L1600194-06 YTC-TVR-7-20230328 (GW) L1600194-07 YTC-POMONA-20230328 (GW) L1600194-08 YTC-PAIC-20230328 (GW) L1600194-09 YTC-TRIPBLANKQ1-20230328 L1600194-10		
Field Duplicate Pairs	YTC-TVR-3-20230328 and YTC-TVR-3A-20230328		
Field Blanks	One trip blank was 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) National Functional Guidelines for Organic and Inorganic Superfund Methods Data Review (November 2020). Analytical data were evaluated in general accordance with this document.

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	One trip blank was analyzed, and analytes were not detected above the LOD

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 were performed on an associated project sample. Percent recoveries (%R) were within QC limits except for the following. Relative percent differences (RPD) were within QC limits.

MS/MSD Sample ID	L1600194-08 (YTC-POMONA-20230328)			
Samples associated with MS/MSD	YTC-MTS-4-20230328 YTC-TVR-1-20230328 YTC-TVR-3A-20230328 YTC-TVR-3-20230328		YTC-TVR-7-20230328 YTC-POMONA-20230328 YTC-PAIC-20230328 YTC-TRIPBLANKQ1-20230328	
Analyte	**MS %R**	**MSD %R**	**QC Limits**	**New Qualifier**
Benzene	NA	126	79.0-120	J (all detects) No qualification (all non-detects)
Bromochloromethane	NA	128	78.0-123	
Chlorobenzene	NA	119	82.0-118	
Chloroform	NA	128	79.0-124	
Chloromethane	NA	167	50.0-139	
1,2-Dichlorobenzene	NA	120	80.0-119	

MS/MSD Sample ID	L1600194-08 (YTC-POMONA-20230328)			
Samples associated with MS/MSD	YTC-MTS-4-20230328 YTC-TVR-1-20230328 YTC-TVR-3A-20230328 YTC-TVR-3-20230328		YTC-TVR-7-20230328 YTC-POMONA-20230328 YTC-PAIC-20230328 YTC-TRIPBLANKQ1-20230328	
Analyte	**MS %R**	**MSD %R**	**QC Limits**	**New Qualifier**
1,1-Dichloroethane	NA	134	77.0-125	J (all detects) No qualification (all non-detects)
1,1-Dichloroethene	NA	132	71.0-131	
Cis 1,2-Dichloroethene	NA	136	78.0-123	
1,2-Dichloropropane	NA	130	78.0-122	
1,3-Dichloropropane	NA	124	80.0-119	
1,1-Dichloropropene	NA	134	79.0-125	
Hexachloro-1,3-butadiene	NA	152	66.0-134	
2-Butanone (MEK)	144	155	56.0-143	
1,1,2,2-Tetrachloroethane	NA	122	71.0-121	
1,1,2-Trichloroethane	NA	125	80.0-119	
Trichloroethene	NA	155	79.0-123	

Laboratory control:

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 differences (RPD) were within QC limits (<20%).

Field duplicates:

Within Criteria	Exceedance/Notes
Y	Field duplicate sample analysis was performed. Relative percent differences (RPD) were within QC limits (<35%), as noted below (RPDs were only calculated for detected analytes).

RPD Calculation

Field Duplicate Pair	Analyte	RPD Calculation	New Qualifier
YTC-TVR-3-20230328 and YTC-TVR-3A-20230328	Trichloroethene	[(4.19-4.03)/((4.19+4.03)/2)]*100 = 3.89	NA

Sample dilutions:

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

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
N/A	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	Detections between the LOD and MDL (if present) were qualified as not detected (flagged U).

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
N/A	

Other [none]:

Within Criteria	Exceedance/Notes
N/A	

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.

ANALYTICAL REPORT

August 28, 2023

Revised Report

INNOVEX/ERRG Joint Venture - Redmond, WA

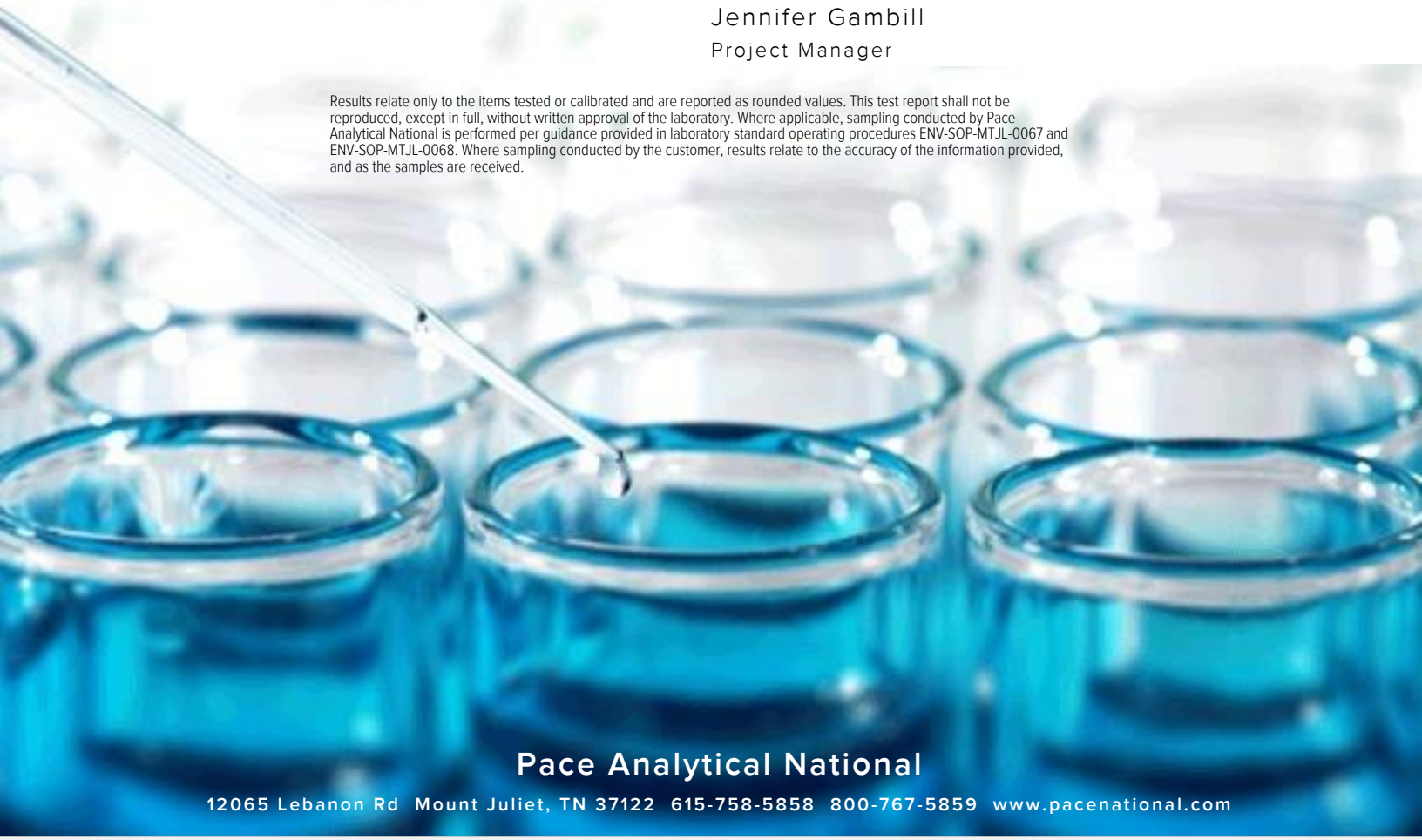
Sample Delivery Group:	L1600507
Samples Received:	03/31/2023
Project Number:	INNOVEX
Description:	JBLM-YTC IRP

Report To: Anna Jordan
16310 NE 80th St.
Ste 104
Redmond, WA 98052

Entire Report Reviewed By:

Jennifer Gambill
Project Manager

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



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

TABLE OF CONTENTS

YTC-FTP-1-20230329 L1600507-01 GW

Collected by: Krista Keski H
Collected date/time: 03/29/23 11:15
Received date/time: 03/31/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2036289	1	04/05/23 16:15	04/05/23 16:15	KSD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2037371	1	04/06/23 21:48	04/06/23 21:48	JHH	Mt. Juliet, TN

YTC-FTP-1A-20230329 L1600507-02 GW

Collected by: Krista Keski H
Collected date/time: 03/29/23 11:30
Received date/time: 03/31/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2036289	1	04/05/23 16:35	04/05/23 16:35	KSD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2037371	1	04/06/23 22:10	04/06/23 22:10	JHH	Mt. Juliet, TN

TRIP BLANK L1600507-03 GW

Collected by: Krista Keski H
Collected date/time: 03/29/23 00:00
Received date/time: 03/31/23 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2036289	1	04/05/23 14:13	04/05/23 14:13	KSD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2037371	1	04/06/23 21:06	04/06/23 21:06	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

Report Revision History

Level II Report - Version 1: 04/07/23 17:05

Project Narrative

The following report has been revised to correct the sample IDs and the VOC analyte list.

Sample Delivery Group (SDG) Narrative

Analyzed from headspace vial.

Lab Sample ID	Project Sample ID	Method
L1600507-03	TRIP BLANK	8260D

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	04/05/2023 16:15	WG2036289
Benzene	71-43-2	0.000277	J	0.0000941	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	04/06/2023 21:48	WG2037371
n-Butylbenzene	104-51-8	0.000814	J	0.000157	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
sec-Butylbenzene	135-98-8	0.000930	J	0.000125	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
tert-Butylbenzene	98-06-6	0.000134	J	0.000127	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
Carbon disulfide	75-15-0	0.000500	J5 U	0.0000960	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	04/05/2023 16:15	WG2036289
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	04/05/2023 16:15	WG2036289
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	04/05/2023 16:15	WG2036289
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	04/05/2023 16:15	WG2036289
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
1,2-Dichlorobenzene	95-50-1	0.000362	J	0.000107	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
Dichlorodifluoromethane	75-71-8	0.00200	J4 J5 U	0.000374	0.00200	0.00500	1	04/05/2023 16:15	WG2036289
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
1,1-Dichloropropene	563-58-6	0.000500	J5 U	0.000142	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
Ethylbenzene	100-41-4	0.00126		0.000137	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	04/06/2023 21:48	WG2037371
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	04/05/2023 16:15	WG2036289
Isopropylbenzene	98-82-8	0.00133		0.000105	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
p-Isopropyltoluene	99-87-6	0.00160		0.000120	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	04/05/2023 16:15	WG2036289
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	04/05/2023 16:15	WG2036289
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	04/05/2023 16:15	WG2036289
n-Propylbenzene	103-65-1	0.00178		0.0000993	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	04/05/2023 16:15	WG2036289
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	04/05/2023 16:15	WG2036289
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	04/05/2023 16:15	WG2036289
1,2,4-Trimethylbenzene	95-63-6	0.0170		0.000322	0.00100	0.00200	1	04/05/2023 16:15	WG2036289
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	04/05/2023 16:15	WG2036289

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
Trichloroethene	79-01-6	0.000500	U	0.000190	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	04/05/2023 16:15	WG2036289
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	04/05/2023 16:15	WG2036289
o-Xylene	95-47-6	0.000323	J	0.000174	0.000500	0.00100	1	04/05/2023 16:15	WG2036289
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	04/05/2023 16:15	WG2036289
Xylenes, Total	1330-20-7	0.000323	J	0.000174	0.00150	0.00300	1	04/05/2023 16:15	WG2036289
(S) Toluene-d8	*2037-26-5*	*99.8*				*89.0-112*		*04/05/2023 16:15*	WG2036289
(S) Toluene-d8	*2037-26-5*	*104*				*89.0-112*		*04/06/2023 21:48*	WG2037371
(S) 4-Bromofluorobenzene	*460-00-4*	*93.1*				*85.0-114*		*04/05/2023 16:15*	WG2036289
(S) 4-Bromofluorobenzene	*460-00-4*	*101*				*85.0-114*		*04/06/2023 21:48*	WG2037371
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*106*				*81.0-118*		*04/05/2023 16:15*	WG2036289
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*99.1*				*81.0-118*		*04/06/2023 21:48*	WG2037371

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	04/05/2023 16:35	WG2036289
Benzene	71-43-2	0.000275	J	0.0000941	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	04/06/2023 22:10	WG2037371
n-Butylbenzene	104-51-8	0.000628	J	0.000157	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
sec-Butylbenzene	135-98-8	0.000847	J	0.000125	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
tert-Butylbenzene	98-06-6	0.000152	J	0.000127	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	04/05/2023 16:35	WG2036289
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	04/05/2023 16:35	WG2036289
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	04/05/2023 16:35	WG2036289
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	04/05/2023 16:35	WG2036289
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
1,2-Dichlorobenzene	95-50-1	0.000350	J	0.000107	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
Dichlorodifluoromethane	75-71-8	0.00200	J4 U	0.000374	0.00200	0.00500	1	04/05/2023 16:35	WG2036289
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
Ethylbenzene	100-41-4	0.00114		0.000137	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	04/06/2023 22:10	WG2037371
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	04/05/2023 16:35	WG2036289
Isopropylbenzene	98-82-8	0.00115		0.000105	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
p-Isopropyltoluene	99-87-6	0.00148		0.000120	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	04/05/2023 16:35	WG2036289
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	04/05/2023 16:35	WG2036289
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	04/05/2023 16:35	WG2036289
n-Propylbenzene	103-65-1	0.00160		0.0000993	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	04/05/2023 16:35	WG2036289
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	04/05/2023 16:35	WG2036289
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	04/05/2023 16:35	WG2036289
1,2,4-Trimethylbenzene	95-63-6	0.0157		0.000322	0.00100	0.00200	1	04/05/2023 16:35	WG2036289
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	04/05/2023 16:35	WG2036289

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

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
Trichloroethene	79-01-6	0.000500	U	0.000190	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	04/05/2023 16:35	WG2036289
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	04/05/2023 16:35	WG2036289
o-Xylene	95-47-6	0.000276	J	0.000174	0.000500	0.00100	1	04/05/2023 16:35	WG2036289
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	04/05/2023 16:35	WG2036289
Xylenes, Total	1330-20-7	0.000276	J	0.000174	0.00150	0.00300	1	04/05/2023 16:35	WG2036289
(S) Toluene-d8	*2037-26-5*	*97.1*				*89.0-112*		*04/05/2023 16:35*	WG2036289
(S) Toluene-d8	*2037-26-5*	*103*				*89.0-112*		*04/06/2023 22:10*	WG2037371
(S) 4-Bromofluorobenzene	*460-00-4*	*95.4*				*85.0-114*		*04/05/2023 16:35*	WG2036289
(S) 4-Bromofluorobenzene	*460-00-4*	*104*				*85.0-114*		*04/06/2023 22:10*	WG2037371
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*108*				*81.0-118*		*04/05/2023 16:35*	WG2036289
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*103*				*81.0-118*		*04/06/2023 22:10*	WG2037371

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	04/05/2023 14:13	WG2036289
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	04/06/2023 21:06	WG2037371
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	04/05/2023 14:13	WG2036289
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	04/05/2023 14:13	WG2036289
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	04/05/2023 14:13	WG2036289
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	04/05/2023 14:13	WG2036289
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
Dichlorodifluoromethane	75-71-8	0.00200	J4 U	0.000374	0.00200	0.00500	1	04/05/2023 14:13	WG2036289
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	04/06/2023 21:06	WG2037371
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	04/05/2023 14:13	WG2036289
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	04/05/2023 14:13	WG2036289
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	04/05/2023 14:13	WG2036289
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	04/05/2023 14:13	WG2036289
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	04/05/2023 14:13	WG2036289
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	04/05/2023 14:13	WG2036289
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	04/05/2023 14:13	WG2036289
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	04/05/2023 14:13	WG2036289
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	04/05/2023 14:13	WG2036289

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
Trichloroethene	79-01-6	0.000500	U	0.000190	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	04/05/2023 14:13	WG2036289
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	04/05/2023 14:13	WG2036289
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	04/05/2023 14:13	WG2036289
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	04/05/2023 14:13	WG2036289
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	04/05/2023 14:13	WG2036289
(S) Toluene-d8	*2037-26-5*	*98.4*				*89.0-112*		*04/05/2023 14:13*	WG2036289
(S) Toluene-d8	*2037-26-5*	*105*				*89.0-112*		*04/06/2023 21:06*	WG2037371
(S) 4-Bromofluorobenzene	*460-00-4*	*88.2*				*85.0-114*		*04/05/2023 14:13*	WG2036289
(S) 4-Bromofluorobenzene	*460-00-4*	*101*				*85.0-114*		*04/06/2023 21:06*	WG2037371
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*106*				*81.0-118*		*04/05/2023 14:13*	WG2036289
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*99.3*				*81.0-118*		*04/06/2023 21:06*	WG2037371

Method Blank (MB)

(MB) R3910294-3 04/05/23 12:00

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Acetone	0.0250	U	0.0113	0.0250	0.0500
Benzene	0.000500	U	0.0000941	0.000500	0.00100
Bromobenzene	0.000500	U	0.000118	0.000500	0.00100
Bromochloromethane	0.000500	U	0.000128	0.000500	0.00100
Bromodichloromethane	0.000500	U	0.000136	0.000500	0.00100
Bromoform	0.000500	U	0.000129	0.000500	0.00100
n-Butylbenzene	0.000500	U	0.000157	0.000500	0.00100
sec-Butylbenzene	0.000500	U	0.000125	0.000500	0.00100
tert-Butylbenzene	0.000500	U	0.000127	0.000500	0.00100
Carbon disulfide	0.000500	U	0.0000960	0.000500	0.00100
Carbon tetrachloride	0.000500	U	0.000128	0.000500	0.00100
Chlorobenzene	0.000500	U	0.000116	0.000500	0.00100
Chlorodibromomethane	0.000500	U	0.000140	0.000500	0.00100
Chloroethane	0.00200	U	0.000192	0.00200	0.00500
Chloroform	0.00200	U	0.000111	0.00200	0.00500
Chloromethane	0.00200	U	0.000960	0.00200	0.00400
2-Chlorotoluene	0.000500	U	0.000106	0.000500	0.00100
4-Chlorotoluene	0.000500	U	0.000114	0.000500	0.00100
1,2-Dibromoethane	0.000500	U	0.000126	0.000500	0.00100
1,2-Dibromo-3-Chloropropane	0.00200	U	0.000276	0.00200	0.00500
Dibromomethane	0.000500	U	0.000122	0.000500	0.00100
1,2-Dichlorobenzene	0.000500	U	0.000107	0.000500	0.00100
1,3-Dichlorobenzene	0.000500	U	0.000110	0.000500	0.00100
1,4-Dichlorobenzene	0.000500	U	0.000120	0.000500	0.00100
Dichlorodifluoromethane	0.00200	U	0.000374	0.00200	0.00500
1,1-Dichloroethane	0.000500	U	0.000100	0.000500	0.00100
1,2-Dichloroethane	0.000500	U	0.0000819	0.000500	0.00100
1,1-Dichloroethene	0.000500	U	0.000188	0.000500	0.00100
cis-1,2-Dichloroethene	0.000500	U	0.000126	0.000500	0.00100
trans-1,2-Dichloroethene	0.000500	U	0.000149	0.000500	0.00100
1,2-Dichloropropane	0.000500	U	0.000149	0.000500	0.00100
1,3-Dichloropropane	0.000500	U	0.000110	0.000500	0.00100
2,2-Dichloropropane	0.000500	U	0.000161	0.000500	0.00100
1,1-Dichloropropene	0.000500	U	0.000142	0.000500	0.00100
cis-1,3-Dichloropropene	0.000500	U	0.000111	0.000500	0.00100
trans-1,3-Dichloropropene	0.000500	U	0.000118	0.000500	0.00100
TOTAL 1,3-Dichloropropene	0.000500	U	0.000118	0.000500	0.00100
Ethylbenzene	0.000500	U	0.000137	0.000500	0.00100
2-Hexanone	0.00500	U	0.000787	0.00500	0.0100
Isopropylbenzene	0.000500	U	0.000105	0.000500	0.00100

Method Blank (MB)

(MB) R3910294-3 04/05/23 12:00

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
p-Isopropyltoluene	0.000500	U	0.000120	0.000500	0.00100
2-Butanone (MEK)	0.00500	U	0.00119	0.00500	0.0100
Methylene Chloride	0.00200	U	0.000430	0.00200	0.00500
4-Methyl-2-pentanone (MIBK)	0.00500	U	0.000478	0.00500	0.0100
n-Propylbenzene	0.000500	U	0.0000993	0.000500	0.00100
Styrene	0.000500	U	0.000118	0.000500	0.00100
1,1,1,2-Tetrachloroethane	0.000500	U	0.000147	0.000500	0.00100
1,1,2,2-Tetrachloroethane	0.000500	U	0.000133	0.000500	0.00100
Tetrachloroethene	0.000600	U	0.000300	0.000600	0.00120
Toluene	0.000600	U	0.000278	0.000600	0.00120
1,2,3-Trichlorobenzene	0.000500	U	0.000230	0.000500	0.00100
1,2,4-Trichlorobenzene	0.00100	U	0.000481	0.00100	0.00200
1,2,4-Trimethylbenzene	0.00100	U	0.000322	0.00100	0.00200
1,3,5-Trimethylbenzene	0.000500	U	0.000104	0.000500	0.00100
1,1,1-Trichloroethane	0.000500	U	0.000149	0.000500	0.00100
1,1,2-Trichloroethane	0.000500	U	0.000158	0.000500	0.00100
Trichloroethene	0.000500	U	0.000190	0.000500	0.00100
Trichlorofluoromethane	0.00200	U	0.000160	0.00200	0.00500
1,2,3-Trichloropropane	0.00100	U	0.000237	0.00100	0.00250
o-Xylene	0.000500	U	0.000174	0.000500	0.00100
m&p-Xylene	0.000500	U	0.000430	0.000500	0.00200
Xylenes, Total	0.00150	U	0.000174	0.00150	0.00300
(S) Toluene-d8	*99.9*				*89.0-112*
(S) 4-Bromofluorobenzene	*91.4*				*85.0-114*
(S) 1,2-Dichloroethane-d4	*105*				*81.0-118*

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

(LCS) R3910294-1 04/05/23 10:58 • (LCSD) R3910294-2 04/05/23 11:19

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 %
Acetone	0.0250	0.0309	0.0317	124	127	39.0-160			2.56	20
Benzene	0.00500	0.00544	0.00551	109	110	79.0-120			1.28	20
Bromobenzene	0.00500	0.00495	0.00523	99.0	105	80.0-120			5.50	20
Bromochloromethane	0.00500	0.00534	0.00538	107	108	78.0-123			0.746	20
Bromodichloromethane	0.00500	0.00506	0.00518	101	104	79.0-125			2.34	20
Bromoform	0.00500	0.00407	0.00456	81.4	91.2	66.0-130			11.4	20
n-Butylbenzene	0.00500	0.00445	0.00464	89.0	92.8	75.0-128			4.18	20
sec-Butylbenzene	0.00500	0.00468	0.00499	93.6	99.8	77.0-126			6.41	20

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

(LCS) R3910294-1 04/05/23 10:58 • (LCSD) R3910294-2 04/05/23 11:19

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 %
tert-Butylbenzene	0.00500	0.00501	0.00508	100	102	78.0-124			1.39	20
Carbon disulfide	0.00500	0.00589	0.00587	118	117	64.0-133			0.340	20
Carbon tetrachloride	0.00500	0.00567	0.00578	113	116	72.0-136			1.92	20
Chlorobenzene	0.00500	0.00498	0.00527	99.6	105	82.0-118			5.66	20
Chlorodibromomethane	0.00500	0.00455	0.00444	91.0	88.8	74.0-126			2.45	20
Chloroethane	0.00500	0.00669	0.00684	134	137	60.0-138			2.22	20
Chloroform	0.00500	0.00543	0.00548	109	110	79.0-124			0.917	20
Chloromethane	0.00500	0.00586	0.00658	117	132	50.0-139			11.6	20
2-Chlorotoluene	0.00500	0.00507	0.00526	101	105	79.0-122			3.68	20
4-Chlorotoluene	0.00500	0.00510	0.00528	102	106	78.0-122			3.47	20
1,2-Dibromoethane	0.00500	0.00459	0.00469	91.8	93.8	77.0-121			2.16	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00467	0.00475	93.4	95.0	62.0-128			1.70	20
Dibromomethane	0.00500	0.00497	0.00487	99.4	97.4	79.0-123			2.03	20
1,2-Dichlorobenzene	0.00500	0.00456	0.00492	91.2	98.4	80.0-119			7.59	20
1,3-Dichlorobenzene	0.00500	0.00497	0.00530	99.4	106	80.0-119			6.43	20
1,4-Dichlorobenzene	0.00500	0.00485	0.00513	97.0	103	79.0-118			5.61	20
Dichlorodifluoromethane	0.00500	0.00778	0.00877	156	175	32.0-152	J4	J4	12.0	20
1,1-Dichloroethane	0.00500	0.00585	0.00593	117	119	77.0-125			1.36	20
1,2-Dichloroethane	0.00500	0.00555	0.00555	111	111	73.0-128			0.000	20
1,1-Dichloroethene	0.00500	0.00594	0.00561	119	112	71.0-131			5.71	20
cis-1,2-Dichloroethene	0.00500	0.00534	0.00521	107	104	78.0-123			2.46	20
trans-1,2-Dichloroethene	0.00500	0.00543	0.00559	109	112	75.0-124			2.90	20
1,2-Dichloropropane	0.00500	0.00568	0.00523	114	105	78.0-122			8.25	20
1,3-Dichloropropane	0.00500	0.00465	0.00492	93.0	98.4	80.0-119			5.64	20
2,2-Dichloropropane	0.00500	0.00646	0.00614	129	123	60.0-139			5.08	20
1,1-Dichloropropene	0.00500	0.00554	0.00583	111	117	79.0-125			5.10	20
cis-1,3-Dichloropropene	0.00500	0.00505	0.00510	101	102	75.0-124			0.985	20
trans-1,3-Dichloropropene	0.00500	0.00473	0.00475	94.6	95.0	73.0-127			0.422	20
Ethylbenzene	0.00500	0.00505	0.00536	101	107	79.0-121			5.96	20
2-Hexanone	0.0250	0.0262	0.0261	105	104	57.0-139			0.382	20
Isopropylbenzene	0.00500	0.00500	0.00510	100	102	72.0-131			1.98	20
p-Isopropyltoluene	0.00500	0.00465	0.00492	93.0	98.4	77.0-127			5.64	20
2-Butanone (MEK)	0.0250	0.0306	0.0300	122	120	56.0-143			1.98	20
Methylene Chloride	0.00500	0.00536	0.00531	107	106	74.0-124			0.937	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0271	0.0271	108	108	67.0-130			0.000	20
n-Propylbenzene	0.00500	0.00502	0.00519	100	104	76.0-126			3.33	20
Styrene	0.00500	0.00470	0.00473	94.0	94.6	78.0-123			0.636	20
1,1,1,2-Tetrachloroethane	0.00500	0.00485	0.00493	97.0	98.6	78.0-124			1.64	20
1,1,2,2-Tetrachloroethane	0.00500	0.00466	0.00477	93.2	95.4	71.0-121			2.33	20
Tetrachloroethene	0.00500	0.00518	0.00510	104	102	74.0-129			1.56	20

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

(LCS) R3910294-1 04/05/23 10:58 • (LCSD) R3910294-2 04/05/23 11:19

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 %
Toluene	0.00500	0.00503	0.00509	101	102	80.0-121			1.19	20
1,2,3-Trichlorobenzene	0.00500	0.00432	0.00425	86.4	85.0	69.0-129			1.63	20
1,2,4-Trichlorobenzene	0.00500	0.00432	0.00450	86.4	90.0	69.0-130			4.08	20
1,2,4-Trimethylbenzene	0.00500	0.00499	0.00524	99.8	105	76.0-124			4.89	20
1,3,5-Trimethylbenzene	0.00500	0.00495	0.00519	99.0	104	75.0-124			4.73	20
1,1,1-Trichloroethane	0.00500	0.00558	0.00593	112	119	74.0-131			6.08	20
1,1,2-Trichloroethane	0.00500	0.00431	0.00466	86.2	93.2	80.0-119			7.80	20
Trichloroethene	0.00500	0.00503	0.00523	101	105	79.0-123			3.90	20
Trichlorofluoromethane	0.00500	0.00619	0.00618	124	124	65.0-141			0.162	20
1,2,3-Trichloropropane	0.00500	0.00497	0.00516	99.4	103	73.0-122			3.75	20
o-Xylene	0.00500	0.00490	0.00489	98.0	97.8	78.0-122			0.204	20
m&p-Xylene	0.0100	0.00995	0.0102	99.5	102	80.0-121			2.48	20
Xylenes, Total	0.0150	0.0148	0.0151	98.7	101	79.0-121			2.01	20
(S) Toluene-d8				*99.6*	*98.1*	*89.0-112*				
(S) 4-Bromofluorobenzene				*92.3*	*92.9*	*85.0-114*				
(S) 1,2-Dichloroethane-d4				*109*	*109*	*81.0-118*				

L1600274-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1600274-08 04/05/23 15:14 • (MS) R3910294-4 04/05/23 21:42 • (MSD) R3910294-5 04/05/23 22:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0250	0.0285	0.0277	114	111	1	39.0-160			2.85	20
Benzene	0.00500	0.000500	0.00611	0.00580	122	116	1	79.0-120	J5		5.21	20
Bromobenzene	0.00500	0.000500	0.00529	0.00532	106	106	1	80.0-120			0.566	20
Bromochloromethane	0.00500	0.000500	0.00570	0.00534	114	107	1	78.0-123			6.52	20
Bromodichloromethane	0.00500	0.000500	0.00566	0.00548	113	110	1	79.0-125			3.23	20
Bromoform	0.00500	0.000500	0.00412	0.00431	82.4	86.2	1	66.0-130			4.51	20
n-Butylbenzene	0.00500	0.000500	0.00496	0.00479	99.2	95.8	1	75.0-128			3.49	20
sec-Butylbenzene	0.00500	0.000500	0.00532	0.00522	106	104	1	77.0-126			1.90	20
tert-Butylbenzene	0.00500	0.000500	0.00557	0.00528	111	106	1	78.0-124			5.35	20
Carbon disulfide	0.00500	0.000500	0.00672	0.00655	134	131	1	64.0-133	J5		2.56	20
Carbon tetrachloride	0.00500	0.000500	0.00639	0.00624	128	125	1	72.0-136			2.38	20
Chlorobenzene	0.00500	0.000500	0.00531	0.00540	106	108	1	82.0-118			1.68	20
Chlorodibromomethane	0.00500	0.000500	0.00441	0.00466	88.2	93.2	1	74.0-126			5.51	20
Chloroethane	0.00500	0.00200	0.00762	0.00725	152	145	1	60.0-138	J5	J5	4.98	20
Chloroform	0.00500	0.000718	0.00654	0.00641	116	114	1	79.0-124			2.01	20
Chloromethane	0.00500	0.00200	0.00682	0.00650	136	130	1	50.0-139			4.80	20
2-Chlorotoluene	0.00500	0.000500	0.00551	0.00542	110	108	1	79.0-122			1.65	20

L1600274-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1600274-08 04/05/23 15:14 • (MS) R3910294-4 04/05/23 21:42 • (MSD) R3910294-5 04/05/23 22:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
4-Chlorotoluene	0.00500	0.000500	0.00542	0.00541	108	108	1	78.0-122			0.185	20
1,2-Dibromoethane	0.00500	0.000500	0.00477	0.00460	95.4	92.0	1	77.0-121			3.63	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00200	0.00481	0.00444	96.2	88.8	1	62.0-128			8.00	20
Dibromomethane	0.00500	0.000500	0.00521	0.00510	104	102	1	79.0-123			2.13	20
1,2-Dichlorobenzene	0.00500	0.000500	0.00496	0.00486	99.2	97.2	1	80.0-119			2.04	20
1,3-Dichlorobenzene	0.00500	0.000500	0.00523	0.00528	105	106	1	80.0-119			0.951	20
1,4-Dichlorobenzene	0.00500	0.000500	0.00533	0.00519	107	104	1	79.0-118			2.66	20
Dichlorodifluoromethane	0.00500	0.00200	0.00900	0.00938	180	188	1	32.0-152	J5	J5	4.13	20
1,1-Dichloroethane	0.00500	0.000198	0.00635	0.00638	123	124	1	77.0-125			0.471	20
1,2-Dichloroethane	0.00500	0.000500	0.00603	0.00565	121	113	1	73.0-128			6.51	20
1,1-Dichloroethene	0.00500	0.000393	0.00672	0.00673	127	127	1	71.0-131			0.149	20
cis-1,2-Dichloroethene	0.00500	0.00244	0.00783	0.00770	108	105	1	78.0-123			1.67	20
trans-1,2-Dichloroethene	0.00500	0.000293	0.00667	0.00653	128	125	1	75.0-124	J5	J5	2.12	20
1,2-Dichloropropane	0.00500	0.000500	0.00594	0.00563	119	113	1	78.0-122			5.36	20
1,3-Dichloropropane	0.00500	0.000500	0.00485	0.00488	97.0	97.6	1	80.0-119			0.617	20
2,2-Dichloropropane	0.00500	0.000500	0.00667	0.00620	133	124	1	60.0-139			7.30	20
1,1-Dichloropropene	0.00500	0.000500	0.00668	0.00630	134	126	1	79.0-125	J5	J5	5.86	20
cis-1,3-Dichloropropene	0.00500	0.000500	0.00507	0.00495	101	99.0	1	75.0-124			2.40	20
trans-1,3-Dichloropropene	0.00500	0.000500	0.00465	0.00485	93.0	97.0	1	73.0-127			4.21	20
Ethylbenzene	0.00500	0.000500	0.00552	0.00553	110	111	1	79.0-121			0.181	20
2-Hexanone	0.0250	0.00500	0.0255	0.0255	102	102	1	57.0-139			0.000	20
Isopropylbenzene	0.00500	0.000500	0.00550	0.00551	110	110	1	72.0-131			0.182	20
p-Isopropyltoluene	0.00500	0.000500	0.00531	0.00536	106	107	1	77.0-127			0.937	20
2-Butanone (MEK)	0.0250	0.00500	0.0301	0.0288	120	115	1	56.0-143			4.41	20
Methylene Chloride	0.00500	0.00200	0.00570	0.00539	114	108	1	74.0-124			5.59	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.00500	0.0268	0.0267	107	107	1	67.0-130			0.374	20
n-Propylbenzene	0.00500	0.000500	0.00554	0.00564	111	113	1	76.0-126			1.79	20
Styrene	0.00500	0.000500	0.00499	0.00502	99.8	100	1	78.0-123			0.599	20
1,1,1,2-Tetrachloroethane	0.00500	0.000500	0.00512	0.00506	102	101	1	78.0-124			1.18	20
1,1,2,2-Tetrachloroethane	0.00500	0.000500	0.00492	0.00493	98.4	98.6	1	71.0-121			0.203	20
Tetrachloroethene	0.00500	0.000600	0.00579	0.00594	116	119	1	74.0-129			2.56	20
Toluene	0.00500	0.000600	0.00550	0.00555	110	111	1	80.0-121			0.905	20
1,2,3-Trichlorobenzene	0.00500	0.000500	0.00471	0.00461	94.2	92.2	1	69.0-129			2.15	20
1,2,4-Trichlorobenzene	0.00500	0.00100	0.00473	0.00456	94.6	91.2	1	69.0-130			3.66	20
1,2,4-Trimethylbenzene	0.00500	0.00100	0.00540	0.00518	108	104	1	76.0-124			4.16	20
1,3,5-Trimethylbenzene	0.00500	0.000500	0.00565	0.00550	113	110	1	75.0-124			2.69	20
1,1,1-Trichloroethane	0.00500	0.000500	0.00674	0.00636	135	127	1	74.0-131	J5		5.80	20
1,1,2-Trichloroethane	0.00500	0.000500	0.00479	0.00460	95.8	92.0	1	80.0-119			4.05	20
Trichloroethene	0.00500	0.0305	0.0367	0.0345	124	80.0	1	79.0-123	V		6.18	20
Trichlorofluoromethane	0.00500	0.00200	0.00721	0.00696	144	139	1	65.0-141	J5		3.53	20

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

L1600274-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1600274-08 04/05/23 15:14 • (MS) R3910294-4 04/05/23 21:42 • (MSD) R3910294-5 04/05/23 22:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,2,3-Trichloropropane	0.00500	0.00100	0.00513	0.00493	103	98.6	1	73.0-122			3.98	20
o-Xylene	0.00500	0.000500	0.00516	0.00532	103	106	1	78.0-122			3.05	20
m&p-Xylene	0.0100	0.000500	0.0108	0.0110	108	110	1	80.0-121			1.83	20
Xylenes, Total	0.0150	0.00150	0.0160	0.0163	107	109	1	79.0-121			1.86	20
(S) Toluene-d8					*94.2*	*102*		*89.0-112*				
(S) 4-Bromofluorobenzene					*90.7*	*94.2*		*85.0-114*				
(S) 1,2-Dichloroethane-d4					*110*	*111*		*81.0-118*				

L1600507-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1600507-01 04/05/23 16:15 • (MS) R3910294-6 04/05/23 22:22 • (MSD) R3910294-7 04/05/23 22:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0250	0.0311	0.0265	124	106	1	39.0-160			16.0	20
Benzene	0.00500	0.000277	0.00597	0.00554	114	105	1	79.0-120			7.47	20
Bromobenzene	0.00500	0.000500	0.00537	0.00495	107	99.0	1	80.0-120			8.14	20
Bromochloromethane	0.00500	0.000500	0.00555	0.00519	111	104	1	78.0-123			6.70	20
Bromodichloromethane	0.00500	0.000500	0.00556	0.00506	111	101	1	79.0-125			9.42	20
Bromoform	0.00500	0.000500	0.00401	0.00412	80.2	82.4	1	66.0-130			2.71	20
n-Butylbenzene	0.00500	0.000814	0.00554	0.00510	94.5	85.7	1	75.0-128			8.27	20
sec-Butylbenzene	0.00500	0.000930	0.00596	0.00568	101	95.0	1	77.0-126			4.81	20
tert-Butylbenzene	0.00500	0.000134	0.00562	0.00485	110	94.3	1	78.0-124			14.7	20
Carbon disulfide	0.00500	0.000500	0.00672	0.00596	134	119	1	64.0-133	J5		12.0	20
Carbon tetrachloride	0.00500	0.000500	0.00618	0.00583	124	117	1	72.0-136			5.83	20
Chlorobenzene	0.00500	0.000500	0.00540	0.00508	108	102	1	82.0-118			6.11	20
Chlorodibromomethane	0.00500	0.000500	0.00475	0.00437	95.0	87.4	1	74.0-126			8.33	20
Chloroethane	0.00500	0.00200	0.00690	0.00682	138	136	1	60.0-138			1.17	20
Chloroform	0.00500	0.00200	0.00578	0.00540	116	108	1	79.0-124			6.80	20
Chloromethane	0.00500	0.00200	0.00641	0.00619	128	124	1	50.0-139			3.49	20
2-Chlorotoluene	0.00500	0.000500	0.00533	0.00494	107	98.8	1	79.0-122			7.59	20
4-Chlorotoluene	0.00500	0.000500	0.00544	0.00502	109	100	1	78.0-122			8.03	20
1,2-Dibromoethane	0.00500	0.000500	0.00462	0.00459	92.4	91.8	1	77.0-121			0.651	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00200	0.00528	0.00455	106	91.0	1	62.0-128			14.9	20
Dibromomethane	0.00500	0.000500	0.00476	0.00455	95.2	91.0	1	79.0-123			4.51	20
1,2-Dichlorobenzene	0.00500	0.000362	0.00530	0.00492	98.8	91.2	1	80.0-119			7.44	20
1,3-Dichlorobenzene	0.00500	0.000500	0.00506	0.00472	101	94.4	1	80.0-119			6.95	20
1,4-Dichlorobenzene	0.00500	0.000500	0.00514	0.00483	103	96.6	1	79.0-118			6.22	20
Dichlorodifluoromethane	0.00500	0.00200	0.00892	0.00805	178	161	1	32.0-152	J5	J5	10.3	20
1,1-Dichloroethane	0.00500	0.000500	0.00602	0.00585	120	117	1	77.0-125			2.86	20

L1600507-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1600507-01 04/05/23 16:15 • (MS) R3910294-6 04/05/23 22:22 • (MSD) R3910294-7 04/05/23 22:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,2-Dichloroethane	0.00500	0.000500	0.00539	0.00544	108	109	1	73.0-128			0.923	20
1,1-Dichloroethene	0.00500	0.000500	0.00645	0.00570	129	114	1	71.0-131			12.3	20
cis-1,2-Dichloroethene	0.00500	0.000500	0.00548	0.00525	110	105	1	78.0-123			4.29	20
trans-1,2-Dichloroethene	0.00500	0.000500	0.00584	0.00570	117	114	1	75.0-124			2.43	20
1,2-Dichloropropane	0.00500	0.000500	0.00570	0.00539	114	108	1	78.0-122			5.59	20
1,3-Dichloropropane	0.00500	0.000500	0.00480	0.00476	96.0	95.2	1	80.0-119			0.837	20
2,2-Dichloropropane	0.00500	0.000500	0.00616	0.00593	123	119	1	60.0-139			3.80	20
1,1-Dichloropropene	0.00500	0.000500	0.00635	0.00633	127	127	1	79.0-125	J5	J5	0.315	20
cis-1,3-Dichloropropene	0.00500	0.000500	0.00527	0.00480	105	96.0	1	75.0-124			9.33	20
trans-1,3-Dichloropropene	0.00500	0.000500	0.00476	0.00438	95.2	87.6	1	73.0-127			8.32	20
Ethylbenzene	0.00500	0.00126	0.00666	0.00662	108	107	1	79.0-121			0.602	20
2-Hexanone	0.0250	0.00500	0.0279	0.0263	112	105	1	57.0-139			5.90	20
Isopropylbenzene	0.00500	0.00133	0.00662	0.00681	106	110	1	72.0-131			2.83	20
p-Isopropyltoluene	0.00500	0.00160	0.00669	0.00630	102	94.0	1	77.0-127			6.00	20
2-Butanone (MEK)	0.0250	0.00500	0.0298	0.0271	119	108	1	56.0-143			9.49	20
Methylene Chloride	0.00500	0.00200	0.00563	0.00510	113	102	1	74.0-124			9.88	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.00500	0.0283	0.0268	113	107	1	67.0-130			5.44	20
n-Propylbenzene	0.00500	0.00178	0.00698	0.00679	104	100	1	76.0-126			2.76	20
Styrene	0.00500	0.000500	0.00486	0.00482	97.2	96.4	1	78.0-123			0.826	20
1,1,1,2-Tetrachloroethane	0.00500	0.000500	0.00510	0.00489	102	97.8	1	78.0-124			4.20	20
1,1,2,2-Tetrachloroethane	0.00500	0.000500	0.00539	0.00478	108	95.6	1	71.0-121			12.0	20
Tetrachloroethene	0.00500	0.000600	0.00583	0.00558	117	112	1	74.0-129			4.38	20
Toluene	0.00500	0.000600	0.00559	0.00537	112	107	1	80.0-121			4.01	20
1,2,3-Trichlorobenzene	0.00500	0.000500	0.00477	0.00467	95.4	93.4	1	69.0-129			2.12	20
1,2,4-Trichlorobenzene	0.00500	0.00100	0.00522	0.00475	104	95.0	1	69.0-130			9.43	20
1,2,4-Trimethylbenzene	0.00500	0.0170	0.0210	0.0208	80.0	76.0	1	76.0-124			0.957	20
1,3,5-Trimethylbenzene	0.00500	0.000500	0.00528	0.00495	106	99.0	1	75.0-124			6.45	20
1,1,1-Trichloroethane	0.00500	0.000500	0.00641	0.00615	128	123	1	74.0-131			4.14	20
1,1,2-Trichloroethane	0.00500	0.000500	0.00478	0.00461	95.6	92.2	1	80.0-119			3.62	20
Trichloroethene	0.00500	0.000500	0.00542	0.00502	108	100	1	79.0-123			7.66	20
Trichlorofluoromethane	0.00500	0.00200	0.00686	0.00612	137	122	1	65.0-141			11.4	20
1,2,3-Trichloropropane	0.00500	0.00100	0.00512	0.00436	102	87.2	1	73.0-122			16.0	20
o-Xylene	0.00500	0.000323	0.00539	0.00521	101	97.7	1	78.0-122			3.40	20
m&p-Xylene	0.0100	0.000500	0.0109	0.0104	109	104	1	80.0-121			4.69	20
Xylenes, Total	0.0150	0.000323	0.0163	0.0156	107	102	1	79.0-121			4.39	20
(S) Toluene-d8					*98.8*	*100*		*89.0-112*				
(S) 4-Bromofluorobenzene					*96.3*	*100*		*85.0-114*				
(S) 1,2-Dichloroethane-d4					*111*	*111*		*81.0-118*				

Method Blank (MB)

(MB) R3910705-2 04/06/23 17:31

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Bromomethane	0.00200	U	0.000605	0.00200	0.00500
Hexachloro-1,3-butadiene	0.000750	U	0.000337	0.000750	0.00150
(S) Toluene-d8	*106*				*89.0-112*
(S) 4-Bromofluorobenzene	*102*				*85.0-114*
(S) 1,2-Dichloroethane-d4	*95.3*				*81.0-118*

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

(LCS) R3910705-1 04/06/23 16:27 • (LCSD) R3910705-3 04/06/23 18:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromomethane	0.00500	0.00499	0.00525	99.8	105	53.0-141			5.08	20
Hexachloro-1,3-butadiene	0.00500	0.00482	0.00487	96.4	97.4	66.0-134			1.03	20
(S) Toluene-d8				*100*	*100*	*89.0-112*				
(S) 4-Bromofluorobenzene				*99.1*	*96.8*	*85.0-114*				
(S) 1,2-Dichloroethane-d4				*95.6*	*96.6*	*81.0-118*				

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

DL	Detection Limit.
LOD	Limit of Detection.
LOQ	Limit of Quantitation.
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.
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
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
U	Below Detectable Limits: Indicates that the analyte was not detected.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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

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:
INNOVEX/ERRG Joint Venture - Redmond, WA
16310 NE 80th St.

Billing Information:
Accounts Payable
1800 Sutter Street
Concord, CA 94520
Pres Chk

Report to: **Anna Jordan**

Email To: **anna.jordan@innovex.net;jennifer.sonnichsen**

Project Description: **JBLM-YTC IRP**

City/State Collected:

Please Circle: PT MT CT ET

Phone:

Client Project # Innovex

Lab Project # **IEJVRWA-JBLM-YTC**

Collected by (print): Krista Keski-Hynnila

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

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	DOD8270 100ml Amb NoPres	DOD8270PAHSIM 100ml Amb-NoPres	DODNWTPHDXNOSGT 100ml Amb-HCl	DODNWTPHGX 40mlAmb HCl	DODV8260 40mlAmb-HCl	DODV8260 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
YTC-FTP-1-20230329		GW		3/29/2023	1115	36								-01
YTC-FTP-1A-20230329		GW		3/29/2023	1130	18								-02
YTC-~~trip blank~~-20230329		GW		3/29/2023	—	1								-03
TB2		GW												
		GW												
		GW												
		GW												
		GW												
		GW												
		GW												

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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 # 1600507
1133

Acctnum: **IEJVRWA**
Template: **T224388**
Prelogin: **P979787**
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:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 619335320556

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
[signature]	3/30/2023	1630		1	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: NS07 °C Bottles Received: 54	
				2.6	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 03/31/23 Time: 1000	Hold: / Conditions NCF / OK
			[signature]		

DATA VALIDATION CHECKLIST – STAGE 2A

Site Name	JBLM	**Project Name**	YTC IRP
Data Reviewer (signature and date)	Anna J Jordan 8/28/2023	**Technical Reviewer (signature and date)**	J Sinica 10/18/2023
Laboratory Report No.	L1600507	**Laboratory**	Pace Analytical
Analyses	DODVOC8260D		
Sample and Matrix	YTC-FTP-1-20230329 (GW) L1600507-01 YTC-FTP-1A-20230329 (GW) L1600507-02 YTC-TB2-20230329 L1600507-03		
Field Duplicate Pairs	YTC-FTP-1-20230329 and YTC-FTP-1A-20230329		
Field Blanks	One trip blank was 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) National Functional Guidelines for Organic and Inorganic Superfund Methods Data Review (November 2020). Analytical data were evaluated in general accordance with this document.

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	One trip blank was analyzed, and analytes were not detected above the LOD.

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 were performed on an associated project sample. Percent recoveries (%R) were within QC limits except for the following. Relative percent differences (RPD) were within QC limits.

Analyte	MS %R	MSD %R	QC Limits	New Qualifier
Carbon Disulfide	134	NA	64.0-133	J (all detects) No qualification (all non-detects)
Dichlorodifluoromethane	178	161	32.0-152	
1,1-Dichloropropene	127	127	79.0-125	

Laboratory control:

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

Analyte	LC %R	LCD %R	QC Limits	New Qualifier
Dichlorodifluoromethane	156	175	32.0-152	J (all detects) No qualification (all non-detects)

Field duplicates:

Within Criteria	Exceedance/Notes
Y	Field duplicate sample analysis was performed. Relative percent differences (RPD) were within QC limits (<35%), as noted below (RPDs were only calculated for detected analytes).

RPD Calculation

Field Duplicate Pair	Analyte	RPD Calculation	New Qualifier
YTC-FTP-1-20230329 and YTC-FTP-1A-20230329	n-Butylbenzene	[(0.814-0.628/((0.628+0.814)/2)]*100 = 25.80	NA
	Sec-Butylbenzene	[(0.93-0.847)/((0.847+0.93)/2)]*100 = 9.34	NA
	Ethylbenzene	[(1.26-1.14)/((1.14+1.26)/2)]*100 =10.0	NA
	Isopropylbenzene	[(1.33-1.15)/((1.15+1.33)/2)]*100 =14.52	NA
	p-Isopropyltoluene	[(1.60-1.48)/((1.48+1.60)/2)]*100 =7.79	NA
	n-Propylbenzene	[(1.78-1.60)/((1.60+1.78)/2)]*100 =10.65	NA
	1,2,4-Trimethylbenzene	[(17.0-15.7)/((15.7+17.0)/2)]*100 =7.95	NA

Sample dilutions:

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

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
N/A	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	Detections between the LOD and MDL (if present) were qualified as not detected (flagged U).

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
N/A	

Other [none]:

Within Criteria	Exceedance/Notes
N/A	

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.

ANALYTICAL REPORT

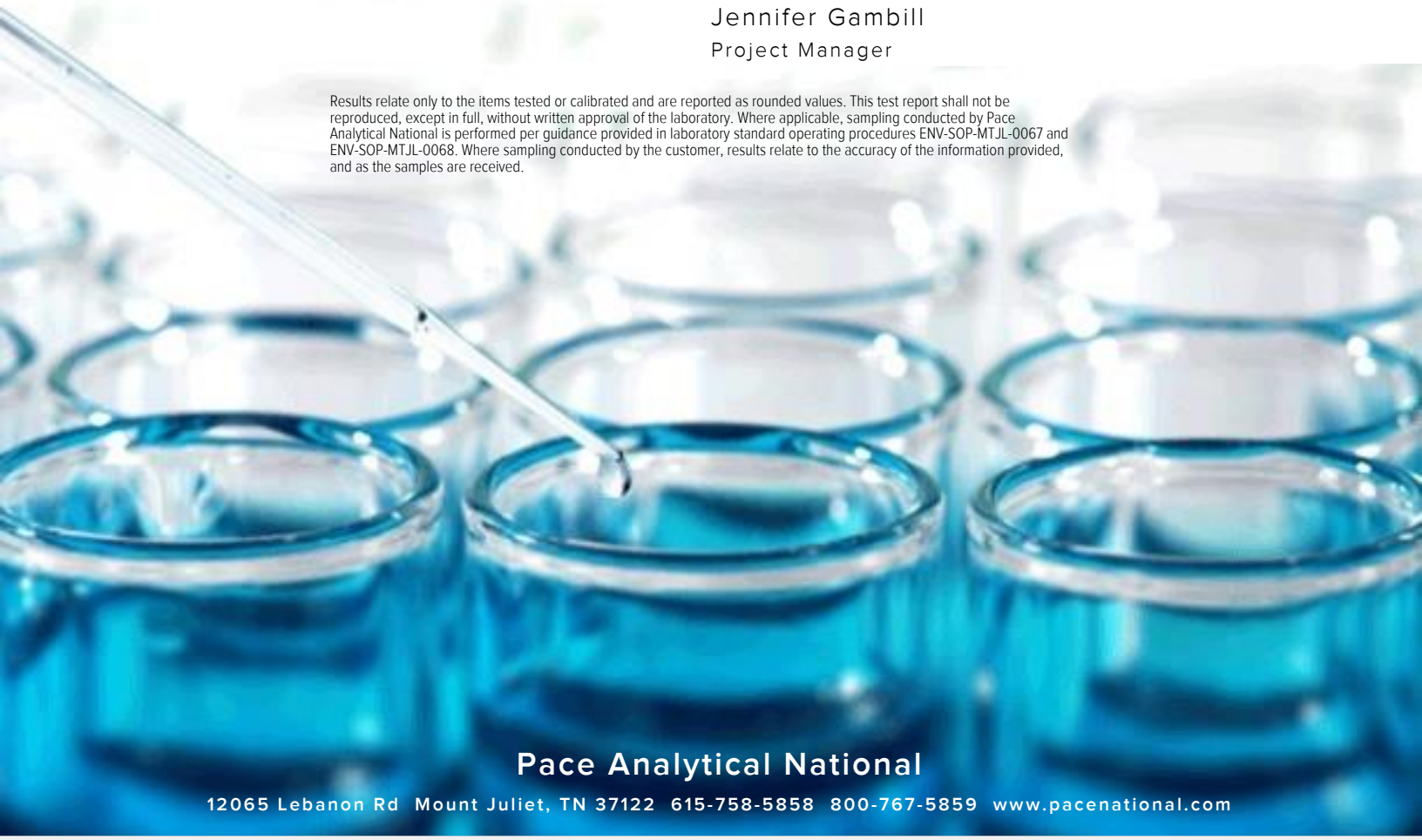
May 19, 2023

INNOVEX/ERRG Joint Venture - Redmond, WA

Sample Delivery Group:	L1612725
Samples Received:	05/04/2023
Project Number:	20506
Description:	JBLM-YTC
Site:	YTC IRP
Report To:	Anna Jordan 16310 NE 80th St. Ste 104 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 www.pacenational.com

TABLE OF CONTENTS

YTC-FTP-1-20230328 L1612725-01 GW

Collected by: A. Jordan
Collected date/time: 05/02/23 13:45
Received date/time: 05/04/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2057002	10	05/10/23 01:07	05/10/23 01:07	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2054610	1	05/09/23 22:40	05/10/23 21:02	MWS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2054596	1	05/09/23 07:16	05/10/23 02:33	AGW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2057796	1	05/08/23 05:48	05/10/23 23:35	AMG	Mt. Juliet, TN

YTC-FTP-1A-20230328 L1612725-02 GW

Collected by: A. Jordan
Collected date/time: 05/02/23 13:50
Received date/time: 05/04/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2057002	10	05/10/23 01:29	05/10/23 01:29	KSD	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2054610	1	05/09/23 22:40	05/10/23 22:25	MWS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2054596	1	05/09/23 07:16	05/10/23 03:38	AGW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2057796	1	05/08/23 05:48	05/11/23 00:27	AMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2060478	1	05/16/23 08:37	05/16/23 17:54	DSH	Mt. Juliet, TN

YTC-TRIP BLANK-20230502 L1612725-03 GW

Collected by: A. Jordan
Collected date/time: 05/02/23 00:00
Received date/time: 05/04/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2057002	1	05/09/23 22:11	05/09/23 22:11	GLN	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	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	TPH C6 - C12	0.907	B J	0.316	0.670	1.34	10	05/10/2023 01:07	WG2057002
(S) a,a,a-Trifluorotoluene(FID)	*98-08-8*	*110*				*78.0-120*		*05/10/2023 01:07*	WG2057002

Sample Narrative:

L1612725-01 WG2057002: Lowest possible dilution due to sample foaming.

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	68334-30-5	5.00	J5	0.0333	0.0750	0.150	1	05/10/2023 21:02	WG2054610
Residual Range Organics (RRO)	RRO	0.841		0.0833	0.167	0.334	1	05/10/2023 21:02	WG2054610
(S) o-Terphenyl	*84-15-1*	*65.9*				*31.0-160*		*05/10/2023 21:02*	WG2054610

Sample Narrative:

L1612725-01 WG2054610: Sample resembles laboratory standard for Diesel.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Benzoic acid	65-85-0	0.00500	U	0.00170	0.00500	0.0500	1	05/10/2023 02:33	WG2054596
Benzyl alcohol	100-51-6	0.00500	J6 U	0.000563	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
Bis(2-chlorethoxy)methane	111-91-1	0.00500	J6 U	0.000116	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
Bis(2-chloroethyl)ether	111-44-4	0.00500	U	0.000137	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
2,2-Oxybis(1-Chloropropane)	108-60-1	0.00500	U	0.000210	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
4-Bromophenyl-phenylether	101-55-3	0.00500	J6 U	0.0000877	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
Carbazole	86-74-8	0.00500	U	0.000111	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
4-Chloroaniline	106-47-8	0.00500	U	0.000234	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
2-Chloronaphthalene	91-58-7	0.000500	U	0.0000648	0.000500	0.00100	1	05/10/2023 02:33	WG2054596
4-Chlorophenyl-phenylether	7005-72-3	0.00500	J6 U	0.0000926	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
Dibenzofuran	132-64-9	0.000917	J J6	0.0000970	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
3,3-Dichlorobenzidine	91-94-1	0.00500	J6 U	0.000212	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
2,4-Dinitrotoluene	121-14-2	0.00500	U	0.0000983	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
2,6-Dinitrotoluene	606-20-2	0.00500	U	0.000250	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
Hexachlorobenzene	118-74-1	0.000500	J3 J6 U	0.0000755	0.000500	0.00100	1	05/10/2023 02:33	WG2054596
Hexachlorocyclopentadiene	77-47-4	0.00500	J3 U	0.0000598	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
Hexachloroethane	67-72-1	0.00500	J3 U	0.000127	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
Isophorone	78-59-1	0.00500	U	0.000143	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
2-Nitroaniline	88-74-4	0.00500	U	0.000102	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
3-Nitroaniline	99-09-2	0.00500	U	0.0000860	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
4-Nitroaniline	100-01-6	0.00500	U	0.0000910	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
Nitrobenzene	98-95-3	0.00500	J6 U	0.000297	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
n-Nitrosodimethylamine	62-75-9	0.00500	U	0.000998	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
n-Nitrosodiphenylamine	86-30-6	0.00500	U	0.00237	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
n-Nitrosodi-n-propylamine	621-64-7	0.00500	J6 U	0.000261	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
Benzylbutyl phthalate	85-68-7	0.00200	U	0.000765	0.00200	0.00400	1	05/10/2023 02:33	WG2054596
Bis(2-Ethylhexyl)phthalate	117-81-7	0.00200	J3 U	0.000895	0.00200	0.00400	1	05/10/2023 02:33	WG2054596
Di-n-butyl phthalate	84-74-2	0.00150	U	0.000453	0.00150	0.00300	1	05/10/2023 02:33	WG2054596
Diethyl phthalate	84-66-2	0.00150	U	0.000287	0.00150	0.00300	1	05/10/2023 02:33	WG2054596
Dimethyl phthalate	131-11-3	0.00150	U	0.000260	0.00150	0.00300	1	05/10/2023 02:33	WG2054596
Di-n-octyl phthalate	117-84-0	0.00200	J3 U	0.000932	0.00200	0.00400	1	05/10/2023 02:33	WG2054596
1,2,4-Trichlorobenzene	120-82-1	0.00500	U	0.0000698	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
4-Chloro-3-methylphenol	59-50-7	0.00500	J3 J6 U	0.000131	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
2-Chlorophenol	95-57-8	0.00500	J3 J6 U	0.000133	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
2,4-Dichlorophenol	120-83-2	0.00500	J3 J6 U	0.000102	0.00500	0.0100	1	05/10/2023 02:33	WG2054596

Semi Volatile Organic Compounds (GC/MS) by Method 8270E

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
2,4-Dimethylphenol	105-67-9	0.00500	J3 U	0.0000636	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
4,6-Dinitro-2-methylphenol	534-52-1	0.00500	J3 U	0.00112	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
2,4-Dinitrophenol	51-28-5	0.0150	J3 U	0.00593	0.0150	0.0300	1	05/10/2023 02:33	WG2054596
2-Methylphenol	95-48-7	0.0150	J3 J6 U	0.0000920	0.0150	0.0100	1	05/10/2023 02:33	WG2054596
3&4-Methyl Phenol	3&4-Methyl Phenol	0.0150	J3 J6 U	0.000168	0.0150	0.0100	1	05/10/2023 02:33	WG2054596
2-Nitrophenol	88-75-5	0.00500	J3 J6 U	0.000117	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
4-Nitrophenol	100-02-7	0.00500	U	0.000143	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
Pentachlorophenol	87-86-5	0.00500	J3 U	0.000313	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
Phenol	108-95-2	0.0100	U	0.00433	0.0100	0.0200	1	05/10/2023 02:33	WG2054596
2,4,5-Trichlorophenol	95-95-4	0.0100	J3 J6 U	0.000109	0.0100	0.0100	1	05/10/2023 02:33	WG2054596
2,4,6-Trichlorophenol	88-06-2	0.00500	J3 J6 U	0.000100	0.00500	0.0100	1	05/10/2023 02:33	WG2054596
(S) 2-Fluorophenol	*367-12-4*	*23.8*				*19.0-119*		*05/10/2023 02:33*	WG2054596
(S) Phenol-d5	*4165-62-2*	*15.1*				*10.0-67.0*		*05/10/2023 02:33*	WG2054596
(S) Nitrobenzene-d5	*4165-60-0*	*62.3*				*44.0-120*		*05/10/2023 02:33*	WG2054596
(S) 2-Fluorobiphenyl	*321-60-8*	*56.6*				*44.0-119*		*05/10/2023 02:33*	WG2054596
(S) 2,4,6-Tribromophenol	*118-79-6*	*64.2*				*43.0-140*		*05/10/2023 02:33*	WG2054596
(S) p-Terphenyl-d14	*1718-51-0*	*84.3*				*50.0-134*		*05/10/2023 02:33*	WG2054596

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
Anthracene	120-12-7	0.0000500	U	0.0000190	0.0000500	0.000100	1	05/10/2023 23:35	WG2057796
Acenaphthene	83-32-9	0.0000649	J J5	0.0000190	0.0000500	0.000100	1	05/10/2023 23:35	WG2057796
Acenaphthylene	208-96-8	0.0000500	U	0.0000170	0.0000500	0.000100	1	05/10/2023 23:35	WG2057796
Benzo(a)anthracene	56-55-3	0.0000500	J6 U	0.0000200	0.0000500	0.000100	1	05/10/2023 23:35	WG2057796
Benzo(a)pyrene	50-32-8	0.0000500	J3 J6 U	0.0000180	0.0000500	0.000100	1	05/10/2023 23:35	WG2057796
Benzo(b)fluoranthene	205-99-2	0.0000238	B J J3 J6	0.0000170	0.0000500	0.000100	1	05/10/2023 23:35	WG2057796
Benzo(g,h,i)perylene	191-24-2	0.0000184	B J J3 J6	0.0000180	0.0000500	0.000100	1	05/10/2023 23:35	WG2057796
Benzo(k)fluoranthene	207-08-9	0.000125	J3 J6 U	0.0000200	0.000125	0.000250	1	05/10/2023 23:35	WG2057796
Chrysene	218-01-9	0.0000262	B J J6	0.0000180	0.0000500	0.000100	1	05/10/2023 23:35	WG2057796
Dibenz(a,h)anthracene	53-70-3	0.0000500	J3 J6 U	0.0000180	0.0000500	0.000100	1	05/10/2023 23:35	WG2057796
Fluoranthene	206-44-0	0.0000325	B J	0.0000110	0.0000250	0.0000500	1	05/10/2023 23:35	WG2057796
Fluorene	86-73-7	0.0000500	J5 U	0.0000170	0.0000500	0.000100	1	05/10/2023 23:35	WG2057796
Indeno(1,2,3-cd)pyrene	193-39-5	0.0000400	J3 J6 U	0.0000180	0.0000400	0.0000800	1	05/10/2023 23:35	WG2057796
Naphthalene	91-20-3	0.000500	J5 U	0.000128	0.000500	0.00100	1	05/10/2023 23:35	WG2057796
Phenanthrene	85-01-8	0.0000500	U	0.0000180	0.0000500	0.000100	1	05/10/2023 23:35	WG2057796
Pyrene	129-00-0	0.000102	B	0.0000170	0.0000500	0.000100	1	05/10/2023 23:35	WG2057796
1-Methylnaphthalene	90-12-0	0.0000931	J J5	0.0000200	0.000250	0.000500	1	05/10/2023 23:35	WG2057796
2-Methylnaphthalene	91-57-6	0.0000757	J J5	0.0000280	0.000250	0.000500	1	05/10/2023 23:35	WG2057796
(S) Nitrobenzene-d5	*4165-60-0*	*113*	J1			*55.0-111*		*05/10/2023 23:35*	WG2057796
(S) 2-Fluorobiphenyl	*321-60-8*	*71.5*				*53.0-106*		*05/10/2023 23:35*	WG2057796
(S) p-Terphenyl-d14	*1718-51-0*	*57.0*	J2			*58.0-132*		*05/10/2023 23:35*	WG2057796
(S) 2-Methylnaphthalene-D10	*7297-45-2*	*85.0*				*50.0-150*		*05/10/2023 23:35*	WG2057796
(S) Fluoranthene-D10	*93951-69-0*	*76.0*				*50.0-150*		*05/10/2023 23:35*	WG2057796

Sample Narrative:

L1612725-01 WG2057796: Duplicate Analysis performed due to QC failure. Results confirm; reporting in hold data

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	TPH C6 - C12	0.821	B J	0.316	0.670	1.34	10	05/10/2023 01:29	WG2057002
(S) a,a,a-Trifluorotoluene(FID)	*98-08-8*	*111*				*78.0-120*		*05/10/2023 01:29*	WG2057002

Sample Narrative:

L1612725-02 WG2057002: Lowest possible dilution due to sample foaming.

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	68334-30-5	5.24		0.0333	0.0750	0.150	1	05/10/2023 22:25	WG2054610
Residual Range Organics (RRO)	RRO	0.939		0.0833	0.167	0.334	1	05/10/2023 22:25	WG2054610
(S) o-Terphenyl	*84-15-1*	*78.0*				*31.0-160*		*05/10/2023 22:25*	WG2054610

Sample Narrative:

L1612725-02 WG2054610: Sample resembles laboratory standard for Diesel.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Benzoic acid	65-85-0	0.00500	U	0.00170	0.00500	0.0500	1	05/10/2023 03:38	WG2054596
Benzyl alcohol	100-51-6	0.00500	U	0.000563	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
Bis(2-chlorethoxy)methane	111-91-1	0.00500	U	0.000116	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
Bis(2-chloroethyl)ether	111-44-4	0.00500	U	0.000137	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
2,2-Oxybis(1-Chloropropane)	108-60-1	0.00500	U	0.000210	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
4-Bromophenyl-phenylether	101-55-3	0.00500	U	0.0000877	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
Carbazole	86-74-8	0.00500	U	0.000111	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
4-Chloroaniline	106-47-8	0.00500	U	0.000234	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
2-Chloronaphthalene	91-58-7	0.000500	U	0.0000648	0.000500	0.00100	1	05/10/2023 03:38	WG2054596
4-Chlorophenyl-phenylether	7005-72-3	0.00500	U	0.0000926	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
Dibenzofuran	132-64-9	0.000638	J	0.0000970	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
3,3-Dichlorobenzidine	91-94-1	0.00500	U	0.000212	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
2,4-Dinitrotoluene	121-14-2	0.00500	U	0.0000983	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
2,6-Dinitrotoluene	606-20-2	0.00500	U	0.000250	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
Hexachlorobenzene	118-74-1	0.000500	U	0.0000755	0.000500	0.00100	1	05/10/2023 03:38	WG2054596
Hexachlorocyclopentadiene	77-47-4	0.00500	U	0.0000598	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
Hexachloroethane	67-72-1	0.00500	U	0.000127	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
Isophorone	78-59-1	0.00500	U	0.000143	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
2-Nitroaniline	88-74-4	0.00500	U	0.000102	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
3-Nitroaniline	99-09-2	0.00500	U	0.0000860	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
4-Nitroaniline	100-01-6	0.00500	U	0.0000910	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
Nitrobenzene	98-95-3	0.00500	U	0.000297	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
n-Nitrosodimethylamine	62-75-9	0.00207	J	0.000998	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
n-Nitrosodiphenylamine	86-30-6	0.00500	U	0.00237	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
n-Nitrosodi-n-propylamine	621-64-7	0.00500	U	0.000261	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
Benzylbutyl phthalate	85-68-7	0.00200	U	0.000765	0.00200	0.00400	1	05/10/2023 03:38	WG2054596
Bis(2-Ethylhexyl)phthalate	117-81-7	0.00200	U	0.000895	0.00200	0.00400	1	05/10/2023 03:38	WG2054596
Di-n-butyl phthalate	84-74-2	0.00150	U	0.000453	0.00150	0.00300	1	05/10/2023 03:38	WG2054596
Diethyl phthalate	84-66-2	0.00150	U	0.000287	0.00150	0.00300	1	05/10/2023 03:38	WG2054596
Dimethyl phthalate	131-11-3	0.00150	U	0.000260	0.00150	0.00300	1	05/10/2023 03:38	WG2054596
Di-n-octyl phthalate	117-84-0	0.00200	U	0.000932	0.00200	0.00400	1	05/10/2023 03:38	WG2054596
1,2,4-Trichlorobenzene	120-82-1	0.00500	U	0.0000698	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
4-Chloro-3-methylphenol	59-50-7	0.00500	U	0.000131	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
2-Chlorophenol	95-57-8	0.00500	U	0.000133	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
2,4-Dichlorophenol	120-83-2	0.00500	U	0.000102	0.00500	0.0100	1	05/10/2023 03:38	WG2054596

Semi Volatile Organic Compounds (GC/MS) by Method 8270E

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
2,4-Dimethylphenol	105-67-9	0.00500	U	0.0000636	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
4,6-Dinitro-2-methylphenol	534-52-1	0.00500	U	0.00112	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
2,4-Dinitrophenol	51-28-5	0.0150	U	0.00593	0.0150	0.0300	1	05/10/2023 03:38	WG2054596
2-Methylphenol	95-48-7	0.0150	U	0.0000920	0.0150	0.0100	1	05/10/2023 03:38	WG2054596
3&4-Methyl Phenol	3&4-Methyl Phenol	0.0150	U	0.000168	0.0150	0.0100	1	05/10/2023 03:38	WG2054596
2-Nitrophenol	88-75-5	0.00500	U	0.000117	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
4-Nitrophenol	100-02-7	0.00500	U	0.000143	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
Pentachlorophenol	87-86-5	0.00500	U	0.000313	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
Phenol	108-95-2	0.0100	U	0.00433	0.0100	0.0200	1	05/10/2023 03:38	WG2054596
2,4,5-Trichlorophenol	95-95-4	0.0100	U	0.000109	0.0100	0.0100	1	05/10/2023 03:38	WG2054596
2,4,6-Trichlorophenol	88-06-2	0.00500	U	0.000100	0.00500	0.0100	1	05/10/2023 03:38	WG2054596
(S) 2-Fluorophenol	*367-12-4*	*23.0*				*19.0-119*		*05/10/2023 03:38*	WG2054596
(S) Phenol-d5	*4165-62-2*	*15.5*				*10.0-67.0*		*05/10/2023 03:38*	WG2054596
(S) Nitrobenzene-d5	*4165-60-0*	*64.8*				*44.0-120*		*05/10/2023 03:38*	WG2054596
(S) 2-Fluorobiphenyl	*321-60-8*	*52.6*				*44.0-119*		*05/10/2023 03:38*	WG2054596
(S) 2,4,6-Tribromophenol	*118-79-6*	*64.5*				*43.0-140*		*05/10/2023 03:38*	WG2054596
(S) p-Terphenyl-d14	*1718-51-0*	*76.6*				*50.0-134*		*05/10/2023 03:38*	WG2054596

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
Anthracene	120-12-7	0.0000500	U	0.0000190	0.0000500	0.000100	1	05/11/2023 00:27	WG2057796
Acenaphthene	83-32-9	0.000429		0.0000190	0.0000500	0.000100	1	05/11/2023 00:27	WG2057796
Acenaphthene	83-32-9	0.0000190	J Q	0.0000190	0.0000500	0.000100	1	05/16/2023 17:54	WG2060478
Acenaphthylene	208-96-8	0.0000500	U	0.0000170	0.0000500	0.000100	1	05/11/2023 00:27	WG2057796
Benzo(a)anthracene	56-55-3	0.0000500	U	0.0000200	0.0000500	0.000100	1	05/11/2023 00:27	WG2057796
Benzo(a)pyrene	50-32-8	0.0000500	U	0.0000180	0.0000500	0.000100	1	05/11/2023 00:27	WG2057796
Benzo(b)fluoranthene	205-99-2	0.0000500	U	0.0000170	0.0000500	0.000100	1	05/11/2023 00:27	WG2057796
Benzo(g,h,i)perylene	191-24-2	0.0000500	U	0.0000180	0.0000500	0.000100	1	05/11/2023 00:27	WG2057796
Benzo(k)fluoranthene	207-08-9	0.000125	U	0.0000200	0.000125	0.000250	1	05/11/2023 00:27	WG2057796
Chrysene	218-01-9	0.0000500	U	0.0000180	0.0000500	0.000100	1	05/11/2023 00:27	WG2057796
Dibenz(a,h)anthracene	53-70-3	0.0000500	U	0.0000180	0.0000500	0.000100	1	05/11/2023 00:27	WG2057796
Fluoranthene	206-44-0	0.0000312	B J	0.0000110	0.0000250	0.0000500	1	05/11/2023 00:27	WG2057796
Fluorene	86-73-7	0.000283		0.0000170	0.0000500	0.000100	1	05/11/2023 00:27	WG2057796
Fluorene	86-73-7	0.0000500	Q U	0.0000170	0.0000500	0.000100	1	05/16/2023 17:54	WG2060478
Indeno(1,2,3-cd)pyrene	193-39-5	0.0000400	U	0.0000180	0.0000400	0.0000800	1	05/11/2023 00:27	WG2057796
Naphthalene	91-20-3	0.000500	U	0.000128	0.000500	0.00100	1	05/11/2023 00:27	WG2057796
Phenanthrene	85-01-8	0.0000500	U	0.0000180	0.0000500	0.000100	1	05/11/2023 00:27	WG2057796
Pyrene	129-00-0	0.000103	B	0.0000170	0.0000500	0.000100	1	05/11/2023 00:27	WG2057796
1-Methylnaphthalene	90-12-0	0.000198	J	0.0000200	0.000250	0.000500	1	05/11/2023 00:27	WG2057796
2-Methylnaphthalene	91-57-6	0.000250	U	0.0000280	0.000250	0.000500	1	05/11/2023 00:27	WG2057796
(S) Nitrobenzene-d5	*4165-60-0*	*103*				*55.0-111*		*05/11/2023 00:27*	WG2057796
(S) Nitrobenzene-d5	*4165-60-0*	*109*				*55.0-111*		*05/16/2023 17:54*	WG2060478
(S) 2-Fluorobiphenyl	*321-60-8*	*65.3*				*53.0-106*		*05/11/2023 00:27*	WG2057796
(S) 2-Fluorobiphenyl	*321-60-8*	*84.5*				*53.0-106*		*05/16/2023 17:54*	WG2060478
(S) p-Terphenyl-d14	*1718-51-0*	*47.5*	J2			*58.0-132*		*05/11/2023 00:27*	WG2057796
(S) p-Terphenyl-d14	*1718-51-0*	*93.0*				*58.0-132*		*05/16/2023 17:54*	WG2060478
(S) 2-Methylnaphthalene-D10	*7297-45-2*	*75.8*				*50.0-150*		*05/11/2023 00:27*	WG2057796
(S) 2-Methylnaphthalene-D10	*7297-45-2*	*96.0*				*50.0-150*		*05/16/2023 17:54*	WG2060478
(S) Fluoranthene-D10	*93951-69-0*	*61.1*				*50.0-150*		*05/11/2023 00:27*	WG2057796
(S) Fluoranthene-D10	*93951-69-0*	*107*				*50.0-150*		*05/16/2023 17:54*	WG2060478

Sample Narrative:

L1612725-02 WG2057796, WG2060478: Duplicate Analysis performed due to QC failure. Results don't confirm; both analyses reported

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	TPH C6 - C12	0.0510	B J	0.0316	0.0670	0.134	1	05/09/2023 22:11	WG2057002
(S) a,a,a-Trifluorotoluene(FID)	*98-08-8*	*108*				*78.0-120*		*05/09/2023 22:11*	WG2057002

Method Blank (MB)

(MB) R3924208-3 05/09/23 21:49

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Gasoline Range Organics-NWTPH	0.0658	J	0.0316	0.0670	0.134
(S) a,a,a-Trifluorotoluene(FID)	*107*				*78.0-120*

Method Blank (MB)

(MB) R3924208-3 05/09/23 21:49

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Gasoline Range Organics-NWTPH	0.0658	J	0.0316	0.0670	0.134
(S) a,a,a-Trifluorotoluene(FID)	*107*				*78.0-120*

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

(LCS) R3924208-1 05/09/23 20:30 • (LCSD) R3924208-2 05/09/23 21:05

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 %
Gasoline Range Organics-NWTPH	5.50	5.90	6.59	107	120	78.0-122			11.0	30
(S) a,a,a-Trifluorotoluene(FID)				*112*	*113*	*78.0-120*				

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

(LCS) R3924208-1 05/09/23 20:30 • (LCSD) R3924208-2 05/09/23 21:05

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 %
Gasoline Range Organics-NWTPH	5.50	5.90	6.59	107	120	78.0-122			11.0	30
(S) a,a,a-Trifluorotoluene(FID)				*112*	*113*	*78.0-120*				

L1612725-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1612725-01 05/10/23 01:07 • (MS) R3924208-4 05/10/23 06:57 • (MSD) R3924208-5 05/10/23 07:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	55.0	0.907	44.8	53.5	79.8	95.6	10	78.0-122			17.7	30
(S) a,a,a-Trifluorotoluene(FID)					*119*	*121*		*78.0-120*		J1		

Sample Narrative:

OS: Lowest possible dilution due to sample foaming.

L1612725-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1612725-01 05/10/23 01:07 • (MS) R3924208-4 05/10/23 06:57 • (MSD) R3924208-5 05/10/23 07:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	55.0	0.907	44.8	53.5	79.8	95.6	10	78.0-122			17.7	30
(S) a,a,a-Trifluorotoluene(FID)					*119*	*121*		*78.0-120*		J1		

Sample Narrative:

OS: Lowest possible dilution due to sample foaming.

Method Blank (MB)

(MB) R3923372-1 05/10/23 13:48

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Diesel Range Organics (DRO)	0.0750	U	0.0333	0.0750	0.150
Residual Range Organics (RRO)	0.167	U	0.0833	0.167	0.334
(S) o-Terphenyl	*59.0*				*31.0-160*

Laboratory Control Sample (LCS)

(LCS) R3923372-2 05/10/23 14:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	1.50	1.30	86.7	50.0-150	
(S) o-Terphenyl			*91.0*	*31.0-160*	

L1612725-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1612725-01 05/10/23 21:02 • (MS) R3923372-3 05/10/23 21:23 • (MSD) R3923372-4 05/10/23 21:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1.37	5.00	6.72	7.52	126	184	1	50.0-150		J5	11.2	20
(S) o-Terphenyl					*91.2*	*98.4*		*31.0-160*				

Sample Narrative:

OS: Sample resembles laboratory standard for Diesel.

Method Blank (MB)

(MB) R3924626-2 05/10/23 00:22

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Benzoic acid	0.00500	U	0.00170	0.00500	0.0500
Benzyl alcohol	0.00500	U	0.000563	0.00500	0.0100
Bis(2-chlorethoxy)methane	0.00500	U	0.000116	0.00500	0.0100
Bis(2-chloroethyl)ether	0.00500	U	0.000137	0.00500	0.0100
2,2-Oxybis(1-Chloropropane)	0.00500	U	0.000210	0.00500	0.0100
4-Bromophenyl-phenylether	0.00500	U	0.0000877	0.00500	0.0100
Carbazole	0.00500	U	0.000111	0.00500	0.0100
4-Chloroaniline	0.00500	U	0.000234	0.00500	0.0100
2-Chloronaphthalene	0.000500	U	0.0000648	0.000500	0.00100
4-Chlorophenyl-phenylether	0.00500	U	0.0000926	0.00500	0.0100
Dibenzofuran	0.00500	U	0.0000970	0.00500	0.0100
3,3-Dichlorobenzidine	0.00500	U	0.000212	0.00500	0.0100
2,4-Dinitrotoluene	0.00500	U	0.0000983	0.00500	0.0100
2,6-Dinitrotoluene	0.00500	U	0.000250	0.00500	0.0100
Hexachlorobenzene	0.000500	U	0.0000755	0.000500	0.00100
Hexachlorocyclopentadiene	0.00500	U	0.0000598	0.00500	0.0100
Hexachloroethane	0.00500	U	0.000127	0.00500	0.0100
Isophorone	0.00500	U	0.000143	0.00500	0.0100
2-Nitroaniline	0.00500	U	0.000102	0.00500	0.0100
3-Nitroaniline	0.00500	U	0.0000860	0.00500	0.0100
4-Nitroaniline	0.00500	U	0.0000910	0.00500	0.0100
Nitrobenzene	0.00500	U	0.000297	0.00500	0.0100
n-Nitrosodimethylamine	0.00500	U	0.000998	0.00500	0.0100
n-Nitrosodiphenylamine	0.00500	U	0.00237	0.00500	0.0100
n-Nitrosodi-n-propylamine	0.00500	U	0.000261	0.00500	0.0100
Benzylbutyl phthalate	0.00200	U	0.000765	0.00200	0.00400
Bis(2-Ethylhexyl)phthalate	0.00200	U	0.000895	0.00200	0.00400
Di-n-butyl phthalate	0.00150	U	0.000453	0.00150	0.00300
Diethyl phthalate	0.00150	U	0.000287	0.00150	0.00300
Dimethyl phthalate	0.00150	U	0.000260	0.00150	0.00300
Di-n-octyl phthalate	0.00200	U	0.000932	0.00200	0.00400
1,2,4-Trichlorobenzene	0.00500	U	0.0000698	0.00500	0.0100
4-Chloro-3-methylphenol	0.00500	U	0.000131	0.00500	0.0100
2-Chlorophenol	0.00500	U	0.000133	0.00500	0.0100
2,4-Dichlorophenol	0.00500	U	0.000102	0.00500	0.0100
2,4-Dimethylphenol	0.00500	U	0.0000636	0.00500	0.0100
4,6-Dinitro-2-methylphenol	0.00500	U	0.00112	0.00500	0.0100
2,4-Dinitrophenol	0.0150	U	0.00593	0.0150	0.0300
2-Methylphenol	0.0150	U	0.0000920	0.0150	0.0100
3&4-Methyl Phenol	0.0150	U	0.000168	0.0150	0.0100

Method Blank (MB)

(MB) R3924626-2 05/10/23 00:22

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
2-Nitrophenol	0.00500	U	0.000117	0.00500	0.0100
4-Nitrophenol	0.00500	U	0.000143	0.00500	0.0100
Pentachlorophenol	0.00500	U	0.000313	0.00500	0.0100
Phenol	0.0100	U	0.00433	0.0100	0.0200
2,4,5-Trichlorophenol	0.0100	U	0.000109	0.0100	0.0100
2,4,6-Trichlorophenol	0.00500	U	0.000100	0.00500	0.0100
(S) 2-Fluorophenol	*30.4*				*19.0-119*
(S) Phenol-d5	*20.8*				*10.0-67.0*
(S) Nitrobenzene-d5	*51.0*				*44.0-120*
(S) 2-Fluorobiphenyl	*53.1*				*44.0-119*
(S) 2,4,6-Tribromophenol	*48.1*				*43.0-140*
(S) p-Terphenyl-d14	*70.2*				*50.0-134*

Laboratory Control Sample (LCS)

(LCS) R3924626-1 05/10/23 00:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzoic acid	0.100	0.0294	29.4	10.0-120	
Benzyl alcohol	0.0500	0.0170	34.0	31.0-112	
Bis(2-chlorethoxy)methane	0.0500	0.0304	60.8	48.0-120	
Bis(2-chloroethyl)ether	0.0500	0.0299	59.8	43.0-118	
2,2-Oxybis(1-Chloropropane)	0.0500	0.0294	58.8	37.0-130	
4-Bromophenyl-phenylether	0.0500	0.0324	64.8	55.0-124	
Carbazole	0.0500	0.0409	81.8	60.0-122	
4-Chloroaniline	0.0500	0.0188	37.6	33.0-117	
2-Chloronaphthalene	0.0500	0.0334	66.8	40.0-116	
4-Chlorophenyl-phenylether	0.0500	0.0320	64.0	53.0-121	
Dibenzofuran	0.0500	0.0349	69.8	53.0-118	
3,3-Dichlorobenzidine	0.100	0.0766	76.6	27.0-129	
2,4-Dinitrotoluene	0.0500	0.0422	84.4	57.0-128	
2,6-Dinitrotoluene	0.0500	0.0387	77.4	57.0-124	
Hexachlorobenzene	0.0500	0.0309	61.8	53.0-125	
Hexachlorocyclopentadiene	0.0500	0.0157	31.4	10.0-121	
Hexachloroethane	0.0500	0.0270	54.0	21.0-115	
Isophorone	0.0500	0.0301	60.2	42.0-124	
2-Nitroaniline	0.0500	0.0410	82.0	55.0-127	
3-Nitroaniline	0.0500	0.0323	64.6	41.0-128	
4-Nitroaniline	0.0500	0.0392	78.4	35.0-124	

Laboratory Control Sample (LCS)

(LCS) R3924626-1 05/10/23 00:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrobenzene	0.0500	0.0295	59.0	45.0-121	
n-Nitrosodimethylamine	0.0500	0.0223	44.6	10.0-121	
n-Nitrosodiphenylamine	0.0500	0.0372	74.4	51.0-123	
n-Nitrosodi-n-propylamine	0.0500	0.0302	60.4	49.0-119	
Benzylbutyl phthalate	0.0500	0.0425	85.0	53.0-134	
Bis(2-Ethylhexyl)phthalate	0.0500	0.0403	80.6	55.0-135	
Di-n-butyl phthalate	0.0500	0.0421	84.2	59.0-127	
Diethyl phthalate	0.0500	0.0385	77.0	56.0-125	
Dimethyl phthalate	0.0500	0.0377	75.4	45.0-127	
Di-n-octyl phthalate	0.0500	0.0430	86.0	51.0-140	
1,2,4-Trichlorobenzene	0.0500	0.0275	55.0	29.0-116	
4-Chloro-3-methylphenol	0.0500	0.0270	54.0	52.0-119	
2-Chlorophenol	0.0500	0.0249	49.8	38.0-117	
2,4-Dichlorophenol	0.0500	0.0285	57.0	47.0-121	
2,4-Dimethylphenol	0.0500	0.0271	54.2	31.0-124	
4,6-Dinitro-2-methylphenol	0.0500	0.0475	95.0	44.0-137	
2,4-Dinitrophenol	0.0500	0.0441	88.2	23.0-143	
2-Methylphenol	0.0500	0.0212	42.4	30.0-117	
3&4-Methyl Phenol	0.0500	0.0229	45.8	29.0-110	
2-Nitrophenol	0.0500	0.0323	64.6	47.0-123	
4-Nitrophenol	0.0500	0.0161	32.2	10.0-120	
Pentachlorophenol	0.0500	0.0315	63.0	35.0-138	
Phenol	0.0500	0.0110	22.0	10.0-120	
2,4,5-Trichlorophenol	0.0500	0.0343	68.6	50.0-125	
2,4,6-Trichlorophenol	0.0500	0.0330	66.0	53.0-123	
(S) 2-Fluorophenol			*32.6*	*19.0-119*	
(S) Phenol-d5			*20.3*	*10.0-67.0*	
(S) Nitrobenzene-d5			*57.8*	*44.0-120*	
(S) 2-Fluorobiphenyl			*64.5*	*44.0-119*	
(S) 2,4,6-Tribromophenol			*59.5*	*43.0-140*	
(S) p-Terphenyl-d14			*69.6*	*50.0-134*	

L1612725-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1612725-01 05/10/23 02:33 • (MS) R3924626-3 05/10/23 02:55 • (MSD) R3924626-4 05/10/23 03:16

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzoic acid	0.0952	0.00500	0.0305	0.0263	32.0	27.6	1	10.0-120			14.8	20
Benzyl alcohol	0.0476	0.00500	0.0154	0.0135	32.4	28.4	1	31.0-112		J6	13.1	20

L1612725-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1612725-01 05/10/23 02:33 • (MS) R3924626-3 05/10/23 02:55 • (MSD) R3924626-4 05/10/23 03:16

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bis(2-chlorethoxy)methane	0.0476	0.00500	0.0250	0.0215	52.5	45.2	1	48.0-120		J6	15.1	20
Bis(2-chloroethyl)ether	0.0476	0.00500	0.0251	0.0212	52.7	44.5	1	43.0-118			16.8	20
2,2-Oxybis(1-Chloropropane)	0.0476	0.00500	0.0244	0.0203	51.3	42.6	1	37.0-130			18.3	20
4-Bromophenyl-phenylether	0.0476	0.00500	0.0289	0.0239	60.7	50.2	1	55.0-124		J6	18.9	20
Carbazole	0.0476	0.00500	0.0345	0.0324	72.5	68.1	1	60.0-122			6.28	20
4-Chloroaniline	0.0476	0.00500	0.0166	0.0160	34.9	33.6	1	33.0-117			3.68	20
2-Chloronaphthalene	0.0476	0.000500	0.0247	0.0216	51.9	45.4	1	40.0-116			13.4	20
4-Chlorophenyl-phenylether	0.0476	0.00500	0.0272	0.0238	57.1	50.0	1	53.0-121		J6	13.3	20
Dibenzofuran	0.0476	0.000917	0.0282	0.0254	57.3	51.4	1	53.0-118		J6	10.4	20
3,3-Dichlorobenzidine	0.0952	0.00500	0.00583	0.00624	6.12	6.55	1	27.0-129	J6	J6	6.79	20
2,4-Dinitrotoluene	0.0476	0.00500	0.0390	0.0367	81.9	77.1	1	57.0-128			6.08	20
2,6-Dinitrotoluene	0.0476	0.00500	0.0341	0.0316	71.6	66.4	1	57.0-124			7.61	20
Hexachlorobenzene	0.0476	0.000500	0.0258	0.0207	54.2	43.5	1	53.0-125		J3 J6	21.9	20
Hexachlorocyclopentadiene	0.0476	0.00500	0.0152	0.0116	31.9	24.4	1	10.0-121		J3	26.9	20
Hexachloroethane	0.0476	0.00500	0.0299	0.0243	62.8	51.1	1	21.0-115		J3	20.7	20
Isophorone	0.0476	0.00500	0.0247	0.0222	51.9	46.6	1	42.0-124			10.7	20
2-Nitroaniline	0.0476	0.00500	0.0363	0.0339	76.3	71.2	1	55.0-127			6.84	20
3-Nitroaniline	0.0476	0.00500	0.0258	0.0256	54.2	53.8	1	41.0-128			0.778	20
4-Nitroaniline	0.0476	0.00500	0.0303	0.0290	63.7	60.9	1	35.0-124			4.38	20
Nitrobenzene	0.0476	0.00500	0.0239	0.0201	50.2	42.2	1	45.0-121		J6	17.3	20
n-Nitrosodimethylamine	0.0476	0.00500	0.0175	0.0161	36.8	33.8	1	10.0-121			8.33	20
n-Nitrosodiphenylamine	0.0476	0.00500	0.0308	0.0261	64.7	54.8	1	51.0-123			16.5	20
n-Nitrosodi-n-propylamine	0.0476	0.00500	0.0259	0.0228	54.4	47.9	1	49.0-119		J6	12.7	20
Benzylbutyl phthalate	0.0476	0.00200	0.0418	0.0344	87.8	72.3	1	53.0-134			19.4	20
Bis(2-Ethylhexyl)phthalate	0.0476	0.00200	0.0381	0.0284	80.0	59.7	1	55.0-135		J3	29.2	20
Di-n-butyl phthalate	0.0476	0.00150	0.0372	0.0310	78.2	65.1	1	59.0-127			18.2	20
Diethyl phthalate	0.0476	0.00150	0.0347	0.0322	72.9	67.6	1	56.0-125			7.47	20
Dimethyl phthalate	0.0476	0.00150	0.0319	0.0286	67.0	60.1	1	45.0-127			10.9	20
Di-n-octyl phthalate	0.0476	0.00200	0.0370	0.0270	77.7	56.7	1	51.0-140		J3	31.2	20
1,2,4-Trichlorobenzene	0.0476	0.00500	0.0213	0.0176	44.7	37.0	1	29.0-116			19.0	20
4-Chloro-3-methylphenol	0.0476	0.00500	0.0207	0.0166	43.5	34.9	1	52.0-119	J6	J3 J6	22.0	20
2-Chlorophenol	0.0476	0.00500	0.0159	0.0118	33.4	24.8	1	38.0-117	J6	J3 J6	29.6	20
2,4-Dichlorophenol	0.0476	0.00500	0.0190	0.0138	39.9	29.0	1	47.0-121	J6	J3 J6	31.7	20
2,4-Dimethylphenol	0.0476	0.00500	0.0188	0.0149	39.5	31.3	1	31.0-124		J3	23.1	20
4,6-Dinitro-2-methylphenol	0.0476	0.00500	0.0383	0.0289	80.5	60.7	1	44.0-137		J3	28.0	20
2,4-Dinitrophenol	0.0476	0.0150	0.0376	0.0287	79.0	60.3	1	23.0-143		J3	26.8	20
2-Methylphenol	0.0476	0.0150	0.0159	0.0125	33.4	26.3	1	30.0-117		J3 J6	23.9	20
3&4-Methyl Phenol	0.0476	0.0150	0.0163	0.0130	34.2	27.3	1	29.0-110		J3 J6	22.5	20
2-Nitrophenol	0.0476	0.00500	0.0233	0.0156	48.9	32.8	1	47.0-123		J3 J6	39.6	20
4-Nitrophenol	0.0476	0.00500	0.0126	0.0108	26.5	22.7	1	10.0-120			15.4	20

L1612725-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1612725-01 05/10/23 02:33 • (MS) R3924626-3 05/10/23 02:55 • (MSD) R3924626-4 05/10/23 03:16

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Pentachlorophenol	0.0476	0.00500	0.0319	0.0233	67.0	48.9	1	35.0-138		J3	31.2	20
Phenol	0.0476	0.0100	0.00784	0.00701	16.5	14.7	1	10.0-120			11.2	20
2,4,5-Trichlorophenol	0.0476	0.0100	0.0261	0.0190	54.8	39.9	1	50.0-125		J3 J6	31.5	20
2,4,6-Trichlorophenol	0.0476	0.00500	0.0244	0.0173	51.3	36.3	1	53.0-123	J6	J3 J6	34.1	20
(S) 2-Fluorophenol					*21.5*	*17.0*		*19.0-119*		J2		
(S) Phenol-d5					*14.2*	*12.7*		*10.0-67.0*				
(S) Nitrobenzene-d5					*49.3*	*42.9*		*44.0-120*		J2		
(S) 2-Fluorobiphenyl					*47.8*	*41.3*		*44.0-119*		J2		
(S) 2,4,6-Tribromophenol					*54.7*	*40.7*		*43.0-140*		J2		
(S) p-Terphenyl-d14					*71.1*	*54.2*		*50.0-134*				

Method Blank (MB)

(MB) R3925979-2 05/10/23 22:43

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Anthracene	0.0000500	U	0.0000190	0.0000500	0.000100
Acenaphthene	0.0000500	U	0.0000190	0.0000500	0.000100
Acenaphthylene	0.0000500	U	0.0000170	0.0000500	0.000100
Benzo(a)anthracene	0.0000282	J	0.0000200	0.0000500	0.000100
Benzo(a)pyrene	0.0000251	J	0.0000180	0.0000500	0.000100
Benzo(b)fluoranthene	0.0000540	J	0.0000170	0.0000500	0.000100
Benzo(g,h,i)perylene	0.0000556	J	0.0000180	0.0000500	0.000100
Benzo(k)fluoranthene	0.0000482	J	0.0000200	0.000125	0.000250
Chrysene	0.0000353	J	0.0000180	0.0000500	0.000100
Dibenz(a,h)anthracene	0.0000468	J	0.0000180	0.0000500	0.000100
Fluoranthene	0.0000272	J	0.0000110	0.0000250	0.0000500
Fluorene	0.0000500	U	0.0000170	0.0000500	0.000100
Indeno(1,2,3-cd)pyrene	0.0000548	J	0.0000180	0.0000400	0.0000800
Naphthalene	0.000500	U	0.000128	0.000500	0.00100
Phenanthrene	0.0000242	J	0.0000180	0.0000500	0.000100
Pyrene	0.0000307	J	0.0000170	0.0000500	0.000100
1-Methylnaphthalene	0.000250	U	0.0000200	0.000250	0.000500
2-Methylnaphthalene	0.000250	U	0.0000280	0.000250	0.000500
(S) Nitrobenzene-d5	*96.0*				*55.0-111*
(S) 2-Fluorobiphenyl	*90.5*				*53.0-106*
(S) p-Terphenyl-d14	*102*				*58.0-132*
(S) 2-Methylnaphthalene-d10	*84.0*				*50.0-150*
(S) Fluoranthene-d10	*93.0*				*50.0-150*

Laboratory Control Sample (LCS)

(LCS) R3925979-1 05/10/23 22:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.00200	0.00161	80.5	53.0-119	
Acenaphthene	0.00200	0.00170	85.0	48.0-114	
Acenaphthylene	0.00200	0.00180	90.0	35.0-121	
Benzo(a)anthracene	0.00200	0.00182	91.0	59.0-120	
Benzo(a)pyrene	0.00200	0.00191	95.5	53.0-120	
Benzo(b)fluoranthene	0.00200	0.00204	102	53.0-126	
Benzo(g,h,i)perylene	0.00200	0.00175	87.5	44.0-128	
Benzo(k)fluoranthene	0.00200	0.00192	96.0	54.0-125	
Chrysene	0.00200	0.00202	101	57.0-120	
Dibenz(a,h)anthracene	0.00200	0.00146	73.0	44.0-131	

Laboratory Control Sample (LCS)

(LCS) R3925979-1 05/10/23 22:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluoranthene	0.00200	0.00181	90.5	58.0-120	
Fluorene	0.00200	0.00188	94.0	50.0-118	
Indeno(1,2,3-cd)pyrene	0.00200	0.00165	82.5	48.0-130	
Naphthalene	0.00200	0.00185	92.5	43.0-114	
Phenanthrene	0.00200	0.00190	95.0	53.0-115	
Pyrene	0.00200	0.00222	111	53.0-121	
1-Methylnaphthalene	0.00200	0.00184	92.0	41.0-115	
2-Methylnaphthalene	0.00200	0.00177	88.5	39.0-114	
(S) Nitrobenzene-d5			*107*	*55.0-111*	
(S) 2-Fluorobiphenyl			*94.5*	*53.0-106*	
(S) p-Terphenyl-d14			*106*	*58.0-132*	
(S) 2-Methylnaphthalene-d10			*89.5*	*50.0-150*	
(S) Fluoranthene-d10			*98.5*	*50.0-150*	

L1612725-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1612725-01 05/10/23 23:35 • (MS) R3925979-3 05/10/23 23:52 • (MSD) R3925979-4 05/11/23 00:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	0.0000500	0.00155	0.00135	77.5	67.5	1	53.0-119			13.8	40
Acenaphthene	0.00200	0.0000649	0.00247	0.00226	120	110	1	48.0-114	J5		8.88	40
Acenaphthylene	0.00200	0.0000500	0.00175	0.00162	87.5	81.0	1	35.0-121			7.72	40
Benzo(a)anthracene	0.00200	0.0000500	0.00130	0.000920	65.0	46.0	1	59.0-120		J6	34.2	40
Benzo(a)pyrene	0.00200	0.0000500	0.000863	0.000503	43.1	25.1	1	53.0-120	J6	J3 J6	52.7	40
Benzo(b)fluoranthene	0.00200	0.0000238	0.000898	0.000534	43.7	25.5	1	53.0-126	J6	J3 J6	50.8	40
Benzo(g,h,i)perylene	0.00200	0.0000184	0.000336	0.000159	15.9	7.03	1	44.0-128	J6	J3 J6	71.5	40
Benzo(k)fluoranthene	0.00200	0.000125	0.000827	0.000505	41.3	25.3	1	54.0-125	J6	J3 J6	48.3	40
Chrysene	0.00200	0.0000262	0.00140	0.00101	68.7	49.2	1	57.0-120		J6	32.4	40
Dibenz(a,h)anthracene	0.00200	0.0000500	0.000284	0.000134	14.2	6.70	1	44.0-131	J6	J3 J6	71.8	40
Fluoranthene	0.00200	0.0000325	0.00163	0.00132	79.9	64.4	1	58.0-120			21.0	40
Fluorene	0.00200	0.0000500	0.00369	0.00356	184	178	1	50.0-118	J5	J5	3.59	40
Indeno(1,2,3-cd)pyrene	0.00200	0.0000400	0.000348	0.000164	17.4	8.20	1	48.0-130	J6	J3 J6	71.9	40
Naphthalene	0.00200	0.000500	0.00616	0.00724	308	362	1	43.0-114	J5	J5	16.1	40
Phenanthrene	0.00200	0.0000500	0.00183	0.00167	91.5	83.5	1	53.0-115			9.14	40
Pyrene	0.00200	0.000102	0.00205	0.00163	97.4	76.4	1	53.0-121			22.8	40
1-Methylnaphthalene	0.00200	0.0000931	0.0109	0.0147	540	730	1	41.0-115	J5	J5	29.7	40
2-Methylnaphthalene	0.00200	0.0000757	0.00210	0.00295	101	144	1	39.0-114		J5	33.7	40
(S) Nitrobenzene-d5					*115*	*115*		*55.0-111*	J1	J1		
(S) 2-Fluorobiphenyl					*82.5*	*74.0*		*53.0-106*				

L1612725-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1612725-01 05/10/23 23:35 • (MS) R3925979-3 05/10/23 23:52 • (MSD) R3925979-4 05/11/23 00:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
(S) p-Terphenyl-d14					*74.5*	*56.5*		*58.0-132*		J2		
(S) 2-Methylnaphthalene-d10					*98.0*	*88.0*		*50.0-150*				
(S) Fluoranthene-d10					*90.5*	*74.5*		*50.0-150*				

Sample Narrative:

OS: Duplicate Analysis performed due to QC failure. Results confirm; reporting in hold data

Method Blank (MB)

(MB) R3925962-2 05/16/23 14:16

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Acenaphthene	0.0000500	U	0.0000190	0.0000500	0.000100
Fluorene	0.0000500	U	0.0000170	0.0000500	0.000100
(S) Nitrobenzene-d5	*113*	J1			*55.0-111*
(S) 2-Fluorobiphenyl	*107*	J1			*53.0-106*
(S) p-Terphenyl-d14	*111*				*58.0-132*
(S) 2-Methylnaphthalene-d10	*103*				*50.0-150*
(S) Fluoranthene-d10	*115*				*50.0-150*

Laboratory Control Sample (LCS)

(LCS) R3925962-1 05/16/23 13:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.00200	0.00189	94.5	48.0-114	
Fluorene	0.00200	0.00220	110	50.0-118	
(S) Nitrobenzene-d5			*109*	*55.0-111*	
(S) 2-Fluorobiphenyl			*103*	*53.0-106*	
(S) p-Terphenyl-d14			*105*	*58.0-132*	
(S) 2-Methylnaphthalene-d10			*97.5*	*50.0-150*	
(S) Fluoranthene-d10			*113*	*50.0-150*	

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

DL	Detection Limit.
LOD	Limit of Detection.
LOQ	Limit of Quantitation.
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.
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
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.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
Q	Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	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:
INNOVEX/ERRG Joint Venture -
Redmond, WA
16310 NE 80th St.

Billing Information:
Accounts Payable
1800 Sutter Street
Concord, CA 94520

Pres Chk

Report to: **Anna Jordan**

Email To: **anna.jordan@innovex.net**

Project Description: JBLM-YTC

City/State Collected: **YTC, WA**

Please Circle: (PT) MT CT ET

Phone: **206-949-3010**

Client Project # **20506**

Lab Project # **IEJVRWA-JBLM-YTC**

Collected by (print): **AJ**

Site/Facility ID # **YTC IRP**

P.O. #

Collected by (signature): Annajordan

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

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	DODNWTPH-Gx	DODNWTPH-DxNOSGT	DODPAH8270ESIM*	DODVOCS8260D**	DODSVOCS8270E	Remarks	Sample # (lab only)
YTC-FTP-1-20230328		GW		5/2/23	1345	21	X	X	X		X	MS/MSD	-01
YTC-FTP-1A-20230328		GW		5/2/23	1350	9	X	X	X		X		-02
YTC-Trip Blank-20230502		OT		5/2/23	2400	1	X						-03

Chain of Custody Page ___ of ___

Pace
PEOPLE ADVANCING SCIENCE

12065 Lebanon Rd Mount Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859

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 # L1612725

Ta I020

Acctnum:

Template: T213823

Prelogin:

PM:

PB:

Shipped Via:

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

Remarks:
***PAHs only** ****Full VOCs except for VC**

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier __ _____

Tracking # 6094 5478 6146

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	
Annajordan	5/3/23	1245		1	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 2.3+0=2.3 30	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Alexa PE	Date: 5/4/23 Time: 0900	Hold: Condition: NCF (OK)

DATA VALIDATION CHECKLIST – STAGE 2A

Site Name	JBLM	**Project Name**	YTC IRP
Data Reviewer (signature and date)	Anna J Jordan 10/6/2023	**Technical Reviewer (signature and date)**	J Sinica 10/18/2023
Laboratory Report No.	L1612725	**Laboratory**	Pace Analytical
Analyses	DODNWTPHGX, DODNWTPHDX-NO SGT, DOD8270E, and DOD8270E-SIM		
Sample and Matrix	YTC-FTP-1-20230328 (GW) L1612725-01 YTC-FTP-1A-20230328 (GW) L1612725-02 YTC-TRIP BLANK-20230502 L1612725-03		
Field Duplicate Pairs	YTC-FTP-1-20230328 and YTC-FTP-1A-20230328		
Field Blanks	One trip blank was identified in this SDG. 0.500 U		

INTRODUCTION

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

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 laboratory blanks, with the exceptions below.

Analyte	Blank Result (µg/L)	Qualifier	New Qualifier
Benzo(b)fluoranthene	0.0540	B J	If sample result is between LOD and LOQ, report at LOQ with U. If sample result is > LOQ: report at LOQ with J+ or no qualification (all detects) No qualification (all non-detects)
Benzo(g,h,i)perylene	0.0556	B J	
Fluoranthene	0.0272	B J	
Indeno(1,2,3-cd)pyrene	0.0548	B J	

Field Blanks:

Within Criteria	Exceedance/Notes
N/A	One trip blank was analyzed, and analytes were not detected above the LOD.

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 those noted below.

Surrogate	Method	Project Sample ID	Sample Result (mg/L)	QC Limits (mg/L)	New Qualifier
Nitrobenzene-d5	8270E-SIM	YTC-FTP-1-20230328	113	55.0-111	J+ (all detects) No qualification (all non-detects)
p-Terphenyl-d14		YTC-FTP-1-20230328	57.0	58.0-132	J (all detects) No qualification (all non-detects)
		YTC-FTP-1A-20230328	47.5		

MS/MSD:

Within Criteria	Exceedance/Notes
Y	Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis were performed on an associated project sample. Percent recoveries (%R) were within QC limits except as listed below. Relative percent differences (RPD) were within QC limits except as listed below. Additionally, surrogate recoveries for MS/MSD analyses (%R) were within QC limits, except for those noted below.

MS/MSD Sample ID	L1612725-01 and L1612725-02			
Analyte	**MS %R**	**MSD %R**	**QC Limits**	**New Qualifier**
Diesel Range Organics	126	184	50.0-150	J (all detects) No qualification (all non-detects)
Benzyl alcohol	32.4	28.4	31.0-112	
Bis(2-chlorethoxy)methane	52.5	45.2	48.0-120	
4-Bromophenyl-phenylether	60.7	50.2	55.0-124	
4-Chlorophenyl-phenylether	57.1	50.0	53.0-121	
Dibenzofuran	57.3	51.4	53.0-118	

MS/MSD Sample ID	L1612725-01 and L1612725-02			
Analyte	**MS %R**	**MSD %R**	**QC Limits**	**New Qualifier**
3,3-Dichlorobenzidine	6.12	6.55	27.0-129	
Hexachlorobenzene	54.2	43.5	53.0-125	
Nitrobenzene	50.2	42.2	45.0-121	J (all detects) No qualification (all non-detects)
n-Nitrosodi-n-propylamine	54.4	47.9	49.0-119	
4-Chloro-3-methylphenol	43.5	34.9	52.0-119	
2-Chlorophenol	33.4	24.8	38.0-117	
2,4-Dichlorophenol	39.9	29.0	47.0-121	
2-Methylphenol	33.4	26.3	30.0-117	
3&4-Methyl Phenol	34.2	27.3	29.0-110	
2-Nitrophenol	48.9	32.8	47.0-123	
2,4,5-Trichlorophenol	54.8	39.9	50.0-125	
2,4,6-Trichlorophenol	51.3	36.3	53.0-123	
Acenaphthene	120	110	48.0-114	
Benzo(a)anthracene	65.0	46.0	59.0-120	
Benzo(a)pyrene	43.1	25.1	53.0-120	
Benzo(b)fluoranthene	43.7	25.5	53.0-126	
Benzo(g,h,i)perylene	15.9	7.03	44.0-128	
Benzo(k)fluoranthene	41.3	25.3	54.0-125	
Chrysene	68.7	49.2	57.0-120	
Dibenz(a,h)anthracene	14.2	6.70	44.0-131	
Fluorene	184	178	50.0-118	
Indeno(1,2,3-cd)pyrene	17.4	8.20	48.0-130	
Naphthalene	308	362	43.0-114	
1-Methylnaphthalene	540	730	41.0-115	
2-Methylnaphthalene	101	144	39.0-114	

MS/MSD Sample ID	L1612725-01	
Analyte	**RPD**	**New Qualifier**
2-Nitrophenol	39.6	J (all detects) No qualification (all non-detects)
Benzo(a)pyrene	52.7	
Benzo(b)fluoranthene	50.8	
Benzo(g,h,i)perylene	71.5	
Dibenz(a,h)anthracene	71.8	
Indeno(1,2,3-cd)pyrene	71.9	

Surrogate	Method	MS %R	MSD %R	QC Limits (mg/L)	New Qualifier
a,a,a,-Trifluorotoluene(FID)	NWTPHGX	N/A	121	78.0-120	J (all detects) No qualification (all non-detects)
2-Fluorophenol	8270E	N/A	17.0	19.0-119	
Nitrobenzene-d5		N/A	42.9	44.0-120	
2-Fluorobiphenyl		N/A	41.3	44.0-119	
2,4,6-Tribromophenol		N/A	40.7	43.0-140	
Nitrobenzene-d5	8270E-SIM	115	115	55.0-111	
p-Terphenyl-d14		N/A	56.5	58.0-132	

Laboratory control:

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 differences (RPD) were within QC limits (<20%).

Field duplicates:

Within Criteria	Exceedance/Notes
Y	Field duplicate sample analysis was performed. Relative percent differences (RPD) were within QC limits (<35%). (RPDs are only calculated for detected analytes).

RPD Calculation

Field Duplicate Pair	Analyte	RPD Calculation	New Qualifier
YTC-FTP-1-20230328 and YTC-FTP-1A-20230328	Gasoline Range Organics	[(907-821)/((907+821)/2)]*100 = 9.95	NA
	Diesel Range Organics	[(5,000-5,240)/((5,000+5,240)/2)]*100 = 4.69	NA
	Residual Range Organics	[(841-939)/((841+939)/2)]*100 = 11.0	NA
	Pyrene	[(0.102-0.103)/((0.102+0.103)/2)]*100 =0.976	NA

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	All samples were analyzed undiluted except for the following.

Lab Sample ID	Project Sample ID	Method	Analyte	Dilution
L1612725-01	YTC-FTP-1-20230328	NWTPHGX	Gasoline range organics	10
L1612725-02	YTC-FTP-1A-20230328			

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
N/A	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	Detections between the LOD and MDL (if present) were qualified as not detected (flagged U).

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
N/A	

Other [none]:

Within Criteria	Exceedance/Notes
N/A	

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.

YTC/LPL 9/14/2023 Q3
HC arrive @ 1000, KleH arrive @ 1010, visitor center check in
PAIC (IRP) 1020 YTC-PAIC-20230914
LPL
39.72
MW-06 1125
DTW: 39.72 1125 LPL-MW-06-20230914
designated tubing
MS/MSD

LPL cont 1230 LPL-MW-04-20230914
MW-04 1240 LPL-MW-04A-20230914
DTW: 67.39 duplicate
too deep to leave tubing behind

Decon for equipment blank sample
1300 LPL-EquipBlank-20230914

MW-5 DTW: dry

MW-7 DTW: dry

1315:
Krista depart for fedex,
Haley cont. to sample (IRP sites)

9/14/2023 cont.
IRP:
Pomona well
1340 YTC-Pomona-20230914
MS/MSD

TVR-7 DTW: 56.58
1410 YTC-TVR-7-20230914

TVR-3 DTW: 55.51
1430 YTC-TVR-3-20230914

TVR-1 DTW: 65.99
1450 YTC-TVR-1-20230914
2 PDB's deployed

TVR-6 DTW: 55.58
1510 YTC-TVR-6-20230914

MTS-4 DTW: 74.80
1530 YTC-MTS-4-20230914

MMP-1 DTW: 49.34 1510

MW-815-2 DTW: 50.31 1515

9/14/2023 Cont.

TVR-5 DTW: 46.35 1520

MTS-3 DTW: 25.67 1550

TVR-2 DTW: 62.15

MTS-1 DTW: 91.34
1600 YTC-MTS-1-20230914

MTS-2 DTW: 83.94
1615 YTC-MTS-2-20230914
duplicate 1630 YTC-MTS-2a-20230914

depart YTC 1645

KHH

9/15/2023 IRP Q3 Cont.

0800 KHH get ice
Meet HC @ FTP-1 @ 0815

FTP-1 DTW: 14.37
0910 YTC-FTP-1-20230915

FTP-13 DTW: 15.24
4", needs new cap

FTP-14 DTW: 18.92
4"

FTP-15 DTW: 17.90
4"

FTP-16 DTW: 27.38
3 bailers in well, removed to measure DTW

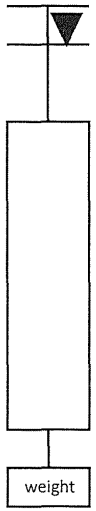
HC depart 0930
KHH dump purge H_2O @ washtracks
Leave YTC for Fedex @ 1020

KHH

Rite in the Rain

Passive Diffusion Bag Sampling Form

Well Identification: TVR-7



Total Well Depth: 140.0

Site Location:	YTC
Project Number:	20506
Well Diameter:	2"
PDB Installation Date:	3/28/2023
PDB Installation Time:	1440
DTW at Installation	66.10

Sample Information

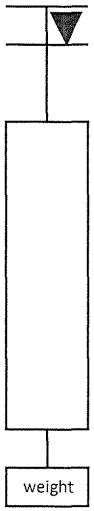
Sample No:	YTC-TVR-7-20230914
Sample Date:	9/14/2023
DTW at Sampling:	56.58
Sample Time:	~~1415~~ 1410
Sampled By:	HC
Biofilm Present:	Yes / (No)
New PDB Deployed :	(Yes) / No

Well Condition

Well Monument Locked?:	(Yes) / No
Monument Condition:	(Good) / Fair / Poor
Water Inside Monument?:	Yes / (No)
Casing Plug Locked:	Yes / No Not present
Casing Plug Condition:	Good / Fair / Poor

Comments: 1 bolt.

Well Identification: TVR-3



Total Well Depth: 158.0

Site Location:	YTC
Project Number:	20506
Well Diameter:	4"
PDB Installation Date:	3/28/2023
PDB Installation Time:	1430
DTW at Installation	65.63

Sample Information

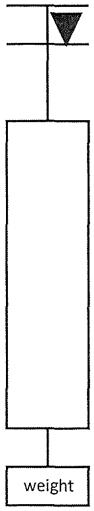
Sample No:	YTC-TVR-3-20230914
Sample Date:	9/14/2023
DTW at Sampling:	55.51
Sample Time:	1430
Sampled By:	HC
Biofilm Present:	Yes / (No)
New PDB Deployed :	(Yes) / No

Well Condition

Well Monument Locked?:	Yes / (No)
Monument Condition:	(Good) / Fair / Poor
Water Inside Monument?:	Yes / (No)
Casing Plug Locked:	Yes / No none
Casing Plug Condition:	Good / Fair / Poor

Comments: 1 bolt, loose

Well Identification: TVR-1



Total Well Depth:

Site Location: YTC
Project Number: 20506
Well Diameter:
PDB Installation Date:
PDB Installation Time:
DTW at Installation

Sample Information

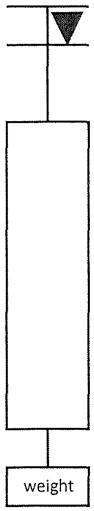
Sample No:
Sample Date: / /2023
DTW at Sampling: 65.99
Sample Time:
Sampled By:
Biofilm Present: Yes / No
New PDB Deployed : Yes / No

Well Condition

Well Monument Locked?: Yes / No
Monument Condition: Good / Fair / Poor
Water Inside Monument?: Yes / No
Casing Plug Locked: Yes / No
Casing Plug Condition: Good / Fair / Poor
Comments:

DUP

Well Identification:



Total Well Depth:

Site Location:
Project Number:
Well Diameter:
PDB Installation Date:
PDB Installation Time:
DTW at Installation

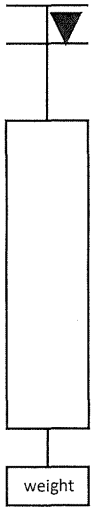
Sample Information

Sample No:
Sample Date: / /2023
DTW at Sampling:
Sample Time:
Sampled By:
Biofilm Present: Yes / No
New PDB Deployed : Yes / No

Well Condition

Well Monument Locked?: Yes / No
Monument Condition: Good / Fair / Poor
Water Inside Monument?: Yes / No
Casing Plug Locked: Yes / No
Casing Plug Condition: Good / Fair / Poor
Comments:

Well Identification: MTS-4



Site Location:	YTC
Project Number:	20506
Well Diameter:	4"
PDB Installation Date:	3/28/2023
PDB Installation Time:	1535
DTW at Installation	85.94'

Sample Information

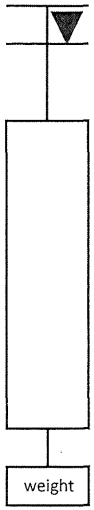
Sample No:	YTC-MTS-4-20230914
Sample Date:	9/14/2023
DTW at Sampling:	74.80
Sample Time:	1530
Sampled By:	KH/HC
Biofilm Present:	Yes / (No)
New PDB Deployed :	(Yes) / No

Total Well Depth: 97.0

Well Condition

Well Monument Locked?:	Yes / (No)
Monument Condition:	(Good) / Fair / Poor
Water Inside Monument?:	Yes / (No)
Casing Plug Locked:	Yes / (No)
Casing Plug Condition:	(Good) / Fair / Poor
Comments:	↑ not in use

Well Identification: TVR-1



Site Location:	YTC
Project Number:	20506
Well Diameter:	2"
PDB Installation Date:	3/28/2023
PDB Installation Time:	1515
DTW at Installation	75.20

Sample Information

Sample No:	YTC-TVR-1-20230914
Sample Date:	9/14/2023
DTW at Sampling:	65.99
Sample Time:	1450
Sampled By:	HC
Biofilm Present:	Yes / (No)
New PDB Deployed :	(Yes) / No

Total Well Depth: 105.0

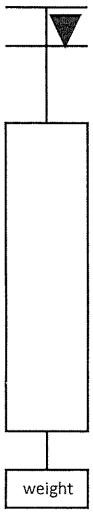
Well Condition

Well Monument Locked?:	Yes / (No)
Monument Condition:	(Good) / Fair / Poor
Water Inside Monument?:	Yes / (No)
Casing Plug Locked:	Yes / (No) N/A
Casing Plug Condition:	Good / Fair / Poor ✓
Comments:	2 PDBs Deployed

Passive Diffusion Bag Sampling Form

YTC

Well Identification: MTS-1



Total Well Depth: 127.0

Site Location:	YTC
Project Number:	20506
Well Diameter:	4"
PDB Installation Date:	3/28/2023
PDB Installation Time:	1550
DTW at Installation	101.50'

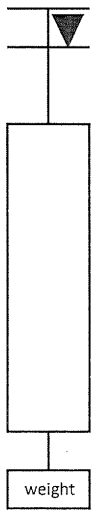
Sample Information

Sample No:	YTC-MTS1-20230914
Sample Date:	9/14/2023
DTW at Sampling:	91.34
Sample Time:	~~1600~~ 1600
Sampled By:	KWH, HC
Biofilm Present:	Yes / (No)
New PDB Deployed :	(Yes) / No

Well Condition

Well Monument Locked?:	Yes / (No)
Monument Condition:	(Good) / Fair / Poor
Water Inside Monument?:	Yes / (No)
Casing Plug Locked:	Yes / (No) N/A
Casing Plug Condition:	(Good) / Fair / Poor
Comments:	

Well Identification: MTS-2



Total Well Depth: 113.0

Site Location:	YTC
Project Number:	20506
Well Diameter:	4"
PDB Installation Date:	3/28/2023
PDB Installation Time:	1600
DTW at Installation	92.97'

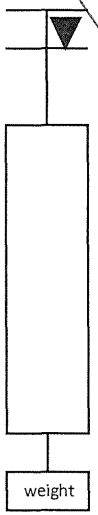
Sample Information

Sample No:	YTC-MTS2-20230914
Sample Date:	9/14/2023
DTW at Sampling:	83.94
Sample Time:	1615 & 1630
Sampled By:	KWH, HC
Biofilm Present:	Yes / (No)
New PDB Deployed :	(Yes) / No

Well Condition

Well Monument Locked?:	(Yes) / No
Monument Condition:	(Good) / Fair / Poor
Water Inside Monument?:	Yes / (No)
Casing Plug Locked:	Yes / No NA
Casing Plug Condition:	Good / Fair / Poor
Comments:	DUP YTC-MTS-2a-20230914

Well Identification: TVR-3



Total Well Depth:

Site Location:	YTC
Project Number:	20506
Well Diameter:	4"
PDB Installation Date:	3/28/2023
PDB Installation Time:	1430
DTW at Installation	65.63

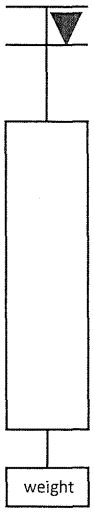
Sample Information

Sample No:	YTC-TVR3-
Sample Date:	/ /2023
DTW at Sampling:	
Sample Time:	
Sampled By:	
Biofilm Present:	Yes / No
New PDB Deployed :	Yes / No

Well Condition

Well Monument Locked?:	Yes / No
Monument Condition:	Good / Fair / Poor
Water Inside Monument?:	Yes / No
Casing Plug Locked:	Yes / No
Casing Plug Condition:	Good / Fair / Poor
Comments:	

Well Identification: TVR-6



Total Well Depth: 139.0

Site Location:	YTC
Project Number:	20506
Well Diameter:	2"
PDB Installation Date:	5/2/2023
PDB Installation Time:	1150
DTW at Installation	65.10

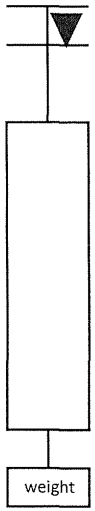
Sample Information

Sample No:	YTC-TVR6-20230914
Sample Date:	9/14/2023
DTW at Sampling:	55.58
Sample Time:	1510
Sampled By:	HC
Biofilm Present:	Yes / No
New PDB Deployed :	Yes / No

Well Condition

Well Monument Locked?:	Yes / No
Monument Condition:	Good / Fair / Poor
Water Inside Monument?:	Yes / No
Casing Plug Locked:	Yes / No N/A
Casing Plug Condition:	Good / Fair / Poor ✓
Comments:	Nobolts o/c

Well Identification: TVR-7



Total Well Depth:

Site Location:	YTC
Project Number:	20506
Well Diameter:	2"
PDB Installation Date:	3/28/2023
PDB Installation Time:	1440
DTW at Installation	66.10

Sample Information

Sample No:	YTC-TVR7-
Sample Date:	/ /2023
DTW at Sampling:	
Sample Time:	
Sampled By:	
Biofilm Present:	Yes / No
New PDB Deployed :	Yes / No

Well Condition

Well Monument Locked?:	Yes / No
Monument Condition:	Good / Fair / Poor
Water Inside Monument?:	Yes / No
Casing Plug Locked:	Yes / No
Casing Plug Condition:	Good / Fair / Poor
Comments:	

INNOVEX
ENVIRONMENTAL MANAGEMENT, INC.

Project Number:	20506
Project Name:	
Well Name:	FTP-1
Date:	9/15/2023

Sampler's Name:	KKH/HC		
Purge Method:	low flow	**Sample Equipment:**	Peri pump
Site conditions/weather:	Sunny, 80°F		

Well Diameter (in.):		**LNAPL thickness:**	
Depth to Water (ft.):	14.37	**DNAPL thickness:**	
Well Depth (ft.):	21.0	**Volume in Well (gallons):**	
Water Column Ht (ft):		**Volume to be purged:**	
Screened Interval:		**Volume purged:**	

WELL CASING VOLUMES (Gal/ft)

1" = 0.41 / 2.0" = 0.16 / 4" = 0.65 / 6" = 1.47 / 8" = 2.61

Time Interval	**Volume Purged (L)**	**Temperature (°C)** ± 3%	**Conductivity (µS/cm)** ±10 if <1,000 or ±20 if >1,000 µS/cm	**D.O. (mg/L)** if<1 mg/L ±0.05, or >1 mg/L then ±0.2	**pH** ± 0.1	**ORP** ± 10 mv	**Turbidity (NTU)** ± 5% or <20 NTUs	**DTW**
840	2.5	14.9	1017	8.8	7.20	-77	0.02	14.71
845	5	15	1004	5.7	7.27	-123	0.02	15.10
850	7.5	15.1	1003	4.5	7.26	-142.7	0.02	15.44
855	10	15.2	1000	3.8	7.25	-154.1	0.02	15.73
900	12.5	15.3	992	3.6	7.26	-162.3	0.02	15.92
905	15	15.4	986	3.4	7.27	-167.1	0.02	16.01

Wait for 80% well volume recovery prior to sampling

Calculate 80% of original well volume

Original height of water column (_____) x 0.8 = (_____) - Well Depth = (_____) depth to water

Sample Name:	MW-TC-FTP-1-20230915	Duplicate Name:	
Sample Time:	910	Duplicate Time:	

Well condition: Stand up, no lock

Notes:

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Innovex
Anna Jordan
16310 NE 80th St.
Redmond, WA 98052

RE: JBLM-YTC
Work Order Number: 2309206

September 26, 2023

Attention Anna Jordan:

Fremont Analytical, Inc. received 12 sample(s) on 9/19/2023 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method 8260D SIM

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *09/26/2023*

CLIENT: Innovex
Project: JBLM-YTC
Work Order: 2309206

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2309206-001	YTC-FTP-1-20230915	09/15/2023 9:10 AM	09/19/2023 12:40 PM
2309206-002	YTC-MTS-1-20230914	09/14/2023 4:00 PM	09/19/2023 12:40 PM
2309206-003	YTC-MTS-2-20230914	09/14/2023 4:15 PM	09/19/2023 12:40 PM
2309206-004	YTC-MTS-4-20230914	09/14/2023 3:30 PM	09/19/2023 12:40 PM
2309206-005	YTC-TVR-1-20230914	09/14/2023 2:50 PM	09/19/2023 12:40 PM
2309206-006	YTC-MTS-2a-20230914	09/14/2023 4:30 PM	09/19/2023 12:40 PM
2309206-007	YTC-TVR-3-20230914	09/14/2023 2:30 PM	09/19/2023 12:40 PM
2309206-008	YTC-TVR-6-20230914	09/14/2023 3:10 PM	09/19/2023 12:40 PM
2309206-009	YTC-TVR-7-20230914	09/14/2023 2:10 PM	09/19/2023 12:40 PM
2309206-010	YTC-TripBlank-2-20230915	09/15/2023 12:00 AM	09/19/2023 12:40 PM
2309206-011	YTC-Pomona-20230914	09/14/2023 1:40 PM	09/19/2023 12:40 PM
2309206-012	YTC-PAIC-20230914	09/14/2023 10:20 AM	09/19/2023 12:40 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2309206**
Date: **9/26/2023**

CLIENT: Innovex
Project: JBLM-YTC

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below LOQ
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
U - Not detected above the LOD

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DL - Detection Limit
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
LOD - Limit of Detection
LOQ - Limit of Quantitation
MB or MBLANK - Method Blank
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2309206**
Date Reported: **9/26/2023**

Client: Innovex
Collection Date: 9/15/2023 9:10:00 AM
Project: JBLM-YTC
Lab ID: 2309206-001
Matrix: Water
Client Sample ID: **YTC-FTP-1-20230915**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 41491		Analyst: MS
Vinyl chloride	0.00500	0.100	0.00500	0.00137	UI	µg/L	1	9/22/2023 4:52:01 AM
Surr: Dibromofluoromethane	0	80-119%	0	0	SI	%Rec	1	9/22/2023 4:52:01 AM
Surr: Toluene-d8	0	89-112%	0	0	SI	%Rec	1	9/22/2023 4:52:01 AM
Surr: 1-Bromo-4-fluorobenzene	159	85-114%	0	0	SI	%Rec	1	9/22/2023 4:52:01 AM

Prep Method	Prep Date	Prep Initials
SW5030	9/20/2023 3:03:54 PM	KJ

NOTES:

S - Outlying surrogate recoveries observed. A duplicate analysis was performed with similar results. Historical review of the "FTP" sample in previous samplings indicates a persistent matrix effect preventing quantitation.

I - Internal standards were outside of acceptance criteria. Re-analysis and/or matrix spike samples yielded the same result indicating a possible matrix effect.

Analytical Report

Work Order: **2309206**
Date Reported: **9/26/2023**

Client: Innovex
Collection Date: 9/14/2023 4:00:00 PM
Project: JBLM-YTC
Lab ID: 2309206-002
Matrix: Water
Client Sample ID: **YTC-MTS-1-20230914**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 41491		Analyst: MS
Vinyl chloride	0.00500	0.100	0.00500	0.00137	U	µg/L	1	9/22/2023 5:28:03 AM
Surr: Dibromofluoromethane	105	80-119%	0	0		%Rec	1	9/22/2023 5:28:03 AM
Surr: Toluene-d8	93.3	89-112%	0	0		%Rec	1	9/22/2023 5:28:03 AM
Surr: 1-Bromo-4-fluorobenzene	93.6	85-114%	0	0		%Rec	1	9/22/2023 5:28:03 AM

Prep Method	Prep Date	Prep Initials
SW5030	9/20/2023 3:03:54 PM	KJ

Analytical Report

Work Order: **2309206**
Date Reported: **9/26/2023**

Client: Innovex
Collection Date: 9/14/2023 4:15:00 PM
Project: JBLM-YTC
Lab ID: 2309206-003
Matrix: Water
Client Sample ID: **YTC-MTS-2-20230914**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 41491		Analyst: MS
Vinyl chloride	0.00500	0.100	0.00500	0.00137	U	µg/L	1	9/22/2023 6:04:07 AM
Surr: Dibromofluoromethane	96.2	80-119%	0	0		%Rec	1	9/22/2023 6:04:07 AM
Surr: Toluene-d8	96.0	89-112%	0	0		%Rec	1	9/22/2023 6:04:07 AM
Surr: 1-Bromo-4-fluorobenzene	100	85-114%	0	0		%Rec	1	9/22/2023 6:04:07 AM

Prep Method	Prep Date	Prep Initials
SW5030	9/20/2023 3:03:54 PM	KJ

Analytical Report

Work Order: **2309206**
Date Reported: **9/26/2023**

Client: Innovex
Collection Date: 9/14/2023 3:30:00 PM
Project: JBLM-YTC
Lab ID: 2309206-004
Matrix: Water
Client Sample ID: **YTC-MTS-4-20230914**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 41491		Analyst: MS
Vinyl chloride	0.00500	0.100	0.00500	0.00137	U	µg/L	1	9/22/2023 6:40:10 AM
Surr: Dibromofluoromethane	98.9	80-119%	0	0		%Rec	1	9/22/2023 6:40:10 AM
Surr: Toluene-d8	84.3	89-112%	0	0	S	%Rec	1	9/22/2023 6:40:10 AM
Surr: 1-Bromo-4-fluorobenzene	104	85-114%	0	0		%Rec	1	9/22/2023 6:40:10 AM

Prep Method	Prep Date	Prep Initials
SW5030	9/20/2023 3:03:54 PM	KJ

NOTES:
S - The surrogate failure, Toluene-d8, is not associated with the analyte that is reported. Result meets QC requirements.

Analytical Report

Work Order: **2309206**
Date Reported: **9/26/2023**

Client: Innovex
Collection Date: 9/14/2023 2:50:00 PM
Project: JBLM-YTC
Lab ID: 2309206-005
Matrix: Water
Client Sample ID: **YTC-TVR-1-20230914**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 41491		Analyst: MS
Vinyl chloride	0.00500	0.100	0.00500	0.00137	U	µg/L	1	9/22/2023 7:16:13 AM
Surr: Dibromofluoromethane	99.8	80-119%	0	0		%Rec	1	9/22/2023 7:16:13 AM
Surr: Toluene-d8	83.9	89-112%	0	0	S	%Rec	1	9/22/2023 7:16:13 AM
Surr: 1-Bromo-4-fluorobenzene	105	85-114%	0	0		%Rec	1	9/22/2023 7:16:13 AM

Prep Method	Prep Date	Prep Initials
SW5030	9/20/2023 3:03:54 PM	KJ

NOTES:
S - The surrogate failure, Toluene-d8, is not associated with the analyte that is reported. Result meets QC requirements.

Analytical Report

Work Order: **2309206**
Date Reported: **9/26/2023**

Client: Innovex
Collection Date: 9/14/2023 4:30:00 PM
Project: JBLM-YTC
Lab ID: 2309206-006
Matrix: Water
Client Sample ID: **YTC-MTS-2a-20230914**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 41491		Analyst: MS
Vinyl chloride	0.00500	0.100	0.00500	0.00137	U	µg/L	1	9/22/2023 7:52:16 AM
Surr: Dibromofluoromethane	99.3	80-119%	0	0		%Rec	1	9/22/2023 7:52:16 AM
Surr: Toluene-d8	84.4	89-112%	0	0	S	%Rec	1	9/22/2023 7:52:16 AM
Surr: 1-Bromo-4-fluorobenzene	104	85-114%	0	0		%Rec	1	9/22/2023 7:52:16 AM

Prep Method	Prep Date	Prep Initials
SW5030	9/20/2023 3:03:54 PM	KJ

NOTES:
S - The surrogate failure, Toluene-d8, is not associated with the analyte that is reported. Result meets QC requirements.

Analytical Report

Work Order: **2309206**
Date Reported: **9/26/2023**

Client: Innovex
Collection Date: 9/14/2023 2:30:00 PM
Project: JBLM-YTC
Lab ID: 2309206-007
Matrix: Water
Client Sample ID: **YTC-TVR-3-20230914**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 41491		Analyst: MS
Vinyl chloride	0.00500	0.100	0.00500	0.00137	U	µg/L	1	9/22/2023 8:28:18 AM
Surr: Dibromofluoromethane	99.5	80-119%	0	0		%Rec	1	9/22/2023 8:28:18 AM
Surr: Toluene-d8	99.2	89-112%	0	0		%Rec	1	9/22/2023 8:28:18 AM
Surr: 1-Bromo-4-fluorobenzene	103	85-114%	0	0		%Rec	1	9/22/2023 8:28:18 AM

Prep Method	Prep Date	Prep Initials
SW5030	9/20/2023 3:03:54 PM	KJ

Analytical Report

Work Order: **2309206**
Date Reported: **9/26/2023**

Client: Innovex
Collection Date: 9/14/2023 3:10:00 PM
Project: JBLM-YTC
Lab ID: 2309206-008
Matrix: Water
Client Sample ID: **YTC-TVR-6-20230914**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 41491		Analyst: MS
Vinyl chloride	0.00500	0.100	0.00500	0.00137	U	µg/L	1	9/22/2023 9:04:21 AM
Surr: Dibromofluoromethane	100	80-119%	0	0		%Rec	1	9/22/2023 9:04:21 AM
Surr: Toluene-d8	85.8	89-112%	0	0	S	%Rec	1	9/22/2023 9:04:21 AM
Surr: 1-Bromo-4-fluorobenzene	105	85-114%	0	0		%Rec	1	9/22/2023 9:04:21 AM

Prep Method	Prep Date	Prep Initials
SW5030	9/20/2023 3:03:54 PM	KJ

NOTES:
S - The surrogate failure, Toluene-d8, is not associated with the analyte that is reported. Result meets QC requirements.

Analytical Report

Work Order: **2309206**
Date Reported: **9/26/2023**

Client: Innovex
Collection Date: 9/14/2023 2:10:00 PM
Project: JBLM-YTC
Lab ID: 2309206-009
Matrix: Water
Client Sample ID: **YTC-TVR-7-20230914**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 41491		Analyst: MS
Vinyl chloride	0.00500	0.100	0.00500	0.00137	U	µg/L	1	9/22/2023 9:40:15 AM
Surr: Dibromofluoromethane	100	80-119%	0	0		%Rec	1	9/22/2023 9:40:15 AM
Surr: Toluene-d8	84.8	89-112%	0	0	S	%Rec	1	9/22/2023 9:40:15 AM
Surr: 1-Bromo-4-fluorobenzene	104	85-114%	0	0		%Rec	1	9/22/2023 9:40:15 AM

Prep Method	Prep Date	Prep Initials
SW5030	9/20/2023 3:03:54 PM	KJ

NOTES:
S - The surrogate failure, Toluene-d8, is not associated with the analyte that is reported. Result meets QC requirements.

Analytical Report

Work Order: **2309206**
Date Reported: **9/26/2023**

Client: Innovex
Collection Date: 9/15/2023
Project: JBLM-YTC
Lab ID: 2309206-010
Matrix: Water
Client Sample ID: **YTC-TripBlank-2-20230915**

Volatile Organic Compounds by EPA Method 8260D SIM

Batch ID: 41533 Analyst: MS

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Vinyl chloride	0.00500	0.100	0.00500	0.00137	UQ-	µg/L	1	9/23/2023 2:58:57 AM
Surr: Dibromofluoromethane	99.1	80-119%				%Rec	1	9/23/2023 2:58:57 AM
Surr: Toluene-d8	102	89-112%				%Rec	1	9/23/2023 2:58:57 AM
Surr: 1-Bromo-4-fluorobenzene	99.6	85-114%				%Rec	1	9/23/2023 2:58:57 AM

Prep Method	Prep Date	Prep Initials
SW5030	9/20/2023 3:37:23 PM	KJ

NOTES:
Q- - Associated calibration verification is below acceptance criteria (76%, nominal 80-120). Sample cannot be reanalyzed due to limited volume.

Analytical Report

Work Order: **2309206**
Date Reported: **9/26/2023**

Client: Innovex
Collection Date: 9/14/2023 1:40:00 PM
Project: JBLM-YTC
Lab ID: 2309206-011
Matrix: Water
Client Sample ID: **YTC-Pomona-20230914**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 41491		Analyst: MS
Vinyl chloride	0.00500	0.100	0.00500	0.00137	U	µg/L	1	9/21/2023 10:20:18 PM
Surr: Dibromofluoromethane	98.9	80-119%				%Rec	1	9/21/2023 10:20:18 PM
Surr: Toluene-d8	99.6	89-112%				%Rec	1	9/21/2023 10:20:18 PM
Surr: 1-Bromo-4-fluorobenzene	101	85-114%				%Rec	1	9/21/2023 10:20:18 PM

Prep Method	Prep Date	Prep Initials
SW5030	9/20/2023 3:03:54 PM	KJ

Analytical Report

Work Order: **2309206**
Date Reported: **9/26/2023**

Client: Innovex
Collection Date: 9/14/2023 10:20:00 AM
Project: JBLM-YTC
Lab ID: 2309206-012
Matrix: Water
Client Sample ID: **YTC-PAIC-20230914**

Analyses	Result	LOQ	LOD	DL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA Method 8260D SIM						Batch ID: 41574		Analyst: MS
Vinyl chloride	0.00500	0.100	0.00500	0.00137	U	µg/L	1	9/25/2023 3:13:31 PM
Surr: Dibromofluoromethane	96.6	80-119%				%Rec	1	9/25/2023 3:13:31 PM
Surr: Toluene-d8	103	89-112%				%Rec	1	9/25/2023 3:13:31 PM
Surr: 1-Bromo-4-fluorobenzene	96.0	85-114%				%Rec	1	9/25/2023 3:13:31 PM

Prep Method	Prep Date	Prep Initials
SW5030	9/25/2023 1:13:27 PM	KJ

Work Order: 2309206
CLIENT: Innovex
Project: JBLM-YTC

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D SIM

Sample ID: **LCS-41491**	SampType: **LCS**	Units: **µg/L**	Prep Date: **9/20/2023**	RunNo: **86675**
Client ID: **LCSW**	Batch ID: **41491**		Analysis Date: **9/21/2023**	SeqNo: **1808358**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	4.52	0.100	5.000	0	90.4	58	137				
Surr: Dibromofluoromethane	9.27		10.00		92.7	80	119				
Surr: Toluene-d8	10.1		10.00		101	89	112				
Surr: 1-Bromo-4-fluorobenzene	9.76		10.00		97.6	85	114				

Sample ID: **MB-41491**	SampType: **MBLK**	Units: **µg/L**	Prep Date: **9/20/2023**	RunNo: **86675**
Client ID: **MBLKW**	Batch ID: **41491**		Analysis Date: **9/21/2023**	SeqNo: **1808354**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	0.00389	0.100									J
Surr: Dibromofluoromethane	9.91		10.00		99.1	80	119				
Surr: Toluene-d8	9.59		10.00		95.9	89	112				
Surr: 1-Bromo-4-fluorobenzene	9.38		10.00		93.8	85	114				

Sample ID: **2309206-011AMS**	SampType: **MS**	Units: **µg/L**	Prep Date: **9/20/2023**	RunNo: **86675**
Client ID: **YTC-Pomona-20230914**	Batch ID: **41491**		Analysis Date: **9/21/2023**	SeqNo: **1808352**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	4.64	0.100	5.000	0	92.9	58	137				
Surr: Dibromofluoromethane	9.76		10.00		97.6	80	119				
Surr: Toluene-d8	9.47		10.00		94.7	89	112				
Surr: 1-Bromo-4-fluorobenzene	10.0		10.00		100	85	114				

Sample ID: **2309206-011AMSD**	SampType: **MSD**	Units: **µg/L**	Prep Date: **9/20/2023**	RunNo: **86675**
Client ID: **YTC-Pomona-20230914**	Batch ID: **41491**		Analysis Date: **9/21/2023**	SeqNo: **1808353**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	4.29	0.100	5.000	0	85.8	58	137	4.644	7.97	20	
Surr: Dibromofluoromethane	9.74		10.00		97.4	80	119		0		
Surr: Toluene-d8	9.44		10.00		94.4	89	112		0		

Work Order: 2309206
CLIENT: Innovex
Project: JBLM-YTC

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D SIM

Sample ID: **2309206-011AMSD** SampType: **MSD** Units: **µg/L** Prep Date: **9/20/2023** RunNo: **86675**
Client ID: **YTC-Pomona-20230914** Batch ID: **41491** Analysis Date: **9/21/2023** SeqNo: **1808353**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	9.42		10.00		94.2	85	114		0		

Sample ID: **LCS-41533** SampType: **LCS** Units: **µg/L** Prep Date: **9/20/2023** RunNo: **86704**
Client ID: **LCSW** Batch ID: **41533** Analysis Date: **9/22/2023** SeqNo: **1809080**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	4.62	0.100	5.000	0	92.5	58	137				
Surr: Dibromofluoromethane	9.33		10.00		93.3	80	119				
Surr: Toluene-d8	10.8		10.00		108	89	112				
Surr: 1-Bromo-4-fluorobenzene	9.93		10.00		99.3	85	114				

Sample ID: **MB-41533** SampType: **MBLK** Units: **µg/L** Prep Date: **9/20/2023** RunNo: **86704**
Client ID: **MBLKW** Batch ID: **41533** Analysis Date: **9/22/2023** SeqNo: **1809068**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.100									U
Surr: Dibromofluoromethane	9.06		10.00		90.6	80	119				
Surr: Toluene-d8	7.66		10.00		76.6	89	112				S
Surr: 1-Bromo-4-fluorobenzene	9.48		10.00		94.8	85	114				

NOTES:
S - The surrogate failure, Toluene-d8, is not associated with the analyte that is reported. Result meets QC requirements.

Sample ID: **2309207-003AMS** SampType: **MS** Units: **µg/L** Prep Date: **9/20/2023** RunNo: **86704**
Client ID: **BATCH** Batch ID: **41533** Analysis Date: **9/22/2023** SeqNo: **1809063**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	6.65	0.100	5.000	0.007840	133	58	137				
Surr: Dibromofluoromethane	9.55		10.00		95.5	80	119				
Surr: Toluene-d8	12.2		10.00		122	89	112				S
Surr: 1-Bromo-4-fluorobenzene	9.90		10.00		99.0	85	114				

Work Order: 2309206
CLIENT: Innovex
Project: JBLM-YTC

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D SIM

Sample ID: **2309207-003AMS** SampType: **MS** Units: **µg/L** Prep Date: **9/20/2023** RunNo: **86704**
Client ID: **BATCH** Batch ID: **41533** Analysis Date: **9/22/2023** SeqNo: **1809063**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:
S - Outlying surrogate recovery(ies) observed, Toluene-d8 is not associated with analyte that is reported.

Sample ID: **2309207-003AMSD** SampType: **MSD** Units: **µg/L** Prep Date: **9/20/2023** RunNo: **86704**
Client ID: **BATCH** Batch ID: **41533** Analysis Date: **9/22/2023** SeqNo: **1809065**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	6.09	0.100	5.000	0.007840	122	58	137	6.646	8.69	20	
Surr: Dibromofluoromethane	8.86		10.00		88.6	80	119		0		
Surr: Toluene-d8	11.8		10.00		118	89	112		0		S
Surr: 1-Bromo-4-fluorobenzene	9.79		10.00		97.9	85	114		0		

NOTES:
S - Outlying surrogate recovery(ies) observed, Toluene-d8 is not associated with analyte that is reported.

Sample ID: **LCS-41574** SampType: **LCS** Units: **µg/L** Prep Date: **9/25/2023** RunNo: **86725**
Client ID: **LCSW** Batch ID: **41574** Analysis Date: **9/25/2023** SeqNo: **1809464**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	4.07	0.100	5.000	0	81.4	58	137				
Surr: Dibromofluoromethane	9.53		10.00		95.3	80	119				
Surr: Toluene-d8	11.2		10.00		112	89	112				S
Surr: 1-Bromo-4-fluorobenzene	9.79		10.00		97.9	85	114				

NOTES:
S - The surrogate failure, Toluene-d8, is not associated with the analyte that is reported. Result meets QC requirements.

Sample ID: **MB-41574** SampType: **MBLK** Units: **µg/L** Prep Date: **9/25/2023** RunNo: **86725**
Client ID: **MBLKW** Batch ID: **41574** Analysis Date: **9/25/2023** SeqNo: **1809461**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.100									U
Surr: Dibromofluoromethane	9.74		10.00		97.4	80	119				
Surr: Toluene-d8	9.15		10.00		91.5	89	112				

Work Order: 2309206
CLIENT: Innovex
Project: JBLM-YTC

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D SIM

Sample ID: **MB-41574**	SampType: **MBLK**	Units: **µg/L**	Prep Date: **9/25/2023**	RunNo: **86725**
Client ID: **MBLKW**	Batch ID: **41574**		Analysis Date: **9/25/2023**	SeqNo: **1809461**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	9.84		10.00		98.4	85	114				

Sample ID: **2309207-002ADUP**	SampType: **DUP**	Units: **µg/L**	Prep Date: **9/25/2023**	RunNo: **86725**
Client ID: **BATCH**	Batch ID: **41574**		Analysis Date: **9/25/2023**	SeqNo: **1809457**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	0.0436	0.100						0.04131	5.28	20	J
Surr: Dibromofluoromethane	9.50		10.00		95.0	80	119		0		
Surr: Toluene-d8	10.5		10.00		105	89	112		0		
Surr: 1-Bromo-4-fluorobenzene	9.84		10.00		98.4	85	114		0		

Sample ID: **2309206-012AMS**	SampType: **MS**	Units: **µg/L**	Prep Date: **9/25/2023**	RunNo: **86725**
Client ID: **YTC-PAIC-20230914**	Batch ID: **41574**		Analysis Date: **9/25/2023**	SeqNo: **1809454**

Analyte	Result	LOQ	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	4.51	0.100	5.000	0	90.3	58	137				
Surr: Dibromofluoromethane	9.29		10.00		92.9	80	119				
Surr: Toluene-d8	11.0		10.00		110	89	112				
Surr: 1-Bromo-4-fluorobenzene	9.82		10.00		98.2	85	114				

Fremont Analytical
An Alliance Technical Group Company

Sample Log-In Check List

Client Name:	INNO	Work Order Number:	2309206
Logged by:	Lyann Rivera	Date Received:	9/19/2023 12:40:00 PM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☑	No ☐	NA ☐
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☑	NA ☐
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

Item Information

Item #	Temp °C
Sample	1.3

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record & Laboratory Services Agreement

Fremont Analytical
An Alliance Technical Group Company
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Date: 9/15/23 Page: 1 of: 2

Laboratory Project No (internal): 2309206

Special Remarks:

Project Name: JBLM- YTC

Project No: 20506

Client: Innovex, Anna Jordan

Address: 16310 NE 80th St,

City, State, Zip: Redmond, WA 98052

Telephone: 206.949.3010

Collected by: KKH, HC

Location: YTC IRP

Report To (PM): Anna Jordan

Disposal: Samples will be disposed in 30 days unless otherwise requested.
☐ Retain volume (specify above) ☐ Return to client

Email(s): anna.jordan@innovex.net

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8) Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	*DODVOC8260SIM	Comments
1	YTC-FTP-1-20230915	9/15/23	0910	GW	3											X		* Vinyl chloride only
2	YTC-MTS-1-20230914	9/14/23	1600		3											X		
3	YTC-MTS-2-20230914	9/14/23	1615		3											X		
4	YTC-MTS-4-20230914	9/14/23	1530		2											X		
5	YTC-TVR-1-20230914	9/14/23	1450		3											X		
6	YTC-~~TVR-1a~~-MTS-2a-20230914		1630		2	→	→	→	9/14/2023							X		
7	YTC-TVR-3-20230914	9/14/23	1430		2											X		
8	YTC-TVR-6-20230914	9/14/23	1510		2											X		
9	YTC-TVR-7-20230914	9/14/23	1410		3											X		
10	YTC-~~TripBlankQ3~~-TripBlank2-20230915			↓	1											X		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA 5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:
☒ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day ☐ (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x	Krista Keska-Hyma	9/19/23 1100	x	Nathan Koffel	9/19/23 1240
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x			x		

Fremont Analytical
An Alliance Technical Group Company
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Chain of Custody Record & Laboratory Services Agreement

Date: 9/15/23 Page: 2 of: 2

Laboratory Project No (internal): 2309206

Special Remarks:

Project Name: JBLM- YTC

Project No: 20506

Client: Innovex, Anna Jordan

Address: 16310 NE 80th St,

City, State, Zip: Redmond, WA 98052

Telephone: 206.949.3010

Email(s): anna.jordan@innovex.net

Collected by: KKH, HC

Location: YTC IRP

Report To (PM): Anna Jordan

Disposal: Samples will be disposed in 30 days unless otherwise requested.
☐ Retain volume (specify above) ☐ Return to client

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8) Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	*DODVOC8260SIM	Comments
1	YTC-Pomona-20230914	9/14/23	1340	W	9											X		* Vinyl chloride only
2	YTC-PAIC-20230914	↓	1020	W	3											X		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:
☒ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x		9/19/23 1100	x	Nathan Koffler	9/19/23 1240
x			x		

Fremont Analytical
An Alliance Technical Group Company
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Chain of Custody Record & Laboratory Services Agreement

Date: 9/15/23 Page: 1 of: 2

Laboratory Project No (internal): 2309206

Special Remarks: Updated per AJ 9/19/2023 LR

Project Name: JBLM- YTC

Client: Innovex, Anna Jordan

Project No: 20506

Address: 16310 NE 80th St,

Collected by: KKH, HC

City, State, Zip: Redmond, WA 98052

Location: YTC IRP

Telephone: 206.949.3010

Report To (PM): Anna Jordan

Disposal: Samples will be disposed in 30 days unless otherwise requested. ☐ Retain volume (specify above) ☐ Return to client

Email(s): anna.jordan@innovex.net

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8) Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	*DODVOC8260SIM	Comments
1	YTC-FTP-1-20230915	9/15/23	0910	W	3											X		* Vinyl chloride only
2	YTC-MTS-1-20230914	9/14/23	1600		3											X		
3	YTC-MTS-2-20230914	9/14/23	1615		3											X		
4	YTC-MTS-4-20230914	9/14/23	1530		2											X		
5	YTC-TVR-1-20230914	9/14/23	1450		3											X		
6	YTC-~~TVR-1a~~-MTS-2a-20230914		1630	3	~~X~~	→ 9/14/2023										X		
7	YTC-TVR-3-20230914	9/14/23	1430		2											X		
8	YTC-TVR-6-20230914	9/14/23	1510		2											X		
9	YTC-TVR-7-20230914	9/14/23	1410		3											X		
10	YTC-~~TripBlankQ3~~-TripBlank-2-20230915			↓	1											X		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA 5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time: ☒ Standard ☐ Next Day ☐ 3 Day ☐ Same Day ☐ 2 Day ☐ (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x	Krista Keska-Hyma	9/19/23 1100	x	Nathan Moffitt	9/19/23 1240
x			x		

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An Alliance Technical Group Company
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Chain of Custody Record & Laboratory Services Agreement

Date: 9/15/23 Page: 2 of: 2

Laboratory Project No (internal): 2309206

Special Remarks:

Project Name: JBLM- YTC

Project No: 20506

Client: Innovex, Anna Jordan

Address: 16310 NE 80th St,

City, State, Zip: Redmond, WA 98052

Telephone: 206.949.3010

Email(s): anna.jordan@innovex.net

Collected by: KKH, HC

Location: YTC IRP

Report To (PM): Anna Jordan

Disposal: Samples will be disposed in 30 days unless otherwise requested.
☐ Retain volume (specify above) ☐ Return to client

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8) Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	*DODVOC8260SIM	Comments
1	YTC-Pomona-20230914	9/14/23	1340	W	9											X		* Vinyl chloride only MS/MSD
2	YTC-PAIC-20230914	↓	1020	W	3											X		↓
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

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☐ 2 Day (specify)

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Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
x		9/19/23 1100	x	Nathan Koffler	9/19/23 1240
x			x		

DATA VALIDATION CHECKLIST – STAGE 2A

Site Name	JBLM	**Project Name**	YTC IRP
Data Reviewer (signature and date)	Pamela M Fleming 10/19/2023	**Technical Reviewer (signature and date)**	J Sinica 10/22/2023
Laboratory Report No.	2309206	**Laboratory**	Fremont Analytical
Analyses	DODVOC8260D-SIM		
Sample and Matrix	YTC-FTP-1-20230915 (GW) 2309206-001 YTC-MTS-1-20230914 (GW) 2309206-002 YTC-MTS-2-20230914 (GW) 2309206-003 YTC-MTS-4-20230914 (GW) 2309206-004 YTC-TVR-1-20230914 (GW) 2309206-005 YTC-MTS-2A-20230914 (GW) 2309206-006 YTC-TVR-3-20230914 (GW) 2309206-007 YTC-TVR-6-20230914 (GW) 2309206-008 YTC-TVR-7-20230914 (GW) 2309206-009 YTC-TRIPBLANK-20230915 2309206-010 YTC-POMONA-20230914 (GW) 2309206-011 YTC-PAIC-20230914 (GW) 2309206-012		
Field Duplicate Pairs	YTC-MTS-2-20230914 and YTC-MTS-2A-20230914		
Field Blanks	One trip blank was 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) National Functional Guidelines for Organic and Inorganic Superfund Methods Data Review (November 2020). Analytical data were evaluated in general accordance with this document.

OVERALL EVALUATION

All results are usable with the qualifications described in this checklist. Only non-detectable concentrations of the surrogates Dibromofluoromethane and Toluene-d8 were rejected due to failure to meet system monitoring criteria.

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
N/A	One trip blank was analyzed, and analytes were not detected above the LOD.

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 those noted below. The lab noted the surrogates associated with sample YTC-FTP-1-20230915 failed due to matrix interference. Additionally, the lab noted that the surrogate failure, Toluene-d8, is not associated with the analyte that is reported. Therefore, the result meets the QC requirements.

Surrogate	Method	Project Sample ID	Result	QC Limits	New Qualifier
Dibromofluoromethane	8260D SIM	YTC-FTP-1-20230915	0	80.0-119	J- (all detects) X (all non-detects)
Toluene-d8			0	89.0-112	
1-Bromo-4-fluorobenzene			159	85.0-114	J+ (all detects) No qualification (all non-detects)
Toluene-d8		YTC-MTS-4-20230914, YTC-TVR-1-20230914, YTC-MTS-2a-20230914, YTC-TVR-6-20230914, and YTC-TVR-7-20230914	83.9 to 85.8	89.0-112	J- (all detects) UJ (all non-detects)

MS/MSD:

Within Criteria	Exceedance/Notes
Y	Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project samples. Percent recoveries (%R) were within QC limits.

Laboratory control:

Within Criteria	Exceedance/Notes
Y	Laboratory control sample (LCS) analysis were performed. Percent recoveries (%R) were within QC limits.

Field duplicates:

Within Criteria	Exceedance/Notes
Y	Field duplicate sample analysis was performed. No analytical detections were identified, therefore relative percent differences (RPD) were not calculated.

Sample dilutions:

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

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
N/A	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	Detections between the LOD and MDL (if present) were qualified as not detected (flagged U).

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
N/A	

Other [none]:

Within Criteria	Exceedance/Notes
N/A	

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.

ANALYTICAL REPORT

October 13, 2023

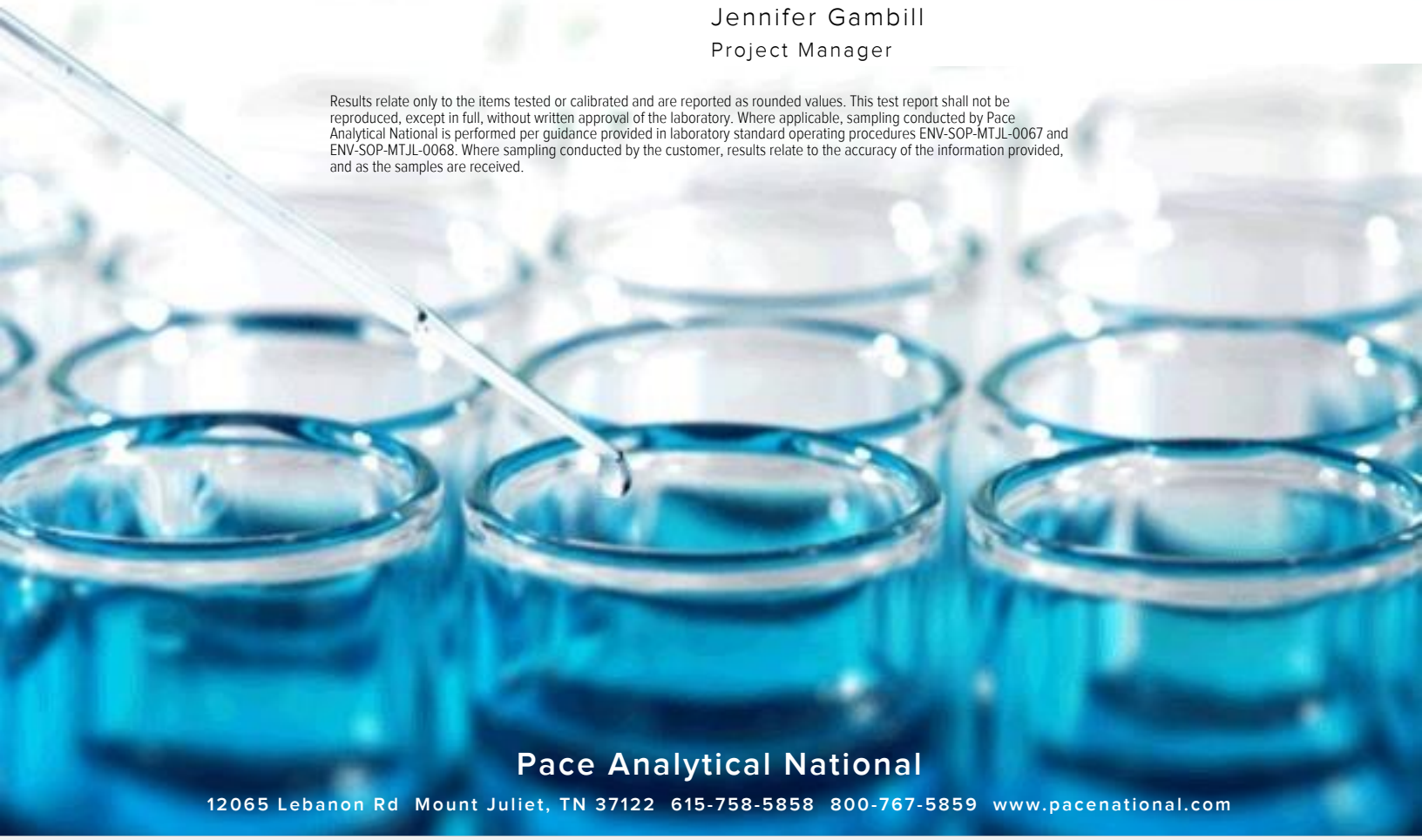
INNOVEX/ERRG Joint Venture - Redmond, WA

Sample Delivery Group:	L1656839
Samples Received:	09/16/2023
Project Number:	20506
Description:	JBLM-YTC
Site:	YTC IRP
Report To:	Pamela M. Fleming 16310 NE 80th St. Ste 104 Redmond, WA 98052

Entire Report Reviewed By:

Jennifer Gambill
Project Manager

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



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

TABLE OF CONTENTS

YTC-FTP-1-20230915 L1656839-01 GW

Collected by: HC/KKH | Collected date/time: 09/15/23 09:10 | Received date/time: 09/16/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2136600	10	09/21/23 14:00	09/21/23 14:00	DYW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135886	1	09/20/23 20:16	09/20/23 20:16	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2136424	1	09/21/23 07:35	09/23/23 19:28	HLJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2136424	1	09/21/23 07:35	09/24/23 10:26	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2136444	1	09/21/23 17:21	09/22/23 13:15	AGW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2134701	1	09/19/23 07:49	09/19/23 22:34	JRM	Mt. Juliet, TN

YTC-MTS-1-20230914 L1656839-02 GW

Collected by: HC/KKH | Collected date/time: 09/14/23 16:00 | Received date/time: 09/16/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135886	1	09/20/23 20:38	09/20/23 20:38	JCP	Mt. Juliet, TN

YTC-MTS-2-20230914 L1656839-03 GW

Collected by: HC/KKH | Collected date/time: 09/14/23 16:15 | Received date/time: 09/16/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135886	1	09/20/23 21:00	09/20/23 21:00	JCP	Mt. Juliet, TN

YTC-MTS-4-20230914 L1656839-04 GW

Collected by: HC/KKH | Collected date/time: 09/14/23 15:30 | Received date/time: 09/16/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135886	1	09/20/23 21:21	09/20/23 21:21	JCP	Mt. Juliet, TN

YTC-TVR-1-20230914 L1656839-05 GW

Collected by: HC/KKH | Collected date/time: 09/14/23 14:50 | Received date/time: 09/16/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135886	1	09/20/23 21:43	09/20/23 21:43	JCP	Mt. Juliet, TN

YTC-MTS-2A-20230914 L1656839-06 GW

Collected by: HC/KKH | Collected date/time: 09/14/23 16:30 | Received date/time: 09/16/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135886	1	09/20/23 22:05	09/20/23 22:05	JCP	Mt. Juliet, TN

YTC-TVR-3-20230914 L1656839-07 GW

Collected by: HC/KKH | Collected date/time: 09/14/23 14:30 | Received date/time: 09/16/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135886	1	09/20/23 22:26	09/20/23 22:26	JCP	Mt. Juliet, TN

YTC-TVR-6-20230914 L1656839-08 GW

Collected by: HC/KKH | Collected date/time: 09/14/23 15:10 | Received date/time: 09/16/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135886	1	09/20/23 22:48	09/20/23 22:48	JCP	Mt. Juliet, TN

YTC-TVR-7-20230914 L1656839-09 GW

Collected by: HC/KKH | Collected date/time: 09/14/23 14:10 | Received date/time: 09/16/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135886	1	09/20/23 23:10	09/20/23 23:10	JCP	Mt. Juliet, TN

YTC-TRIPBLANK-20230915 L1656839-10 GW

Collected by: HC/KKH | Collected date/time: 09/15/23 00:00 | Received date/time: 09/16/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135886	1	09/20/23 18:07	09/20/23 18:07	JCP	Mt. Juliet, TN

YTC-POMONA-20230914 L1656839-11 GW

Collected by: HC/KKH | Collected date/time: 09/14/23 13:40 | Received date/time: 09/16/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2135886	1	09/20/23 23:32	09/20/23 23:32	JCP	Mt. Juliet, TN

YTC-PAIC-20230914 L1656839-12 GW

Collected by: HC/KKH | Collected date/time: 09/14/23 10:20 | Received date/time: 09/16/23 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2137544	1	09/22/23 13:58	09/22/23 13:58	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	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	TPH C6 - C12	1.46		0.316	0.670	1.34	10	09/21/2023 14:00	WG2136600
(S) a,a,a-Trifluorotoluene(FID)	*98-08-8*	*105*				*78.0-120*		*09/21/2023 14:00*	WG2136600

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	09/20/2023 20:16	WG2135886
Benzene	71-43-2	0.000323	J	0.0000941	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	09/20/2023 20:16	WG2135886
n-Butylbenzene	104-51-8	0.000643	J	0.000157	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
sec-Butylbenzene	135-98-8	0.000801	J	0.000125	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	09/20/2023 20:16	WG2135886
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	09/20/2023 20:16	WG2135886
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	09/20/2023 20:16	WG2135886
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	09/20/2023 20:16	WG2135886
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
1,2-Dichlorobenzene	95-50-1	0.000422	J	0.000107	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	09/20/2023 20:16	WG2135886
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
Ethylbenzene	100-41-4	0.00117		0.000137	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	09/20/2023 20:16	WG2135886
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	09/20/2023 20:16	WG2135886
Isopropylbenzene	98-82-8	0.00127		0.000105	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
p-Isopropyltoluene	99-87-6	0.00158		0.000120	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	09/20/2023 20:16	WG2135886
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	09/20/2023 20:16	WG2135886
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	09/20/2023 20:16	WG2135886
n-Propylbenzene	103-65-1	0.00154		0.0000993	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 20:16	WG2135886

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	09/20/2023 20:16	WG2135886
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	09/20/2023 20:16	WG2135886
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	09/20/2023 20:16	WG2135886
1,2,4-Trimethylbenzene	95-63-6	0.0111		0.000322	0.00100	0.00200	1	09/20/2023 20:16	WG2135886
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
Trichloroethene	79-01-6	0.000500	U	0.000190	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	09/20/2023 20:16	WG2135886
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	09/20/2023 20:16	WG2135886
o-Xylene	95-47-6	0.000257	J	0.000174	0.000500	0.00100	1	09/20/2023 20:16	WG2135886
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	09/20/2023 20:16	WG2135886
Xylenes, Total	1330-20-7	0.000257	J	0.000174	0.00150	0.00300	1	09/20/2023 20:16	WG2135886
(S) Toluene-d8	*2037-26-5*	*104*				*89.0-112*		*09/20/2023 20:16*	WG2135886
(S) 4-Bromofluorobenzene	*460-00-4*	*102*				*85.0-114*		*09/20/2023 20:16*	WG2135886
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*105*				*81.0-118*		*09/20/2023 20:16*	WG2135886

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	68334-30-5	4.58	J3	0.0333	0.0750	0.150	1	09/23/2023 19:28	WG2136424
Residual Range Organics (RRO)	RRO	0.769		0.0833	0.167	0.334	1	09/24/2023 10:26	WG2136424
(S) o-Terphenyl	*84-15-1*	*61.5*				*31.0-160*		*09/23/2023 19:28*	WG2136424
(S) o-Terphenyl	*84-15-1*	*119*				*31.0-160*		*09/24/2023 10:26*	WG2136424

Sample Narrative:

L1656839-01 WG2136424: Sample resembles laboratory standard for Diesel.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Benzoic acid	65-85-0	0.00500	U	0.00170	0.00500	0.0500	1	09/22/2023 13:15	WG2136444
Benzyl alcohol	100-51-6	0.00500	U	0.000563	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
Bis(2-chlorethoxy)methane	111-91-1	0.00500	U	0.000116	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
Bis(2-chloroethyl)ether	111-44-4	0.00500	U	0.000137	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
2,2-Oxybis(1-Chloropropane)	108-60-1	0.00500	U	0.000210	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
4-Bromophenyl-phenylether	101-55-3	0.00500	U	0.0000877	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
Carbazole	86-74-8	0.00500	U	0.000111	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
4-Chloroaniline	106-47-8	0.00500	U	0.000234	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
2-Chloronaphthalene	91-58-7	0.000500	U	0.0000648	0.000500	0.00100	1	09/22/2023 13:15	WG2136444
4-Chlorophenyl-phenylether	7005-72-3	0.00500	U	0.0000926	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
Dibenzofuran	132-64-9	0.00500	J4 U	0.0000970	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
3,3-Dichlorobenzidine	91-94-1	0.00500	U	0.000212	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
2,4-Dinitrotoluene	121-14-2	0.00500	U	0.0000983	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
2,6-Dinitrotoluene	606-20-2	0.00500	U	0.000250	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
Hexachlorobenzene	118-74-1	0.000500	U	0.0000755	0.000500	0.00100	1	09/22/2023 13:15	WG2136444
Hexachlorocyclopentadiene	77-47-4	0.00500	U	0.0000598	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
Hexachloroethane	67-72-1	0.00500	U	0.000127	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
Isophorone	78-59-1	0.00500	U	0.000143	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
2-Nitroaniline	88-74-4	0.00500	U	0.000102	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
3-Nitroaniline	99-09-2	0.00500	U	0.0000860	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
4-Nitroaniline	100-01-6	0.00500	U	0.0000910	0.00500	0.0100	1	09/22/2023 13:15	WG2136444

Semi Volatile Organic Compounds (GC/MS) by Method 8270E

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Nitrobenzene	98-95-3	0.00500	U	0.000297	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
n-Nitrosodimethylamine	62-75-9	0.00500	U	0.000998	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
n-Nitrosodiphenylamine	86-30-6	0.00500	U	0.00237	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
n-Nitrosodi-n-propylamine	621-64-7	0.00500	U	0.000261	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
Benzylbutyl phthalate	85-68-7	0.00200	U	0.000765	0.00200	0.00400	1	09/22/2023 13:15	WG2136444
Bis(2-Ethylhexyl)phthalate	117-81-7	0.00200	U	0.000895	0.00200	0.00400	1	09/22/2023 13:15	WG2136444
Di-n-butyl phthalate	84-74-2	0.00150	U	0.000453	0.00150	0.00300	1	09/22/2023 13:15	WG2136444
Diethyl phthalate	84-66-2	0.00150	U	0.000287	0.00150	0.00300	1	09/22/2023 13:15	WG2136444
Dimethyl phthalate	131-11-3	0.00150	U	0.000260	0.00150	0.00300	1	09/22/2023 13:15	WG2136444
Di-n-octyl phthalate	117-84-0	0.00200	U	0.000932	0.00200	0.00400	1	09/22/2023 13:15	WG2136444
1,2,4-Trichlorobenzene	120-82-1	0.00500	U	0.0000698	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
4-Chloro-3-methylphenol	59-50-7	0.00500	J4 U	0.000131	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
2-Chlorophenol	95-57-8	0.00500	U	0.000133	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
2,4-Dichlorophenol	120-83-2	0.00500	J4 U	0.000102	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
2,4-Dimethylphenol	105-67-9	0.00500	U	0.0000636	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
4,6-Dinitro-2-methylphenol	534-52-1	0.00500	U	0.00112	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
2,4-Dinitrophenol	51-28-5	0.0150	U	0.00593	0.0150	0.0300	1	09/22/2023 13:15	WG2136444
2-Methylphenol	95-48-7	0.0150	U	0.0000920	0.0150	0.0100	1	09/22/2023 13:15	WG2136444
3&4-Methyl Phenol	3&4-Methyl Phenol	0.0150	U	0.000168	0.0150	0.0100	1	09/22/2023 13:15	WG2136444
2-Nitrophenol	88-75-5	0.00500	U	0.000117	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
4-Nitrophenol	100-02-7	0.00500	U	0.000143	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
Pentachlorophenol	87-86-5	0.00500	U	0.000313	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
Phenol	108-95-2	0.0100	U	0.00433	0.0100	0.0200	1	09/22/2023 13:15	WG2136444
2,4,5-Trichlorophenol	95-95-4	0.0100	U	0.000109	0.0100	0.0100	1	09/22/2023 13:15	WG2136444
2,4,6-Trichlorophenol	88-06-2	0.00500	J4 U	0.000100	0.00500	0.0100	1	09/22/2023 13:15	WG2136444
(S) 2-Fluorophenol	*367-12-4*	*27.8*				*19.0-119*		*09/22/2023 13:15*	WG2136444
(S) Phenol-d5	*4165-62-2*	*22.2*				*10.0-67.0*		*09/22/2023 13:15*	WG2136444
(S) Nitrobenzene-d5	*4165-60-0*	*59.7*				*44.0-120*		*09/22/2023 13:15*	WG2136444
(S) 2-Fluorobiphenyl	*321-60-8*	*51.4*				*44.0-119*		*09/22/2023 13:15*	WG2136444
(S) 2,4,6-Tribromophenol	*118-79-6*	*51.1*				*43.0-140*		*09/22/2023 13:15*	WG2136444
(S) p-Terphenyl-d14	*1718-51-0*	*56.5*				*50.0-134*		*09/22/2023 13:15*	WG2136444

Sample Narrative:

L1656839-01 WG2136444: QC passing within historical limits

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Anthracene	120-12-7	0.0000500	U	0.0000190	0.0000500	0.000100	1	09/19/2023 22:34	WG2134701
Acenaphthene	83-32-9	0.000402		0.0000190	0.0000500	0.000100	1	09/19/2023 22:34	WG2134701
Acenaphthylene	208-96-8	0.0000500	U	0.0000170	0.0000500	0.000100	1	09/19/2023 22:34	WG2134701
Benzo(a)anthracene	56-55-3	0.0000500	U	0.0000200	0.0000500	0.000100	1	09/19/2023 22:34	WG2134701
Benzo(a)pyrene	50-32-8	0.0000500	U	0.0000180	0.0000500	0.000100	1	09/19/2023 22:34	WG2134701
Benzo(b)fluoranthene	205-99-2	0.0000500	U	0.0000170	0.0000500	0.000100	1	09/19/2023 22:34	WG2134701
Benzo(g,h,i)perylene	191-24-2	0.0000500	U	0.0000180	0.0000500	0.000100	1	09/19/2023 22:34	WG2134701
Benzo(k)fluoranthene	207-08-9	0.000125	U	0.0000200	0.000125	0.000250	1	09/19/2023 22:34	WG2134701
Chrysene	218-01-9	0.0000500	U	0.0000180	0.0000500	0.000100	1	09/19/2023 22:34	WG2134701
Dibenz(a,h)anthracene	53-70-3	0.0000500	U	0.0000180	0.0000500	0.000100	1	09/19/2023 22:34	WG2134701
Fluoranthene	206-44-0	0.0000211	J	0.0000110	0.0000250	0.0000500	1	09/19/2023 22:34	WG2134701
Fluorene	86-73-7	0.000410		0.0000170	0.0000500	0.000100	1	09/19/2023 22:34	WG2134701
Indeno(1,2,3-cd)pyrene	193-39-5	0.0000400	U	0.0000180	0.0000400	0.0000800	1	09/19/2023 22:34	WG2134701
Naphthalene	91-20-3	0.000617	J	0.000128	0.000500	0.00100	1	09/19/2023 22:34	WG2134701
Phenanthrene	85-01-8	0.0000500	U	0.0000180	0.0000500	0.000100	1	09/19/2023 22:34	WG2134701
Pyrene	129-00-0	0.0000466	J	0.0000170	0.0000500	0.000100	1	09/19/2023 22:34	WG2134701
1-Methylnaphthalene	90-12-0	0.000512		0.0000200	0.000250	0.000500	1	09/19/2023 22:34	WG2134701

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
2-Methylnaphthalene	91-57-6	0.000128	J	0.0000280	0.000250	0.000500	1	09/19/2023 22:34	WG2134701
(S) Nitrobenzene-d5	*4165-60-0*	*94.7*				*55.0-111*		*09/19/2023 22:34*	WG2134701
(S) 2-Fluorobiphenyl	*321-60-8*	*77.9*				*53.0-106*		*09/19/2023 22:34*	WG2134701
(S) p-Terphenyl-d14	*1718-51-0*	*86.8*				*58.0-132*		*09/19/2023 22:34*	WG2134701
(S) 2-Methylnaphthalene-D10	*7297-45-2*	*78.9*				*50.0-150*		*09/19/2023 22:34*	WG2134701
(S) Fluoranthene-D10	*93951-69-0*	*88.4*				*50.0-150*		*09/19/2023 22:34*	WG2134701

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	09/20/2023 20:38	WG2135886
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	09/20/2023 20:38	WG2135886
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	09/20/2023 20:38	WG2135886
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	09/20/2023 20:38	WG2135886
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	09/20/2023 20:38	WG2135886
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	09/20/2023 20:38	WG2135886
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	09/20/2023 20:38	WG2135886
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	09/20/2023 20:38	WG2135886
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	09/20/2023 20:38	WG2135886
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	09/20/2023 20:38	WG2135886
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	09/20/2023 20:38	WG2135886
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	09/20/2023 20:38	WG2135886
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	09/20/2023 20:38	WG2135886
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	09/20/2023 20:38	WG2135886
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	09/20/2023 20:38	WG2135886
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	09/20/2023 20:38	WG2135886
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	09/20/2023 20:38	WG2135886

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
Trichloroethene	79-01-6	0.00283		0.000190	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	09/20/2023 20:38	WG2135886
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	09/20/2023 20:38	WG2135886
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	09/20/2023 20:38	WG2135886
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	09/20/2023 20:38	WG2135886
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	09/20/2023 20:38	WG2135886
(S) Toluene-d8	*2037-26-5*	*106*				*89.0-112*		*09/20/2023 20:38*	WG2135886
(S) 4-Bromofluorobenzene	*460-00-4*	*104*				*85.0-114*		*09/20/2023 20:38*	WG2135886
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*104*				*81.0-118*		*09/20/2023 20:38*	WG2135886

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	09/20/2023 21:00	WG2135886
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	09/20/2023 21:00	WG2135886
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	09/20/2023 21:00	WG2135886
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	09/20/2023 21:00	WG2135886
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	09/20/2023 21:00	WG2135886
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	09/20/2023 21:00	WG2135886
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	09/20/2023 21:00	WG2135886
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
cis-1,2-Dichloroethene	156-59-2	0.000169	J	0.000126	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	09/20/2023 21:00	WG2135886
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	09/20/2023 21:00	WG2135886
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	09/20/2023 21:00	WG2135886
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	09/20/2023 21:00	WG2135886
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	09/20/2023 21:00	WG2135886
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	09/20/2023 21:00	WG2135886
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	09/20/2023 21:00	WG2135886
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	09/20/2023 21:00	WG2135886
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	09/20/2023 21:00	WG2135886
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	09/20/2023 21:00	WG2135886

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
Trichloroethene	79-01-6	0.00574		0.000190	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	09/20/2023 21:00	WG2135886
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	09/20/2023 21:00	WG2135886
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	09/20/2023 21:00	WG2135886
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	09/20/2023 21:00	WG2135886
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	09/20/2023 21:00	WG2135886
(S) Toluene-d8	*2037-26-5*	*103*				*89.0-112*		*09/20/2023 21:00*	WG2135886
(S) 4-Bromofluorobenzene	*460-00-4*	*101*				*85.0-114*		*09/20/2023 21:00*	WG2135886
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*103*				*81.0-118*		*09/20/2023 21:00*	WG2135886

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	09/20/2023 21:21	WG2135886
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	09/20/2023 21:21	WG2135886
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	09/20/2023 21:21	WG2135886
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	09/20/2023 21:21	WG2135886
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	09/20/2023 21:21	WG2135886
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	09/20/2023 21:21	WG2135886
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	09/20/2023 21:21	WG2135886
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	09/20/2023 21:21	WG2135886
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	09/20/2023 21:21	WG2135886
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	09/20/2023 21:21	WG2135886
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	09/20/2023 21:21	WG2135886
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	09/20/2023 21:21	WG2135886
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	09/20/2023 21:21	WG2135886
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	09/20/2023 21:21	WG2135886
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	09/20/2023 21:21	WG2135886
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	09/20/2023 21:21	WG2135886
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	09/20/2023 21:21	WG2135886

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
Trichloroethene	79-01-6	0.00358		0.000190	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	09/20/2023 21:21	WG2135886
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	09/20/2023 21:21	WG2135886
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	09/20/2023 21:21	WG2135886
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	09/20/2023 21:21	WG2135886
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	09/20/2023 21:21	WG2135886
(S) Toluene-d8	*2037-26-5*	*103*				*89.0-112*		*09/20/2023 21:21*	WG2135886
(S) 4-Bromofluorobenzene	*460-00-4*	*100*				*85.0-114*		*09/20/2023 21:21*	WG2135886
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*101*				*81.0-118*		*09/20/2023 21:21*	WG2135886

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	09/20/2023 21:43	WG2135886
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	09/20/2023 21:43	WG2135886
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	09/20/2023 21:43	WG2135886
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	09/20/2023 21:43	WG2135886
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	09/20/2023 21:43	WG2135886
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	09/20/2023 21:43	WG2135886
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	09/20/2023 21:43	WG2135886
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	09/20/2023 21:43	WG2135886
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	09/20/2023 21:43	WG2135886
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	09/20/2023 21:43	WG2135886
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	09/20/2023 21:43	WG2135886
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	09/20/2023 21:43	WG2135886
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	09/20/2023 21:43	WG2135886
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	09/20/2023 21:43	WG2135886
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	09/20/2023 21:43	WG2135886
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	09/20/2023 21:43	WG2135886
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	09/20/2023 21:43	WG2135886

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
Trichloroethene	79-01-6	0.00712		0.000190	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	09/20/2023 21:43	WG2135886
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	09/20/2023 21:43	WG2135886
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	09/20/2023 21:43	WG2135886
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	09/20/2023 21:43	WG2135886
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	09/20/2023 21:43	WG2135886
(S) Toluene-d8	*2037-26-5*	*103*				*89.0-112*		*09/20/2023 21:43*	WG2135886
(S) 4-Bromofluorobenzene	*460-00-4*	*104*				*85.0-114*		*09/20/2023 21:43*	WG2135886
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*104*				*81.0-118*		*09/20/2023 21:43*	WG2135886

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	09/20/2023 22:05	WG2135886
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	09/20/2023 22:05	WG2135886
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	09/20/2023 22:05	WG2135886
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	09/20/2023 22:05	WG2135886
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	09/20/2023 22:05	WG2135886
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	09/20/2023 22:05	WG2135886
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	09/20/2023 22:05	WG2135886
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
cis-1,2-Dichloroethene	156-59-2	0.000230	J	0.000126	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	09/20/2023 22:05	WG2135886
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	09/20/2023 22:05	WG2135886
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	09/20/2023 22:05	WG2135886
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	09/20/2023 22:05	WG2135886
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	09/20/2023 22:05	WG2135886
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	09/20/2023 22:05	WG2135886
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	09/20/2023 22:05	WG2135886
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	09/20/2023 22:05	WG2135886
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	09/20/2023 22:05	WG2135886
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	09/20/2023 22:05	WG2135886

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
Trichloroethene	79-01-6	0.00592		0.000190	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	09/20/2023 22:05	WG2135886
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	09/20/2023 22:05	WG2135886
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	09/20/2023 22:05	WG2135886
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	09/20/2023 22:05	WG2135886
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	09/20/2023 22:05	WG2135886
(S) Toluene-d8	*2037-26-5*	*104*				*89.0-112*		*09/20/2023 22:05*	WG2135886
(S) 4-Bromofluorobenzene	*460-00-4*	*101*				*85.0-114*		*09/20/2023 22:05*	WG2135886
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*103*				*81.0-118*		*09/20/2023 22:05*	WG2135886

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	09/20/2023 22:26	WG2135886
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	09/20/2023 22:26	WG2135886
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	09/20/2023 22:26	WG2135886
Chloroform	67-66-3	0.000289	J	0.000111	0.00200	0.00500	1	09/20/2023 22:26	WG2135886
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	09/20/2023 22:26	WG2135886
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	09/20/2023 22:26	WG2135886
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	09/20/2023 22:26	WG2135886
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	09/20/2023 22:26	WG2135886
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	09/20/2023 22:26	WG2135886
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	09/20/2023 22:26	WG2135886
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	09/20/2023 22:26	WG2135886
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	09/20/2023 22:26	WG2135886
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	09/20/2023 22:26	WG2135886
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	09/20/2023 22:26	WG2135886
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	09/20/2023 22:26	WG2135886
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	09/20/2023 22:26	WG2135886
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	09/20/2023 22:26	WG2135886

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
Trichloroethene	79-01-6	0.00211		0.000190	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	09/20/2023 22:26	WG2135886
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	09/20/2023 22:26	WG2135886
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	09/20/2023 22:26	WG2135886
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	09/20/2023 22:26	WG2135886
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	09/20/2023 22:26	WG2135886
(S) Toluene-d8	*2037-26-5*	*103*				*89.0-112*		*09/20/2023 22:26*	WG2135886
(S) 4-Bromofluorobenzene	*460-00-4*	*104*				*85.0-114*		*09/20/2023 22:26*	WG2135886
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*103*				*81.0-118*		*09/20/2023 22:26*	WG2135886

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0258	J	0.0113	0.0250	0.0500	1	09/20/2023 22:48	WG2135886
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	09/20/2023 22:48	WG2135886
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	09/20/2023 22:48	WG2135886
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	09/20/2023 22:48	WG2135886
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	09/20/2023 22:48	WG2135886
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	09/20/2023 22:48	WG2135886
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	09/20/2023 22:48	WG2135886
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	09/20/2023 22:48	WG2135886
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	09/20/2023 22:48	WG2135886
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	09/20/2023 22:48	WG2135886
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	09/20/2023 22:48	WG2135886
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	09/20/2023 22:48	WG2135886
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	09/20/2023 22:48	WG2135886
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	09/20/2023 22:48	WG2135886
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	09/20/2023 22:48	WG2135886
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	09/20/2023 22:48	WG2135886
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	09/20/2023 22:48	WG2135886

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
Trichloroethene	79-01-6	0.000500	U	0.000190	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	09/20/2023 22:48	WG2135886
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	09/20/2023 22:48	WG2135886
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	09/20/2023 22:48	WG2135886
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	09/20/2023 22:48	WG2135886
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	09/20/2023 22:48	WG2135886
(S) Toluene-d8	*2037-26-5*	*104*				*89.0-112*		*09/20/2023 22:48*	WG2135886
(S) 4-Bromofluorobenzene	*460-00-4*	*102*				*85.0-114*		*09/20/2023 22:48*	WG2135886
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*104*				*81.0-118*		*09/20/2023 22:48*	WG2135886

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	09/20/2023 23:10	WG2135886
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	09/20/2023 23:10	WG2135886
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	09/20/2023 23:10	WG2135886
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	09/20/2023 23:10	WG2135886
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	09/20/2023 23:10	WG2135886
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	09/20/2023 23:10	WG2135886
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	09/20/2023 23:10	WG2135886
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	09/20/2023 23:10	WG2135886
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	09/20/2023 23:10	WG2135886
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	09/20/2023 23:10	WG2135886
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	09/20/2023 23:10	WG2135886
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	09/20/2023 23:10	WG2135886
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	09/20/2023 23:10	WG2135886
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	09/20/2023 23:10	WG2135886
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	09/20/2023 23:10	WG2135886
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	09/20/2023 23:10	WG2135886
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	09/20/2023 23:10	WG2135886

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
Trichloroethene	79-01-6	0.00275		0.000190	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	09/20/2023 23:10	WG2135886
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	09/20/2023 23:10	WG2135886
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	09/20/2023 23:10	WG2135886
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	09/20/2023 23:10	WG2135886
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	09/20/2023 23:10	WG2135886
(S) Toluene-d8	*2037-26-5*	*104*				*89.0-112*		*09/20/2023 23:10*	WG2135886
(S) 4-Bromofluorobenzene	*460-00-4*	*99.7*				*85.0-114*		*09/20/2023 23:10*	WG2135886
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*102*				*81.0-118*		*09/20/2023 23:10*	WG2135886

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	09/20/2023 18:07	WG2135886
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	09/20/2023 18:07	WG2135886
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	09/20/2023 18:07	WG2135886
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	09/20/2023 18:07	WG2135886
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	09/20/2023 18:07	WG2135886
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	09/20/2023 18:07	WG2135886
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	09/20/2023 18:07	WG2135886
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	09/20/2023 18:07	WG2135886
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	09/20/2023 18:07	WG2135886
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	09/20/2023 18:07	WG2135886
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	09/20/2023 18:07	WG2135886
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	09/20/2023 18:07	WG2135886
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	09/20/2023 18:07	WG2135886
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	09/20/2023 18:07	WG2135886
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	09/20/2023 18:07	WG2135886
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	09/20/2023 18:07	WG2135886
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	09/20/2023 18:07	WG2135886

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
Trichloroethene	79-01-6	0.000500	U	0.000190	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	09/20/2023 18:07	WG2135886
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	09/20/2023 18:07	WG2135886
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	09/20/2023 18:07	WG2135886
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	09/20/2023 18:07	WG2135886
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	09/20/2023 18:07	WG2135886
(S) Toluene-d8	*2037-26-5*	*103*				*89.0-112*		*09/20/2023 18:07*	WG2135886
(S) 4-Bromofluorobenzene	*460-00-4*	*102*				*85.0-114*		*09/20/2023 18:07*	WG2135886
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*104*				*81.0-118*		*09/20/2023 18:07*	WG2135886

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	J3 U	0.0113	0.0250	0.0500	1	09/20/2023 23:32	WG2135886
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	09/20/2023 23:32	WG2135886
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	09/20/2023 23:32	WG2135886
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	09/20/2023 23:32	WG2135886
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	09/20/2023 23:32	WG2135886
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	J3 U	0.000276	0.00200	0.00500	1	09/20/2023 23:32	WG2135886
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	09/20/2023 23:32	WG2135886
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
Hexachloro-1,3-butadiene	87-68-3	0.000750	J3 U	0.000337	0.000750	0.00150	1	09/20/2023 23:32	WG2135886
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	09/20/2023 23:32	WG2135886
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	09/20/2023 23:32	WG2135886
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	09/20/2023 23:32	WG2135886
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	09/20/2023 23:32	WG2135886
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	09/20/2023 23:32	WG2135886
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	09/20/2023 23:32	WG2135886
1,2,3-Trichlorobenzene	87-61-6	0.000500	J3 U	0.000230	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
1,2,4-Trichlorobenzene	120-82-1	0.00100	J3 U	0.000481	0.00100	0.00200	1	09/20/2023 23:32	WG2135886
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	09/20/2023 23:32	WG2135886
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	09/20/2023 23:32	WG2135886

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
Trichloroethene	79-01-6	0.000500	U	0.000190	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	09/20/2023 23:32	WG2135886
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	09/20/2023 23:32	WG2135886
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	09/20/2023 23:32	WG2135886
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	09/20/2023 23:32	WG2135886
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	09/20/2023 23:32	WG2135886
(S) Toluene-d8	*2037-26-5*	*103*				*89.0-112*		*09/20/2023 23:32*	WG2135886
(S) 4-Bromofluorobenzene	*460-00-4*	*103*				*85.0-114*		*09/20/2023 23:32*	WG2135886
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*104*				*81.0-118*		*09/20/2023 23:32*	WG2135886

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

Analyte	CAS #	Result mg/l	Qualifier	DL mg/l	LOD mg/l	LOQ mg/l	Dilution	Analysis date / time	Batch
Acetone	67-64-1	0.0250	U	0.0113	0.0250	0.0500	1	09/22/2023 13:58	WG2137544
Benzene	71-43-2	0.000500	U	0.0000941	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
Bromobenzene	108-86-1	0.000500	U	0.000118	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
Bromochloromethane	74-97-5	0.000500	U	0.000128	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
Bromodichloromethane	75-27-4	0.000500	U	0.000136	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
Bromoform	75-25-2	0.000500	U	0.000129	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
Bromomethane	74-83-9	0.00200	U	0.000605	0.00200	0.00500	1	09/22/2023 13:58	WG2137544
n-Butylbenzene	104-51-8	0.000500	U	0.000157	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
sec-Butylbenzene	135-98-8	0.000500	U	0.000125	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
tert-Butylbenzene	98-06-6	0.000500	U	0.000127	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
Carbon disulfide	75-15-0	0.000500	U	0.0000960	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
Carbon tetrachloride	56-23-5	0.000500	U	0.000128	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
Chlorobenzene	108-90-7	0.000500	U	0.000116	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
Chlorodibromomethane	124-48-1	0.000500	U	0.000140	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
Chloroethane	75-00-3	0.00200	U	0.000192	0.00200	0.00500	1	09/22/2023 13:58	WG2137544
Chloroform	67-66-3	0.00200	U	0.000111	0.00200	0.00500	1	09/22/2023 13:58	WG2137544
Chloromethane	74-87-3	0.00200	U	0.000960	0.00200	0.00400	1	09/22/2023 13:58	WG2137544
2-Chlorotoluene	95-49-8	0.000500	U	0.000106	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
4-Chlorotoluene	106-43-4	0.000500	U	0.000114	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
1,2-Dibromoethane	106-93-4	0.000500	U	0.000126	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
1,2-Dibromo-3-Chloropropane	96-12-8	0.00200	U	0.000276	0.00200	0.00500	1	09/22/2023 13:58	WG2137544
Dibromomethane	74-95-3	0.000500	U	0.000122	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
1,2-Dichlorobenzene	95-50-1	0.000500	U	0.000107	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
1,3-Dichlorobenzene	541-73-1	0.000500	U	0.000110	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
1,4-Dichlorobenzene	106-46-7	0.000500	U	0.000120	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
Dichlorodifluoromethane	75-71-8	0.00200	U	0.000374	0.00200	0.00500	1	09/22/2023 13:58	WG2137544
1,1-Dichloroethane	75-34-3	0.000500	U	0.000100	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
1,2-Dichloroethane	107-06-2	0.000500	U	0.0000819	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
1,1-Dichloroethene	75-35-4	0.000500	U	0.000188	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
cis-1,2-Dichloroethene	156-59-2	0.000500	U	0.000126	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
trans-1,2-Dichloroethene	156-60-5	0.000500	U	0.000149	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
1,2-Dichloropropane	78-87-5	0.000500	U	0.000149	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
1,3-Dichloropropane	142-28-9	0.000500	U	0.000110	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
2,2-Dichloropropane	594-20-7	0.000500	U	0.000161	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
1,1-Dichloropropene	563-58-6	0.000500	U	0.000142	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
cis-1,3-Dichloropropene	10061-01-5	0.000500	U	0.000111	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
trans-1,3-Dichloropropene	10061-02-6	0.000500	U	0.000118	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
TOTAL 1,3-Dichloropropene		0.000500	U	0.000118	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
Ethylbenzene	100-41-4	0.000500	U	0.000137	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
Hexachloro-1,3-butadiene	87-68-3	0.000750	U	0.000337	0.000750	0.00150	1	09/22/2023 13:58	WG2137544
2-Hexanone	591-78-6	0.00500	U	0.000787	0.00500	0.0100	1	09/22/2023 13:58	WG2137544
Isopropylbenzene	98-82-8	0.000500	U	0.000105	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
p-Isopropyltoluene	99-87-6	0.000500	U	0.000120	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
2-Butanone (MEK)	78-93-3	0.00500	U	0.00119	0.00500	0.0100	1	09/22/2023 13:58	WG2137544
Methylene Chloride	75-09-2	0.00200	U	0.000430	0.00200	0.00500	1	09/22/2023 13:58	WG2137544
4-Methyl-2-pentanone (MIBK)	108-10-1	0.00500	U	0.000478	0.00500	0.0100	1	09/22/2023 13:58	WG2137544
n-Propylbenzene	103-65-1	0.000500	U	0.0000993	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
Styrene	100-42-5	0.000500	U	0.000118	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
1,1,1,2-Tetrachloroethane	630-20-6	0.000500	U	0.000147	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
1,1,2,2-Tetrachloroethane	79-34-5	0.000500	U	0.000133	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
Tetrachloroethene	127-18-4	0.000600	U	0.000300	0.000600	0.00120	1	09/22/2023 13:58	WG2137544
Toluene	108-88-3	0.000600	U	0.000278	0.000600	0.00120	1	09/22/2023 13:58	WG2137544
1,2,3-Trichlorobenzene	87-61-6	0.000500	U	0.000230	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
1,2,4-Trichlorobenzene	120-82-1	0.00100	U	0.000481	0.00100	0.00200	1	09/22/2023 13:58	WG2137544
1,2,4-Trimethylbenzene	95-63-6	0.00100	U	0.000322	0.00100	0.00200	1	09/22/2023 13:58	WG2137544
1,3,5-Trimethylbenzene	108-67-8	0.000500	U	0.000104	0.000500	0.00100	1	09/22/2023 13:58	WG2137544

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

Analyte	CAS #	Result	Qualifier	DL	LOD	LOQ	Dilution	Analysis	Batch
		mg/l		mg/l	mg/l	mg/l		date / time	
1,1,1-Trichloroethane	71-55-6	0.000500	U	0.000149	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
1,1,2-Trichloroethane	79-00-5	0.000500	U	0.000158	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
Trichloroethene	79-01-6	0.000500	U	0.000190	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
Trichlorofluoromethane	75-69-4	0.00200	U	0.000160	0.00200	0.00500	1	09/22/2023 13:58	WG2137544
1,2,3-Trichloropropane	96-18-4	0.00100	U	0.000237	0.00100	0.00250	1	09/22/2023 13:58	WG2137544
o-Xylene	95-47-6	0.000500	U	0.000174	0.000500	0.00100	1	09/22/2023 13:58	WG2137544
m&p-Xylene	1330-20-7	0.000500	U	0.000430	0.000500	0.00200	1	09/22/2023 13:58	WG2137544
Xylenes, Total	1330-20-7	0.00150	U	0.000174	0.00150	0.00300	1	09/22/2023 13:58	WG2137544
(S) Toluene-d8	*2037-26-5*	*111*				*89.0-112*		*09/22/2023 13:58*	WG2137544
(S) 4-Bromofluorobenzene	*460-00-4*	*103*				*85.0-114*		*09/22/2023 13:58*	WG2137544
(S) 1,2-Dichloroethane-d4	*17060-07-0*	*86.5*				*81.0-118*		*09/22/2023 13:58*	WG2137544

Method Blank (MB)

(MB) R3976523-3 09/21/23 10:41

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Gasoline Range Organics-NWTPH	0.0670	U	0.0316	0.0670	0.134
(S) a,a,a-Trifluorotoluene(FID)	*106*				*78.0-120*

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

(LCS) R3976523-1 09/21/23 09:36 • (LCSD) R3976523-2 09/21/23 09:58

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 %
Gasoline Range Organics-NWTPH	5.50	5.42	5.89	98.5	107	78.0-122			8.31	30
(S) a,a,a-Trifluorotoluene(FID)				*101*	*103*	*78.0-120*				

Method Blank (MB)

(MB) R3975615-3 09/20/23 12:39

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Acetone	0.0250	U	0.0113	0.0250	0.0500
Benzene	0.000500	U	0.0000941	0.000500	0.00100
Bromobenzene	0.000500	U	0.000118	0.000500	0.00100
Bromochloromethane	0.000500	U	0.000128	0.000500	0.00100
Bromodichloromethane	0.000500	U	0.000136	0.000500	0.00100
Bromoform	0.000500	U	0.000129	0.000500	0.00100
Bromomethane	0.00200	U	0.000605	0.00200	0.00500
n-Butylbenzene	0.000500	U	0.000157	0.000500	0.00100
sec-Butylbenzene	0.000500	U	0.000125	0.000500	0.00100
tert-Butylbenzene	0.000500	U	0.000127	0.000500	0.00100
Carbon disulfide	0.000500	U	0.0000960	0.000500	0.00100
Carbon tetrachloride	0.000500	U	0.000128	0.000500	0.00100
Chlorobenzene	0.000500	U	0.000116	0.000500	0.00100
Chlorodibromomethane	0.000500	U	0.000140	0.000500	0.00100
Chloroethane	0.00200	U	0.000192	0.00200	0.00500
Chloroform	0.00200	U	0.000111	0.00200	0.00500
Chloromethane	0.00200	U	0.000960	0.00200	0.00400
2-Chlorotoluene	0.000500	U	0.000106	0.000500	0.00100
4-Chlorotoluene	0.000500	U	0.000114	0.000500	0.00100
1,2-Dibromoethane	0.000500	U	0.000126	0.000500	0.00100
1,2-Dibromo-3-Chloropropane	0.00200	U	0.000276	0.00200	0.00500
Dibromomethane	0.000500	U	0.000122	0.000500	0.00100
1,2-Dichlorobenzene	0.000500	U	0.000107	0.000500	0.00100
1,3-Dichlorobenzene	0.000500	U	0.000110	0.000500	0.00100
1,4-Dichlorobenzene	0.000500	U	0.000120	0.000500	0.00100
Dichlorodifluoromethane	0.00200	U	0.000374	0.00200	0.00500
1,1-Dichloroethane	0.000500	U	0.000100	0.000500	0.00100
1,2-Dichloroethane	0.000500	U	0.0000819	0.000500	0.00100
1,1-Dichloroethene	0.000500	U	0.000188	0.000500	0.00100
cis-1,2-Dichloroethene	0.000500	U	0.000126	0.000500	0.00100
trans-1,2-Dichloroethene	0.000500	U	0.000149	0.000500	0.00100
1,2-Dichloropropane	0.000500	U	0.000149	0.000500	0.00100
1,3-Dichloropropane	0.000500	U	0.000110	0.000500	0.00100
2,2-Dichloropropane	0.000500	U	0.000161	0.000500	0.00100
1,1-Dichloropropene	0.000500	U	0.000142	0.000500	0.00100
cis-1,3-Dichloropropene	0.000500	U	0.000111	0.000500	0.00100
trans-1,3-Dichloropropene	0.000500	U	0.000118	0.000500	0.00100
TOTAL 1,3-Dichloropropene	0.000500	U	0.000118	0.000500	0.00100
Ethylbenzene	0.000500	U	0.000137	0.000500	0.00100
Hexachloro-1,3-butadiene	0.000750	U	0.000337	0.000750	0.00150

Method Blank (MB)

(MB) R3975615-3 09/20/23 12:39

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
2-Hexanone	0.00500	U	0.000787	0.00500	0.0100
Isopropylbenzene	0.000500	U	0.000105	0.000500	0.00100
p-Isopropyltoluene	0.000500	U	0.000120	0.000500	0.00100
2-Butanone (MEK)	0.00500	U	0.00119	0.00500	0.0100
Methylene Chloride	0.00200	U	0.000430	0.00200	0.00500
4-Methyl-2-pentanone (MIBK)	0.00500	U	0.000478	0.00500	0.0100
n-Propylbenzene	0.000500	U	0.0000993	0.000500	0.00100
Styrene	0.000500	U	0.000118	0.000500	0.00100
1,1,1,2-Tetrachloroethane	0.000500	U	0.000147	0.000500	0.00100
1,1,2,2-Tetrachloroethane	0.000500	U	0.000133	0.000500	0.00100
Tetrachloroethene	0.000600	U	0.000300	0.000600	0.00120
Toluene	0.000600	U	0.000278	0.000600	0.00120
1,2,3-Trichlorobenzene	0.000500	U	0.000230	0.000500	0.00100
1,2,4-Trichlorobenzene	0.00100	U	0.000481	0.00100	0.00200
1,2,4-Trimethylbenzene	0.00100	U	0.000322	0.00100	0.00200
1,3,5-Trimethylbenzene	0.000500	U	0.000104	0.000500	0.00100
1,1,1-Trichloroethane	0.000500	U	0.000149	0.000500	0.00100
1,1,2-Trichloroethane	0.000500	U	0.000158	0.000500	0.00100
Trichloroethene	0.000500	U	0.000190	0.000500	0.00100
Trichlorofluoromethane	0.00200	U	0.000160	0.00200	0.00500
1,2,3-Trichloropropane	0.00100	U	0.000237	0.00100	0.00250
o-Xylene	0.000500	U	0.000174	0.000500	0.00100
m&p-Xylene	0.000500	U	0.000430	0.000500	0.00200
Xylenes, Total	0.00150	U	0.000174	0.00150	0.00300
(S) Toluene-d8	*105*				*89.0-112*
(S) 4-Bromofluorobenzene	*104*				*85.0-114*
(S) 1,2-Dichloroethane-d4	*102*				*81.0-118*

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

(LCS) R3975615-1 09/20/23 11:34 • (LCSD) R3975615-2 09/20/23 11:55

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 %
Acetone	0.0250	0.0248	0.0276	99.2	110	39.0-160			10.7	20
Benzene	0.00500	0.00539	0.00510	108	102	79.0-120			5.53	20
Bromobenzene	0.00500	0.00494	0.00500	98.8	100	80.0-120			1.21	20
Bromochloromethane	0.00500	0.00532	0.00518	106	104	78.0-123			2.67	20
Bromodichloromethane	0.00500	0.00531	0.00494	106	98.8	79.0-125			7.22	20
Bromoform	0.00500	0.00486	0.00488	97.2	97.6	66.0-130			0.411	20

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

(LCS) R3975615-1 09/20/23 11:34 • (LCSD) R3975615-2 09/20/23 11:55

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 %
Bromomethane	0.00500	0.00554	0.00494	111	98.8	53.0-141			11.5	20
n-Butylbenzene	0.00500	0.00545	0.00555	109	111	75.0-128			1.82	20
sec-Butylbenzene	0.00500	0.00541	0.00546	108	109	77.0-126			0.920	20
tert-Butylbenzene	0.00500	0.00535	0.00536	107	107	78.0-124			0.187	20
Carbon disulfide	0.00500	0.00571	0.00565	114	113	64.0-133			1.06	20
Carbon tetrachloride	0.00500	0.00532	0.00519	106	104	72.0-136			2.47	20
Chlorobenzene	0.00500	0.00518	0.00506	104	101	82.0-118			2.34	20
Chlorodibromomethane	0.00500	0.00518	0.00504	104	101	74.0-126			2.74	20
Chloroethane	0.00500	0.00580	0.00579	116	116	60.0-138			0.173	20
Chloroform	0.00500	0.00537	0.00518	107	104	79.0-124			3.60	20
Chloromethane	0.00500	0.00556	0.00557	111	111	50.0-139			0.180	20
2-Chlorotoluene	0.00500	0.00503	0.00508	101	102	79.0-122			0.989	20
4-Chlorotoluene	0.00500	0.00506	0.00505	101	101	78.0-122			0.198	20
1,2-Dibromoethane	0.00500	0.00504	0.00499	101	99.8	77.0-121			0.997	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00473	0.00506	94.6	101	62.0-128			6.74	20
Dibromomethane	0.00500	0.00511	0.00518	102	104	79.0-123			1.36	20
1,2-Dichlorobenzene	0.00500	0.00505	0.00517	101	103	80.0-119			2.35	20
1,3-Dichlorobenzene	0.00500	0.00506	0.00511	101	102	80.0-119			0.983	20
1,4-Dichlorobenzene	0.00500	0.00515	0.00526	103	105	79.0-118			2.11	20
Dichlorodifluoromethane	0.00500	0.00627	0.00616	125	123	32.0-152			1.77	20
1,1-Dichloroethane	0.00500	0.00545	0.00521	109	104	77.0-125			4.50	20
1,2-Dichloroethane	0.00500	0.00522	0.00514	104	103	73.0-128			1.54	20
1,1-Dichloroethene	0.00500	0.00585	0.00555	117	111	71.0-131			5.26	20
cis-1,2-Dichloroethene	0.00500	0.00520	0.00522	104	104	78.0-123			0.384	20
trans-1,2-Dichloroethene	0.00500	0.00546	0.00540	109	108	75.0-124			1.10	20
1,2-Dichloropropane	0.00500	0.00517	0.00510	103	102	78.0-122			1.36	20
1,3-Dichloropropane	0.00500	0.00511	0.00502	102	100	80.0-119			1.78	20
2,2-Dichloropropane	0.00500	0.00566	0.00554	113	111	60.0-139			2.14	20
1,1-Dichloropropene	0.00500	0.00583	0.00571	117	114	79.0-125			2.08	20
cis-1,3-Dichloropropene	0.00500	0.00536	0.00511	107	102	75.0-124			4.78	20
trans-1,3-Dichloropropene	0.00500	0.00518	0.00499	104	99.8	73.0-127			3.74	20
Ethylbenzene	0.00500	0.00538	0.00523	108	105	79.0-121			2.83	20
Hexachloro-1,3-butadiene	0.00500	0.00588	0.00656	118	131	66.0-134			10.9	20
2-Hexanone	0.0250	0.0246	0.0251	98.4	100	57.0-139			2.01	20
Isopropylbenzene	0.00500	0.00554	0.00540	111	108	72.0-131			2.56	20
p-Isopropyltoluene	0.00500	0.00541	0.00547	108	109	77.0-127			1.10	20
2-Butanone (MEK)	0.0250	0.0252	0.0252	101	101	56.0-143			0.000	20
Methylene Chloride	0.00500	0.00517	0.00534	103	107	74.0-124			3.24	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0248	0.0253	99.2	101	67.0-130			2.00	20
n-Propylbenzene	0.00500	0.00532	0.00538	106	108	76.0-126			1.12	20

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

(LCS) R3975615-1 09/20/23 11:34 • (LCSD) R3975615-2 09/20/23 11:55

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 %
Styrene	0.00500	0.00512	0.00503	102	101	78.0-123			1.77	20
1,1,1,2-Tetrachloroethane	0.00500	0.00512	0.00502	102	100	78.0-124			1.97	20
1,1,2,2-Tetrachloroethane	0.00500	0.00498	0.00511	99.6	102	71.0-121			2.58	20
Tetrachloroethene	0.00500	0.00550	0.00533	110	107	74.0-129			3.14	20
Toluene	0.00500	0.00526	0.00517	105	103	80.0-121			1.73	20
1,2,3-Trichlorobenzene	0.00500	0.00512	0.00583	102	117	69.0-129			13.0	20
1,2,4-Trichlorobenzene	0.00500	0.00530	0.00580	106	116	69.0-130			9.01	20
1,2,4-Trimethylbenzene	0.00500	0.00534	0.00529	107	106	76.0-124			0.941	20
1,3,5-Trimethylbenzene	0.00500	0.00521	0.00528	104	106	75.0-124			1.33	20
1,1,1-Trichloroethane	0.00500	0.00562	0.00546	112	109	74.0-131			2.89	20
1,1,2-Trichloroethane	0.00500	0.00510	0.00496	102	99.2	80.0-119			2.78	20
Trichloroethene	0.00500	0.00541	0.00539	108	108	79.0-123			0.370	20
Trichlorofluoromethane	0.00500	0.00567	0.00552	113	110	65.0-141			2.68	20
1,2,3-Trichloropropane	0.00500	0.00505	0.00522	101	104	73.0-122			3.31	20
o-Xylene	0.00500	0.00520	0.00510	104	102	78.0-122			1.94	20
m&p-Xylene	0.0100	0.0107	0.0104	107	104	80.0-121			2.84	20
Xylenes, Total	0.0150	0.0159	0.0155	106	103	79.0-121			2.55	20
(S) Toluene-d8				*102*	*103*	*89.0-112*				
(S) 4-Bromofluorobenzene				*102*	*102*	*85.0-114*				
(S) 1,2-Dichloroethane-d4				*103*	*105*	*81.0-118*				

L1656124-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1656124-02 09/20/23 18:50 • (MS) R3975615-4 09/20/23 23:53 • (MSD) R3975615-5 09/21/23 00:15

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0250	0.0238	0.0214	95.2	85.6	1	39.0-160			10.6	20
Benzene	0.00500	0.000500	0.00440	0.00453	88.0	90.6	1	79.0-120			2.91	20
Bromobenzene	0.00500	0.000500	0.00422	0.00465	84.4	93.0	1	80.0-120			9.70	20
Bromochloromethane	0.00500	0.000500	0.00449	0.00449	89.8	89.8	1	78.0-123			0.000	20
Bromodichloromethane	0.00500	0.000500	0.00430	0.00446	86.0	89.2	1	79.0-125			3.65	20
Bromoform	0.00500	0.000500	0.00384	0.00430	76.8	86.0	1	66.0-130			11.3	20
Bromomethane	0.00500	0.00200	0.00411	0.00448	82.2	89.6	1	53.0-141			8.61	20
n-Butylbenzene	0.00500	0.000500	0.00454	0.00495	90.8	99.0	1	75.0-128			8.64	20
sec-Butylbenzene	0.00500	0.000500	0.00463	0.00503	92.6	101	1	77.0-126			8.28	20
tert-Butylbenzene	0.00500	0.000500	0.00454	0.00499	90.8	99.8	1	78.0-124			9.44	20
Carbon disulfide	0.00500	0.000500	0.00432	0.00451	86.4	90.2	1	64.0-133			4.30	20
Carbon tetrachloride	0.00500	0.000500	0.00460	0.00470	92.0	94.0	1	72.0-136			2.15	20
Chlorobenzene	0.00500	0.000500	0.00431	0.00460	86.2	92.0	1	82.0-118			6.51	20

L1656124-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1656124-02 09/20/23 18:50 • (MS) R3975615-4 09/20/23 23:53 • (MSD) R3975615-5 09/21/23 00:15

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chlorodibromomethane	0.00500	0.000500	0.00410	0.00436	82.0	87.2	1	74.0-126			6.15	20
Chloroethane	0.00500	0.00200	0.00454	0.00486	90.8	97.2	1	60.0-138			6.81	20
Chloroform	0.00500	0.00200	0.00453	0.00472	90.6	94.4	1	79.0-124			4.11	20
Chloromethane	0.00500	0.00200	0.00447	0.00463	89.4	92.6	1	50.0-139			3.52	20
2-Chlorotoluene	0.00500	0.000500	0.00420	0.00481	84.0	96.2	1	79.0-122			13.5	20
4-Chlorotoluene	0.00500	0.000500	0.00418	0.00466	83.6	93.2	1	78.0-122			10.9	20
1,2-Dibromoethane	0.00500	0.000500	0.00425	0.00454	85.0	90.8	1	77.0-121			6.60	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00200	0.00388	0.00444	77.6	88.8	1	62.0-128			13.5	20
Dibromomethane	0.00500	0.000500	0.00442	0.00454	88.4	90.8	1	79.0-123			2.68	20
1,2-Dichlorobenzene	0.00500	0.000500	0.00435	0.00460	87.0	92.0	1	80.0-119			5.59	20
1,3-Dichlorobenzene	0.00500	0.000500	0.00421	0.00462	84.2	92.4	1	80.0-119			9.29	20
1,4-Dichlorobenzene	0.00500	0.000500	0.00431	0.00463	86.2	92.6	1	79.0-118			7.16	20
Dichlorodifluoromethane	0.00500	0.00200	0.00461	0.00482	92.2	96.4	1	32.0-152			4.45	20
1,1-Dichloroethane	0.00500	0.000500	0.00459	0.00471	91.8	94.2	1	77.0-125			2.58	20
1,2-Dichloroethane	0.00500	0.000500	0.00451	0.00457	90.2	91.4	1	73.0-128			1.32	20
1,1-Dichloroethene	0.00500	0.000500	0.00494	0.00515	98.8	103	1	71.0-131			4.16	20
cis-1,2-Dichloroethene	0.00500	0.000500	0.00440	0.00455	88.0	91.0	1	78.0-123			3.35	20
trans-1,2-Dichloroethene	0.00500	0.000500	0.00461	0.00468	92.2	93.6	1	75.0-124			1.51	20
1,2-Dichloropropane	0.00500	0.000500	0.00444	0.00448	88.8	89.6	1	78.0-122			0.897	20
1,3-Dichloropropane	0.00500	0.000500	0.00444	0.00456	88.8	91.2	1	80.0-119			2.67	20
2,2-Dichloropropane	0.00500	0.000500	0.00455	0.00454	91.0	90.8	1	60.0-139			0.220	20
1,1-Dichloropropene	0.00500	0.000500	0.00484	0.00500	96.8	100	1	79.0-125			3.25	20
cis-1,3-Dichloropropene	0.00500	0.000500	0.00414	0.00430	82.8	86.0	1	75.0-124			3.79	20
trans-1,3-Dichloropropene	0.00500	0.000500	0.00416	0.00438	83.2	87.6	1	73.0-127			5.15	20
Ethylbenzene	0.00500	0.000500	0.00454	0.00469	90.8	93.8	1	79.0-121			3.25	20
Hexachloro-1,3-butadiene	0.00500	0.000750	0.00530	0.00546	106	109	1	66.0-134			2.97	20
2-Hexanone	0.0250	0.00500	0.0221	0.0236	88.4	94.4	1	57.0-139			6.56	20
Isopropylbenzene	0.00500	0.000500	0.00473	0.00485	94.6	97.0	1	72.0-131			2.51	20
p-Isopropyltoluene	0.00500	0.000500	0.00461	0.00492	92.2	98.4	1	77.0-127			6.51	20
2-Butanone (MEK)	0.0250	0.00500	0.0220	0.0225	88.0	90.0	1	56.0-143			2.25	20
Methylene Chloride	0.00500	0.00200	0.00426	0.00440	85.2	88.0	1	74.0-124			3.23	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.00500	0.0228	0.0241	91.2	96.4	1	67.0-130			5.54	20
n-Propylbenzene	0.00500	0.000500	0.00438	0.00483	87.6	96.6	1	76.0-126			9.77	20
Styrene	0.00500	0.000500	0.00417	0.00442	83.4	88.4	1	78.0-123			5.82	20
1,1,1,2-Tetrachloroethane	0.00500	0.000500	0.00423	0.00470	84.6	94.0	1	78.0-124			10.5	20
1,1,2,2-Tetrachloroethane	0.00500	0.000500	0.00446	0.00495	89.2	99.0	1	71.0-121			10.4	20
Tetrachloroethene	0.00500	0.000600	0.00444	0.00470	88.8	94.0	1	74.0-129			5.69	20
Toluene	0.00500	0.000600	0.00436	0.00459	87.2	91.8	1	80.0-121			5.14	20
1,2,3-Trichlorobenzene	0.00500	0.000500	0.00482	0.00465	96.4	93.0	1	69.0-129			3.59	20
1,2,4-Trichlorobenzene	0.00500	0.00100	0.00457	0.00456	91.4	91.2	1	69.0-130			0.219	20

L1656124-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1656124-02 09/20/23 18:50 • (MS) R3975615-4 09/20/23 23:53 • (MSD) R3975615-5 09/21/23 00:15

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,2,4-Trimethylbenzene	0.00500	0.00100	0.00432	0.00477	86.4	95.4	1	76.0-124			9.90	20
1,3,5-Trimethylbenzene	0.00500	0.000500	0.00439	0.00474	87.8	94.8	1	75.0-124			7.67	20
1,1,1-Trichloroethane	0.00500	0.000500	0.00481	0.00490	96.2	98.0	1	74.0-131			1.85	20
1,1,2-Trichloroethane	0.00500	0.000500	0.00441	0.00455	88.2	91.0	1	80.0-119			3.13	20
Trichloroethene	0.00500	0.000500	0.00439	0.00468	87.8	93.6	1	79.0-123			6.39	20
Trichlorofluoromethane	0.00500	0.00200	0.00493	0.00511	98.6	102	1	65.0-141			3.59	20
1,2,3-Trichloropropane	0.00500	0.00100	0.00424	0.00481	84.8	96.2	1	73.0-122			12.6	20
o-Xylene	0.00500	0.000500	0.00433	0.00462	86.6	92.4	1	78.0-122			6.48	20
m&p-Xylene	0.0100	0.000500	0.00873	0.00934	87.3	93.4	1	80.0-121			6.75	20
Xylenes, Total	0.0150	0.00150	0.0131	0.0140	87.3	93.3	1	79.0-121			6.64	20
(S) Toluene-d8					*103*	*104*		*89.0-112*				
(S) 4-Bromofluorobenzene					*103*	*102*		*85.0-114*				
(S) 1,2-Dichloroethane-d4					*104*	*106*		*81.0-118*				

L1656839-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1656839-11 09/20/23 23:32 • (MS) R3975615-6 09/21/23 00:37 • (MSD) R3975615-7 09/21/23 00:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0250	0.0188	0.0240	75.2	96.0	1	39.0-160		J3	24.3	20
Benzene	0.00500	0.000500	0.00435	0.00448	87.0	89.6	1	79.0-120			2.94	20
Bromobenzene	0.00500	0.000500	0.00461	0.00486	92.2	97.2	1	80.0-120			5.28	20
Bromochloromethane	0.00500	0.000500	0.00431	0.00478	86.2	95.6	1	78.0-123			10.3	20
Bromodichloromethane	0.00500	0.000500	0.00425	0.00470	85.0	94.0	1	79.0-125			10.1	20
Bromoform	0.00500	0.000500	0.00400	0.00448	80.0	89.6	1	66.0-130			11.3	20
Bromomethane	0.00500	0.00200	0.00428	0.00434	85.6	86.8	1	53.0-141			1.39	20
n-Butylbenzene	0.00500	0.000500	0.00469	0.00497	93.8	99.4	1	75.0-128			5.80	20
sec-Butylbenzene	0.00500	0.000500	0.00472	0.00503	94.4	101	1	77.0-126			6.36	20
tert-Butylbenzene	0.00500	0.000500	0.00472	0.00491	94.4	98.2	1	78.0-124			3.95	20
Carbon disulfide	0.00500	0.000500	0.00423	0.00427	84.6	85.4	1	64.0-133			0.941	20
Carbon tetrachloride	0.00500	0.000500	0.00453	0.00443	90.6	88.6	1	72.0-136			2.23	20
Chlorobenzene	0.00500	0.000500	0.00435	0.00456	87.0	91.2	1	82.0-118			4.71	20
Chlorodibromomethane	0.00500	0.000500	0.00441	0.00478	88.2	95.6	1	74.0-126			8.05	20
Chloroethane	0.00500	0.00200	0.00443	0.00460	88.6	92.0	1	60.0-138			3.77	20
Chloroform	0.00500	0.00200	0.00442	0.00459	88.4	91.8	1	79.0-124			3.77	20
Chloromethane	0.00500	0.00200	0.00388	0.00392	77.6	78.4	1	50.0-139			1.03	20
2-Chlorotoluene	0.00500	0.000500	0.00452	0.00476	90.4	95.2	1	79.0-122			5.17	20
4-Chlorotoluene	0.00500	0.000500	0.00448	0.00486	89.6	97.2	1	78.0-122			8.14	20
1,2-Dibromoethane	0.00500	0.000500	0.00438	0.00491	87.6	98.2	1	77.0-121			11.4	20

L1656839-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1656839-11 09/20/23 23:32 • (MS) R3975615-6 09/21/23 00:37 • (MSD) R3975615-7 09/21/23 00:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,2-Dibromo-3-Chloropropane	0.00500	0.00200	0.00383	0.00486	76.6	97.2	1	62.0-128		J3	23.7	20
Dibromomethane	0.00500	0.000500	0.00444	0.00503	88.8	101	1	79.0-123			12.5	20
1,2-Dichlorobenzene	0.00500	0.000500	0.00415	0.00506	83.0	101	1	80.0-119			19.8	20
1,3-Dichlorobenzene	0.00500	0.000500	0.00446	0.00493	89.2	98.6	1	80.0-119			10.0	20
1,4-Dichlorobenzene	0.00500	0.000500	0.00434	0.00496	86.8	99.2	1	79.0-118			13.3	20
Dichlorodifluoromethane	0.00500	0.00200	0.00455	0.00461	91.0	92.2	1	32.0-152			1.31	20
1,1-Dichloroethane	0.00500	0.000500	0.00453	0.00453	90.6	90.6	1	77.0-125			0.000	20
1,2-Dichloroethane	0.00500	0.000500	0.00446	0.00487	89.2	97.4	1	73.0-128			8.79	20
1,1-Dichloroethene	0.00500	0.000500	0.00472	0.00465	94.4	93.0	1	71.0-131			1.49	20
cis-1,2-Dichloroethene	0.00500	0.000500	0.00433	0.00459	86.6	91.8	1	78.0-123			5.83	20
trans-1,2-Dichloroethene	0.00500	0.000500	0.00436	0.00455	87.2	91.0	1	75.0-124			4.26	20
1,2-Dichloropropane	0.00500	0.000500	0.00429	0.00466	85.8	93.2	1	78.0-122			8.27	20
1,3-Dichloropropane	0.00500	0.000500	0.00455	0.00498	91.0	99.6	1	80.0-119			9.02	20
2,2-Dichloropropane	0.00500	0.000500	0.00420	0.00436	84.0	87.2	1	60.0-139			3.74	20
1,1-Dichloropropene	0.00500	0.000500	0.00485	0.00472	97.0	94.4	1	79.0-125			2.72	20
cis-1,3-Dichloropropene	0.00500	0.000500	0.00409	0.00447	81.8	89.4	1	75.0-124			8.88	20
trans-1,3-Dichloropropene	0.00500	0.000500	0.00418	0.00453	83.6	90.6	1	73.0-127			8.04	20
Ethylbenzene	0.00500	0.000500	0.00426	0.00453	85.2	90.6	1	79.0-121			6.14	20
Hexachloro-1,3-butadiene	0.00500	0.000750	0.00450	0.00573	90.0	115	1	66.0-134		J3	24.0	20
2-Hexanone	0.0250	0.00500	0.0226	0.0262	90.4	105	1	57.0-139			14.8	20
Isopropylbenzene	0.00500	0.000500	0.00446	0.00471	89.2	94.2	1	72.0-131			5.45	20
p-Isopropyltoluene	0.00500	0.000500	0.00468	0.00496	93.6	99.2	1	77.0-127			5.81	20
2-Butanone (MEK)	0.0250	0.00500	0.0213	0.0250	85.2	100	1	56.0-143			16.0	20
Methylene Chloride	0.00500	0.00200	0.00418	0.00441	83.6	88.2	1	74.0-124			5.36	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.00500	0.0227	0.0264	90.8	106	1	67.0-130			15.1	20
n-Propylbenzene	0.00500	0.000500	0.00474	0.00481	94.8	96.2	1	76.0-126			1.47	20
Styrene	0.00500	0.000500	0.00424	0.00455	84.8	91.0	1	78.0-123			7.05	20
1,1,1,2-Tetrachloroethane	0.00500	0.000500	0.00408	0.00455	81.6	91.0	1	78.0-124			10.9	20
1,1,2,2-Tetrachloroethane	0.00500	0.000500	0.00479	0.00552	95.8	110	1	71.0-121			14.2	20
Tetrachloroethene	0.00500	0.000600	0.00437	0.00458	87.4	91.6	1	74.0-129			4.69	20
Toluene	0.00500	0.000600	0.00445	0.00440	89.0	88.0	1	80.0-121			1.13	20
1,2,3-Trichlorobenzene	0.00500	0.000500	0.00402	0.00539	80.4	108	1	69.0-129		J3	29.1	20
1,2,4-Trichlorobenzene	0.00500	0.00100	0.00399	0.00524	79.8	105	1	69.0-130		J3	27.1	20
1,2,4-Trimethylbenzene	0.00500	0.00100	0.00448	0.00482	89.6	96.4	1	76.0-124			7.31	20
1,3,5-Trimethylbenzene	0.00500	0.000500	0.00454	0.00481	90.8	96.2	1	75.0-124			5.78	20
1,1,1-Trichloroethane	0.00500	0.000500	0.00472	0.00461	94.4	92.2	1	74.0-131			2.36	20
1,1,2-Trichloroethane	0.00500	0.000500	0.00449	0.00507	89.8	101	1	80.0-119			12.1	20
Trichloroethene	0.00500	0.000500	0.00441	0.00442	88.2	88.4	1	79.0-123			0.227	20
Trichlorofluoromethane	0.00500	0.00200	0.00474	0.00460	94.8	92.0	1	65.0-141			3.00	20
1,2,3-Trichloropropane	0.00500	0.00100	0.00458	0.00553	91.6	111	1	73.0-122			18.8	20

L1656839-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1656839-11 09/20/23 23:32 • (MS) R3975615-6 09/21/23 00:37 • (MSD) R3975615-7 09/21/23 00:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
o-Xylene	0.00500	0.000500	0.00422	0.00451	84.4	90.2	1	78.0-122			6.64	20
m&p-Xylene	0.0100	0.000500	0.00876	0.00897	87.6	89.7	1	80.0-121			2.37	20
Xylenes, Total	0.0150	0.00150	0.0130	0.0135	86.7	90.0	1	79.0-121			3.77	20
(S) Toluene-d8					*104*	*102*		*89.0-112*				
(S) 4-Bromofluorobenzene					*101*	*97.4*		*85.0-114*				
(S) 1,2-Dichloroethane-d4					*106*	*103*		*81.0-118*				

Method Blank (MB)

(MB) R3977401-3 09/22/23 10:13

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Acetone	0.0250	U	0.0113	0.0250	0.0500
Benzene	0.000500	U	0.0000941	0.000500	0.00100
Bromobenzene	0.000500	U	0.000118	0.000500	0.00100
Bromochloromethane	0.000500	U	0.000128	0.000500	0.00100
Bromodichloromethane	0.000500	U	0.000136	0.000500	0.00100
Bromoform	0.000500	U	0.000129	0.000500	0.00100
Bromomethane	0.00200	U	0.000605	0.00200	0.00500
n-Butylbenzene	0.000500	U	0.000157	0.000500	0.00100
sec-Butylbenzene	0.000500	U	0.000125	0.000500	0.00100
tert-Butylbenzene	0.000500	U	0.000127	0.000500	0.00100
Carbon disulfide	0.000500	U	0.0000960	0.000500	0.00100
Carbon tetrachloride	0.000500	U	0.000128	0.000500	0.00100
Chlorobenzene	0.000500	U	0.000116	0.000500	0.00100
Chlorodibromomethane	0.000500	U	0.000140	0.000500	0.00100
Chloroethane	0.00200	U	0.000192	0.00200	0.00500
Chloroform	0.00200	U	0.000111	0.00200	0.00500
Chloromethane	0.00200	U	0.000960	0.00200	0.00400
2-Chlorotoluene	0.000500	U	0.000106	0.000500	0.00100
4-Chlorotoluene	0.000500	U	0.000114	0.000500	0.00100
1,2-Dibromoethane	0.000500	U	0.000126	0.000500	0.00100
1,2-Dibromo-3-Chloropropane	0.00200	U	0.000276	0.00200	0.00500
Dibromomethane	0.000500	U	0.000122	0.000500	0.00100
1,2-Dichlorobenzene	0.000500	U	0.000107	0.000500	0.00100
1,3-Dichlorobenzene	0.000500	U	0.000110	0.000500	0.00100
1,4-Dichlorobenzene	0.000500	U	0.000120	0.000500	0.00100
Dichlorodifluoromethane	0.00200	U	0.000374	0.00200	0.00500
1,1-Dichloroethane	0.000500	U	0.000100	0.000500	0.00100
1,2-Dichloroethane	0.000500	U	0.0000819	0.000500	0.00100
1,1-Dichloroethene	0.000500	U	0.000188	0.000500	0.00100
cis-1,2-Dichloroethene	0.000500	U	0.000126	0.000500	0.00100
trans-1,2-Dichloroethene	0.000500	U	0.000149	0.000500	0.00100
1,2-Dichloropropane	0.000500	U	0.000149	0.000500	0.00100
1,3-Dichloropropane	0.000500	U	0.000110	0.000500	0.00100
2,2-Dichloropropane	0.000500	U	0.000161	0.000500	0.00100
1,1-Dichloropropene	0.000500	U	0.000142	0.000500	0.00100
cis-1,3-Dichloropropene	0.000500	U	0.000111	0.000500	0.00100
trans-1,3-Dichloropropene	0.000500	U	0.000118	0.000500	0.00100
TOTAL 1,3-Dichloropropene	0.000500	U	0.000118	0.000500	0.00100
Ethylbenzene	0.000500	U	0.000137	0.000500	0.00100
Hexachloro-1,3-butadiene	0.000750	U	0.000337	0.000750	0.00150

Method Blank (MB)

(MB) R3977401-3 09/22/23 10:13

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
2-Hexanone	0.00500	U	0.000787	0.00500	0.0100
Isopropylbenzene	0.000500	U	0.000105	0.000500	0.00100
p-Isopropyltoluene	0.000500	U	0.000120	0.000500	0.00100
2-Butanone (MEK)	0.00500	U	0.00119	0.00500	0.0100
Methylene Chloride	0.00200	U	0.000430	0.00200	0.00500
4-Methyl-2-pentanone (MIBK)	0.00500	U	0.000478	0.00500	0.0100
n-Propylbenzene	0.000500	U	0.0000993	0.000500	0.00100
Styrene	0.000500	U	0.000118	0.000500	0.00100
1,1,1,2-Tetrachloroethane	0.000500	U	0.000147	0.000500	0.00100
1,1,2,2-Tetrachloroethane	0.000500	U	0.000133	0.000500	0.00100
Tetrachloroethene	0.000600	U	0.000300	0.000600	0.00120
Toluene	0.000600	U	0.000278	0.000600	0.00120
1,2,3-Trichlorobenzene	0.000500	U	0.000230	0.000500	0.00100
1,2,4-Trichlorobenzene	0.00100	U	0.000481	0.00100	0.00200
1,2,4-Trimethylbenzene	0.00100	U	0.000322	0.00100	0.00200
1,3,5-Trimethylbenzene	0.000500	U	0.000104	0.000500	0.00100
1,1,1-Trichloroethane	0.000500	U	0.000149	0.000500	0.00100
1,1,2-Trichloroethane	0.000500	U	0.000158	0.000500	0.00100
Trichloroethene	0.000500	U	0.000190	0.000500	0.00100
Trichlorofluoromethane	0.00200	U	0.000160	0.00200	0.00500
1,2,3-Trichloropropane	0.00100	U	0.000237	0.00100	0.00250
o-Xylene	0.000500	U	0.000174	0.000500	0.00100
m&p-Xylene	0.000500	U	0.000430	0.000500	0.00200
Xylenes, Total	0.00150	U	0.000174	0.00150	0.00300
(S) Toluene-d8	*109*				*89.0-112*
(S) 4-Bromofluorobenzene	*103*				*85.0-114*
(S) 1,2-Dichloroethane-d4	*87.8*				*81.0-118*

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

(LCS) R3977401-1 09/22/23 09:15 • (LCSD) R3977401-2 09/22/23 09:36

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 %
Acetone	0.0250	0.0281	0.0275	112	110	39.0-160			2.16	20
Benzene	0.00500	0.00509	0.00492	102	98.4	79.0-120			3.40	20
Bromobenzene	0.00500	0.00447	0.00441	89.4	88.2	80.0-120			1.35	20
Bromochloromethane	0.00500	0.00507	0.00494	101	98.8	78.0-123			2.60	20
Bromodichloromethane	0.00500	0.00464	0.00468	92.8	93.6	79.0-125			0.858	20
Bromoform	0.00500	0.00454	0.00443	90.8	88.6	66.0-130			2.45	20

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

(LCS) R3977401-1 09/22/23 09:15 • (LCSD) R3977401-2 09/22/23 09:36

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 %
Bromomethane	0.00500	0.00467	0.00460	93.4	92.0	53.0-141			1.51	20
n-Butylbenzene	0.00500	0.00485	0.00488	97.0	97.6	75.0-128			0.617	20
sec-Butylbenzene	0.00500	0.00500	0.00485	100	97.0	77.0-126			3.05	20
tert-Butylbenzene	0.00500	0.00492	0.00478	98.4	95.6	78.0-124			2.89	20
Carbon disulfide	0.00500	0.00487	0.00481	97.4	96.2	64.0-133			1.24	20
Carbon tetrachloride	0.00500	0.00514	0.00498	103	99.6	72.0-136			3.16	20
Chlorobenzene	0.00500	0.00512	0.00489	102	97.8	82.0-118			4.60	20
Chlorodibromomethane	0.00500	0.00480	0.00479	96.0	95.8	74.0-126			0.209	20
Chloroethane	0.00500	0.00507	0.00501	101	100	60.0-138			1.19	20
Chloroform	0.00500	0.00479	0.00474	95.8	94.8	79.0-124			1.05	20
Chloromethane	0.00500	0.00570	0.00565	114	113	50.0-139			0.881	20
2-Chlorotoluene	0.00500	0.00458	0.00441	91.6	88.2	79.0-122			3.78	20
4-Chlorotoluene	0.00500	0.00481	0.00452	96.2	90.4	78.0-122			6.22	20
1,2-Dibromoethane	0.00500	0.00490	0.00500	98.0	100	77.0-121			2.02	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00441	0.00439	88.2	87.8	62.0-128			0.455	20
Dibromomethane	0.00500	0.00463	0.00471	92.6	94.2	79.0-123			1.71	20
1,2-Dichlorobenzene	0.00500	0.00481	0.00461	96.2	92.2	80.0-119			4.25	20
1,3-Dichlorobenzene	0.00500	0.00487	0.00461	97.4	92.2	80.0-119			5.49	20
1,4-Dichlorobenzene	0.00500	0.00483	0.00465	96.6	93.0	79.0-118			3.80	20
Dichlorodifluoromethane	0.00500	0.00576	0.00560	115	112	32.0-152			2.82	20
1,1-Dichloroethane	0.00500	0.00513	0.00508	103	102	77.0-125			0.979	20
1,2-Dichloroethane	0.00500	0.00454	0.00434	90.8	86.8	73.0-128			4.50	20
1,1-Dichloroethene	0.00500	0.00546	0.00540	109	108	71.0-131			1.10	20
cis-1,2-Dichloroethene	0.00500	0.00492	0.00498	98.4	99.6	78.0-123			1.21	20
trans-1,2-Dichloroethene	0.00500	0.00495	0.00495	99.0	99.0	75.0-124			0.000	20
1,2-Dichloropropane	0.00500	0.00520	0.00523	104	105	78.0-122			0.575	20
1,3-Dichloropropane	0.00500	0.00492	0.00499	98.4	99.8	80.0-119			1.41	20
2,2-Dichloropropane	0.00500	0.00506	0.00483	101	96.6	60.0-139			4.65	20
1,1-Dichloropropene	0.00500	0.00531	0.00517	106	103	79.0-125			2.67	20
cis-1,3-Dichloropropene	0.00500	0.00472	0.00478	94.4	95.6	75.0-124			1.26	20
trans-1,3-Dichloropropene	0.00500	0.00435	0.00445	87.0	89.0	73.0-127			2.27	20
Ethylbenzene	0.00500	0.00509	0.00508	102	102	79.0-121			0.197	20
Hexachloro-1,3-butadiene	0.00500	0.00457	0.00494	91.4	98.8	66.0-134			7.78	20
2-Hexanone	0.0250	0.0254	0.0254	102	102	57.0-139			0.000	20
Isopropylbenzene	0.00500	0.00511	0.00519	102	104	72.0-131			1.55	20
p-Isopropyltoluene	0.00500	0.00486	0.00471	97.2	94.2	77.0-127			3.13	20
2-Butanone (MEK)	0.0250	0.0251	0.0240	100	96.0	56.0-143			4.48	20
Methylene Chloride	0.00500	0.00492	0.00494	98.4	98.8	74.0-124			0.406	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0255	0.0251	102	100	67.0-130			1.58	20
n-Propylbenzene	0.00500	0.00489	0.00466	97.8	93.2	76.0-126			4.82	20

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

(LCS) R3977401-1 09/22/23 09:15 • (LCSD) R3977401-2 09/22/23 09:36

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 %
Styrene	0.00500	0.00486	0.00485	97.2	97.0	78.0-123			0.206	20
1,1,1,2-Tetrachloroethane	0.00500	0.00492	0.00477	98.4	95.4	78.0-124			3.10	20
1,1,2,2-Tetrachloroethane	0.00500	0.00475	0.00448	95.0	89.6	71.0-121			5.85	20
Tetrachloroethene	0.00500	0.00532	0.00528	106	106	74.0-129			0.755	20
Toluene	0.00500	0.00511	0.00502	102	100	80.0-121			1.78	20
1,2,3-Trichlorobenzene	0.00500	0.00448	0.00462	89.6	92.4	69.0-129			3.08	20
1,2,4-Trichlorobenzene	0.00500	0.00465	0.00473	93.0	94.6	69.0-130			1.71	20
1,2,4-Trimethylbenzene	0.00500	0.00475	0.00456	95.0	91.2	76.0-124			4.08	20
1,3,5-Trimethylbenzene	0.00500	0.00479	0.00463	95.8	92.6	75.0-124			3.40	20
1,1,1-Trichloroethane	0.00500	0.00493	0.00491	98.6	98.2	74.0-131			0.406	20
1,1,2-Trichloroethane	0.00500	0.00502	0.00487	100	97.4	80.0-119			3.03	20
Trichloroethene	0.00500	0.00509	0.00505	102	101	79.0-123			0.789	20
Trichlorofluoromethane	0.00500	0.00424	0.00446	84.8	89.2	65.0-141			5.06	20
1,2,3-Trichloropropane	0.00500	0.00488	0.00436	97.6	87.2	73.0-122			11.3	20
o-Xylene	0.00500	0.00490	0.00478	98.0	95.6	78.0-122			2.48	20
m&p-Xylene	0.0100	0.0101	0.00992	101	99.2	80.0-121			1.80	20
Xylenes, Total	0.0150	0.0150	0.0147	100	98.0	79.0-121			2.02	20
(S) Toluene-d8				*106*	*107*	*89.0-112*				
(S) 4-Bromofluorobenzene				*101*	*104*	*85.0-114*				
(S) 1,2-Dichloroethane-d4				*92.1*	*92.0*	*81.0-118*				

L1657094-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657094-03 09/22/23 14:56 • (MS) R3977401-4 09/22/23 20:26 • (MSD) R3977401-5 09/22/23 20:45

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0250	0.0193	0.0229	77.2	91.6	1	39.0-160			17.1	20
Benzene	0.00500	0.000500	0.00388	0.00442	77.6	88.4	1	79.0-120	J6		13.0	20
Bromobenzene	0.00500	0.000500	0.00370	0.00403	74.0	80.6	1	80.0-120	J6		8.54	20
Bromochloromethane	0.00500	0.000500	0.00384	0.00429	76.8	85.8	1	78.0-123	J6		11.1	20
Bromodichloromethane	0.00500	0.000500	0.00349	0.00415	69.8	83.0	1	79.0-125	J6		17.3	20
Bromoform	0.00500	0.000500	0.00347	0.00419	69.4	83.8	1	66.0-130			18.8	20
Bromomethane	0.00500	0.00200	0.00313	0.00368	62.6	73.6	1	53.0-141			16.2	20
n-Butylbenzene	0.00500	0.000500	0.00400	0.00437	80.0	87.4	1	75.0-128			8.84	20
sec-Butylbenzene	0.00500	0.000500	0.00398	0.00459	79.6	91.8	1	77.0-126			14.2	20
tert-Butylbenzene	0.00500	0.000500	0.00391	0.00447	78.2	89.4	1	78.0-124			13.4	20
Carbon disulfide	0.00500	0.000500	0.00329	0.00381	65.8	76.2	1	64.0-133			14.6	20
Carbon tetrachloride	0.00500	0.000500	0.00392	0.00445	78.4	89.0	1	72.0-136			12.7	20
Chlorobenzene	0.00500	0.000500	0.00408	0.00449	81.6	89.8	1	82.0-118	J6		9.57	20

L1657094-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657094-03 09/22/23 14:56 • (MS) R3977401-4 09/22/23 20:26 • (MSD) R3977401-5 09/22/23 20:45

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chlorodibromomethane	0.00500	0.000500	0.00370	0.00421	74.0	84.2	1	74.0-126			12.9	20
Chloroethane	0.00500	0.00200	0.00372	0.00408	74.4	81.6	1	60.0-138			9.23	20
Chloroform	0.00500	0.000193	0.00380	0.00434	72.1	82.9	1	79.0-124	J6		13.3	20
Chloromethane	0.00500	0.00200	0.00412	0.00454	82.4	90.8	1	50.0-139			9.70	20
2-Chlorotoluene	0.00500	0.000500	0.00365	0.00403	73.0	80.6	1	79.0-122	J6		9.90	20
4-Chlorotoluene	0.00500	0.000500	0.00377	0.00420	75.4	84.0	1	78.0-122	J6		10.8	20
1,2-Dibromoethane	0.00500	0.000500	0.00379	0.00436	75.8	87.2	1	77.0-121	J6		14.0	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00200	0.00369	0.00420	73.8	84.0	1	62.0-128			12.9	20
Dibromomethane	0.00500	0.000500	0.00363	0.00418	72.6	83.6	1	79.0-123	J6		14.1	20
1,2-Dichlorobenzene	0.00500	0.000500	0.00391	0.00428	78.2	85.6	1	80.0-119	J6		9.04	20
1,3-Dichlorobenzene	0.00500	0.000500	0.00389	0.00424	77.8	84.8	1	80.0-119	J6		8.61	20
1,4-Dichlorobenzene	0.00500	0.000500	0.00385	0.00434	77.0	86.8	1	79.0-118	J6		12.0	20
Dichlorodifluoromethane	0.00500	0.00200	0.00436	0.00510	87.2	102	1	32.0-152			15.6	20
1,1-Dichloroethane	0.00500	0.000500	0.00399	0.00460	79.8	92.0	1	77.0-125			14.2	20
1,2-Dichloroethane	0.00500	0.000500	0.00336	0.00376	67.2	75.2	1	73.0-128	J6		11.2	20
1,1-Dichloroethene	0.00500	0.000500	0.00420	0.00468	84.0	93.6	1	71.0-131			10.8	20
cis-1,2-Dichloroethene	0.00500	0.00179	0.00576	0.00626	79.4	89.4	1	78.0-123			8.32	20
trans-1,2-Dichloroethene	0.00500	0.000500	0.00370	0.00421	74.0	84.2	1	75.0-124	J6		12.9	20
1,2-Dichloropropane	0.00500	0.000500	0.00401	0.00456	80.2	91.2	1	78.0-122			12.8	20
1,3-Dichloropropane	0.00500	0.000500	0.00399	0.00449	79.8	89.8	1	80.0-119	J6		11.8	20
2,2-Dichloropropane	0.00500	0.000500	0.00337	0.00457	67.4	91.4	1	60.0-139		J3	30.2	20
1,1-Dichloropropene	0.00500	0.000500	0.00389	0.00456	77.8	91.2	1	79.0-125	J6		15.9	20
cis-1,3-Dichloropropene	0.00500	0.000500	0.00362	0.00409	72.4	81.8	1	75.0-124	J6		12.2	20
trans-1,3-Dichloropropene	0.00500	0.000500	0.00347	0.00398	69.4	79.6	1	73.0-127	J6		13.7	20
Ethylbenzene	0.00500	0.000500	0.00404	0.00454	80.8	90.8	1	79.0-121			11.7	20
Hexachloro-1,3-butadiene	0.00500	0.000750	0.00388	0.00482	77.6	96.4	1	66.0-134		J3	21.6	20
2-Hexanone	0.0250	0.00500	0.0200	0.0231	80.0	92.4	1	57.0-139			14.4	20
Isopropylbenzene	0.00500	0.000500	0.00418	0.00464	83.6	92.8	1	72.0-131			10.4	20
p-Isopropyltoluene	0.00500	0.000500	0.00392	0.00438	78.4	87.6	1	77.0-127			11.1	20
2-Butanone (MEK)	0.0250	0.00500	0.0182	0.0222	72.8	88.8	1	56.0-143			19.8	20
Methylene Chloride	0.00500	0.00200	0.00364	0.00426	72.8	85.2	1	74.0-124	J6		15.7	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.00500	0.0204	0.0233	81.6	93.2	1	67.0-130			13.3	20
n-Propylbenzene	0.00500	0.000500	0.00394	0.00434	78.8	86.8	1	76.0-126			9.66	20
Styrene	0.00500	0.000500	0.00382	0.00432	76.4	86.4	1	78.0-123	J6		12.3	20
1,1,1,2-Tetrachloroethane	0.00500	0.000500	0.00378	0.00445	75.6	89.0	1	78.0-124	J6		16.3	20
1,1,2,2-Tetrachloroethane	0.00500	0.000500	0.00398	0.00435	79.6	87.0	1	71.0-121			8.88	20
Tetrachloroethene	0.00500	0.000600	0.00416	0.00481	83.2	96.2	1	74.0-129			14.5	20
Toluene	0.00500	0.000600	0.00401	0.00447	80.2	89.4	1	80.0-121			10.8	20
1,2,3-Trichlorobenzene	0.00500	0.000500	0.00388	0.00439	77.6	87.8	1	69.0-129			12.3	20
1,2,4-Trichlorobenzene	0.00500	0.00100	0.00397	0.00438	79.4	87.6	1	69.0-130			9.82	20

L1657094-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657094-03 09/22/23 14:56 • (MS) R3977401-4 09/22/23 20:26 • (MSD) R3977401-5 09/22/23 20:45

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,2,4-Trimethylbenzene	0.00500	0.00100	0.00375	0.00425	75.0	85.0	1	76.0-124	J6		12.5	20
1,3,5-Trimethylbenzene	0.00500	0.000500	0.00379	0.00425	75.8	85.0	1	75.0-124			11.4	20
1,1,1-Trichloroethane	0.00500	0.000500	0.00381	0.00433	76.2	86.6	1	74.0-131			12.8	20
1,1,2-Trichloroethane	0.00500	0.000500	0.00402	0.00454	80.4	90.8	1	80.0-119			12.1	20
Trichloroethene	0.00500	0.00244	0.00649	0.00682	81.0	87.6	1	79.0-123			4.96	20
Trichlorofluoromethane	0.00500	0.00200	0.00369	0.00388	73.8	77.6	1	65.0-141			5.02	20
1,2,3-Trichloropropane	0.00500	0.00100	0.00394	0.00418	78.8	83.6	1	73.0-122			5.91	20
o-Xylene	0.00500	0.000500	0.00388	0.00451	77.6	90.2	1	78.0-122	J6		15.0	20
m&p-Xylene	0.0100	0.000500	0.00798	0.00890	79.8	89.0	1	80.0-121	J6		10.9	20
Xylenes, Total	0.0150	0.00150	0.0119	0.0134	79.3	89.3	1	79.0-121			11.9	20
(S) Toluene-d8					*108*	*107*		*89.0-112*				
(S) 4-Bromofluorobenzene					*102*	*103*		*85.0-114*				
(S) 1,2-Dichloroethane-d4					*88.8*	*89.9*		*81.0-118*				

L1658088-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1658088-01 09/22/23 15:54 • (MS) R3977401-6 09/22/23 21:04 • (MSD) R3977401-7 09/22/23 21:23

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0250	0.0206	0.0238	82.4	95.2	1	39.0-160			14.4	20
Benzene	0.00500	0.000500	0.00384	0.00431	76.8	86.2	1	79.0-120	J6		11.5	20
Bromobenzene	0.00500	0.000500	0.00371	0.00434	74.2	86.8	1	80.0-120	J6		15.7	20
Bromochloromethane	0.00500	0.000500	0.00391	0.00445	78.2	89.0	1	78.0-123			12.9	20
Bromodichloromethane	0.00500	0.000500	0.00367	0.00404	73.4	80.8	1	79.0-125	J6		9.60	20
Bromoform	0.00500	0.000500	0.00410	0.00423	82.0	84.6	1	66.0-130			3.12	20
Bromomethane	0.00500	0.00200	0.00330	0.00370	66.0	74.0	1	53.0-141			11.4	20
n-Butylbenzene	0.00500	0.000500	0.00397	0.00456	79.4	91.2	1	75.0-128			13.8	20
sec-Butylbenzene	0.00500	0.000500	0.00403	0.00468	80.6	93.6	1	77.0-126			14.9	20
tert-Butylbenzene	0.00500	0.000500	0.00391	0.00457	78.2	91.4	1	78.0-124			15.6	20
Carbon disulfide	0.00500	0.000500	0.00314	0.00368	62.8	73.6	1	64.0-133	J6		15.8	20
Carbon tetrachloride	0.00500	0.000500	0.00381	0.00447	76.2	89.4	1	72.0-136			15.9	20
Chlorobenzene	0.00500	0.000500	0.00391	0.00447	78.2	89.4	1	82.0-118	J6		13.4	20
Chlorodibromomethane	0.00500	0.000500	0.00393	0.00422	78.6	84.4	1	74.0-126			7.12	20
Chloroethane	0.00500	0.00200	0.00356	0.00423	71.2	84.6	1	60.0-138			17.2	20
Chloroform	0.00500	0.00200	0.00368	0.00438	73.6	87.6	1	79.0-124	J6		17.4	20
Chloromethane	0.00500	0.00200	0.00397	0.00478	79.4	95.6	1	50.0-139			18.5	20
2-Chlorotoluene	0.00500	0.000500	0.00355	0.00422	71.0	84.4	1	79.0-122	J6		17.2	20
4-Chlorotoluene	0.00500	0.000500	0.00373	0.00433	74.6	86.6	1	78.0-122	J6		14.9	20
1,2-Dibromoethane	0.00500	0.000500	0.00398	0.00459	79.6	91.8	1	77.0-121			14.2	20

L1658088-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1658088-01 09/22/23 15:54 • (MS) R3977401-6 09/22/23 21:04 • (MSD) R3977401-7 09/22/23 21:23

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,2-Dibromo-3-Chloropropane	0.00500	0.00200	0.00424	0.00479	84.8	95.8	1	62.0-128			12.2	20
Dibromomethane	0.00500	0.000500	0.00378	0.00407	75.6	81.4	1	79.0-123	J6		7.39	20
1,2-Dichlorobenzene	0.00500	0.000500	0.00396	0.00458	79.2	91.6	1	80.0-119	J6		14.5	20
1,3-Dichlorobenzene	0.00500	0.000500	0.00384	0.00448	76.8	89.6	1	80.0-119	J6		15.4	20
1,4-Dichlorobenzene	0.00500	0.000500	0.00401	0.00458	80.2	91.6	1	79.0-118			13.3	20
Dichlorodifluoromethane	0.00500	0.00200	0.00449	0.00501	89.8	100	1	32.0-152			10.9	20
1,1-Dichloroethane	0.00500	0.000500	0.00401	0.00455	80.2	91.0	1	77.0-125			12.6	20
1,2-Dichloroethane	0.00500	0.000500	0.00350	0.00395	70.0	79.0	1	73.0-128	J6		12.1	20
1,1-Dichloroethene	0.00500	0.000500	0.00406	0.00477	81.2	95.4	1	71.0-131			16.1	20
cis-1,2-Dichloroethene	0.00500	0.000500	0.00404	0.00456	80.8	91.2	1	78.0-123			12.1	20
trans-1,2-Dichloroethene	0.00500	0.000500	0.00377	0.00422	75.4	84.4	1	75.0-124			11.3	20
1,2-Dichloropropane	0.00500	0.000500	0.00400	0.00467	80.0	93.4	1	78.0-122			15.5	20
1,3-Dichloropropane	0.00500	0.000500	0.00415	0.00457	83.0	91.4	1	80.0-119			9.63	20
2,2-Dichloropropane	0.00500	0.000500	0.00360	0.00422	72.0	84.4	1	60.0-139			15.9	20
1,1-Dichloropropene	0.00500	0.000500	0.00386	0.00449	77.2	89.8	1	79.0-125	J6		15.1	20
cis-1,3-Dichloropropene	0.00500	0.000500	0.00363	0.00398	72.6	79.6	1	75.0-124	J6		9.20	20
trans-1,3-Dichloropropene	0.00500	0.000500	0.00361	0.00391	72.2	78.2	1	73.0-127	J6		7.98	20
Ethylbenzene	0.00500	0.000500	0.00395	0.00449	79.0	89.8	1	79.0-121			12.8	20
Hexachloro-1,3-butadiene	0.00500	0.000750	0.00427	0.00423	85.4	84.6	1	66.0-134			0.941	20
2-Hexanone	0.0250	0.00500	0.0256	0.0273	102	109	1	57.0-139			6.43	20
Isopropylbenzene	0.00500	0.000500	0.00396	0.00459	79.2	91.8	1	72.0-131			14.7	20
p-Isopropyltoluene	0.00500	0.000500	0.00379	0.00456	75.8	91.2	1	77.0-127	J6		18.4	20
2-Butanone (MEK)	0.0250	0.00500	0.0216	0.0235	86.4	94.0	1	56.0-143			8.43	20
Methylene Chloride	0.00500	0.00200	0.00375	0.00425	75.0	85.0	1	74.0-124			12.5	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.00500	0.0247	0.0266	98.8	106	1	67.0-130			7.41	20
n-Propylbenzene	0.00500	0.000500	0.00376	0.00456	75.2	91.2	1	76.0-126	J6		19.2	20
Styrene	0.00500	0.000500	0.00371	0.00411	74.2	82.2	1	78.0-123	J6		10.2	20
1,1,1,2-Tetrachloroethane	0.00500	0.000500	0.00387	0.00434	77.4	86.8	1	78.0-124	J6		11.4	20
1,1,2,2-Tetrachloroethane	0.00500	0.000500	0.00425	0.00487	85.0	97.4	1	71.0-121			13.6	20
Tetrachloroethene	0.00500	0.000600	0.00407	0.00457	81.4	91.4	1	74.0-129			11.6	20
Toluene	0.00500	0.000600	0.00394	0.00442	78.8	88.4	1	80.0-121	J6		11.5	20
1,2,3-Trichlorobenzene	0.00500	0.000500	0.00387	0.00450	77.4	90.0	1	69.0-129			15.1	20
1,2,4-Trichlorobenzene	0.00500	0.00100	0.00396	0.00444	79.2	88.8	1	69.0-130			11.4	20
1,2,4-Trimethylbenzene	0.00500	0.00100	0.00368	0.00439	73.6	87.8	1	76.0-124	J6		17.6	20
1,3,5-Trimethylbenzene	0.00500	0.000500	0.00365	0.00444	73.0	88.8	1	75.0-124	J6		19.5	20
1,1,1-Trichloroethane	0.00500	0.000500	0.00373	0.00412	74.6	82.4	1	74.0-131			9.94	20
1,1,2-Trichloroethane	0.00500	0.000500	0.00415	0.00465	83.0	93.0	1	80.0-119			11.4	20
Trichloroethene	0.00500	0.000500	0.00399	0.00454	79.8	90.8	1	79.0-123			12.9	20
Trichlorofluoromethane	0.00500	0.00200	0.00350	0.00383	70.0	76.6	1	65.0-141			9.00	20
1,2,3-Trichloropropane	0.00500	0.00100	0.00424	0.00465	84.8	93.0	1	73.0-122			9.22	20

L1658088-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1658088-01 09/22/23 15:54 • (MS) R3977401-6 09/22/23 21:04 • (MSD) R3977401-7 09/22/23 21:23

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
o-Xylene	0.00500	0.000500	0.00399	0.00434	79.8	86.8	1	78.0-122			8.40	20
m&p-Xylene	0.0100	0.000500	0.00782	0.00889	78.2	88.9	1	80.0-121	J6		12.8	20
Xylenes, Total	0.0150	0.00150	0.0118	0.0132	78.7	88.0	1	79.0-121	J6		11.2	20
(S) Toluene-d8					*107*	*108*		*89.0-112*				
(S) 4-Bromofluorobenzene					*101*	*99.9*		*85.0-114*				
(S) 1,2-Dichloroethane-d4					*87.6*	*89.9*		*81.0-118*				

Method Blank (MB)

(MB) R3976954-1 09/23/23 00:40

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Diesel Range Organics (DRO)	0.0425	J	0.0333	0.0750	0.150
Residual Range Organics (RRO)	0.167	U	0.0833	0.167	0.334
(S) o-Terphenyl	*62.0*				*31.0-160*

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

(LCS) R3976954-2 09/23/23 01:06 • (LCSD) R3976954-3 09/23/23 01:31

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 %
Diesel Range Organics (DRO)	1.50	1.08	0.770	72.0	51.3	50.0-150		J3	33.5	20
(S) o-Terphenyl				*52.5*	*40.9*	*31.0-160*				

Method Blank (MB)

(MB) R3977499-2 09/22/23 11:27

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Benzoic acid	0.00500	U	0.00170	0.00500	0.0500
Benzyl alcohol	0.00500	U	0.000563	0.00500	0.0100
Bis(2-chlorethoxy)methane	0.00500	U	0.000116	0.00500	0.0100
Bis(2-chloroethyl)ether	0.00500	U	0.000137	0.00500	0.0100
2,2-Oxybis(1-Chloropropane)	0.00500	U	0.000210	0.00500	0.0100
4-Bromophenyl-phenylether	0.00500	U	0.0000877	0.00500	0.0100
Carbazole	0.00500	U	0.000111	0.00500	0.0100
4-Chloroaniline	0.00500	U	0.000234	0.00500	0.0100
2-Chloronaphthalene	0.000500	U	0.0000648	0.000500	0.00100
4-Chlorophenyl-phenylether	0.00500	U	0.0000926	0.00500	0.0100
Dibenzofuran	0.00500	U	0.0000970	0.00500	0.0100
3,3-Dichlorobenzidine	0.00500	U	0.000212	0.00500	0.0100
2,4-Dinitrotoluene	0.00500	U	0.0000983	0.00500	0.0100
2,6-Dinitrotoluene	0.00500	U	0.000250	0.00500	0.0100
Hexachlorobenzene	0.000500	U	0.0000755	0.000500	0.00100
Hexachlorocyclopentadiene	0.00500	U	0.0000598	0.00500	0.0100
Hexachloroethane	0.00500	U	0.000127	0.00500	0.0100
Isophorone	0.00500	U	0.000143	0.00500	0.0100
2-Nitroaniline	0.00500	U	0.000102	0.00500	0.0100
3-Nitroaniline	0.00500	U	0.0000860	0.00500	0.0100
4-Nitroaniline	0.00500	U	0.0000910	0.00500	0.0100
Nitrobenzene	0.00500	U	0.000297	0.00500	0.0100
n-Nitrosodimethylamine	0.00500	U	0.000998	0.00500	0.0100
n-Nitrosodiphenylamine	0.00500	U	0.00237	0.00500	0.0100
n-Nitrosodi-n-propylamine	0.00500	U	0.000261	0.00500	0.0100
Benzylbutyl phthalate	0.00200	U	0.000765	0.00200	0.00400
Bis(2-Ethylhexyl)phthalate	0.00200	U	0.000895	0.00200	0.00400
Di-n-butyl phthalate	0.00150	U	0.000453	0.00150	0.00300
Diethyl phthalate	0.00150	U	0.000287	0.00150	0.00300
Dimethyl phthalate	0.00150	U	0.000260	0.00150	0.00300
Di-n-octyl phthalate	0.00200	U	0.000932	0.00200	0.00400
1,2,4-Trichlorobenzene	0.00500	U	0.0000698	0.00500	0.0100
4-Chloro-3-methylphenol	0.00500	U	0.000131	0.00500	0.0100
2-Chlorophenol	0.00500	U	0.000133	0.00500	0.0100
2,4-Dichlorophenol	0.00500	U	0.000102	0.00500	0.0100
2,4-Dimethylphenol	0.00500	U	0.0000636	0.00500	0.0100
4,6-Dinitro-2-methylphenol	0.00500	U	0.00112	0.00500	0.0100
2,4-Dinitrophenol	0.0150	U	0.00593	0.0150	0.0300
2-Methylphenol	0.0150	U	0.0000920	0.0150	0.0100
3&4-Methyl Phenol	0.0150	U	0.000168	0.0150	0.0100

Method Blank (MB)

(MB) R3977499-2 09/22/23 11:27

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
2-Nitrophenol	0.00500	U	0.000117	0.00500	0.0100
4-Nitrophenol	0.00500	U	0.000143	0.00500	0.0100
Pentachlorophenol	0.00500	U	0.000313	0.00500	0.0100
Phenol	0.0100	U	0.00433	0.0100	0.0200
2,4,5-Trichlorophenol	0.0100	U	0.000109	0.0100	0.0100
2,4,6-Trichlorophenol	0.00500	U	0.000100	0.00500	0.0100
(S) 2-Fluorophenol	*28.4*				*19.0-119*
(S) Phenol-d5	*22.4*				*10.0-67.0*
(S) Nitrobenzene-d5	*54.6*				*44.0-120*
(S) 2-Fluorobiphenyl	*51.5*				*44.0-119*
(S) 2,4,6-Tribromophenol	*46.0*				*43.0-140*
(S) p-Terphenyl-d14	*70.8*				*50.0-134*

Laboratory Control Sample (LCS)

(LCS) R3977499-1 09/22/23 11:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzoic acid	0.100	0.0312	31.2	10.0-120	
Benzyl alcohol	0.0500	0.0243	48.6	31.0-112	
Bis(2-chlorethoxy)methane	0.0500	0.0270	54.0	48.0-120	
Bis(2-chloroethyl)ether	0.0500	0.0310	62.0	43.0-118	
2,2-Oxybis(1-Chloropropane)	0.0500	0.0262	52.4	37.0-130	
4-Bromophenyl-phenylether	0.0500	0.0287	57.4	55.0-124	
Carbazole	0.0500	0.0339	67.8	60.0-122	
4-Chloroaniline	0.0500	0.0188	37.6	33.0-117	
2-Chloronaphthalene	0.0500	0.0241	48.2	40.0-116	
4-Chlorophenyl-phenylether	0.0500	0.0266	53.2	53.0-121	
Dibenzofuran	0.0500	0.0258	51.6	53.0-118	J4
3,3-Dichlorobenzidine	0.100	0.0526	52.6	27.0-129	
2,4-Dinitrotoluene	0.0500	0.0309	61.8	57.0-128	
2,6-Dinitrotoluene	0.0500	0.0314	62.8	57.0-124	
Hexachlorobenzene	0.0500	0.0285	57.0	53.0-125	
Hexachlorocyclopentadiene	0.0500	0.0140	28.0	10.0-121	
Hexachloroethane	0.0500	0.0225	45.0	21.0-115	
Isophorone	0.0500	0.0266	53.2	42.0-124	
2-Nitroaniline	0.0500	0.0335	67.0	55.0-127	
3-Nitroaniline	0.0500	0.0312	62.4	41.0-128	
4-Nitroaniline	0.0500	0.0319	63.8	35.0-124	

Laboratory Control Sample (LCS)

(LCS) R3977499-1 09/22/23 11:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrobenzene	0.0500	0.0256	51.2	45.0-121	
n-Nitrosodimethylamine	0.0500	0.0193	38.6	10.0-121	
n-Nitrosodiphenylamine	0.0500	0.0293	58.6	51.0-123	
n-Nitrosodi-n-propylamine	0.0500	0.0297	59.4	49.0-119	
Benzylbutyl phthalate	0.0500	0.0337	67.4	53.0-134	
Bis(2-Ethylhexyl)phthalate	0.0500	0.0336	67.2	55.0-135	
Di-n-butyl phthalate	0.0500	0.0354	70.8	59.0-127	
Diethyl phthalate	0.0500	0.0316	63.2	56.0-125	
Dimethyl phthalate	0.0500	0.0301	60.2	45.0-127	
Di-n-octyl phthalate	0.0500	0.0339	67.8	51.0-140	
1,2,4-Trichlorobenzene	0.0500	0.0197	39.4	29.0-116	
4-Chloro-3-methylphenol	0.0500	0.0255	51.0	52.0-119	J4
2-Chlorophenol	0.0500	0.0226	45.2	38.0-117	
2,4-Dichlorophenol	0.0500	0.0215	43.0	47.0-121	J4
2,4-Dimethylphenol	0.0500	0.0269	53.8	31.0-124	
4,6-Dinitro-2-methylphenol	0.0500	0.0351	70.2	44.0-137	
2,4-Dinitrophenol	0.0500	0.0373	74.6	23.0-143	
2-Methylphenol	0.0500	0.0206	41.2	30.0-117	
3&4-Methyl Phenol	0.0500	0.0230	46.0	29.0-110	
2-Nitrophenol	0.0500	0.0290	58.0	47.0-123	
4-Nitrophenol	0.0500	0.0145	29.0	10.0-120	
Pentachlorophenol	0.0500	0.0229	45.8	35.0-138	
Phenol	0.0500	0.0129	25.8	10.0-120	
2,4,5-Trichlorophenol	0.0500	0.0284	56.8	50.0-125	
2,4,6-Trichlorophenol	0.0500	0.0255	51.0	53.0-123	J4
(S) 2-Fluorophenol			*32.4*	*19.0-119*	
(S) Phenol-d5			*24.8*	*10.0-67.0*	
(S) Nitrobenzene-d5			*52.4*	*44.0-120*	
(S) 2-Fluorobiphenyl			*52.8*	*44.0-119*	
(S) 2,4,6-Tribromophenol			*58.0*	*43.0-140*	
(S) p-Terphenyl-d14			*62.6*	*50.0-134*	

L1657435-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657435-07 09/22/23 18:00 • (MS) R3977499-3 09/22/23 18:22 • (MSD) R3977499-4 09/22/23 18:44

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzoic acid	0.100	0.00500	0.0194	0.0130	19.4	13.0	1	10.0-120		J3	39.5	20
Benzyl alcohol	0.0500	0.00500	0.0203	0.0232	40.6	46.4	1	31.0-112			13.3	20

L1657435-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657435-07 09/22/23 18:00 • (MS) R3977499-3 09/22/23 18:22 • (MSD) R3977499-4 09/22/23 18:44

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bis(2-chlorethoxy)methane	0.0500	0.00500	0.0239	0.0293	47.8	58.6	1	48.0-120	J6	J3	20.3	20
Bis(2-chloroethyl)ether	0.0500	0.00500	0.0274	0.0322	54.8	64.4	1	43.0-118			16.1	20
2,2-Oxybis(1-Chloropropane)	0.0500	0.00500	0.0235	0.0289	47.0	57.8	1	37.0-130		J3	20.6	20
4-Bromophenyl-phenylether	0.0500	0.00500	0.0282	0.0332	56.4	66.4	1	55.0-124			16.3	20
Carbazole	0.0500	0.00500	0.0335	0.0372	67.0	74.4	1	60.0-122			10.5	20
4-Chloroaniline	0.0500	0.00500	0.0128	0.0209	25.6	41.8	1	33.0-117	J6	J3	48.1	20
2-Chloronaphthalene	0.0500	0.000500	0.0240	0.0287	48.0	57.4	1	40.0-116			17.8	20
4-Chlorophenyl-phenylether	0.0500	0.00500	0.0265	0.0301	53.0	60.2	1	53.0-121			12.7	20
Dibenzofuran	0.0500	0.00500	0.0266	0.0322	53.2	64.4	1	53.0-118			19.0	20
3,3-Dichlorobenzidine	0.100	0.00500	0.0480	0.0607	48.0	60.7	1	27.0-129		J3	23.4	20
2,4-Dinitrotoluene	0.0500	0.00500	0.0333	0.0381	66.6	76.2	1	57.0-128			13.4	20
2,6-Dinitrotoluene	0.0500	0.00500	0.0298	0.0364	59.6	72.8	1	57.0-124			19.9	20
Hexachlorobenzene	0.0500	0.000500	0.0268	0.0320	53.6	64.0	1	53.0-125			17.7	20
Hexachlorocyclopentadiene	0.0500	0.00500	0.0176	0.0213	35.2	42.6	1	10.0-121			19.0	20
Hexachloroethane	0.0500	0.00500	0.0200	0.0231	40.0	46.2	1	21.0-115			14.4	20
Isophorone	0.0500	0.00500	0.0253	0.0302	50.6	60.4	1	42.0-124			17.7	20
2-Nitroaniline	0.0500	0.00500	0.0312	0.0378	62.4	75.6	1	55.0-127			19.1	20
3-Nitroaniline	0.0500	0.00500	0.0272	0.0328	54.4	65.6	1	41.0-128			18.7	20
4-Nitroaniline	0.0500	0.00500	0.0294	0.0351	58.8	70.2	1	35.0-124			17.7	20
Nitrobenzene	0.0500	0.00500	0.0233	0.0263	46.6	52.6	1	45.0-121			12.1	20
n-Nitrosodimethylamine	0.0500	0.00500	0.0157	0.0168	31.4	33.6	1	10.0-121			6.77	20
n-Nitrosodiphenylamine	0.0500	0.00500	0.0279	0.0332	55.8	66.4	1	51.0-123			17.3	20
n-Nitrosodi-n-propylamine	0.0500	0.00500	0.0275	0.0325	55.0	65.0	1	49.0-119			16.7	20
Benzylbutyl phthalate	0.0500	0.00200	0.0350	0.0388	70.0	77.6	1	53.0-134			10.3	20
Bis(2-Ethylhexyl)phthalate	0.0500	0.00200	0.0291	0.0330	58.2	66.0	1	55.0-135			12.6	20
Di-n-butyl phthalate	0.0500	0.00150	0.0365	0.0396	73.0	79.2	1	59.0-127			8.15	20
Diethyl phthalate	0.0500	0.00150	0.0320	0.0371	64.0	74.2	1	56.0-125			14.8	20
Dimethyl phthalate	0.0500	0.00150	0.0295	0.0355	59.0	71.0	1	45.0-127			18.5	20
Di-n-octyl phthalate	0.0500	0.00200	0.0291	0.0322	58.2	64.4	1	51.0-140			10.1	20
1,2,4-Trichlorobenzene	0.0500	0.00500	0.0185	0.0213	37.0	42.6	1	29.0-116			14.1	20
4-Chloro-3-methylphenol	0.0500	0.00500	0.0204	0.0252	40.8	50.4	1	52.0-119	J6	J3 J6	21.1	20
2-Chlorophenol	0.0500	0.00500	0.0169	0.0207	33.8	41.4	1	38.0-117	J6	J3	20.2	20
2,4-Dichlorophenol	0.0500	0.00500	0.0173	0.0209	34.6	41.8	1	47.0-121	J6	J6	18.8	20
2,4-Dimethylphenol	0.0500	0.00500	0.0205	0.0255	41.0	51.0	1	31.0-124		J3	21.7	20
4,6-Dinitro-2-methylphenol	0.0500	0.00500	0.0321	0.0358	64.2	71.6	1	44.0-137			10.9	20
2,4-Dinitrophenol	0.0500	0.0150	0.0328	0.0356	65.6	71.2	1	23.0-143			8.19	20
2-Methylphenol	0.0500	0.0150	0.0155	0.0192	31.0	38.4	1	30.0-117		J3	21.3	20
3&4-Methyl Phenol	0.0500	0.0150	0.0169	0.0209	33.8	41.8	1	29.0-110		J3	21.2	20
2-Nitrophenol	0.0500	0.00500	0.0239	0.0290	47.8	58.0	1	47.0-123			19.3	20
4-Nitrophenol	0.0500	0.00500	0.0110	0.0127	22.0	25.4	1	10.0-120			14.3	20

L1657435-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1657435-07 09/22/23 18:00 • (MS) R3977499-3 09/22/23 18:22 • (MSD) R3977499-4 09/22/23 18:44

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Pentachlorophenol	0.0500	0.00500	0.0209	0.0203	41.8	40.6	1	35.0-138			2.91	20
Phenol	0.0500	0.0100	0.00932	0.0109	18.6	21.8	1	10.0-120			15.6	20
2,4,5-Trichlorophenol	0.0500	0.0100	0.0248	0.0302	49.6	60.4	1	50.0-125	J6		19.6	20
2,4,6-Trichlorophenol	0.0500	0.00500	0.0223	0.0272	44.6	54.4	1	53.0-123	J6		19.8	20
(S) 2-Fluorophenol					*22.4*	*26.6*		*19.0-119*				
(S) Phenol-d5					*16.9*	*20.1*		*10.0-67.0*				
(S) Nitrobenzene-d5					*47.3*	*54.8*		*44.0-120*				
(S) 2-Fluorobiphenyl					*50.8*	*61.7*		*44.0-119*				
(S) 2,4,6-Tribromophenol					*51.0*	*62.0*		*43.0-140*				
(S) p-Terphenyl-d14					*54.5*	*61.2*		*50.0-134*				

Method Blank (MB)

(MB) R3975668-3 09/19/23 19:41

Analyte	MB Result mg/l	MB Qualifier	MB DL mg/l	MB LOD mg/l	MB LOQ mg/l
Anthracene	0.0000500	U	0.0000190	0.0000500	0.000100
Acenaphthene	0.0000500	U	0.0000190	0.0000500	0.000100
Acenaphthylene	0.0000500	U	0.0000170	0.0000500	0.000100
Benzo(a)anthracene	0.0000500	U	0.0000200	0.0000500	0.000100
Benzo(a)pyrene	0.0000500	U	0.0000180	0.0000500	0.000100
Benzo(b)fluoranthene	0.0000500	U	0.0000170	0.0000500	0.000100
Benzo(g,h,i)perylene	0.0000500	U	0.0000180	0.0000500	0.000100
Benzo(k)fluoranthene	0.000125	U	0.0000200	0.000125	0.000250
Chrysene	0.0000500	U	0.0000180	0.0000500	0.000100
Dibenz(a,h)anthracene	0.0000500	U	0.0000180	0.0000500	0.000100
Fluoranthene	0.0000250	U	0.0000110	0.0000250	0.0000500
Fluorene	0.0000500	U	0.0000170	0.0000500	0.000100
Indeno(1,2,3-cd)pyrene	0.0000400	U	0.0000180	0.0000400	0.0000800
Naphthalene	0.000500	U	0.000128	0.000500	0.00100
Phenanthrene	0.0000500	U	0.0000180	0.0000500	0.000100
Pyrene	0.0000500	U	0.0000170	0.0000500	0.000100
1-Methylnaphthalene	0.000250	U	0.0000200	0.000250	0.000500
2-Methylnaphthalene	0.000250	U	0.0000280	0.000250	0.000500
(S) Nitrobenzene-d5	*89.0*				*55.0-111*
(S) 2-Fluorobiphenyl	*80.5*				*53.0-106*
(S) p-Terphenyl-d14	*92.5*				*58.0-132*
(S) 2-Methylnaphthalene-d10	*77.5*				*50.0-150*
(S) Fluoranthene-d10	*83.5*				*50.0-150*

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

(LCS) R3975668-1 09/19/23 19:07 • (LCSD) R3975668-2 09/19/23 19:24

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 %
Anthracene	0.00200	0.00148	0.00161	74.0	80.5	53.0-119			8.41	20
Acenaphthene	0.00200	0.00153	0.00164	76.5	82.0	48.0-114			6.94	20
Acenaphthylene	0.00200	0.00155	0.00166	77.5	83.0	35.0-121			6.85	20
Benzo(a)anthracene	0.00200	0.00181	0.00192	90.5	96.0	59.0-120			5.90	20
Benzo(a)pyrene	0.00200	0.00177	0.00195	88.5	97.5	53.0-120			9.68	20
Benzo(b)fluoranthene	0.00200	0.00179	0.00189	89.5	94.5	53.0-126			5.43	20
Benzo(g,h,i)perylene	0.00200	0.00177	0.00183	88.5	91.5	44.0-128			3.33	20
Benzo(k)fluoranthene	0.00200	0.00179	0.00186	89.5	93.0	54.0-125			3.84	20
Chrysene	0.00200	0.00177	0.00186	88.5	93.0	57.0-120			4.96	20
Dibenz(a,h)anthracene	0.00200	0.00189	0.00198	94.5	99.0	44.0-131			4.65	20

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

(LCS) R3975668-1 09/19/23 19:07 • (LCSD) R3975668-2 09/19/23 19:24

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 %
Fluoranthene	0.00200	0.00169	0.00180	84.5	90.0	58.0-120			6.30	20
Fluorene	0.00200	0.00166	0.00175	83.0	87.5	50.0-118			5.28	20
Indeno(1,2,3-cd)pyrene	0.00200	0.00203	0.00212	102	106	48.0-130			4.34	20
Naphthalene	0.00200	0.00144	0.00156	72.0	78.0	43.0-114			8.00	20
Phenanthrene	0.00200	0.00161	0.00168	80.5	84.0	53.0-115			4.26	20
Pyrene	0.00200	0.00182	0.00193	91.0	96.5	53.0-121			5.87	20
1-Methylnaphthalene	0.00200	0.00151	0.00165	75.5	82.5	41.0-115			8.86	20
2-Methylnaphthalene	0.00200	0.00156	0.00169	78.0	84.5	39.0-114			8.00	20
(S) Nitrobenzene-d5				*81.5*	*87.5*	*55.0-111*				
(S) 2-Fluorobiphenyl				*74.0*	*79.5*	*53.0-106*				
(S) p-Terphenyl-d14				*88.0*	*92.0*	*58.0-132*				
(S) 2-Methylnaphthalene-d10				*69.0*	*76.0*	*50.0-150*				
(S) Fluoranthene-d10				*81.5*	*85.0*	*50.0-150*				

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

DL	Detection Limit.
LOD	Limit of Detection.
LOQ	Limit of Quantitation.
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.
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
J	The identification of the analyte is acceptable; the reported value is an estimate.
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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

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

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

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

Company Name/Address:
INNOVEX/ERRG Joint Venture -
Redmond, WA
16310 NE 80th St.

Billing Information:
Accounts Payable
1800 Sutter Street
Concord, CA 94520

Pres Chk

Report to: **Anna Jordan**

Email To: **anna.jordan@innovex.net**

Project Description: JBLM-YTC

City/State Collected: **YTC, WA**

Please Circle: PT MT CT ET

Phone: **206-949-3010**

Client Project # **20506**

Lab Project # **IEJVRWA-JBLM-YTC**

Collected by (print): **HC/KKH**

Site/Facility ID # **YTC IRP**

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 X 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	DODNWTPH-Gx	DODNWTPH-DxNOSGT	DODPAH8270ESIM*	DODVOCS8260D**	DODSVOCS8270E	Remarks	Sample # (lab only)
YTC-FTP-1-20230915		GW		9/15/23	0910	12	X	X	X	X	X		-01
YTC-MTS-1-20230914		GW		9/14/23	1600	3				X			-02
YTC-MTS-2-20230914		GW		9/14/23	1615	3				X			-03
YTC-MTS-4-20230914		GW		9/14/23	1530	3				X			-04
YTC-TVR-1-20230914		GW		9/14/23	1450	3				X			-05
YTC-~~TVR-2~~-MTS-2a-20230914		GW		9/14/23	1630	2				X			-06
YTC-TVR-3-20230914		GW		9/14/23	1430	3				X			-07
YTC-TVR-6-20230914		GW		9/14/23	1510	3				X			-08
YTC-TVR-7-20230914		GW		9/14/23	1410	3				X			-09
YTC-TripBlank-20230915		OT		9/15/23	—	3				X			-10

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

12065 Lebanon Rd Mount Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859

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 # 1656839

D012

Acctnum:

Template: T213823

Prelogin:

PM:

PB:

Shipped Via:

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

Remarks:
***PAHs only** ****Full VOCs except for VC**

pH ___ Temp ___
Flow ___ Other ___

Samples returned via:
__ UPS __ FedEx __ Courier __ ___

Tracking # 6643 4301 3914

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
Kelly L. Cohen	9/15/2023	1120		3
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp 2.0+0=5.0 °C Bottles Received: 50
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9/16/23 Time: 0830

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Company Name/Address:
INNOVEX/ERRG Joint Venture - Redmond, WA
16310 NE 80th St.

Billing Information:
Accounts Payable
1800 Sutter Street
Concord, CA 94520

Pres Chk

Report to: **Anna Jordan**

Email To: **anna.jordan@innovex.net**

Project Description: JBLM-YTC

City/State Collected: **YTC, WA**

Please Circle: PT MT CT ET

Phone: **206-949-3010**

Client Project # **20506**

Lab Project # **IEJVRWA-JBLM-YTC**

Collected by (print): **HC/KKH**

Site/Facility ID # **YTC IRP**

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

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	DODNWTPH-Gx	DODNWTPH-DxNOSGT	DODPAH8270ESIM*	DODVOCS8260D**	DODSVOCS8270E	Remarks	Sample # (lab only)
YTC-Pomona-20230914		GW		9/14/23	1340	9				X		MS/MSD	-11
YTC-PAIC-20230914		GW		↓	1020	3				X			-12

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

12065 Lebanon Rd Mount Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859

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 # 165839

Table #

Acctnum:

Template: T213823

Prelogin:

PM:

PB:

Shipped Via:

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

Remarks:
***PAHs only** ****Full VOCs except for VC**

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

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
[signature]	9/15/2023	1120			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 5,0+0=5,0 50	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9/16/23 Time: 0830	Hold: Condition: NCF / OK

DATA VALIDATION CHECKLIST – STAGE 2A

Site Name	JBLM	**Project Name**	YTC IRP
Data Reviewer (signature and date)	Pamela M Fleming 10/19/2023	**Technical Reviewer (signature and date)**	J Sinica 10/22/2023
Laboratory Report No.	L1656839	**Laboratory**	Pace Analytical
Analyses	DODNWTPHGX, DOD8260D, DODNWTPHDX-NO SGT, DOD8270E, and DOD8270E-SIM		
Sample and Matrix	YTC-FTP-1-20230915 (GW) L1656839-01 YTC-MTS-1-20230914 (GW) L1656839-02 YTC-MTS-2-20230914 (GW) L1656839-03 YTC-MTS-4-20230914 (GW) L1656839-04 YTC-TVR-1-20230914 (GW) L1656839-05 YTC-MTS-2A-20230914 (GW) L1656839-06 YTC-TVR-3-20230914 (GW) L1656839-07 YTC-TVR-6-20230914 (GW) L1656839-08 YTC-TVR-7-20230914 (GW) L1656839-09 YTC-TRIPBLANK-20230915 L1656839-10 YTC-POMONA-20230914 (GW) L1656839-11 YTC-PAIC-20230914 (GW) L1656839-12		
Field Duplicate Pairs	YTC-MTS-2-20230914 and YTC-MTS-2A-20230914		
Field Blanks	One trip blank was 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) National Functional Guidelines for Organic and Inorganic Superfund Methods Data Review (November 2020). Analytical data were evaluated in general accordance with this document.

OVERALL EVALUATION

Non-detectable concentrations of several volatile organic compounds and semi-volatile compounds were rejected due to failure to meet the MS/MSD criteria or the laboratory control criteria. All other 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
N/A	One trip blank was analyzed, and analytes were not detected above the LOD.

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 performed on an associated project samples. Percent recoveries (%R) were within QC limits except as listed below. Relative percent differences (RPD) were within QC limits.

MS/MSD Sample ID	L1656839-12, Method 8260D			
Analyte	**MS %R**	**MSD %R**	**QC Limits**	**New Qualifier**
Benzene	76.8	N/A	79.0-120	J- (all detects) UJ (all non-detects)
Bromobenzene	74.2	N/A	80.0-120	
Bromodichloromethane	73.4	N/A	79.0-125	
Carbon disulfide	62.8	N/A	64.0-133	
Chlorobenzene	78.2	N/A	82.0-118	
Chloroform	73.6	N/A	79.0-124	
2-Chlorotoluene	71.0	N/A	79.0-122	
4-Chlorotoluene	75.4	N/A	78.0-122	
1,2-Dibromoethane	74.6	N/A	78.0-122	
Dibromomethane	75.6	N/A	79.0-123	
1,2-Dichlorobenzene	79.2	N/A	80.0-119	
1,3-Dichlorobenzene	76.8	N/A	80.0-119	
1,2-Dichloroethane	70.0.4	N/A	73.0-128	
1,1-Dichloropropene	77.2	N/A	79.0-125	

MS/MSD Sample ID	L1656839-12, Method 8260D			
Analyte	**MS %R**	**MSD %R**	**QC Limits**	**New Qualifier**
cis-1,3-Dichloropropene	72.6	N/A	75.0-124	J- (all detects) UJ (all non-detects)
trans-1,3-Dichloropropene	72.2	N/A	73.0-127	
p-Isopropyltoluene	75.8	N/A	77.0-127	
n-Propylbenzene	75.2	N/A	76.0-126	
Styrene	74.2	N/A	78.0-123	
1,1,1,2-Tetrachloroethane	77.4	N/A	78.0-124	
Toluene	78.8	N/A	80.0-121	
1,2,4-Trimethylbenzene	73.6	N/A	76.0-124	
1,3,5-Trimethylbenzene	73.0	N/A	75.0-124	
m&p-Xylene	78.2	N/A	80.0-121	
Xylenes, Total	78.7	N/A	79.0-121	

Laboratory control:

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 differences (RPD) were within QC limits, except for those noted below.

LCS Sample ID	R3977499-1		
Samples associated with LCS	YTC-FTP-1-20230915, Method 8270E		
Analyte	**LCS %R**	**QC Limits**	**New Qualifier**
Dibenzofuran	51.6	53.0-118	J- (all detects) UJ (all non-detects)
4-Chloro-3-methylphenol	51.0	52.0-119	

LCS Sample ID	R3977499-1		
Samples associated with LCS	YTC-FTP-1-20230915, Method 8270E		
Analyte	**LCS %R**	**QC Limits**	**New Qualifier**
2,4-Dichlorophenol	43.0	47.0-121	J- (all detects) UJ (all non-detects)
2,4,6-Trichlorophenol	51.0	53.0-123	

Field duplicates:

Within Criteria	Exceedance/Notes
Y	Field duplicate sample analysis was performed. Relative percent differences (RPD) were within QC limits (<35%).

RPD Calculation

Field Duplicate Pair	Analyte	RPD Calculation	New Qualifier
YTC-MTS-2-20230914 and YTC-MTS-2A-20230914	Trichloroethene	[(5.74-5.92)/((5.74+5.92)/2)]*100 = 3.09	NA

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	All samples were analyzed undiluted except for the following.

Lab Sample ID	Project Sample ID	Method	Analyte	Dilution
L1656839-01	YTC-FTP-1-20230915	NWTPHGX	Gasoline-range organics	10

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
N/A	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	Detections between the LOD and MDL (if present) were qualified as not detected (flagged U).

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
N/A	

Other [none]:

Within Criteria	Exceedance/Notes
N/A	

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.

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APPENDIX B HISTORICAL DATA AND CONCENTRATION GRAPHS

Table B-1
FTP Historical Depth-to-Water Measurements and Selected Contaminant Concentrations
Fire Training Pit, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)	Methylene Chloride (µg/L)	Bis-(2-ethylhexyl) phthalate (µg/L)	Fluorene (µg/L)	Total Naphthalenes[1] (µg/L)	Total PCBs (µg/L)	Benzo(a) anthracene	Benzo(a) pyrene (µg/L)	Benzo(b) fluoranthene (µg/L)	Benzo(k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz(a,h) anthracene (µg/L)	Indeno(1,2,3-cd) pyrene (µg/L)	TEC Total[2] (µg/L)	Total PAHs[3] (µg/L)
MTCA Method A Cleanup Level				800	500	500	5	1,000	700	1,000	5	–	0.2	5	–	–	160	0.1	–	0.1	–	–	–	–	–	0.1	–
TEF				–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.1	1	0.1	0.1	0.01	0.1	0.1	–	–
MTCA Standard Method B Cleanup Level				–	–	–	–	–	–	–	–	70	–	–	6	640	–	–	–	–	–	–	–	–	–	–	–
FTP-1	1-Mar-93	–	–	–	2,600,000J	3,500	50U	50U	**60.0**	1,100.0	50U	50U	100U	**110B,J**	270B,J	–	905U	70U	–	–	–	–	–	–	–	–	**1,100.0**
1467.72	1-Jul-99	13.00	1454.72	2,300	34,000J	1598J	7.5	**0.074J**	**4.4**	**16.66J**	**0.066J**	0.4U	0.4U	0.4U	29J	7,600J	**0.243J**	23.1U	–	–	–	–	–	–	–	–	**140J**
	1-Nov-00	11.40	1456.32	8,300	140,000J	**450**	7.7	**4.7J**	**3.0J**	**41.2J**	32J	70J	ND	**3.7J**	ND	11,000J	1.774U	ND	–	–	–	–	–	–	–	–	**33.0**
	1-May-01	14.21	1453.51	6,800	750,000J	3540J	3.7U	0.77U	1.6U	**52.0**	4U	4U	4U	4U	54J	46,000	**5.02J**	0.81U	–	–	–	–	–	–	–	–	**450J**
	30-Jan-04	12.93	1454.79	3,900	4,400	**193**	10.6	0.5U	**3.8**	**9.4**	0.5U	0.5U	0.5U	**1.3**	6.0	48,300	0.362U	–	–	–	–	–	–	–	–	–	**9.1**
	22-Mar-05	13.61	1454.11	4,110	10,500	**116**	13.0	2.5U	**4.6**	**2.8**	2.5U	2.5U	2.5U	12.5U	**1.0**	500U	0.905U	–	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	ND	**5.0**
	22-Aug-05	13.43	1454.29	25,100	40,000	**218**	22.5	5U	**7.2**	10U	5U	5U	5U	25U	0.5U	500U	0.905U	–	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	ND	**5.7**
	21-Mar-06	15.53	1452.19	1,000U	45,000	**238**	5U	5U	5U	10U	5U	5U	5U	25U	5U	500U	9.05U	–	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	ND	**33.4**
	8-Aug-06	11.54	1456.18	2,600	25,000	**93**	6.3	1U	**3.6**	**1.3**	1U	1U	1U	5U	**2.4**	500U	0.905U	–	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	ND	**4.9**
	21-Mar-07	15.59	1452.13	2,300	35,500	**150**	**4.0**	0.5U	**2.0**	**0.7**	0.5U	0.5U	0.5U	2.5U	**3.6**	10,000U	**0.1**	–	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	**0.5**	**0.05**	**5.9**
	19-Sep-07	12.49	1455.23	1,300	19,000	**190**	7.1	0.5U	**3.4**	**2.5**	0.5U	0.5U	0.5U	2.5U	**2.7**	500U	0.905U	–	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	ND	**6.4**
	18-Mar-08	13.21	1454.51	5,120	11,400	500U	11.3	**1.2**	**5.5**	**5.5**	0.5U	0.5U	0.5U	2.5U	10U	1,000U	**118.2**		10U	10U	10U	10U	10U	10U	ND	**89.6**
Duplicate	18-Mar-08	13.21	1454.51	4,830	8,230	500U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	19-Sep-08	12.24	1455.48	4,270	4,350	500U	10.9	0.5U	**4.6**	**3.0**	0.5U	0.5U	0.5U	2.5U	–	500U	**52.6**	–	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	ND	**158.8**
Duplicate	19-Sep-08	12.24	1455.48	4,480	5,000	500U	-	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	23-Mar-09	13.72	1454.00	2,200	32,900	500U	5.7	0.5U	**3.3**	**2.6**	0.5U	0.5U	0.5U	2.5U	–	**9.1**	**93.2**	–	0.1U	0.1U	0.1U	0.1U	**0.54**	0.1U	0.1U	**0.005**	**135.8**
Duplicate	23-Mar-09	13.72	1454.00	1,950	28,800	500U	–	–	–	–	0.5U	0.5U	0.5U	2.5U	–	–	–	–	–	–	–	–	–	–	–	–	–
	23-Sep-09	12.90	1454.82	2,940	8,690	500U	10.7	0.5U	**6.1**	**4.0**	0.5U	0.5U	0.5U	2.5U	15U	**5.4**	**121.1**	–	0.1U	0.1U	0.1U	0.1U	0.1U	0.1U	ND	**117.2**
Duplicate	23-Sep-09	12.90	1454.82	2,940	–	–	–	–	–	–	0.5U	0.5U	0.5U	2.5U	15U	-	-	–	–	–	–	–	–	–	–	–	–
	16-Mar-10	13.82	1453.90	1,800	20,000	5,500	6.6	1U	**3.8**	**3.5**	0.5U	0.5U	0.5U	2.5U	15U	**3.3**	**13.9**	–	0.29U	0.19U	0.39U	0.29U	0.19U	0.29U	0.29U	ND	**107.2**
Duplicate	16-Mar-10	13.82	1453.90	1,800	19,000	5,400	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	28-Sep-10	11.33	1456.39	2,800	35,000	11,000	9.4	0.5U	**4.4**	**0.6**	0.5U	0.5U	0.5U	2.5U	–	**8.3**	238	–	0.29U	0.19U	0.39U	0.29U	**0.38**	0.29U	0.29U	**0.004**	**333.8**
Duplicate	28-Sep-10	11.33	1456.39	2,600	28,000	11,000	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	22-Mar-11	13.00	1454.72	1,900	23,000	4,600	**4.7**	0.5U	**3.7**	**0.7**	0.5U	0.5U	0.5U	2.5U	ND	**6.1**	**56.6**	–	0.29U	0.19U	0.39U	0.29U	0.19U	0.29U	0.29U	ND	**269.5**
	21-Sep-11	11.34	1456.38	1,500	17,000	5,600	7.4	0.5U	**4.7**	**1.4**	0.5U	0.5U	0.5U	2.5U	0.96U	**4.2**	**120**	–	0.28U	0.19U	0.38U	0.28U	0.19U	0.28U	0.28U	ND	**176.3**
	27-Mar-12	13.27	1454.45	5,400	38,000	5,700	**3.8**	0.5U	**3.8**	**0.9**	0.5U	0.5U	0.5U	0.5U	**5.6**	**10**	**66**	–	0.1U	0.1U	0.1U	0.1U	**0.64**	0.1U	0.1U	**0.01**	**246.14**
	20-Aug-12	11.21	1456.51	1,100	30,000	13,000	6.5	0.5U	**5.0**	**1.6**	0.5U	0.5U	0.5U	0.5U	14U	**5.5**	242	–	0.29U	0.19U	0.38U	0.29U	0.19U	0.29U	0.29U	ND	**265.25**
	20-Mar-13	13.54	1454.18	7,600	110,000	7,900	**3.7**	**0.2**	**4.5**	**0.8**	0.2U	0.2U	0.2U	1.0U	6.3	**27**	**94**	–	3.3U	3.3U	17U	17U	3.3U	3.3U	3.3U	ND	**165.43**
	25-Sep-13	13.52	1454.20	2,200	28,000	1,700	5.4	**0.2**	**5.9**	**1.5**	0.2U	0.2U	0.2U	1U	3U	**11**	260	–	1U	1U	5U	5U	1U	1U	1U	ND	**326.30**
	11-Mar-14	14.25	1453.47	2,000	14,000	1,700	**3.4**	**0.2**	**4.5**	**0.95**	0.2U	0.2U	0.2U	1U	9U	**5.8**	**112**	–	3U	3U	15U	15U	3U	3U	3U	ND	**248.40**
	22-Sep-14	13.60	1454.12	1,100	22,000	3,400	6.4	**0.22J**	**6.6**	**1.49**	**0.11J**	0.5U	0.5U	2U	10U	**7.8**	**154**	–	10U	10U	10U	10U	10U	10U	10U	ND	**177.80**
	19-Mar-15	14.00	1453.72	2,000	17,000	2,000	**4.3**	**0.26J**	**4.9**	**1.38**	**0.12J**	0.2U	0.1U	0.2U	**4.9J**	**8.9J**	**105**	–	10U	10U	10U	10U	10U	10U	10U	ND	**140.1**
	22-Sep-15	13.16	1454.56	1,300	13,000	2,600	6.0	**0.41J**	**6.0**	**1.51**	**0.17J**	0.2U	0.1U	**0.12J**	2U	**9.4J**	218	–	10U	10U	10U	10U	10U	10U	10U	ND	**251**
	16-Mar-16	14.03	1453.69	710Y	17,000	2,800	**3.1**	**0.52**	**3.5**	**0.18J**	**0.13J**	0.2U	0.5U	2U	10U	**6.9J**	**111**	–	10U	10U	10U	10U	10U	10U	10U	ND	**124.5**
Duplicate	16-Mar-16	14.03	1453.69	680Y	14,000	2,700	**2.9**	**0.25J**	**3.4**	**0.18J**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	21-Sep-16	11.59	1456.13	1,500	30,000	5,500	5.1	**0.16J**	**5.9**	**0.23J**	**0.18J**	.02U	0.5U	2U	9.9U	**7.9J**	**57**	–	9.9U	9.9U	9.9U	9.9U	9.9U	9.9U	9.9U	ND	**84.4**
	29-Mar-17	13.60	1454.12	930	17,000	2,400	**1.3**	**0.14J**	**2.5**	**0.36J**	**0.11J**	.02U	0.5U	2U	10U	10U	10U	–	10U	10U	10U	10U	10U	10U	10U	ND	**ND**
	12-Sep-17	10.96	1456.76	1,000	35,000	4,000	**4.1**	**0.54**	**6.4**	**0.78J**	**0.10J**	.02U	0.5U	2U	8.2J	**9.9J**	**84**	–	10U	10U	10U	10U	10U	10U	10U	ND	**126.1**
	28-Mar-18	13.33	1454.39	1,100Y	9,700Y	1900L	**3.0**	**0.3J**	**5.0J**	**0.57**	0.2U	0.2U	0.1U	0.2U	2.0U	**3.8J**	**82.3**	–	0.63U	1.1U	0.62U	0.88U	0.84U	0.79U	0.72U	ND	**79.34J**
	12-Sep-18	12.76	1454.96	1,260	9,200Y	1,500	**2.8**	**0.28**	**5.6**	**0.73**	0.2U	0.2U	0.1U	0.2U	1.9U	**5.1**	242	–	0.63U	1.1U	0.62U	0.88U	0.84U	0.79U	0.72U	ND	**172.68J**
	21-Mar-19	14.12	1453.60	1,130	24,000Y	2,900L	**2.2**	**1.0**	**3.4**	**0.44J**	0.2U	0.2U	0.1U	0.2U	20U	**6.5J**	**60J**	–	6.1U	10U	6.0U	8.5U	8.1U	7.7U	7.0U	ND	**158.5J**
	23-Sep-19	12.78	1454.94	1,150	8,600Y	900L	**2.2**	**0.34J**	**3.8**	**0.52**	0.1U	0.2U	0.1U	**0.10J**	1.0U	**6.6J**	**147**	–	0.50U	1.0U	1.0U	1.0U	0.50U	1.0U	1.0U	ND	**164.48J**
Duplicate	23-Sep-19	12.78	1454.94	1,170	9,200Y	1,100L	**2.2**	**0.35J**	**3.7**	**0.65J**	0.1U	0.2U	0.1U	0.2U	1.0U	**5.9J**	**121**	–	0.50U	1.0U	1.0U	1.0U	0.50U	1.0U	1.0U	ND	**136.51J**
	18-Mar-20	13.68	1454.04	2,470	37,000Y	2,700JL	**1.6**	**0.17J**	**1.5**	**0.73J**	0.1U	0.2U	0.1U	0.2U	**5.0J**	**12J**	**72J**	–	2.5U	3.8UJ	5.0U	3.8UJ	2.5U	3.8U	3.8U	ND	**125.6J**
Duplicate	18-Mar-20	13.68	1454.04	2,890	34,000Y	2,500L	**1.6**	**0.16J**	**1.2**	**0.47J**	0.1U	0.2U	0.1U	0.2U	3.8U	**2.9J**	**13J**	–	2.5U	3.8U	5.0U	3.8U	2.5U	3.8U	3.8U	ND	**59.6J**
	10-Sep-20	13.87	1453.85	1,510	30,000Y	2,500L	**3.5**	**0.29UJ**	**3.5**	**0.15J**	0.1U	0.2U	0.1U	0.2U	2.2J	**9.9J**	**104J**	–	0.52J	1.5UJ	2.0UJ	1.5UJ	1.0UJ	1.5UJ	1.5UJ	ND	**132.72J**
	16-Mar-21	15.08	1452.64	1320J	13,000J	1,300J	**2.7**	**0.23J**	**3.2J**	**0.15J**	0.1U	0.2U	0.1U	0.2U	1.2J	**3.1J**	**60**	–	0.51U	0.77U	1.0U	0.77U	0.51J	0.77U	0.77U	ND	**73.15**
Duplicate	16-Mar-21	15.08	1452.64	1360J	32,000J	2600J	**2.9**	**0.22J**	**4.0J**	**0.16J**	0.1U	0.2U	0.1U	0.2U	1.5J	**7.2J**	**60**	–	0.25J	0.75U	1.0U	0.75U	0.5U	0.75U	0.75U	ND	**73.15**
	8-Sep-21	14.34	1453.38	1,040	6,900J	920J	**1.6**	**0.30UJ**	**2.4**	**0.12J**	0.1U	0.2U	0.15U	0.20U	0.75U	**2.8J**	**28**	–	0.5U	0.75U	1.0U	0.75U	0.5U	0.75U	0.75U	ND	**37.25**
	14-Mar-22	15.00	1452.72	**518**	14,300	1,520	0.500 U	0.600 U	**1.50**	**0.460**	0.500UJ^	0.500U^	0.500U^	2.00U^	2.00U^	5.00U^	15.0U^	–	5U*	5U*	5U*	5U*	5U*	5U*	5U*	ND	**95***
	26-Sep-22	14.52	1453.20	1,000J+	11,300J	1,330J+	**0.614**	0.600 U	**2.03J**	**0.379J**	0.500U	0.500U	**0.00859J+**	2.00U	**3.83J**	**1.36J**	**2.61J**	–	0.05U	0.05U	0.05U	0.125U	0.05U	0.05U	0.04U	ND	**4.741**
Duplicate	26-Sep-22	14.52	1453.20	3,840J+	11,500J	1,770J+	**0.584**	0.600 U	**2.02J**	**0.432J**	0.500U	0.500U	**0.00748J+**	2.00U	2.10UJ	**0.665J**	**0.782J**	–	**0.121J**	**0.111J**	**0.106J**	0.125U	**0.172J**	**0.127J**	**0.170J**	0.165J	**3.354J**
	29-Mar-23	14.79	1452.93	–	–	–	0.500 U	0.600 U	**1.26**	1.5 U	0.500U	0.500U	0.028 U	2.00U	2.00U	0.05U	1.00 U	–	–	–	–	–	–	–	–	–	–
Duplicate	29-Mar-23	14.79	1452.93	–	–	–	0.500 U	0.600 U	**1.14**	1.5 U	0.500U	0.500U	0.028 U	2.00U	2.00U	0.05U	1.00 U	–	–	–	–	–	–	–	–	–	–
	2-May-23	14.93	1452.79	907	5,000J	841	–	–	–	–	–	–	–	–	–	–	–	–	0.05U	0.05U	0.05U	0.125U	0.05U	0.05U	0.04U	ND	**1.48**
Duplicate	2-May-23	14.93	1452.79	821	5,240J	939J	–	–	–	–	–	–	–	–	–	–	–	–	0.05U	0.05U	0.05U	0.125U	0.05U	0.05U	0.04U	ND	**1.75**
	15-Sep-23	14.37	1453.35	1,460	4,580J	769	0.500 U	0.600 U	**1.17**	1.5 U	0.500U	0.500U	0.005 U	2.00U	2.00U	0.05U	**2.41J**	–	0.05U	0.05U	0.05U	0.125U	0.05U	0.05U	0.04U	ND	**2.47**
FTP-13	1-Mar-93	–	–	–	–	–	–	–	–	–	-	-	-	-	6.3	–	–	-	–	–	–	–	–	–	–	–	–
1473.07	1-Jul-99	16.25	1456.82	100U	240U	**1**	0.4U	0.4U	0.4U	1.2U	0.4U	0.4U	0.4U	0.4U	0.5U	240J	0.172U	0.665U	–	–	–	–	–	–	–	–	**0.1**
	1-Nov-00	16.79	1456.28	ND	240U	0.19U	0.4U	0.4U	0.4U	1.2U	0.4U	0.4U	0.4U	0.4U	–	ND	0.172U	ND	–	–	–	–	–	–	–	–	ND
	1-May-01	16.65	1456.42	100U	240U	0.192U	0.4U	0.4U	0.4U	1.2U	0.4U	0.4U	0.4U	0.4U	0.5U	480U	0.174U	0.076U	–	–	–	–	–	–	–	–	0.096U
	30-Jan-04	15.50	1457.57	100U	100U	0.7U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	–	500U	0.362U	–	–	–	–	–	–	–	–	–	0.2U

Table B-1
FTP Historical Depth-to-Water Measurements and Selected Contaminant Concentrations
Fire Training Pit, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)	Methylene Chloride (µg/L)	Bis-(2-ethylhexyl) phthalate (µg/L)	Fluorene (µg/L)	Total Naphthalenes[1] (µg/L)	Total PCBs (µg/L)	Benzo(a) anthracene	Benzo(a) pyrene (µg/L)	Benzo(b) fluoranthene (µg/L)	Benzo(k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz(a,h) anthracene (µg/L)	Indeno(1,2,3-cd) pyrene (µg/L)	TEC Total[2] (µg/L)	Total PAHs[3] (µg/L)
MTCA Method A Cleanup Level				800	500	500	5	1,000	700	1,000	5	–	0.2	5	–	–	160	0.1	–	0.1	–	–	–	–	–	0.1	–
TEF				–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.1	1	0.1	0.1	0.01	0.1	0.1	–	–
MTCA Standard Method B Cleanup Level				–	–	–	–	–	–	–	–	70	–	–	6	640	–	–	–	–	–	–	–	–	–	–	–
FTP-13 (cont.)	22-Mar-05	16.71	1456.36	100U	100U	1U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	0.5U	500U	0.905U	–	–	–	–	–	–	–	–	–	0.5U
	22-Aug-05	16.80	1456.27	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	21-Mar-06	12.66	1460.41	100U	100U	1U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	0.96U	500U	0.905U	–	–	–	–	–	–	–	–	–	0.5U
	8-Aug-06	12.57	1460.50	–	–	–	–	–	–	–	–	–	–	–	9.5U	–	–	–	–	–	–	–	–	–	–	–	–
	21-Mar-07	14.22	1458.85	250U	100U	1.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	0.95U	500U	**0.1**	–	–	–	–	–	–	–	–	–	0.5U
	19-Sep-07	15.14	1457.93	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	18-Mar-08	15.05	1458.02	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	19-Sep-08	15.54	1457.53	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	23-Mar-09	16.06	1457.01	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	23-Sep-09	15.15	1457.92	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	16-Mar-10	14.72	1458.35	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	28-Sep-10	11.85	1461.22	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	22-Mar-11	13.02	1460.05	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	21-Sep-11	12.22	1460.85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	27-Mar-12	13.85	1459.22	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	20-Aug-12	11.27	1461.80	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	20-Mar-13	13.90	1459.17	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	25-Sep-13	13.47	1459.60	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	11-Mar-14	16.50	1456.57	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	22-Sep-14	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	19-Mar-15	14.32	1458.75	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	22-Sep-15	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	16-Mar-16	11.72	1461.35	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	21-Sep-16	11.59	1461.48	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	29-Mar-17	12.45	1460.62	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	12-Sep-17	11.45	1461.62	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	28-Mar-18	14.66	1458.41	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	12-Sep-18	15.07	1458.00	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	21-Mar-19	14.12	1458.95	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	23-Sep-19	12.90	1460.17	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	17-Mar-20	12.84	1460.23	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	9-Sep-20	15.08	1457.99	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	16-Mar-21	16.61	1456.46	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	8-Sep-21	16.56	1456.51	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	14-Mar-22	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	26-Sep-22	16.13	1456.94	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	26-Sep-22	16.13	1456.94	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	29-Mar-23	16.01	1457.06	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	15-Sep-23	15.24	1457.83	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
FTP-14	1-Mar-93	–	–	–	–	–	–	–	–	–	–	–	–	–	9.2	–	–	–	–	–	–	–	–	–	–	–	–
1457.48	1-Jul-99	17.63	1439.85	100U	**480J**	0.192U	0.4U	0.4U	0.4U	1.2U	0.4U	0.4U	0.4U	0.4U	**5.2**	**480**	0.174U	0.665U	–	–	–	–	–	–	–	–	0.096U
	1-Nov-00	18.28	1439.20	100U	240U	0.19U	0.4U	**0.028J**	0.4U	1.2U	ND	ND	ND	ND	**0.8**	480U	0.172U	0.076U	–	–	–	–	–	–	–	–	0.095U
	1-May-01	18.69	1438.79	2,100U	**170J**	0.19U	0.4U	0.4U	0.4U	1.2U	0.4U	0.4U	0.4U	0.4U	0.5U	480U	0.172U	0.0766U	–	–	–	–	–	–	–	–	0.095U
	30-Jan-04	17.46	1440.02	100U	100U	0.7U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	–	900	0.362U	–	–	–	–	–	–	–	–	–	0.2U
	22-Mar-05	17.83	1439.65	**310**	**400**	1U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	**2.3**	500U	0.905U	–	–	–	–	–	–	–	–	–	0.5U
	22-Aug-05	18.02	1439.46	**260**	**330**	1U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	30	500U	0.905U	–	–	–	–	–	–	–	–	–	0.5U
	21-Mar-06	17.92	1439.56	1,000U	**400**	1U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	–	500U	0.905U	–	–	–	–	–	–	–	–	–	0.5U
	8-Aug-06	17.49	1439.99	**200**	–	–	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	**2.1J**	–	–	–	–	–	–	–	–	–	–	–	–
	21-Mar-07	17.59	1439.89	250U	100U	1.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	9.5U	500U	0.905U	–	–	–	–	–	–	–	–	–	0.5U
	19-Sep-07	17.47	1440.01	500U	**250**	1.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	0.96U	500U	0.905U	–	–	–	–	–	–	–	–	–	0.5U
	18-Mar-08	17.70	1439.78	**210**	**261**	500U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	19-Sep-08	17.58	1439.90	500U	100U	500U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	23-Mar-09	17.81	1439.67	500U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	23-Sep-09	17.84	1439.64	500U	**209**	500U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	16-Mar-10	18.00	1439.48	**53**	**290**	**440**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	28-Sep-10	17.68	1439.80	**55**	**350**	**330**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	22-Mar-11	17.65	1439.83	**57**	**350**	240U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	21-Sep-11	17.64	1439.84	50U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	27-Mar-12	17.68	1439.80	**50**	**420**	**420**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	20-Aug-12	16.93	1440.55	**59**	**170**	**240**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	20-Mar-13	17.86	1439.62	250U	**150**	200U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Table B-1
FTP Historical Depth-to-Water Measurements and Selected Contaminant Concentrations
Fire Training Pit, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)	Methylene Chloride (µg/L)	Bis-(2-ethylhexyl) phthalate (µg/L)	Fluorene (µg/L)	Total Naphthalenes[1] (µg/L)	Total PCBs (µg/L)	Benzo(a) anthracene	Benzo(a) pyrene (µg/L)	Benzo(b) fluoranthene (µg/L)	Benzo(k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz(a,h) anthracene (µg/L)	Indeno(1,2,3-cd) pyrene (µg/L)	TEC Total[2] (µg/L)	Total PAHs[3] (µg/L)
MTCA Method A Cleanup Level				800	500	500	5	1,000	700	1,000	5	–	0.2	5	–	–	160	0.1	–	0.1	–	–	–	–	–	0.1	–
TEF				–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.1	1	0.1	0.1	0.01	0.1	0.1	–	–
MTCA Standard Method B Cleanup Level				–	–	–	–	–	–	–	–	70	–	–	6	640	–	–	–	–	–	–	–	–	–	–	–
FTP-14 (cont.)	25-Sep-13	18.94	1438.54	250U	**240**	200U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	11-Mar-14	18.20	1439.28	250U	**250**	200U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Duplicate	11-Mar-14	18.20	1439.28	250U	**240**	200U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	22-Sep-14	18.60	1438.88	**22**	**290**	**360**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	19-Mar-15	18.76	1438.72	**83J**	**190**	**120J**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	22-Sep-15	18.81	1438.67	**46J**	**210**	**110**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	16-Mar-16	18.62	1438.86	**31**	**230**	**130**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	21-Sep-16	17.89	1439.59	**21J**	**170**	**160**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	29-Mar-17	18.15	1439.33	**50J**	**170J**	**90J**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	12-Sep-17	17.64	1439.84	**37J**	**220**	**110**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	11-Apr-18	18.25	1439.23	**19J**	**230**	**160**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	11-Apr-18	18.25	1439.23	**14J**	**220**	**150**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	12-Sep-18	18.25	1439.23	**32.7J**	**200**	**160**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	21-Mar-19	18.46	1439.02	**23.4J**	**350Y**	**250J**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	23-Sep-19	18.46	1439.02	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	17-Mar-20	18.52	1438.96	**14.5J**	**140Y**	**85J**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	9-Sep-20	18.68	1438.80	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	16-Mar-21	18.80	1438.68	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	8-Sep-21	18.91	1438.57	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	14-Mar-22	18.94	1438.54	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	26-Sep-22	19.02	1438.46	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	26-Sep-22	19.02	1438.46	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	29-Mar-23	18.94	1438.54	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	15-Sep-23	18.92	1438.56	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
FTP-15	1-Mar-93	–	–	–	–	–	–	–	–	–	–	–	–	–	**1.4**				–	–	–	–	–	–	–	–	–
1460.88	1-Jul-99	16.68	1444.20	100U	240U	0	0.4U	0.4U	0.4U	1.2U	0.4U	0.4U	0.4U	0.4U	**1.2**	**250J**	0.172U	0.665U	–	–	–	–	–	–	–	–	0.095U
	1-Nov-00	18.00	1442.88	100U	240U	0.19U	0.4U	**0.052J**	0.4U	**0.042J**	ND	ND	ND	ND	**1.0**	480U	0.172U	0.076U	–	–	–	–	–	–	–	–	0.095U
	1-May-01	17.98	1442.90	100U	240U	0.192U	0.4U	0.4U	0.4U	1.2U	0.4U	0.4U	0.4U	0.4U	–	470U	0.174U	0.076U	–	–	–	–	–	–	–	–	0.096U
	30-Jan-04	16.58	1444.30	100U	100U	0.7U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	–	**500**	0.362U	–	–	–	–	–	–	–	–	–	0.2U
	22-Mar-05	17.89	1442.99	100U	100U	1U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	**2.3**	500U	0.905U	–	–	–	–	–	–	–	–	–	0.5U
	22-Aug-05	17.91	1442.97	100U	100U	1U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	–	500U	0.905U	–	–	–	–	–	–	–	–	–	0.5U
	21-Mar-06	17.93	1442.95	100U	100U	–	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	–	**600**	–	–	–	–	–	–	–	–	–	–	–
	8-Aug-06	16.79	1444.09	100U	100U	–	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	**0.9J**	500U	–	–	–	–	–	–	–	–	–	–	–
	21-Mar-07	17.91	1442.97	250U	100U	1.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	ND	500U	0.905U	–	–	–	–	–	–	–	–	–	0.5U
	19-Sep-07	16.93	1443.95	500U	100U	–	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	**0.63J**	500U	–	–	–	–	–	–	–	–	–	–	–
	18-Mar-08	17.95	1442.93	100U	100U	500U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	19-Sep-08	17.31	1443.57	500U	100U	500U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	23-Mar-09	17.97	1442.91	500U	100U	500U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	23-Sep-09	17.87	1443.01	500U	100U	500U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	16-Mar-10	17.96	1442.92	50U	100U	240U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	28-Sep-10	16.62	1444.26	50U	**180**	**440**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	22-Mar-11	17.85	1443.03	50U	120U	240U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Duplicate	22-Mar-11	17.85	1443.03	50U	120U	240U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	21-Sep-11	16.81	1444.07	50U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	27-Mar-12	17.45	1443.43	50U	**150**	**370**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	20-Aug-12	16.03	1444.85	**150**	**120**	240U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Duplicate	20-Aug-12	16.03	1444.85	50U	**120**	240U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	20-Mar-13	16.77	1444.11	250U	**130**	200U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	25-Sep-13	16.62	1444.26	250U	100U	200U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Duplicate	25-Sep-13	16.62	1444.26	250U	**110**	200U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	11-Mar-14	17.80	1443.08	250U	100U	200U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	22-Sep-14	18.30	1442.58	**14J**	**46J**	**110J**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	19-Mar-15	17.91	1442.97	250U	**55J**	**180J**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	22-Sep-15	16.22	1444.66	250U	**46J**	**80J**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	16-Mar-16	17.92	1442.96	250U	**55J**	**130**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	21-Sep-16	14.60	1446.28	250U	**150**	**210**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	29-Mar-17	16.66	1444.22	**14J**	**130J**	**120J**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	12-Sep-17	12.27	1448.61	**15J**	**210**	**130**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	11-Apr-18	14.88	1446.00	25U	**190**	**180**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	12-Sep-18	14.58	1446.30	**16.7**	**170**	**190**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	21-Mar-19	17.40	1443.48	**12.6J**	**130J**	**160J**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	23-Sep-19	16.23	1444.65	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Table B-1
FTP Historical Depth-to-Water Measurements and Selected Contaminant Concentrations
Fire Training Pit, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)	Methylene Chloride (µg/L)	Bis-(2-ethylhexyl) phthalate (µg/L)	Fluorene (µg/L)	Total Naphthalenes[1] (µg/L)	Total PCBs (µg/L)	Benzo(a) anthracene	Benzo(a) pyrene (µg/L)	Benzo(b) fluoranthene (µg/L)	Benzo(k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz(a,h) anthracene (µg/L)	Indeno(1,2,3-cd) pyrene (µg/L)	TEC Total[2] (µg/L)	Total PAHs[3] (µg/L)
MTCA Method A Cleanup Level				800	500	500	5	1,000	700	1,000	5	–	0.2	5	–	–	160	0.1	–	0.1	–	–	–	–	–	0.1	–
TEF				–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.1	1	0.1	0.1	0.01	0.1	0.1	–	–
MTCA Standard Method B Cleanup Level				–	–	–	–	–	–	–	–	70	–	–	6	640	–	–	–	–	–	–	–	–	–	–	–
FTP-15 (cont.)	17-Mar-20	17.22	1443.66	**17.4J**	**94Y**	**340Z**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	9-Sep-20	17.29	1443.59	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	16-Mar-21	17.96	1442.92	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	8-Sep-21	17.56	1443.32	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	14-Mar-22	18.01	1442.87	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	26-Sep-22	17.93	1442.95	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	26-Sep-22	17.93	1442.95	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	29-Mar-23	18.03	1442.85	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	15-Sep-23	17.90	1442.98	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
FTP-16	1-Mar-93	–	–	–	–	–	–	–	–	–	–	–	–	–	**1.8**	–	–	–	–	–	–	–	–	–	–	–	–
1444.81	1-Jul-99	26.32	1418.52	100U	**360J**	**2**	0.4U	0.4U	0.4U	1.2U	0.4U	0.4U	0.4U	0.4U	**1.5**	**600J**	0.172U	0.665U	–	–	–	–	–	–	–	–	–
	1-Nov-00	26.51	1418.33	100U	**210J**	0.19U	0.4U	**0.064J**	0.4U	**0.043J**	ND	0.4U	ND	ND	**0.8**	480U	0.172U	0.076U	–	–	–	–	–	–	–	–	0.095U
	1-May-01	26.41	1418.43	100U	240U	0.188U	0.4U	0.4U	0.4U	1.2U	0.4U	0.4U	0.4U	0.4U	0.5U	470U	0.170U	0.0754U	–	–	–	–	–	–	–	–	0.095U
	30-Jan-04	26.34	1418.50	100U	100U	0.7U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	0.5U	0.5U	**500**	0.362U	–	–	–	–	–	–	–	–	–	0.094U
	22-Mar-05	26.77	1418.07	100U	100U	1U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	**1.8**	500U	0.905U	–	–	–	–	–	–	–	–	–	0.2U
	22-Aug-05	26.49	1418.35	100U	100U	1U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	–	500U	0.905U	–	–	–	–	–	–	–	–	–	0.5U
	21-Mar-06	26.05	1418.79	100U	100U	1U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	–	500U	0.905U	–	–	–	–	–	–	–	–	–	0.5U
	8-Aug-06	26.11	1418.73	100U	**200**	1U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	–	500U	0.905U	–	–	–	–	–	–	–	–	–	0.5U
	21-Mar-07	26.15	1418.69	250U	100U	1.5U	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	–	500U	**0.1**	–	–	–	–	–	–	–	–	–	0.5U
	19-Sep-07	26.12	1418.72	500U	100U	–	0.5U	0.5U	0.5U	1U	0.5U	0.5U	0.5U	2.5U	–	500U	–	–	–	–	–	–	–	–	–	–	0.5U
	18-Mar-08	26.09	1418.75	100U	100U	500U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	19-Sep-08	26.18	1418.66	500U	100U	500U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	23-Mar-09	26.20	1418.64	500U	100U	500U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	23-Sep-09	26.28	1418.56	500U	**140**	500U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	16-Mar-10	26.25	1418.59	50U	**180**	**470**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	28-Sep-10	26.05	1418.79	50U	**320**	**450**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	22-Mar-11	26.15	1418.69	50U	**310**	240U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	21-Sep-11	26.16	1418.68	50U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	27-Mar-12	26.15	1418.69	50U	**280**	**470**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	20-Aug-12	25.93	1418.91	50U	**200**	**350**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	20-Mar-13	26.29	1418.55	250U	**130**	200U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	25-Sep-13	26.50	1418.34	250U	**160**	200U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	11-Mar-14	26.30	1418.54	250U	**150**	200U	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	22-Sep-14	26.35	1418.49	250U	**290**	**180**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	19-Mar-15	26.19	1418.65	250U	**110J**	**76J**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	22-Sep-15	26.09	1418.75	250U	**300**	540	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	16-Mar-16	26.12	1418.72	250U	**200**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	21-Sep-16	26.00	1418.84	250U	**160**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	29-Mar-17	26.33	1418.51	250U	**130J**	**120J**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Duplicate	29-Mar-17	26.33	1418.51	250U	**120J**	**100J**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	12-Sep-17	25.97	1418.87	250U	**190**	**160**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	11-Apr-18	26.07	1418.77	25U	**170**	**200**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	12-Sep-18	26.20	1418.64	**12.9**	**180**	**210**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	21-Mar-19	26.22	1418.62	**15.6J**	**200J**	**290J**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	23-Sep-19	26.20	1418.64	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	18-Mar-20	26.25	1418.59	**15.2J**	**110Y**	**210Z**	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	9-Sep-20	26.46	1418.38	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	16-Mar-21	26.42	1418.42	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	8-Sep-21	26.47	1418.37	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	14-Mar-22	26.57	1418.27	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	26-Sep-22	26.27	1418.57	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	26-Sep-22	26.27	1418.57	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	29-Mar-23	26.71	1418.13	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	15-Sep-23	27.38	1417.46	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Table B-1
FTP Historical Depth-to-Water Measurements and Selected Contaminant Concentrations
Fire Training Pit, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)	Methylene Chloride (µg/L)	Bis-(2-ethylhexyl) phthalate (µg/L)	Fluorene (µg/L)	Total Naphthalenes[1] (µg/L)	Total PCBs (µg/L)	Benzo(a) anthracene	Benzo(a) pyrene (µg/L)	Benzo(b) fluoranthene (µg/L)	Benzo(k) fluoranthene (µg/L)	Chrysene (µg/L)	Dibenz(a,h) anthracene (µg/L)	Indeno(1,2,3-cd) pyrene (µg/L)	TEC Total[2] (µg/L)	Total PAHs[3] (µg/L)
MTCA Method A Cleanup Level				800	500	500	5	1,000	700	1,000	5	–	0.2	5	–	–	160	0.1	–	0.1	–	–	–	–	–	0.1	–
TEF				–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0.1	1	0.1	0.1	0.01	0.1	0.1	–	–
MTCA Standard Method B Cleanup Level				–	–	–	–	–	–	–	–	70	–	–	6	640	–	–	–	–	–	–	–	–	–	–	–

Notes: Please refer to laboratory reports for analytical methods used.

ID = identification

TOC (ft AMSL) = top-of-casing elevation (feet above mean sea level)

DTW = depth-to-water

ft bgs = feet below ground surface

ft AMSL = feet above mean sea level

µg/L = micrograms per liter

TPH-G = total petroleum hydrocarbons – gasoline range

TPH-D = total petroleum hydrocarbons – diesel range

TPH-O = total petroleum hydrocarbons – heavy oil range

TCE = trichloroethylene

cis-DCE = cis 1,2-dichloroetheylene

(1) total naphthalenes = total of naphthalene, 1-methyl naphthalene, and 2-methyl naphthalene.

(2) TEC = (Benzo[a]anthrace*0.1) + benzo[a]pyrene + (benzo[b]fluoranthene*0.1) + (benzo[k]fluoranthene*0.1) + (chrysene*0.01) + (dibenz[a, h]anthracene*0.1) + (indeno[1,2,3-cd]pyrene*0.1). Non-detects are not included in this calculation.

(3) Total PAHs includes naphthalene, 1-methylnaphthalene, 2-methylnaphthalene, acenaphthene. acenaphthylene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(123-cd)pyrene, dibenz(ah)anthracene, benzo(ghi)perylene. Beginning in 2018, non-detects are included in this total at the detection limit.

PCBs = polychlorinated biphenyls

PAHs = polycyclic aromatic hydrocarbon

MTCA = Model Toxics Control Act

TEF – toxicity equivalency factor. Used to convert the concentration of a cPAH to an equivilent concentration of benzo(a)pyrene for a given sample. Defined by Table 708-2 in WAC Chapter 173-340-900.

– Not applicable, not sampled

BOLD Analyte detected above laboratory reporting limit.

SHADE Analyte detected above Model Toxics Control Act (MTCA) cleanup level.

B = The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC Standards.

J = estimated concentration

J+ = the result was an estimated quantity, but the result may be biased high

L = The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.

ND = non-detect

U = Analyte not detected above laboratory practical quantitation limit (PQL). Beginning in 2018, value listed is the reporting limit.

Y = The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.

Z = The chromatographic fingerprint does not resemble a petroleum product.

^ = EPA Method 8260D was used instead of Method 8260D SIM during Spring 2022, resulting in an elevated LOD.

* = EPA Method 8270E was used instead of Method 8270E SIM during Spring 2022, resulting in an elevated LOD.

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
815-2	21-Mar-06	66.35	1,237.93	**2.40**	0.5U
1304.28	1-Aug-06	54.17	1,250.11	**3.30**	0.5U
	21-Mar-07	64.02	1,240.26	**1.80**	0.5U
	19-Sep-07	55.56	1,248.72	**3.20**	0.5U
	18-Mar-08	62.99	1,241.29	**1.14**	0.5U
	19-Sep-08	54.95	1,249.33	**1.94**	0.5U
	23-Mar-09	64.72	1,239.56	**2.03**	0.5U
	23-Sep-09	58.03	1,246.25	**1.06**	0.5U
	15-Mar-10	65.65	1,238.63	1U	1U
	28-Sep-10	52.22	1,252.06	**0.74**	0.5U
	21-Mar-11	60.85	1,243.43	**1.00**	0.5U
	21-Sep-11	48.42	1,255.86	**1.20**	0.5U
	28-Mar-12	60.20	1,244.08	**0.89**	0.5U
	20-Aug-12	46.48	1,257.80	**0.97**	0.5U
Duplicate	20-Aug-12	46.48	1,257.80	**0.99**	0.5U
	19-Mar-13	58.62	1,245.66	**0.67**	0.2U
Duplicate	19-Mar-13	58.62	1,245.66	**0.66**	0.2U
	26-Sep-13	54.37	1,249.91	**0.65**	0.2U
Duplicate	26-Sep-13	54.37	1,249.91	**0.72**	0.2U
	12-Mar-14	62.75	1,241.53	**0.45**	0.2U
	23-Sep-14	53.90	1,250.38	**1.60**	0.5U
	19-Mar-15	62.89	1,241.39	**0.75**	0.2U
	22-Sep-15	54.42	1,249.86	**1.1**	0.2U
	16-Mar-16	56.91	1,247.37	**0.83**	0.2U
	21-Sep-16	52.42	1,251.86	**0.68**	0.2U
	30-Mar-17	56.20	1,248.08	**0.61**	0.2U
	12-Sep-17	48.42	1,255.86	**0.64**	0.2U
	29-Mar-18	61.21	1,243.07	**0.51**	0.2U
	13-Sep-18	48.72	1,255.56	**1.0**	0.2U
	20-Mar-19	61.85	1,242.43	**0.54**	0.2U
	24-Sep-19	50.22	1,254.06	**0.66**	0.2U
	19-Mar-20	64.84	1,239.44	**0.26J**	0.2U
	9-Sep-20	49.50	1,254.78	–	–
	16-Mar-21	63.14	1,241.14	–	–
	8-Sep-21	48.30	1,255.98	–	–
	14-Mar-22	63.56	1,240.72	–	–
	27-Sep-22	53.71	1,250.57	–	–
	29-Mar-23	63.85	1,240.43	–	–

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
815-2 (cont.)	14-Sep-23	50.31	1,253.97	–	–
MMP-1	1-Mar-93	–	1,239.41	5U	5U
1301.37	28-Feb-95	–	–	–	–
	1997	–	–	–	–
	1-Aug-99	–	–	–	–
	1-Jan-04	–	1,239.70	1U	1U
	23-Mar-05	66.24	1,235.13	0.5U	0.5U
	23-Aug-05	58.33	1,243.04	–	–
	21-Mar-06	64.27	1,237.10	0.5U	0.5U
	1-Aug-06	53.77	1,247.60	–	–
	21-Mar-07	62.02	1,239.35	0.5U	0.5U
	19-Sep-07	56.08	1,245.29	–	–
	18-Mar-08	61.12	1,240.25	0.5U	0.5U
	19-Sep-08	55.87	1,245.50	–	–
	23-Mar-09	62.83	1,238.54	0.5U	0.5U
	23-Sep-09	58.47	1,242.90	–	–
	15-Mar-10	63.37	1,238.00	1U	1U
	28-Sep-10	52.67	1,248.70	–	–
	21-Mar-11	59.02	1,242.35	0.5U	0.5U
	21-Sep-11	47.02	1,254.35	–	–
	28-Mar-12	57.83	1,243.54	0.5U	0.5U
	20-Aug-12	47.10	1,254.27	–	–
	19-Mar-13	55.90	1,245.47	0.2U	0.2U
	26-Sep-13	55.06	1,246.31	–	–
	12-Mar-14	59.80	1,241.57	0.2U	0.2U
	23-Sep-14	54.47	1,246.90	–	–
	19-Mar-15	60.04	1,241.33	–	–
	22-Sep-15	54.20	1,247.17	–	–
	16-Mar-16	55.50	1,245.87	–	–
	21-Sep-16	52.64	1,248.73	–	–
	30-Mar-17	55.45	1,245.92	–	–
	12-Sep-17	49.30	1,252.07	–	–
	29-Mar-18	59.52	1,241.85	**.10J**	0.2U
	13-Sep-18	50.55	1,250.82	0.2U	0.2U
	8-Apr-19	59.86	1,241.51	0.2U	0.2U
	24-Sep-19	50.12	1,251.25	–	–
	19-Mar-20	62.09	1,239.28	0.1U	0.2U
	9-Sep-20	50.36	1,251.01	–	–

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
MMP-1 (cont.)	16-Mar-21	60.82	1,240.55	–	–
	8-Sep-21	47.98	1,253.39	–	–
	14-Mar-22	61.01	1,240.36	–	–
	27-Sep-22	53.22	1,248.15	–	–
	29-Mar-23	62.12	1,239.25	–	–
	14-Sep-23	49.34	1,252.03	–	–
MMP-2	1-Mar-93	–	1,239.35	5U	5U
1301.31	28-Feb-95	–	–	–	–
	1997	–	–	–	–
	1-Aug-99	–	–	–	–
	1-Jan-04	–	1,239.50	0.5U	0.5U
	23-Mar-05	66.25	1,235.06	0.5U	0.5U
	23-Aug-05	59.75	1,241.56	–	–
	21-Mar-06	64.54	1,236.77	0.5U	0.5U
	1-Aug-06	55.69	1,245.62	–	–
	21-Mar-07	62.13	1,239.18	0.5U	0.5U
	19-Sep-07	57.12	1,244.19	–	–
	18-Mar-08	61.27	1,240.04	–	–
	19-Sep-08	56.95	1,244.36	–	–
	23-Mar-09	62.92	1,238.39	–	–
	23-Sep-09	59.23	1,242.08	–	–
	15-Mar-10	63.48	1,237.83	–	–
	28-Sep-10	54.22	1,247.09	–	–
	21-Mar-11	59.17	1,242.14	–	–
	21-Sep-11	50.44	1,250.87	–	–
	28-Mar-12	57.83	1,243.48	–	–
	20-Aug-12	48.51	1,252.80	–	–
	19-Mar-13	55.98	1,245.33	–	–
	26-Sep-13	–	–	–	–
	12-Mar-14	–	–	–	–
	23-Sep-14	55.70	1,245.61	–	–
	19-Mar-15	60.03	1,241.28	–	–
	22-Sep-15	55.90	1,245.41	–	–
	16-Mar-16	56.72	1,244.59	–	–
	21-Sep-16	55.05	1,246.26	–	–
	30-Mar-17	–	–	–	–
	12-Sep-17	–	–	–	–

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
MRC-2	1-Mar-93	–	1,236.27	5U	5U
1312.11	28-Feb-95	–	–	–	–
	1997	–	–	–	–
	1-Aug-99	–	–	–	–
	1-Jan-04	–	–	–	–
	23-Mar-05	81.82	1,230.29	–	–
	23-Aug-05	76.09	1,236.02	–	–
	21-Mar-06	–	–	–	–
	1-Aug-06	–	–	–	–
	21-Mar-07	–	–	0.5U [2]	0.5U [2]
	19-Sep-07	–	–	–	–
	18-Mar-08	74.59	1,237.52	0.5U	0.5U
	19-Sep-08	67.90	1,244.21	–	–
	23-Mar-09	75.90	1,236.21	0.5U	0.5U
	23-Sep-09	–	–	–	–
	16-Mar-10	77.38	1,234.73	1U	1U
	28-Sep-10	67.00	1,245.11	–	–
	21-Mar-11	73.20	1,238.91	0.5U	0.5U
	21-Sep-11	63.07	1,249.04	–	–
	28-Mar-12	72.42	1,239.69	0.5U	0.5U
	20-Aug-12	61.93	1,250.18	–	–
	19-Mar-13	71.36	1,240.75	–	–
	26-Sep-13	–	–	–	–
	12-Mar-14	–	–	–	–
	23-Sep-14	68.05	1,244.06	–	–
	19-Mar-15	75.27	1,236.84	–	–
	22-Sep-15	69.02	1,243.09	–	–
	16-Mar-16	–	–	–	–
	21-Sep-16	68.90	1,243.21	–	–
MTS-1	1-Mar-93	–	1,257.88		5U
1361.02	28-Feb-95	–	–	–	–
	1997	–	–	–	–
	1-Aug-99	–	–	–	–
	1-Jan-04	–	1,261.96	**5.60**	0.5U
	23-Mar-05	104.71	1,256.31	**7.60**	0.5U
	23-Aug-05	95.98	1,265.04	**4.60**	0.5U
	21-Mar-06	100.98	1,260.04	**6.30**	0.5U
	1-Aug-06	93.82	1,267.20	**7.50**	0.5U

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
MTS-1 (cont.)	21-Mar-07	99.62	1,261.40	**6.80**	0.5U
	19-Sep-07	94.08	1,266.94	**5.90**	0.5U
	18-Mar-08	99.36	1,261.66	**5.56**	0.5U
	19-Sep-08	95.47	1,265.55	**4.88**	0.5U
	23-Mar-09	100.72	1,260.30	**6.36**	0.5U
	23-Sep-09	94.90	1,266.12	**6.55**	0.5U
	16-Mar-10	99.92	1,261.10	**4.90**	1U
	28-Sep-10	91.30	1,269.72	**4.10**	0.5U
	21-Mar-11	96.35	1,264.67	**4.90**	0.5U
	21-Sep-11	91.44	1,269.58	**4.30**	0.5U
	28-Mar-12	95.98	1,265.04	**4.10**	0.5U
	20-Aug-12	91.38	1,269.64	**4.10**	0.5U
	19-Mar-13	95.43	1,265.59	**3.40**	0.2U
	26-Sep-13	93.85	1,267.17	**2.80**	0.2U
	12-Mar-14	97.35	1,263.67	**2.70**	0.2U
Duplicate	12-Mar-14	97.35	1,263.67	**2.80**	0.2U
	23-Sep-14	92.71	1,268.31	**3.50**	0.5U
	19-Mar-15	97.47	1,263.55	**3.8**	0.2U
	22-Sep-15	92.74	1,268.28	**4.0**	0.2U
	16-Mar-16	94.73	1,266.29	**3.7**	0.2U
	21-Sep-16	92.90	1,268.12	**3.2**	0.2U
	30-Mar-17	94.84	1,266.18	**3.5**	0.2U
	12-Sep-17	92.97	1,268.05	**3.5**	0.2U
	29-Mar-18	98.43	1,262.59	**3.7**	0.2U
	13-Sep-18	93.84	1,267.18	**3.0**	0.2U
	20-Mar-19	99.55	1,261.47	**3.7**	0.2U
	24-Sep-19	94.87	1,266.15	**3.6**	0.2U
	18-Mar-20	102.27	1,258.75	**3.2**	0.2U
	9-Sep-20	94.86	1,266.16	**2.9**	0.2U
	16-Mar-21	101.40	1,259.62	**3.3**	0.2U
	8-Sep-21	96.71	1,264.31	**3.2**	0.2U
	14-Mar-22	102.47	1,258.55	**3.46J**	0.5U
	26-Sep-22	94.80	1,266.22	**4.2J**	0.5U
	28-Mar-23	101.50	1,259.52	**3.16J**	0.5U
	14-Sep-23	91.34	1,269.68	**2.83**	0.5U
MTS-2	1-Mar-93	–	1,256.80		5U
1351.88	28-Feb-95	–	–	–	–
	1997	–	–	–	–

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
MTS-2 (cont.)	1-Aug-99	–	–	–	–
	1-Jan-04	–	1,260.71	**12.0**	1U
	23-Mar-05	96.15	1,255.73	**25.0**	0.5U
	23-Aug-05	87.89	1,263.99	**38.0**	**0.50**
	21-Mar-06	92.33	1,259.55	**28.0**	**0.70**
	1-Aug-06	85.85	1,266.03	**76.0**	**1.90**
	21-Mar-07	90.96	1,260.92	**32.0**	**0.60**
	19-Sep-07	86.00	1,265.88	**55.0**	**1.40**
	18-Mar-08	90.68	1,261.20	**18.6**	**0.50**
	19-Sep-08	87.22	1,264.66	**38.2**	**1.26**
Duplicate	19-Sep-08	87.22	1,264.66	**37.3**	**1.21**
	23-Mar-09	92.07	1,259.81	**28.2**	**0.73**
	23-Sep-09	86.65	1,265.23	**43.2**	**1.01**
	16-Mar-10	91.22	1,260.66	**16.0**	1U
	28-Sep-10	83.75	1,268.13	**6.3**	0.5U
	21-Mar-11	87.70	1,264.18	**7.4**	0.5U
	21-Sep-11	83.79	1,268.09	**4.6**	0.5U
	28-Mar-12	87.26	1,264.62	**4.4**	0.5U
	20-Aug-12	83.67	1,268.21	**6.5**	0.5U
	19-Mar-13	86.76	1,265.12	**6.8**	0.2U
	26-Sep-13	85.65	1,266.23	**5.6**	0.2U
	12-Mar-14	88.60	1,263.28	**8.4**	0.2U
	23-Sep-14	84.68	1,267.20	**24**	**0.47J**
	19-Mar-15	88.66	1,263.22	**8**	**0.2J**
	22-Sep-15	89.81	1,262.07	**11**	**0.22J**
	16-Mar-16	86.13	1,265.75	**6.9**	**0.18J**
	21-Sep-16	84.79	1,267.09	**5.0**	**0.15**
	30-Mar-17	86.28	1,265.60	**7.9**	**0.18J**
	12-Sep-17	84.88	1,267.00	**5.3**	**0.12J**
	29-Mar-18	89.82	1,262.06	**8.0**	**0.19J**
	13-Sep-18	85.69	1,266.19	**11.0**	**0.19J**
	20-Mar-19	90.93	1,260.95	**6.9**	**0.14J**
	24-Sep-19	96.53	1,255.35	**5.6**	**0.13J**
	18-Mar-20	93.72	1,258.16	**9.2**	**0.19J**
	9-Sep-20	86.67	1,265.21	**13.0**	**0.59J**
	16-Mar-21	92.84	1,259.04	**10.0**	**0.26J**
	8-Sep-21	88.27	1,263.61	**13.0**	**0.38J**
	14-Mar-22	93.95	1,257.93	**9.90J**	0.5U

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
MTS-2 (cont.)	26-Sep-22	86.68	1,265.20	**6.66J**	0.5U
	28-Mar-23	92.97	1,258.91	**3.16**	0.5U
	14-Sep-23	83.94	1,267.94	**5.74**	0.5U
Duplicate	14-Sep-23	83.94	1,267.94	**5.92**	0.5U
MTS-3	23-Mar-05	29.14	1,333.22	0.5U	0.5U
1362.36	23-Aug-05	27.73	1,334.63	–	–
	21-Mar-06	29.00	1,333.36	0.5U	0.5U
	1-Aug-06	26.86	1,335.50	–	–
	21-Mar-07	28.90	1,333.46	0.5U	0.5U
	19-Sep-07	26.43	1,335.93	–	–
	18-Mar-08	28.67	1,333.69	–	–
	19-Sep-08	26.62	1,335.74	–	–
	23-Mar-09	28.70	1,333.66	–	–
	23-Sep-09	26.65	1,335.71	–	–
	16-Mar-10	28.74	1,333.62	–	–
	28-Sep-10	25.53	1,336.83	–	–
	21-Mar-11	27.58	1,334.78	–	–
	21-Sep-11	25.41	1,336.95	–	–
	28-Mar-12	27.60	1,334.76	–	–
	20-Aug-12	25.64	1,336.72	–	–
	19-Mar-13	27.87	1,334.49	–	–
	26-Sep-13	27.24	1,335.12	–	–
	12-Mar-14	28.50	1,333.86	–	–
	23-Sep-14	26.45	1,335.91	–	–
	19-Mar-15	28.03	1,334.33	–	–
	22-Sep-15	27.76	1,334.60	–	–
	16-Mar-16	27.95	1,334.41	–	–
	21-Sep-16	25.55	1,336.81	–	–
	30-Mar-17	27.65	1,334.71	–	–
	12-Sep-17	25.65	1,336.71	–	–
	29-Mar-18	28.19	1,334.17	–	–
	13-Sep-18	26.75	1,335.61	–	–
	20-Mar-19	27.57	1,334.79	–	–
	24-Sep-19	26.68	1,335.68	–	–
	18-Mar-20	27.86	1,334.50	–	–
	9-Sep-20	26.35	1,336.01	–	–
	16-Mar-21	28.12	1,334.24	–	–
	8-Sep-21	26.96	1,335.40	–	–

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
MTS-3 (cont.)	14-Mar-22	28.12	1,334.24	–	–
	27-Sep-22	26.19	1,336.17	–	–
	28-Mar-23	28.15	1,334.21	–	–
	14-Sep-23	25.67	1,336.69	–	–
MTS-4	23-Mar-05	89.70	1,242.18	**15.0**	0.5U
1331.88	23-Aug-05	86.14	1,245.74	**9.4**	0.5U
	21-Mar-06	88.02	1,243.86	**13.0**	0.5U
	1-Aug-06	81.32	1,250.56	**12.0**	0.5U
	21-Mar-07	86.15	1,245.73	**13.0**	0.5U
	19-Sep-07	81.25	1,250.63	**8.2**	0.5U
	18-Mar-08	85.51	1,246.37	**10.1**	0.5U
	19-Sep-08	83.80	1,248.08	**7.6**	0.5U
	23-Mar-09	87.72	1,244.16	**0.52**	0.5U
	23-Sep-09	83.47	1,248.41	**10.7**	0.5U
	16-Mar-10	87.32	1,244.56	**8.9**	1U
	28-Sep-10	75.75	1,256.13	**6.4**	0.5U
	21-Mar-11	82.13	1,249.75	**7.7**	0.5U
	21-Sep-11	73.72	1,258.16	**6.0**	0.5U
	28-Mar-12	81.19	1,250.69	**7.3**	0.5U
	20-Aug-12	72.60	1,259.28	**5.3**	0.5U
	19-Mar-13	79.52	1,252.36	**6.2**	0.2U
	26-Sep-13	78.85	1,253.03	**4.9**	**0.23**
	12-Mar-14	83.70	1,248.18	**5.4**	0.2U
	23-Sep-14	79.06	1,252.82	**5.6**	**0.16J**
Duplicate	23-Sep-14	79.06	1,252.82	**6.0**	**0.18J**
	19-Mar-15	83.35	1,248.53	**8.0**	**0.25J**
	22-Sep-15	78.42	1,253.46	**5.6**	**0.18J**
	16-Mar-16	79.90	1,251.98	**7.3**	**0.27J**
	21-Sep-16	76.52	1,255.36	**-**	**0.19J**
	30-Mar-17	79.24	1,252.64	**5.5**	**0.21J**
	12-Sep-17	75.80	1,256.08	**5.1**	**0.17J**
	29-Mar-18	83.18	1,248.70	**6.1J+**	**0.19J**
	13-Sep-18	78.49	1,253.39	**5.0**	**0.19J**
	20-Mar-19	84.16	1,247.72	**4.5**	0.2U
	24-Sep-19	79.41	1,252.47	**5.4**	**0.25J**
	18-Mar-20	86.24	1,245.64	**4.3**	**0.14J**
	9-Sep-20	80.97	1,250.91	**4.1**	**0.19J**
	16-Mar-21	85.28	1,246.60	**5.2**	**0.16J**

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
MTS-4 (cont.)	8-Sep-21	80.69	1,251.19	**5.6**	**0.30J**
	14-Mar-22	86.00	1,245.88	**4.65J**	0.5U
	26-Sep-22	81.27	1,250.61	**6.35J**	0.5U
	28-Mar-23	85.94	1,245.94	**4.87J**	0.5U
	14-Sep-23	74.80	1,257.08	**3.58**	0.5U
TVR-1	1-Mar-93	–	1,246.81	**35.0**	5U
1320.17	28-Feb-95	–	–	–	–
	1997	–	–	–	–
	1-Aug-99	–	–	–	–
	1-Jan-04	–	1,245.50	**12.0**	0.5U
	23-Mar-05	78.98	1,241.19	**9.8**	0.5U
	23-Aug-05	75.48	1,244.69	**6.2**	0.5U
	21-Mar-06	71.17	1,249.00	**8.4**	0.5U
	1-Aug-06	71.43	1,248.74	**12.0**	0.5U
	21-Mar-07	75.32	1,244.85	**12.0**	0.5U
	19-Sep-07	71.34	1,248.83	**12.0**	0.5U
	18-Mar-08	74.63	1,245.54	**9.2**	0.5U
	19-Sep-08	73.52	1,246.65	**9.0**	0.5U
	23-Mar-09	76.76	1,243.41	**8.8**	0.5U
Duplicate	23-Mar-09	76.76	1,243.41	**9.0**	0.5U
	23-Sep-09	73.40	1,246.77	**8.6**	0.5U
	16-Mar-10	76.50	1,243.67	**5.8**	1U
	29-Sep-10	67.05	1,253.12	**3.2**	0.5U
	21-Mar-11	71.58	1,248.59	**6.9**	0.5U
	21-Sep-11	64.61	1,255.56	**8.7**	0.5U
	28-Mar-12	70.63	1,249.54	**7.3**	0.5U
	20-Aug-12	63.45	1,256.72	**7.9**	0.5U
	19-Mar-13	69.00	1,251.17	**6.8**	0.2U
	26-Sep-13	69.35	1,250.82	**5.9**	0.2U
	12-Mar-14	73.10	1,247.07	**5.4**	0.2U
	22-Sep-14	70.45	1,249.72	**4.7**	0.5U
	19-Mar-15	72.60	1,247.57	**4.5**	0.2U
	22-Sep-15	69.70	1,250.47	**3.8**	0.2U
	16-Mar-16	69.90	1,250.27	**5.7**	0.2U
	21-Sep-16	67.12	1,253.05	**6.1**	0.08J
	29-Mar-17	69.46	1,250.71	**7.0**	0.2U
	12-Sep-17	66.35	1,253.82	**8.3**	0.2U
	29-Mar-18	70.45	1,249.72	**7.5**	0.2U

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
TVR-1 (cont.)	13-Sep-18	68.61	1,251.56	**8.1**	0.2U
	20-Mar-19	73.36	1,246.81	**7.3**	0.2U
	24-Sep-19	69.16	1,251.01	**7.0**	0.2U
	18-Mar-20	75.51	1,244.66	**7.0**	0.2U
	9-Sep-20	70.42	1,249.75	**7.4**	0.2U
	16-Mar-21	74.50	1,245.67	**8.0**	0.2U
	8-Sep-21	69.94	1,250.23	**6.6**	0.2U
	14-Mar-22	75.17	1,245.00	**5.6J**	0.5U
Duplicate	14-Mar-22	75.17	1,245.00	**5.73J**	0.5U
	26-Sep-22	71.91	1,248.26	**8.32J**	0.5U
	28-Mar-23	75.20	1,244.97	**6.68J**	0.5U
	14-Sep-23	65.99	1,254.18	**7.12**	0.5U
TVR-2	1-Mar-93	–	1,247.03	**14.0**	5U
1317.56	28-Feb-95	–	–	–	–
	1997	–	–	–	–
	1-Aug-99	–	–	–	–
	1-Jan-04	–	1,245.30	**3.60**	1U
	23-Mar-05	76.96	1,240.60	**4.40**	0.5U
	23-Aug-05	72.13	1,245.43	**3.40**	0.5U
	21-Mar-06	74.22	1,243.34	**3.30**	0.5U
	1-Aug-06	67.69	1,249.87	**2.90**	0.5U
	21-Mar-07	72.55	1,245.01	**2.60**	0.5U
	19-Sep-07	68.19	1,249.37	**1.70**	0.5U
	18-Mar-08	71.91	1,245.65	**3.37**	0.5U
	19-Sep-08	70.15	1,247.41	–	–
	23-Mar-09	74.10	1,243.46	**3.54**	0.5U
	23-Sep-09	70.50	1,247.06	–	–
	16-Mar-10	73.75	1,243.81	**3.20**	1U
	29-Sep-10	63.72	1,253.84	–	–
	21-Mar-11	68.75	1,248.81	**2.90**	0.5U
	21-Sep-11	60.89	1,256.67	–	–
	28-Mar-12	68.06	1,249.50	**2.8**	0.5U
	20-Aug-12	59.84	1,257.72	–	–
	19-Mar-13	66.52	1,251.04	**2.6**	0.2U
	26-Sep-13	66.35	1,251.21	–	–
	12-Mar-14	70.55	1,247.01	**2.1**	0.2U
	22-Sep-14	67.58	1,249.98	–	–
	19-Mar-15	70.34	1,247.22	**2.6**	0.2U

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
TVR-2 (cont.)	22-Sep-15	66.53	1,251.03	–	–
	16-Mar-16	66.40	1,251.16	**3.6**	0.2U
	21-Sep-16	63.96	1,253.60	–	–
	29-Mar-17	65.94	1,251.62	–	–
	12-Sep-17	66.46	1,251.10	–	–
	29-Mar-18	70.17	1,247.39	**2.3**	0.2U
	13-Sep-18	64.83	1,252.73	-	-
	20-Mar-19	70.59	1,246.97	**1.5**	0.2U
	24-Sep-19	65.34	1,252.22	-	-
	18-Mar-20	73.14	1,244.42	**2.4**	0.2U
	9-Sep-20	66.51	1,251.05	–	–
	16-Mar-21	71.81	1,245.75	–	–
	8-Sep-21	65.97	1,251.59	–	–
	14-Mar-22	72.65	1,244.91	–	–
	26-Sep-22	67.70	1,249.86	–	–
	28-Mar-23	72.52	1,245.04	–	–
	14-Sep-23	62.15	1,255.41	–	–
TVR-3	23-Mar-05	69.63	1,240.97	**43.0**	**1.3**
1310.60	23-Aug-05	64.98	1,245.62	**25.0**	0.5
	21-Mar-06	67.32	1,243.28	**26.0**	0.5U
	1-Aug-06	60.93	1,249.67	**17.0**	0.5U
	21-Mar-07	65.64	1,244.96	**33.0**	0.5U
	19-Sep-07	61.53	1,249.07	**15.0**	0.5U
	18-Mar-08	64.98	1,245.62	**21.0**	0.5U
	19-Sep-08	63.50	1,247.10	**10.0**	0.5U
	23-Mar-09	67.11	1,243.49	**14.8**	0.5U
	23-Sep-09	63.87	1,246.73	**14.3**	0.5U
Duplicate	23-Sep-09	63.87	1,246.73	**14.0**	0.5U
	16-Mar-10	66.83	1,243.77	**17.0**	1U
	29-Sep-10	57.00	1,253.60	**11.0**	0.5U
	21-Mar-11	61.80	1,248.80	**14.0**	0.5U
	21-Sep-11	54.07	1,256.53	**10.0**	0.5U
	28-Mar-12	61.20	1,249.40	**12.0**	0.5U
	20-Aug-12	53.12	1,257.48	**8.0**	0.5U
	19-Mar-13	59.52	1,251.08	**9.2**	0.2U
	26-Sep-13	59.65	1,250.95	**6.6**	0.2U
	12-Mar-14	63.50	1,247.10	**8.2**	0.2U
	22-Sep-14	60.90	1,249.70	**6.9**	**0.10J**

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
TVR-3 (cont.)	19-Mar-15	63.31	1,247.29	**7.7**	**0.17J**
	22-Sep-15	59.75	1,250.85	**8.4**	**0.12J**
	16-Mar-16	59.57	1,251.03	**7.5**	**0.14J**
	21-Sep-16	57.21	1,253.39	**4.9**	**0.13J**
	30-Mar-17	59.35	1,251.25	**6.1**	**0.11J**
	12-Sep-17	56.16	1,254.44	**2.9**	0.2U
	29-Mar-18	63.30	1,247.30	**6.7**	0.12J
Duplicate	29-Mar-18	63.30	1,247.30	**6.5**	0.12J
	13-Sep-18	58.00	1,252.60	**2.6**	0.2U
	20-Mar-19	63.60	1,247.00	**3.9**	0.2U
Duplicate	20-Mar-19	63.60	1,247.00	**4.1**	0.2U
	24-Sep-19	58.52	1,252.08	**1.9**	0.2U
Duplicate	24-Sep-19	58.52	1,252.08	**2.0**	0.2U
	18-Mar-20	66.22	1,244.38	**4.3**	0.2U
Duplicate	18-Mar-20	66.22	1,244.38	**4.5**	**0.14J**
	9-Sep-20	59.73	1,250.87	**2.1**	0.2U
Duplicate	9-Sep-20	59.73	1,250.87	**2.0**	0.2U
	16-Mar-21	64.91	1,245.69	**4.0**	**0.10J**
Duplicate	16-Mar-21	64.91	1,245.69	**3.8**	0.2U
	8-Sep-21	59.00	1,251.60	**2.2**	0.2U
Duplicate	8-Sep-21	59.00	1,251.60	**2.1**	0.2U
	14-Mar-22	66.64	1,243.96	**3.87J**	0.5 U
	26-Sep-22	60.91	1,249.69	**1.9J**	0.5 U
	28-Mar-23	65.63	1,244.97	**4.03J**	0.5 U
Duplicate	28-Mar-23	65.63	1,244.97	**4.19J**	0.5 U
	14-Sep-23	55.51	1,255.09	**2.11**	0.5 U
TVR-5	21-Mar-06	60.48	1,241.56	**1.6**	0.5U
1302.04	1-Aug-06	51.50	1,250.54	**1.0**	0.5U
	21-Mar-07	58.53	1,243.51	**1.2**	0.5U
	19-Sep-07	53.35	1,248.69	**1.1**	0.5U
	18-Mar-08	57.81	1,244.23	**1.0**	0.5U
	19-Sep-08	54.31	1,247.73	**1.2**	0.5U
	23-Mar-09	59.85	1,242.19	**1.2**	0.5U
	23-Sep-09	55.81	1,246.23	**16.0**	0.5U
	16-Mar-10	59.91	1,242.13	**3.5**	0.5U
Duplicate	16-Mar-10	59.91	1,242.13	**3.5**	0.5U
	28-Sep-10	48.53	1,253.51	**11.0**	0.5U
Duplicate	28-Sep-10	48.53	1,253.51	**11.0**	0.5U

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
TVR-5 (cont.)	21-Mar-11	54.90	1,247.14	**2.4**	0.5U
Duplicate	21-Mar-11	54.90	1,247.14	**2.4**	0.5U
	21-Sep-11	44.95	1,257.09	**0.7**	0.5U
Duplicate	21-Sep-11	44.95	1,257.09	**0.5**	0.5U
	28-Mar-12	54.25	1,247.79	**0.7**	0.5U
	20-Aug-12	44.17	1,257.87	0.5U	0.5U
	19-Mar-13	52.58	1,249.46	**0.4**	0.2U
	26-Sep-13	51.60	1,250.44	**3.7**	0.2U
	12-Mar-14	56.40	1,245.64	**0.4**	0.2U
	22-Sep-14	52.52	1,249.52	**6.6**	0.5U
	19-Mar-15	56.51	1,245.53	**0.8**	0.2U
	22-Sep-15	51.05	1,250.99	**4.4**	0.2U
	16-Mar-16	51.58	1,250.46	**0.49J**	0.2U
	21-Sep-16	48.73	1,253.31	**0.92**	0.2U
	31-Mar-17	51.05	1,250.99	**0.26J**	0.2U
	12-Sep-17	49.90	1,252.14	**0.12J**	0.2U
	29-Mar-18	56.38	1,245.66	**0.10J**	0.2U
	13-Sep-18	47.78	1,254.26	0.20U	0.2U
	20-Mar-19	56.24	1,245.80	0.20U	0.2U
	24-Sep-19	47.98	1,254.06	0.20U	0.2U
	18-Mar-20	59.22	1,242.82	0.1U	0.2U
	9-Sep-20	48.57	1,253.47	-	-
	16-Mar-21	57.70	1,244.34	-	-
	8-Sep-21	47.35	1,254.69	-	-
	14-Mar-22	58.18	1,243.86	-	-
	26-Sep-22	51.40	1,250.64	-	-
	28-Mar-23	58.48	1,243.56	-	-
	14-Sep-23	46.35	1,255.69	-	-
TVR-6	21-Mar-06	67.03	1,243.03	**6.8**	0.5U
1310.06	1-Aug-06	60.88	1,249.18	**7.7**	0.5U
	21-Mar-07	65.19	1,244.87	**5.0**	0.5U
	19-Sep-07	61.50	1,248.56	**2.8**	0.5U
	18-Mar-08	64.98	1,245.08	**2.9**	0.5U
	19-Sep-08	63.39	1,246.67	**1.7**	0.5U
	23-Mar-09	66.68	1,243.38	**2.2**	0.5U
	23-Sep-09	63.62	1,246.44	**10.6**	0.5U
	16-Mar-10	66.41	1,243.65	**4.6**	1U
	29-Sep-10	57.03	1,253.03	**13.0**	0.5U

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
TVR-6 (cont.)	21-Mar-11	61.48	1,248.58	**11.0**	0.5U
	21-Sep-11	54.01	1,256.05	**5.2**	0.5U
	28-Mar-12	60.80	1,249.26	**4.2**	0.5U
	20-Aug-12	53.26	1,256.80	**2.9**	0.5U
	19-Mar-13	59.07	1,250.99	**5.4**	0.2U
	25-Sep-13	58.65	1,251.41	**10.0**	0.2U
	12-Mar-14	62.80	1,247.26	**8.8**	0.2U
	23-Sep-14	59.94	1,250.12	**11.0**	**0.090J**
	19-Mar-15	62.61	1,247.45	**8.0**	0.2U
	22-Sep-15	59.50	1,250.56	**9.9**	0.2U
	16-Mar-16	59.49	1,250.57	**8.0J**	0.2U
	21-Mar-16	57.02	1,253.04	**5.9**	0.2U
	29-Mar-17	59.30	1,250.76	**4.7**	0.2U
	12-Sep-17	56.10	1,253.96	**1.7**	0.2U
	29-Mar-18	61.96	1,248.10	**2.8J+**	0.2U
	13-Sep-18	57.71	1,252.35	**1.2**	0.2U
	20-Mar-19	63.10	1,246.96	**1.1**	0.2U
	24-Sep-19	59.86	1,250.20	**0.37J**	0.2U
	18-Mar-20	65.68	1,244.38	**0.54**	0.2U
	10-Sep-20	59.26	1,250.80	**0.13J**	0.2U
	16-Mar-21	64.55	1,245.51	**0.37J**	0.2U
	8-Sep-21	58.49	1,251.57	**0.27J**	0.2U
	14-Mar-22	65.13	1,244.93	0.5UJ	0.5U
	26-Sep-22	60.72	1,249.88	0.5U	0.5U
	28-Mar-23	65.23	1,245.37	-	-
	14-Sep-23	55.58	1,255.02	0.5U	0.5U
TVR-7	21-Mar-06	67.89	1,243.06	**38.0**	**1.30**
1310.95	1-Aug-06	61.82	1,249.13	**43.0**	**1.00**
	21-Mar-07	66.10	1,244.85	**42.0**	**0.80**
	19-Sep-07	62.31	1,248.64	**32.0**	**0.60**
	18-Mar-08	65.45	1,245.50	**28.3**	**0.77**
Duplicate	18-Mar-08	65.45	1,245.50	**29.0**	**0.80**
	19-Sep-08	64.30	1,246.65	**20.7**	0.5U
	23-Mar-09	67.51	1,243.44	**21.6**	**0.56**
	23-Sep-09	64.39	1,246.56	**26.6**	0.5U
	16-Mar-10	67.29	1,243.66	**20.0**	1U
	29-Sep-10	57.85	1,253.10	**21.0**	0.5U
	21-Mar-11	62.35	1,248.60	**21.0**	0.5U

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
TVR-7 (cont.)	21-Sep-11	55.05	1,255.90	**18.0**	0.5U
	28-Mar-12	61.66	1,249.29	**15.0**	0.5U
	20-Aug-12	54.10	1,256.85	**13.0**	0.5U
	19-Mar-13	59.97	1,250.98	**0.4**	0.2U
	26-Sep-13	60.15	1,250.80	**9.8**	0.2U
	12-Mar-14	63.75	1,247.20	**6.2**	0.2U
	23-Sep-14	67.50	1,243.45	**12.0**	0.5U
	19-Mar-15	63.60	1,247.35	**10.0**	0.2U
Duplicate	19-Mar-15	63.60	1,247.35	**10.0**	0.2U
	22-Sep-15	60.45	1,250.50	**10.0**	0.2U
	16-Mar-16	60.43	1,250.52	**10.0**	0.2U
	21-Mar-16	57.92	1,253.03	**8.2**	0.2U
	30-Mar-17	60.27	1,250.68	**7.9**	0.2U
	12-Sep-17	57.04	1,253.91	**6.4**	0.2U
	29-Mar-18	63.17	1,247.78	**5.9**	0.2U
	13-Sep-18	58.87	1,252.08	**5.9**	0.2U
	20-Mar-19	64.04	1,246.91	**1.4**	0.2U
	24-Sep-19	59.42	1,251.53	**4.0**	0.2U
	18-Mar-20	66.49	1,244.46	**2.6**	0.2U
1310.95	9-Sep-20	60.60	1,250.35	**3.7**	0.2U
	16-Mar-21	65.34	1,245.61	**2.9**	0.2U
	8-Sep-21	59.88	1,251.07	**3.4**	0.2U
	14-Mar-22	66.06	1,244.89	**2.53J**	0.5 U
	26-Sep-22	61.68	1,248.92	**2.92J**	0.5 U
	28-Mar-23	66.10	1,244.50	**2.65J**	0.5 U
	14-Sep-23	56.58	1,254.02	**2.75**	0.5 U
Marie Well	1-Mar-93	–	–	**1.20**	5U
PAIC Well	1-Mar-93	–	–	5U	5U
	28-Feb-95	–	–	0.1U	0.1U
	1997	–	–	0.5U	0.5U
	1-Aug-99	–	–	–	–
	1-Jan-04	–	–	–	–
	23-Mar-05	–	–	–	–
	23-Aug-05	–	–	–	–
	21-Mar-06	–	–	0.5U	0.5U
	1-Aug-06	–	–	–	–
	21-Mar-07	–	–	0.5U	0.5U
	19-Sep-07	–	–	0.5U	0.5U

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
PAIC Well (cont.)	18-Mar-08	–	–	0.5U	0.5U
	19-Sep-08	–	–	0.5U	0.5U
	23-Mar-09	–	–	0.5U	0.5U
	23-Sep-09	–	–	0.5U	0.5U
	15-Mar-10	–	–	1U	1U
	29-Sep-10	–	–	0.5U	0.5U
	21-Mar-11	–	–	0.5U	0.5U
	22-Sep-11	–	–	0.5U	0.5U
	28-Mar-12	–	–	0.5U	0.5U
	20-Aug-12	–	–	0.5U	0.5U
	20-Mar-13	–	–	0.2U	0.2U
	25-Sep-13	–	–	0.2U	0.2U
	12-Mar-14	–	–	0.2U	0.2U
	23-Sep-14	–	–	0.5U	0.5U
	19-Mar-15	–	–	0.1U	0.2U
	22-Sep-15	–	–	0.1U	0.2U
	16-Mar-16	–	–	0.1U	0.2U
	21-Sep-16	–	–	0.1U	0.2U
	30-Mar-17	–	–	0.1U	0.2U
	12-Sep-17	–	–	0.1U	0.2U
	29-Mar-18	–	–	0.2U	0.2U
	13-Sep-18	–	–	0.2U	0.2U
	20-Mar-19	–	–	0.2U	0.2U
	23-Sep-19	–	–	0.1U	0.2U
	18-Mar-20	–	–	0.1U	0.2U
	9-Sep-20	–	–	0.1U	0.2U
	16-Mar-21	–	–	0.1U	0.2U
	8-Sep-21	–	–	0.2U	0.2U
	14-Mar-22	–	–	0.5UJ	0.5U
	27-Sep-22	–	–	0.5U	0.5U
	28-Mar-23	–	–	0.5U	0.5U
	14-Sep-23	–	–	0.5U	0.5U
Pomona Well	1-Mar-91	–	–	ND	ND
	1-Aug-92	–	–	0.5U	0.5U
	1-Mar-93	–	–	5U	5U
	28-Feb-95	–	–	–	–
	1997	–	–	ND	ND
	1-Aug-99	–	–	0.5U	0.5U

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations
TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
Pomona Well (cont.)	1-Jan-04	–	–	–	–
	23-Mar-05	–	–	–	–
	23-Aug-05	–	–	–	–
	21-Mar-06	–	–	0.5U	0.5U
	1-Aug-06	–	–	0.5U	0.5U
	21-Mar-07	–	–	0.5U	0.5U
	19-Sep-07	–	–	0.5U	0.5U
	18-Mar-08	–	–	–	–
	19-Sep-08	–	–	0.5U	0.5U
	23-Mar-09	–	–	0.5U	0.5U
	23-Sep-09	–	–	0.5U	0.5U
	16-Mar-10	–	–	1U	1U
	29-Sep-10	–	–	0.5U	0.5U
	21-Mar-11	–	–	0.5U	0.5U
	21-Sep-11	–	–	0.5U	0.5U
	28-Mar-12	–	–	0.5U	0.5U
	20-Aug-12	–	–	0.5U	0.5U
	19-Mar-13	–	–	0.2U	0.2U
	26-Sep-13	–	–	0.2U	0.2U
	12-Mar-14	–	–	0.2U	0.2U
	23-Sep-14	–	–	0.5U	0.5U
	19-Mar-15	–	–	0.1U	0.2U
	22-Sep-15	–	–	0.1U	0.2U
	16-Mar-16	–	–	0.1U	0.2U
	21-Sep-16	–	–	0.1U	0.2U
	30-Mar-17	–	–	0.1U	0.2U
	12-Sep-17	–	–	0.1U	0.2U
	29-Mar-18	–	–	0.2U	0.2U
	13-Sep-18	–	–	0.2U	0.2U
	21-Mar-19	–	–	0.2U	0.2U
	24-Sep-19	–	–	0.1U	0.2U
	18-Mar-20	–	–	0.1U	0.2U
	9-Sep-20	–	–	0.1U	0.2U
	16-Mar-21	–	–	0.1U	0.2U
	8-Sep-21	–	–	0.2U	0.2U
	14-Mar-22	–	–	0.5UJ	0.5U
	27-Sep-22	–	–	0.5U	0.5U
	28-Mar-23	–	–	0.5U	0.5U

Table B-2
TVR/Old Mates Historical Depth-to-Water Measurements; TCE and cis-1,2-DCE Concentrations

TVR/Old MATES, Yakima Training Center, Washington

Well ID TOC (ft AMSL)	Date	DTW (ft bgs)	Groundwater Elevation (ft AMSL)	TCE (µg/L)	cis-1,2-DCE (µg/L)
MTCA Method A Cleanup Level		–	–	**5**	–
MTCA Method B Cleanup Level		–	–	–	**16**
Pomona Well (cont.)	14-Sep-23	–	–	0.5U	0.5U

Notes:

Please refer to laboratory reports for analytical methods used.

TCE = trichloroethylene

cis-DCE = cis 1,2-dichloroetheylene

ID = identification

TOC = top-of-casing elevation

DTW = depth-to-water

ft bgs = feet below ground surface

ft AMSL = feet above mean sea level

µg/L = micrograms per liter

– = not applicable, not sampled

BOLD = Analyte detected above laboratory LOD.

SHADE = Analyte detected above Model Toxics Control Act (MTCA) cleanup level.

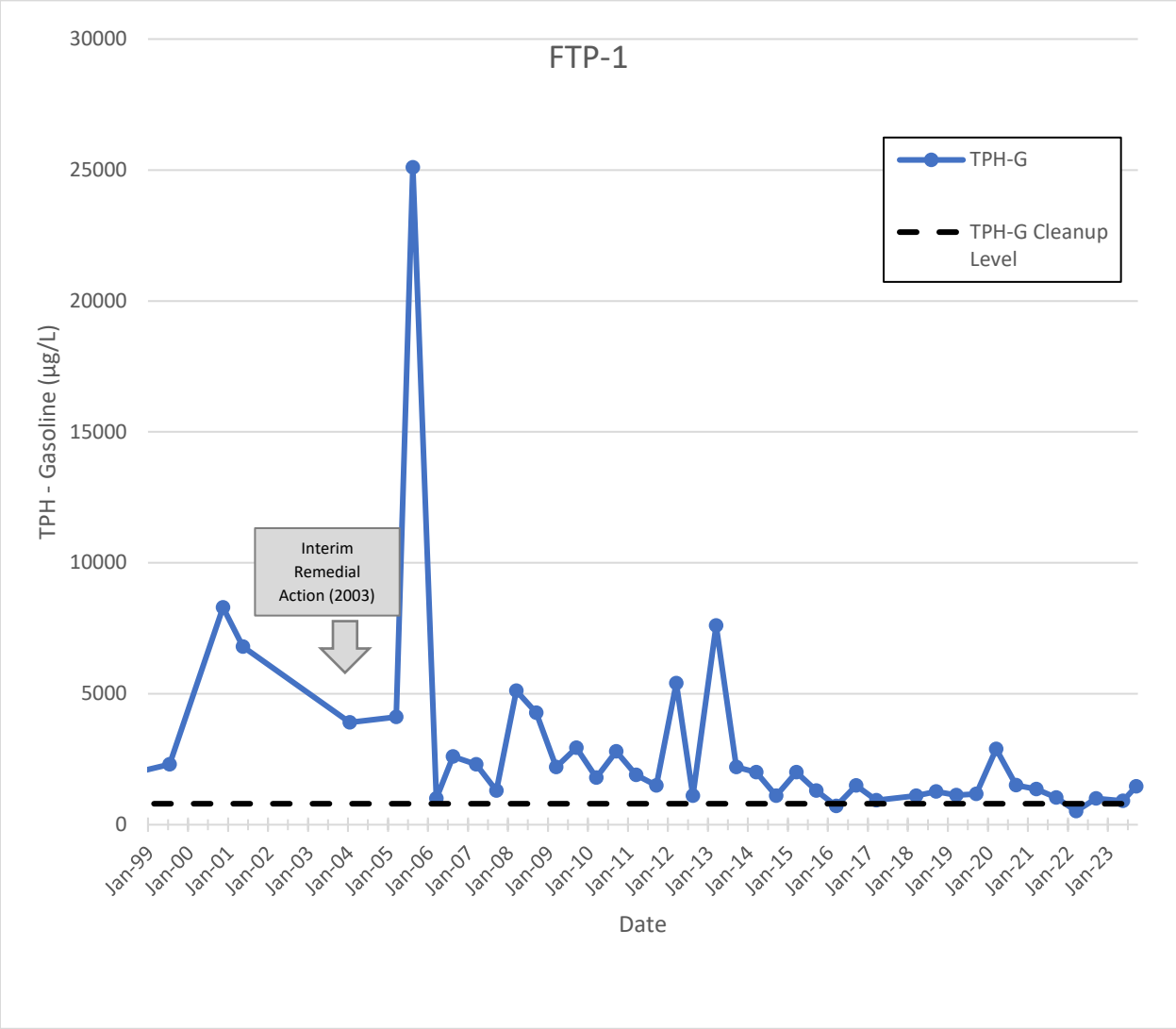
J = estimated concentration

J+ = the result was an estimated quantity, but the result may be biased high

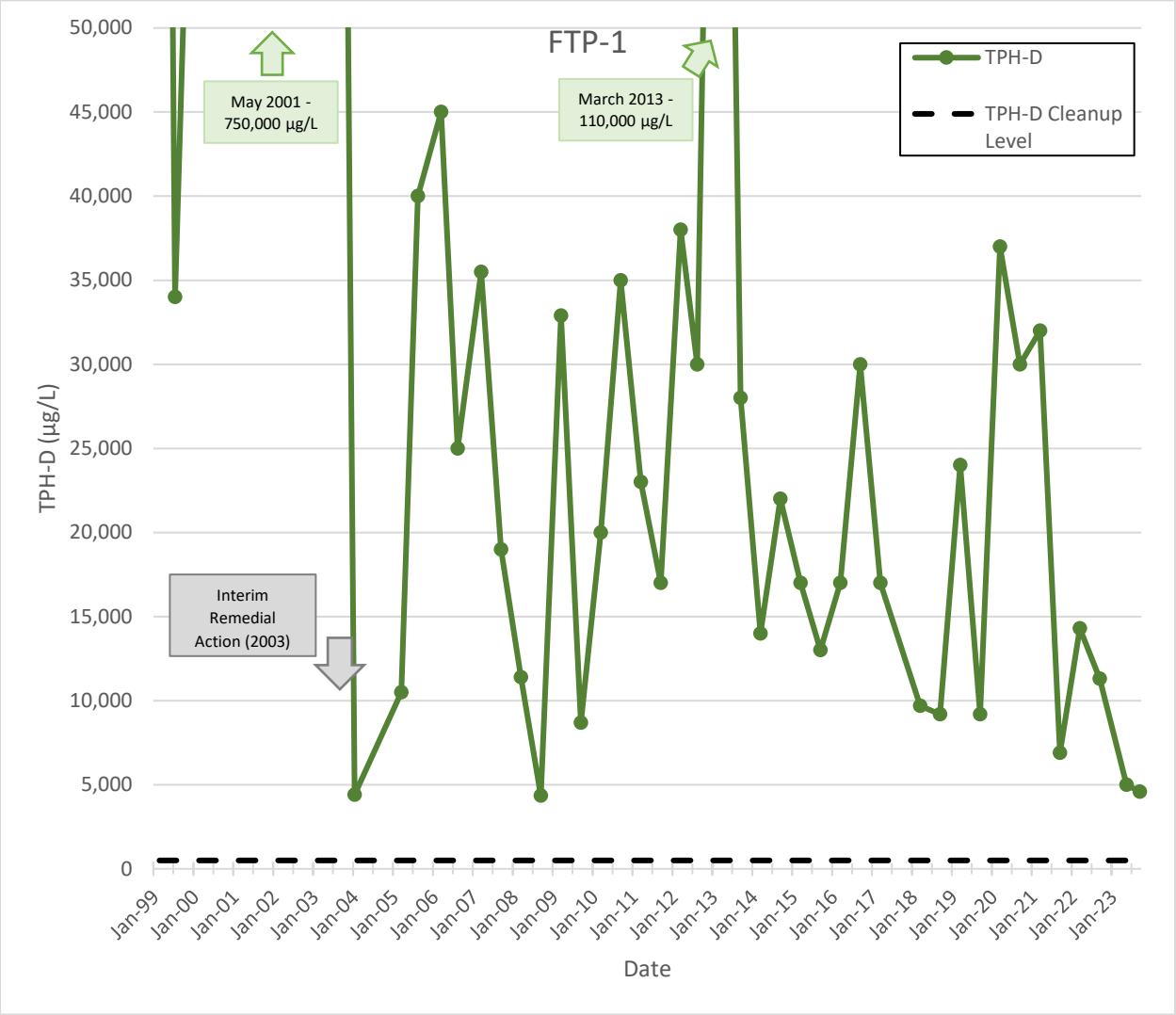
ND = non-detect

U = Analyte not detected above laboratory LOD. Beginning in 2018, value listed is the reporting limit.

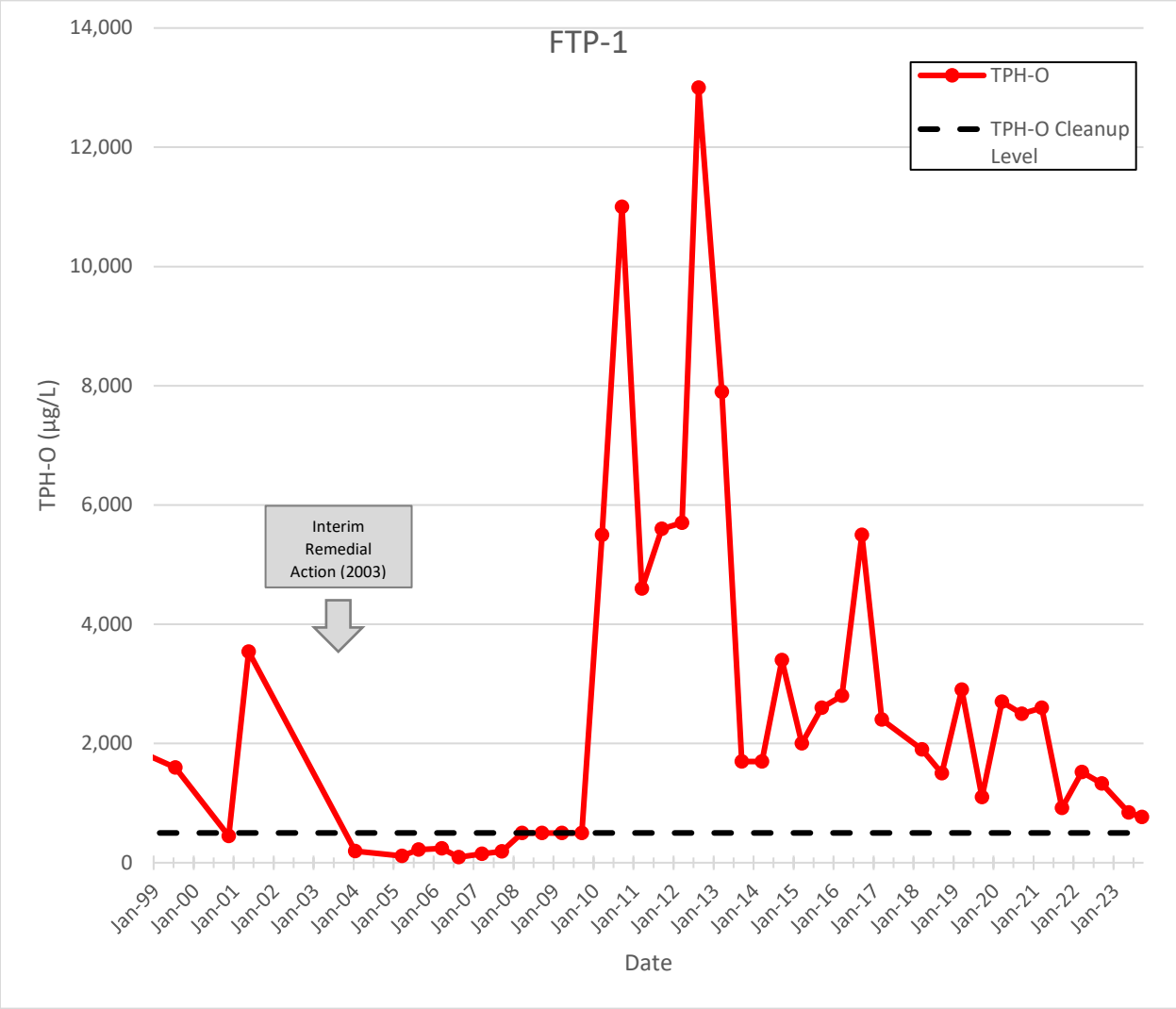
FTP – TPH Concentrations



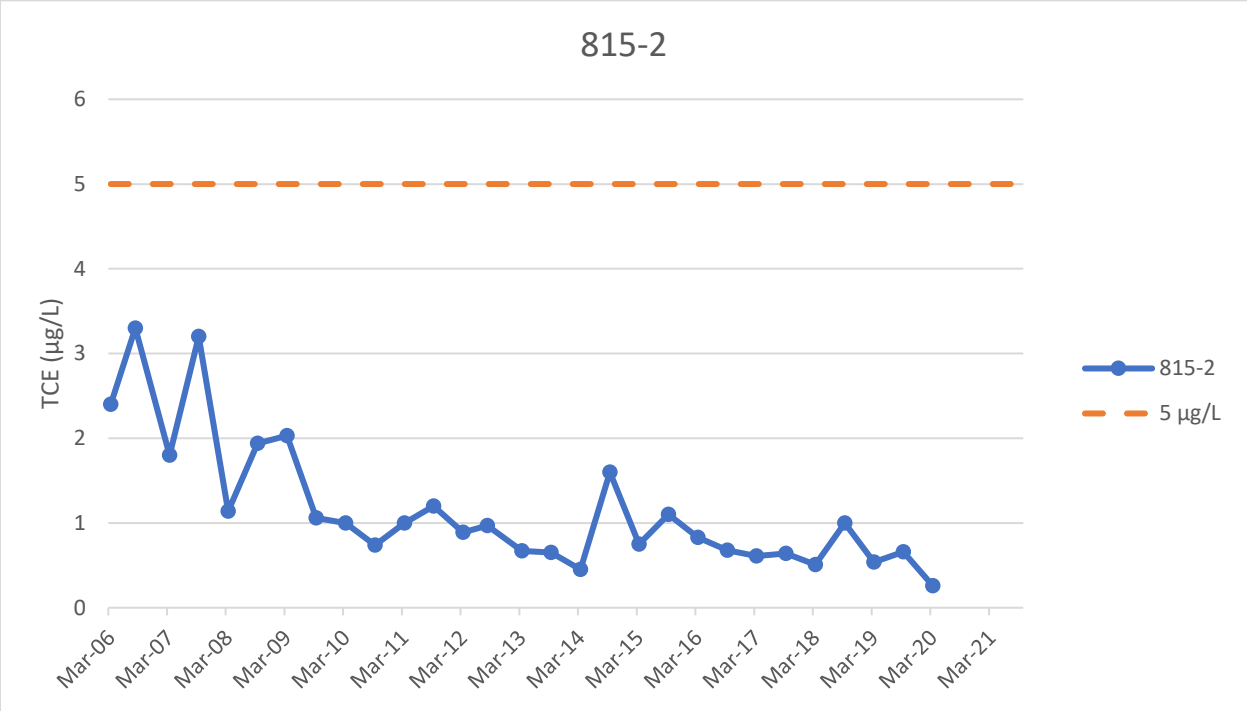
FTP – TPH Concentrations

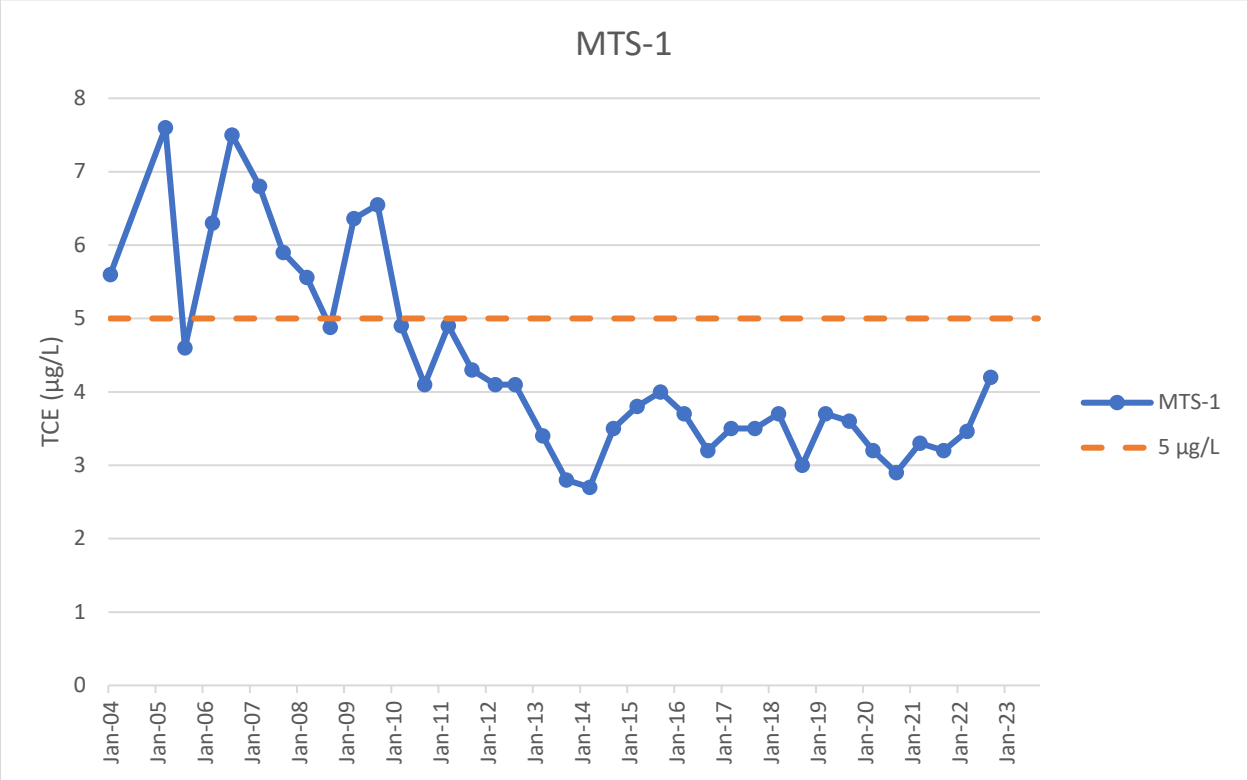


FTP – TPH Concentrations

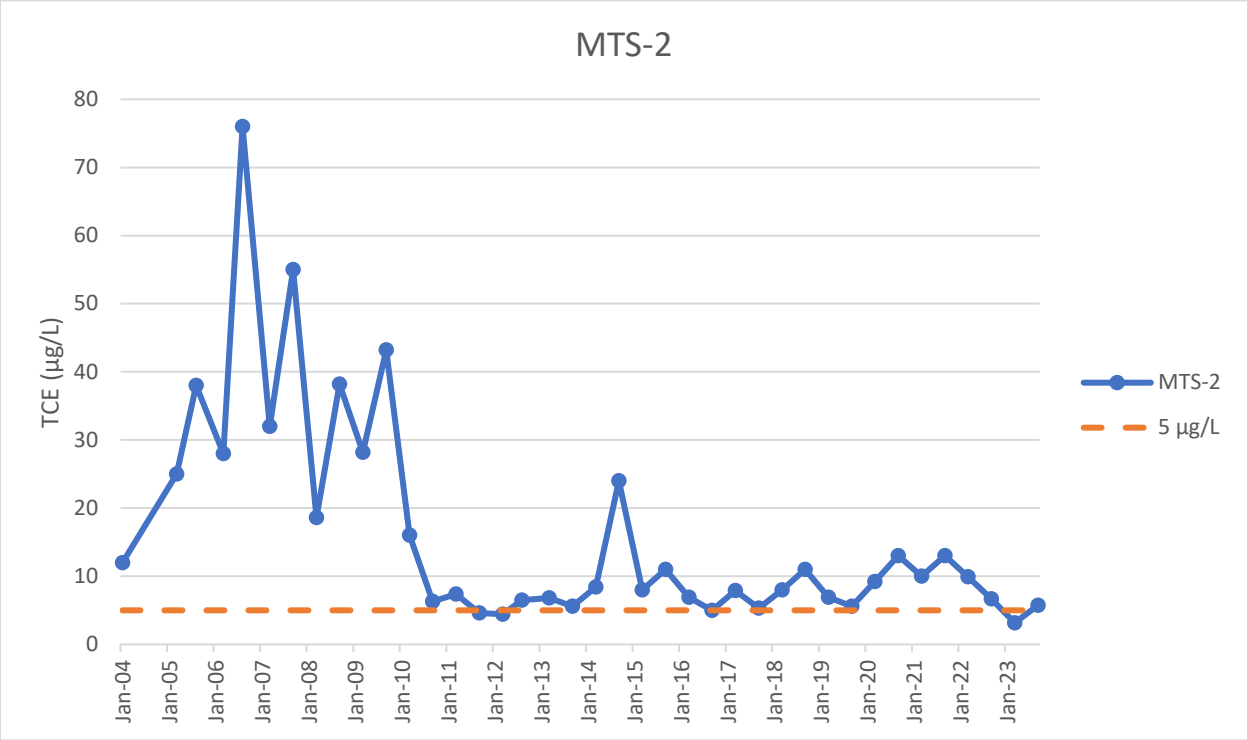


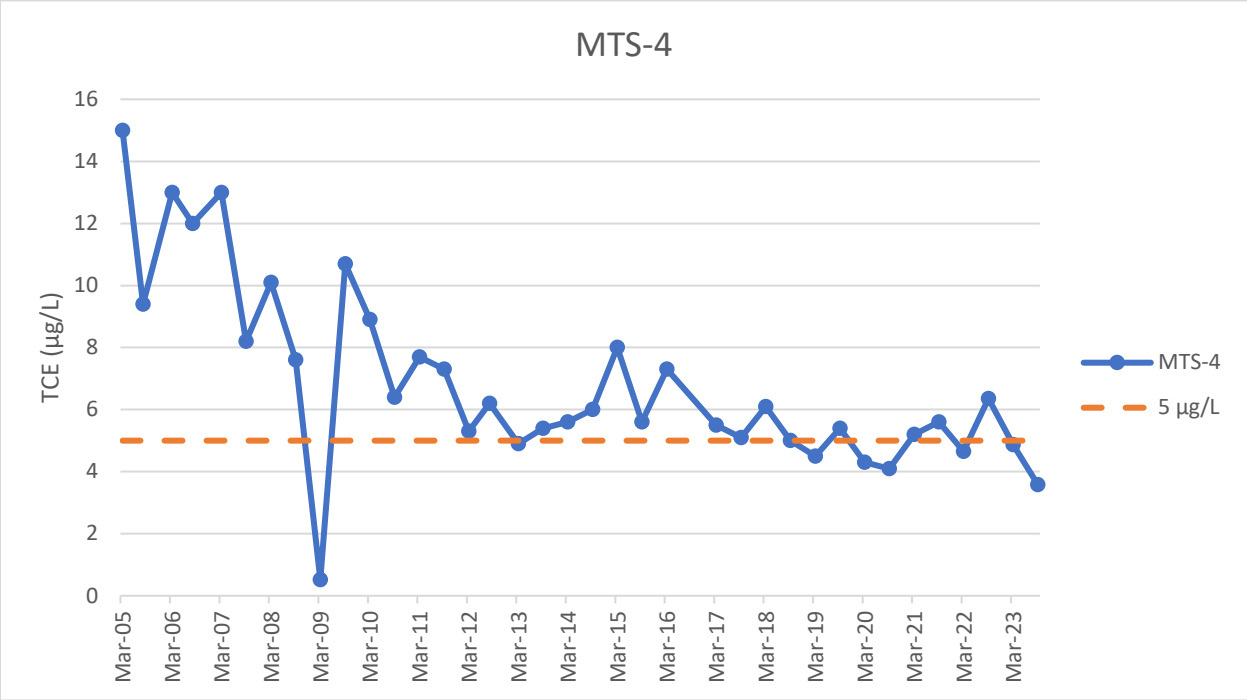
TVR/Old MATES – TCE Concentrations





TVR/Old MATES – TCE Concentrations





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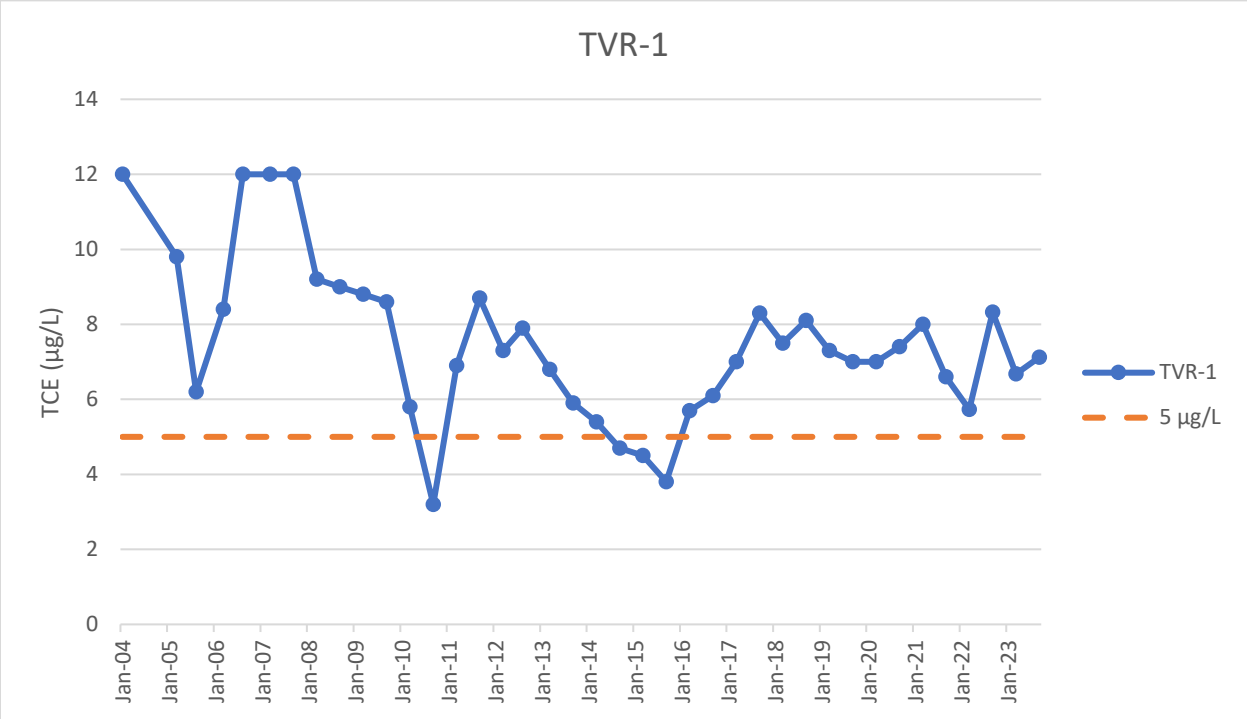

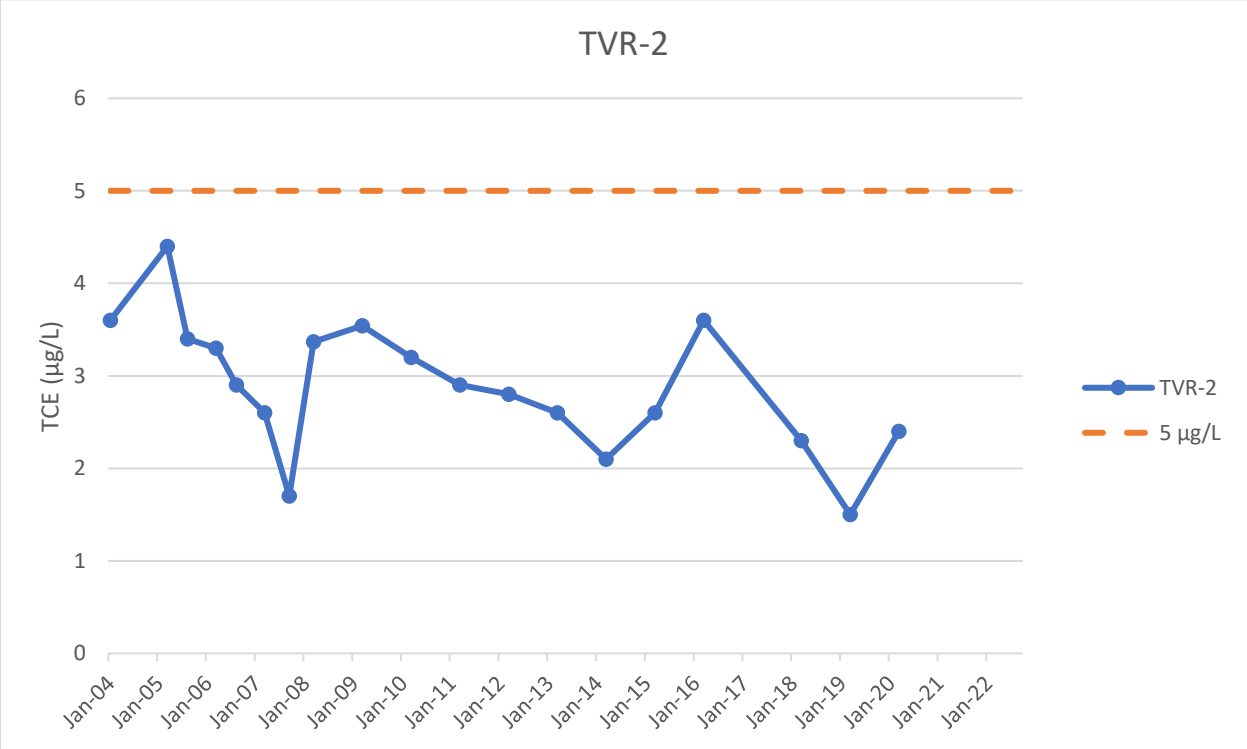

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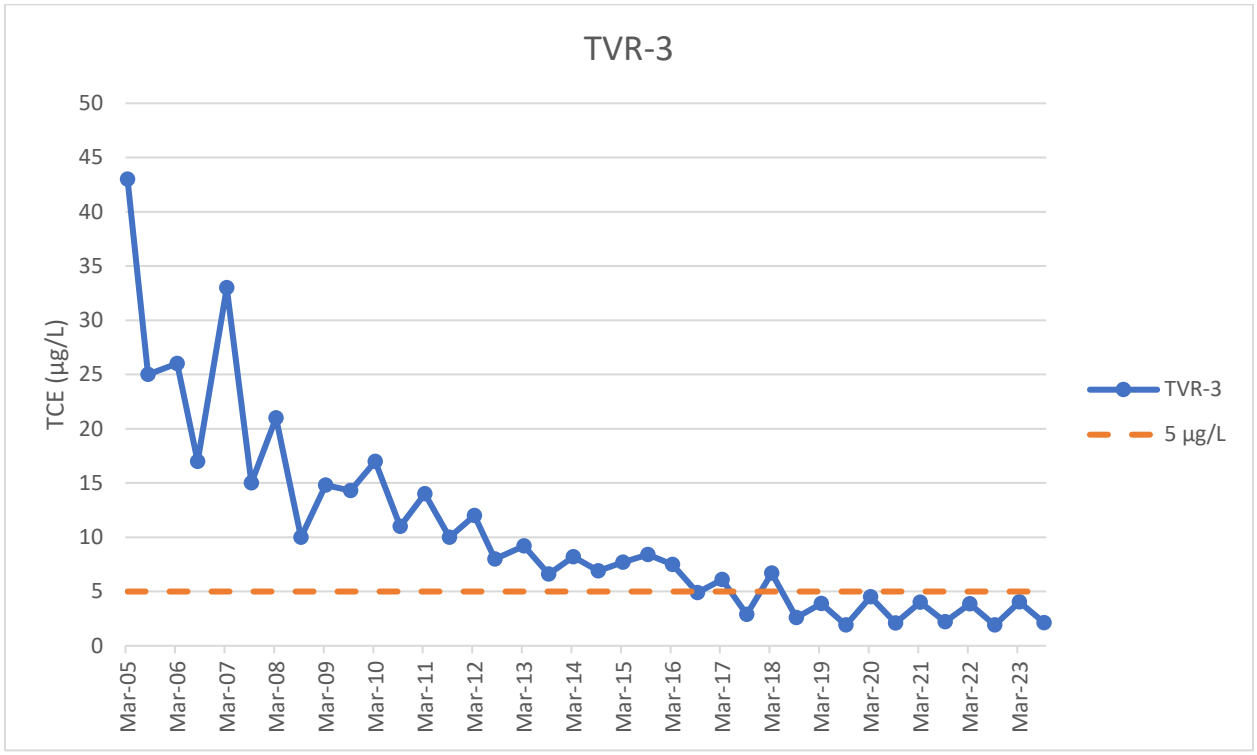
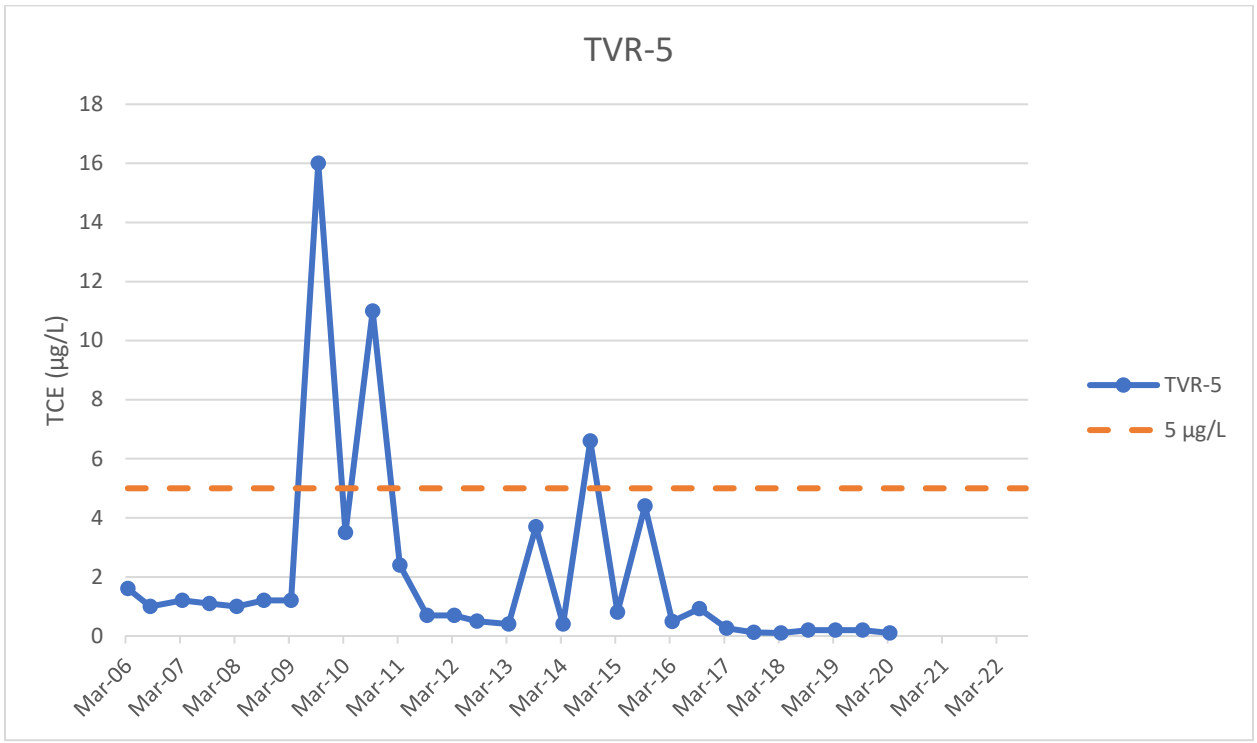
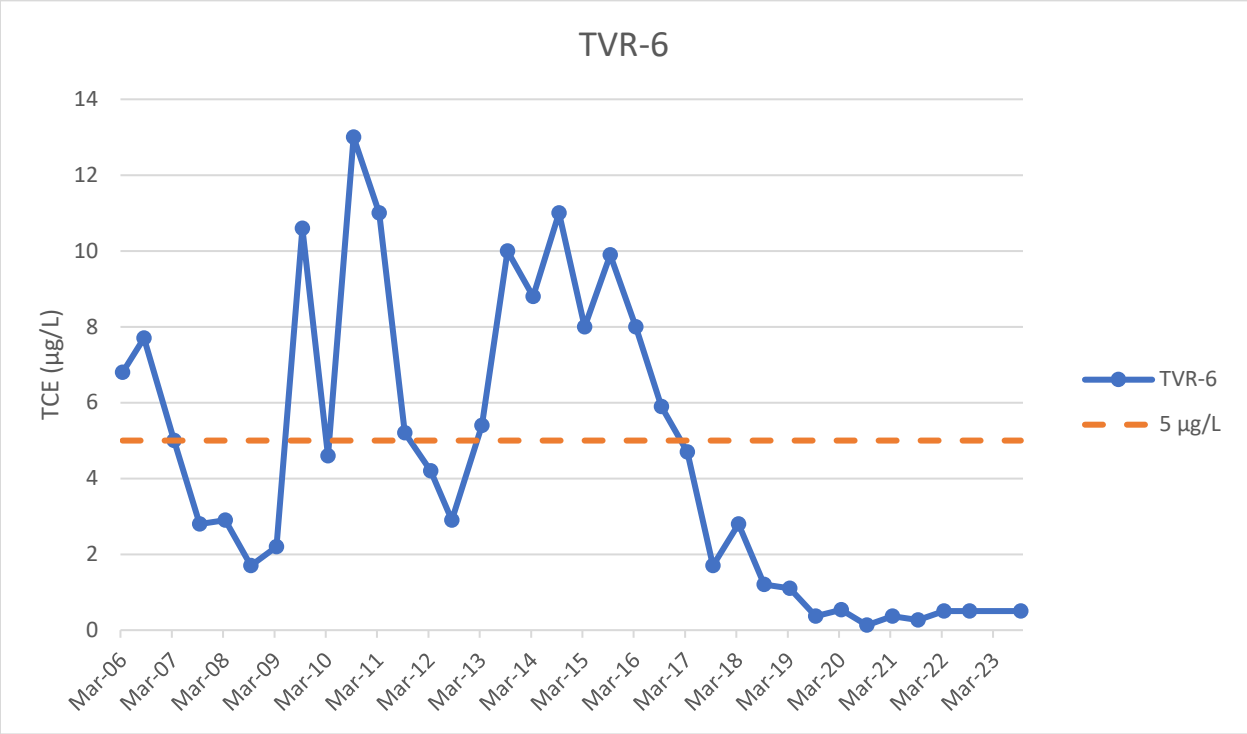
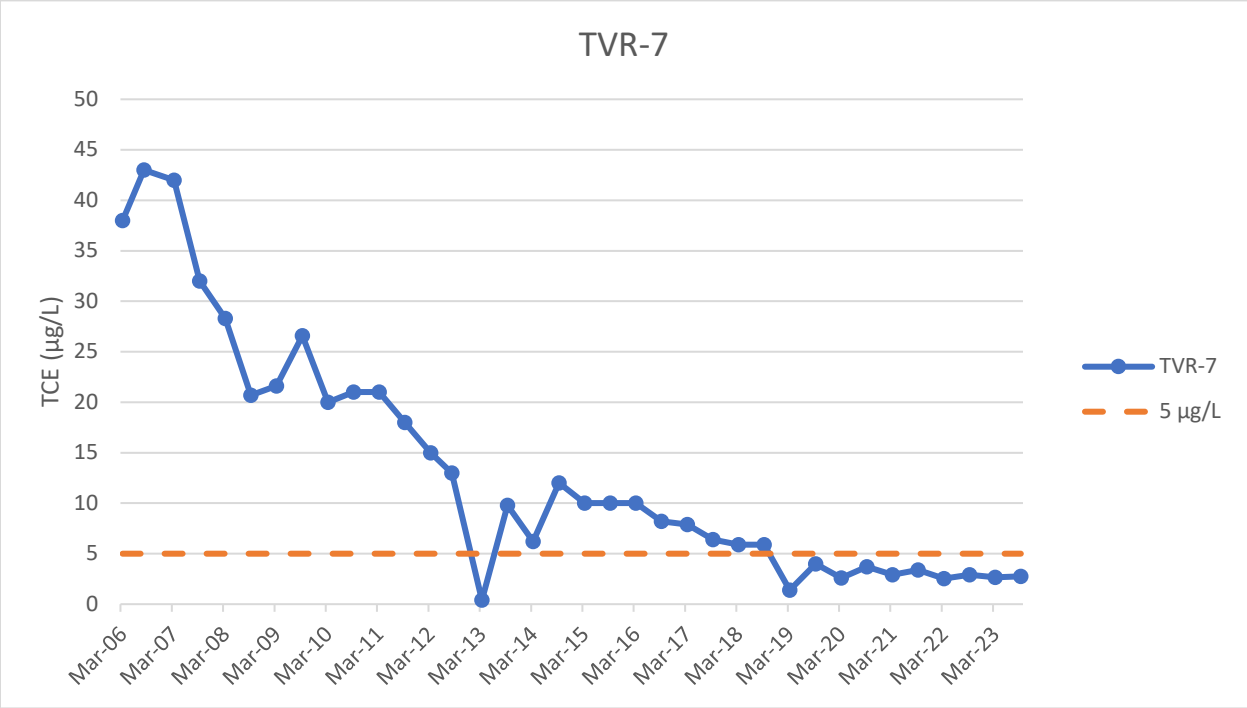




TVR/Old MATES – TCE Concentrations





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APPENDIX C STATISTICS

ANALYSIS OF DATA

Statistical analysis on data from the Fire Training Pit (FTP) and Tracked Vehicle Repair (TVR)/ Old Mobilization and Training Equipment Site (Old MATES) sites followed guidelines presented in the U.S. Environmental Protection Agency's (EPA's) Methods for Evaluating the Attainment of Cleanup Standards, Volume 2: Ground Water (EPA 1992). Statistical analysis was performed only on data from monitoring wells which consisted of less than half non-detects. This included total petroleum hydrocarbons – gasoline range, total petroleum hydrocarbons – diesel range, and total petroleum hydrocarbons – heavy oil range data for monitoring well FTP-1, as well as trichloroethylene data for the following monitoring wells: 815-2, MTS-1, MTS-2, MTS-4, TVR-1, TVR-2, TVR-3, TVR-5, TVR-6, and TVR-7.

Summary statistics (e.g. mean and standard deviation) were calculated using the Microsoft Excel® Descriptive Statistics tool. The Shapiro-Wilk test for normality, linear regression analysis, and Mann-Kendall test for trend were performed using Analyse-it for Microsoft Excel version 5.01. The Mann-Kendall test was performed only on non-parametric data.

All concentration measurements not known to be in error were considered valid. Suspect "outliers" were not removed from the data set and were included. Non-detect data, which represent concentration measurements below the analytical reporting limits, were evaluated at the reporting limit value.

A. SUMMARY STATISTICS

Summary statistics were calculated using Microsoft Excel®'s Descriptive Statistics tool and are shown in Table 6.

B. SHAPIRO-WILK TEST FOR NORMALITY

Prior to analyzing data for trends, the data were tested for normal distribution. A significance level, or alpha level, of 0.05 was used when determining whether current data from monitoring wells was normally distributed. P values, generated using the Shapiro-Wilk test for normality, were then compared to the alpha level. The alpha level is the "cutoff" point for the test statistic in making a decision whether the data was normally distributed or not. P values show the strength of the test in determining whether the data was normally distributed or not. P values range from 0 to 1; the closer a P value is to 1, the closer the dataset is to a normally distribution. P values equal to or below 0.05 (alpha level) were not considered normally distributed.

Datasets that were not considered normally distributed were then transformed by taking the natural logarithm of the original values. The Shapiro-Wilk test for normality was run on the transformed data with the same criteria as the datasets above. Histograms are presented following this discussion.

C. LINEAR REGRESSION AND MANN-KENDALL TREND ANALYSES

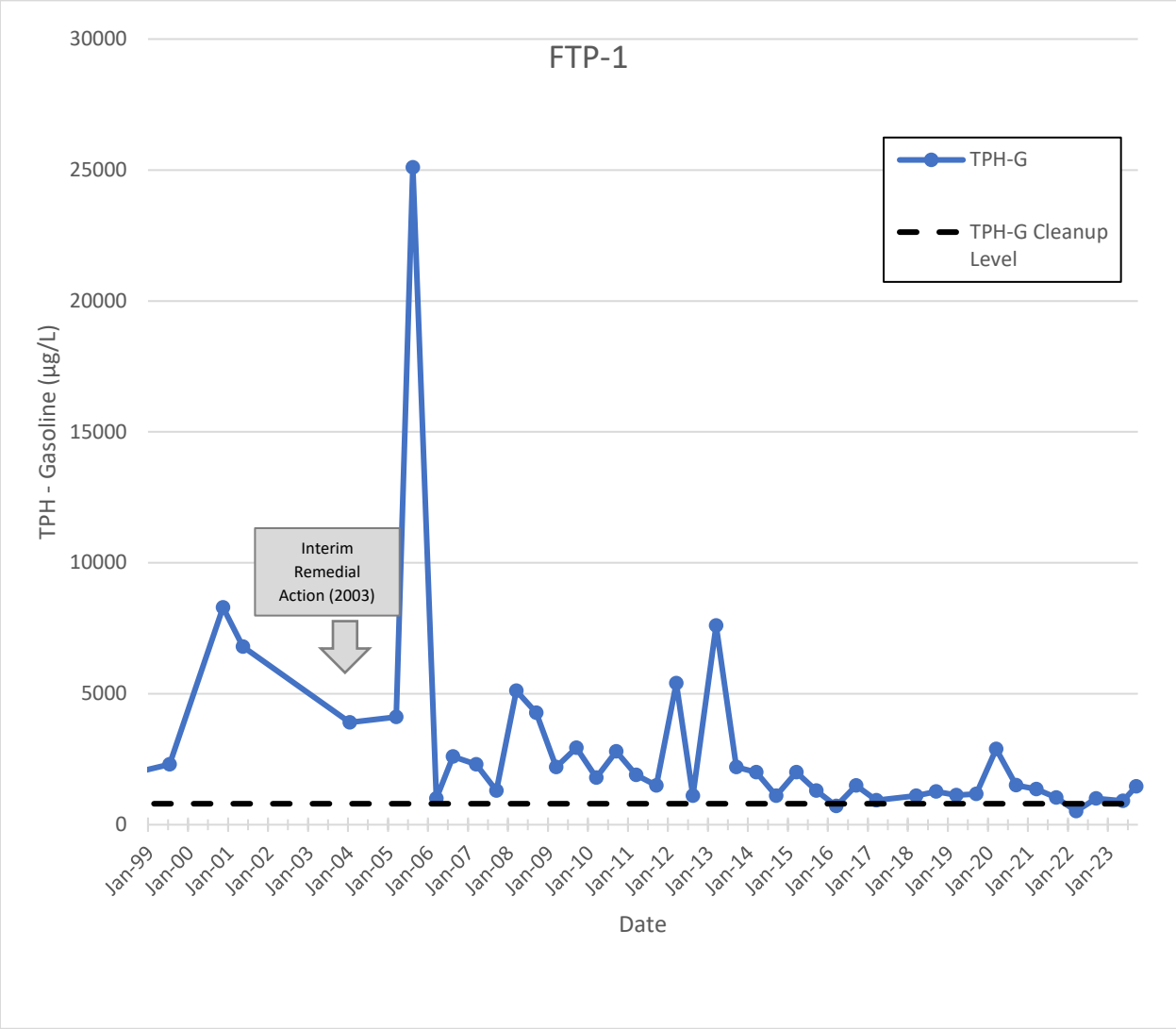
Linear regression trend analyses were conducted on all concentration data that was found to be normally or log-normally distributed. The alpha level for the linear regression analysis was 0.05. P values generated by the analysis were then compared to the alpha level. P values less than the alpha value suggested a trend in the data. Linear regression graphs are presented following this discussion.

The Mann-Kendall test for trend was performed on data that was not normally or log-normally distributed (non-parametric data). No assumptions need to be made about the distribution of the data in order to perform the Mann-Kendall test (Helsel and Hirsch 2002). The alpha level was kept at 0.05, although the Mann-Kendall test computes a P value for a two-tailed prediction interval, and as such the null hypothesis was rejected for P values smaller than 0.025 or larger than 0.975. Mann-Kendall scatter plots are presented following this discussion.

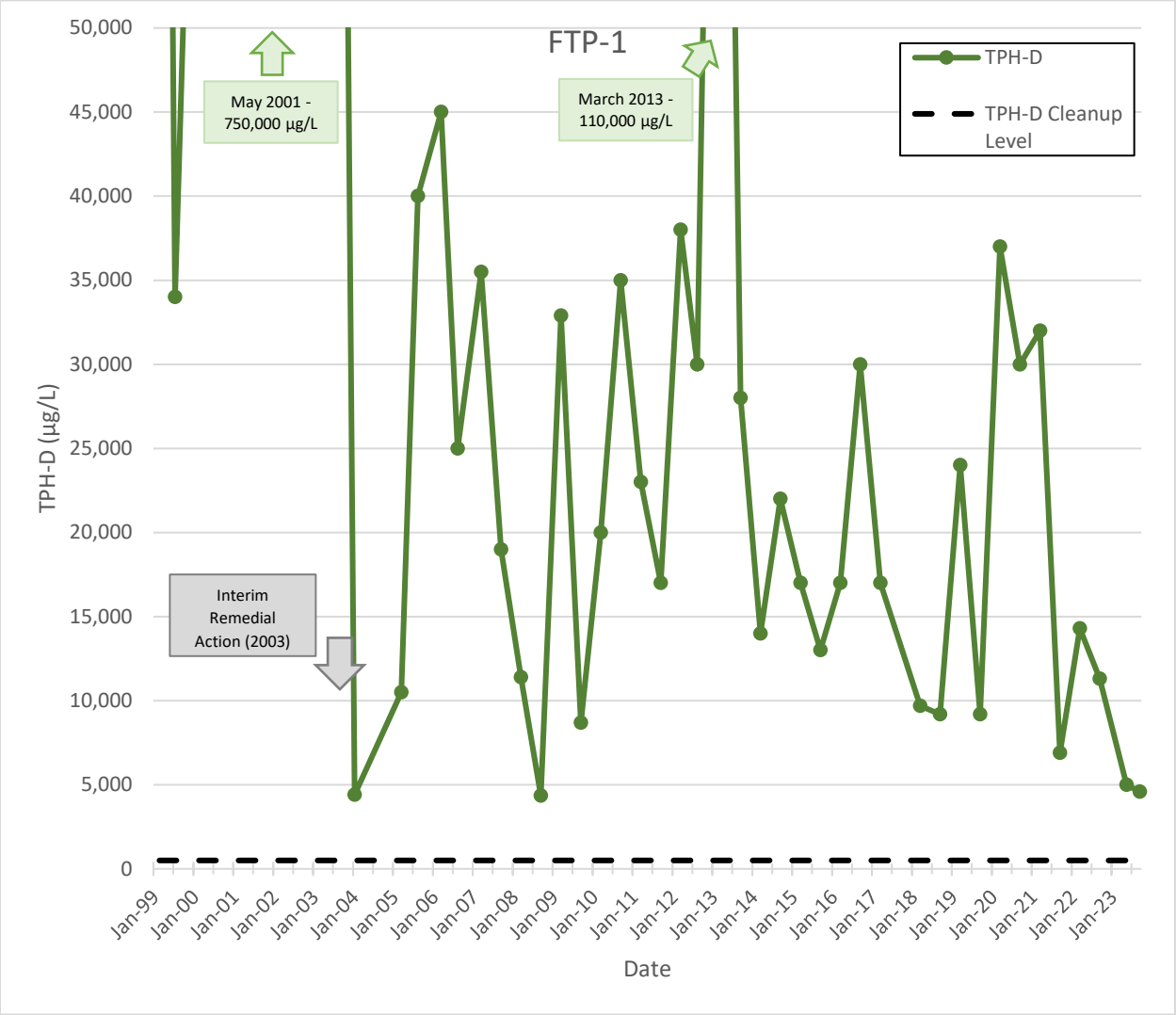
D. TOTAL TOXIC EQUIVALENT CONCENTRATIONS OF CPAHS

During YTC's 5-year review conducted by the U.S. Army Corps of Engineers in 2011, it was noted that the updated 2007 groundwater monitoring plan stated that total carcinogenic polycyclic aromatic hydrocarbons (cPAHs) for the FTP site would be evaluated using the total toxic equivalent concentration (TEC) of the benzo(a)pyrene method outlined in Washington Administrative Code (WAC) 173-340-708(8)(e) (U.S. Army Corps of Engineers 2012). The cPAHs required for this analysis include benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluroanthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene. The concentration of each of these cPAHs is multiplied by its corresponding toxicity equivalency factor (TEF) listed in Table 708-2 (WAC 173-340-900) to obtain the TEC for that cPAH. The TECs from each cPAH are then added together to obtain the total TEC for that sample. If the total TEC is equal to or greater than 0.1, then the cPAHs are above the MTCA Method A cleanup level of 0.1 µg/L for cPAHs. During both the spring and fall 2023 sampling events, the specified cPAHs were not detected in either the primary or duplicate samples from well FTP-1. Accordingly, a TEC was not calculated for the samples (Table 4).

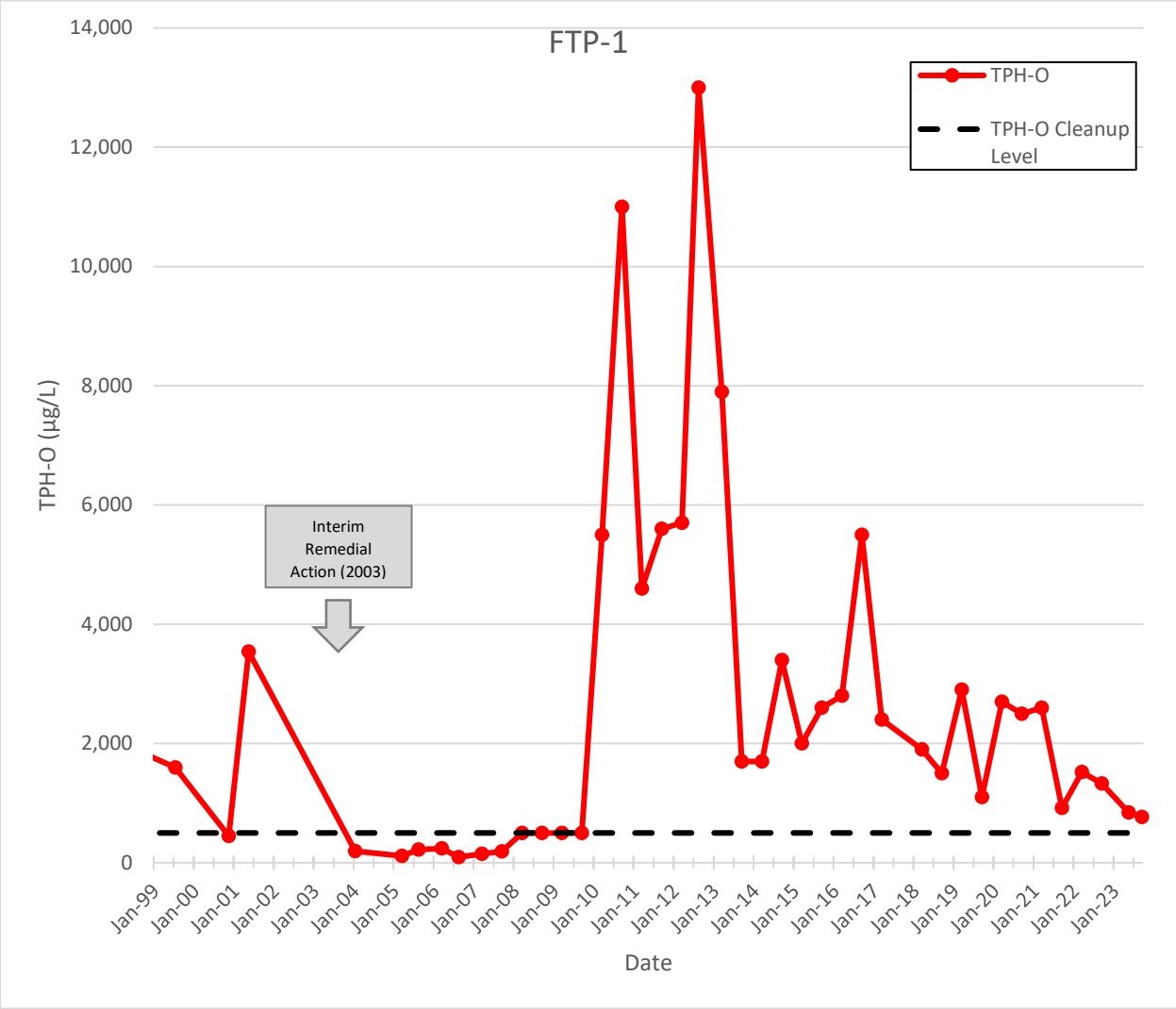
FTP – TPH Concentrations



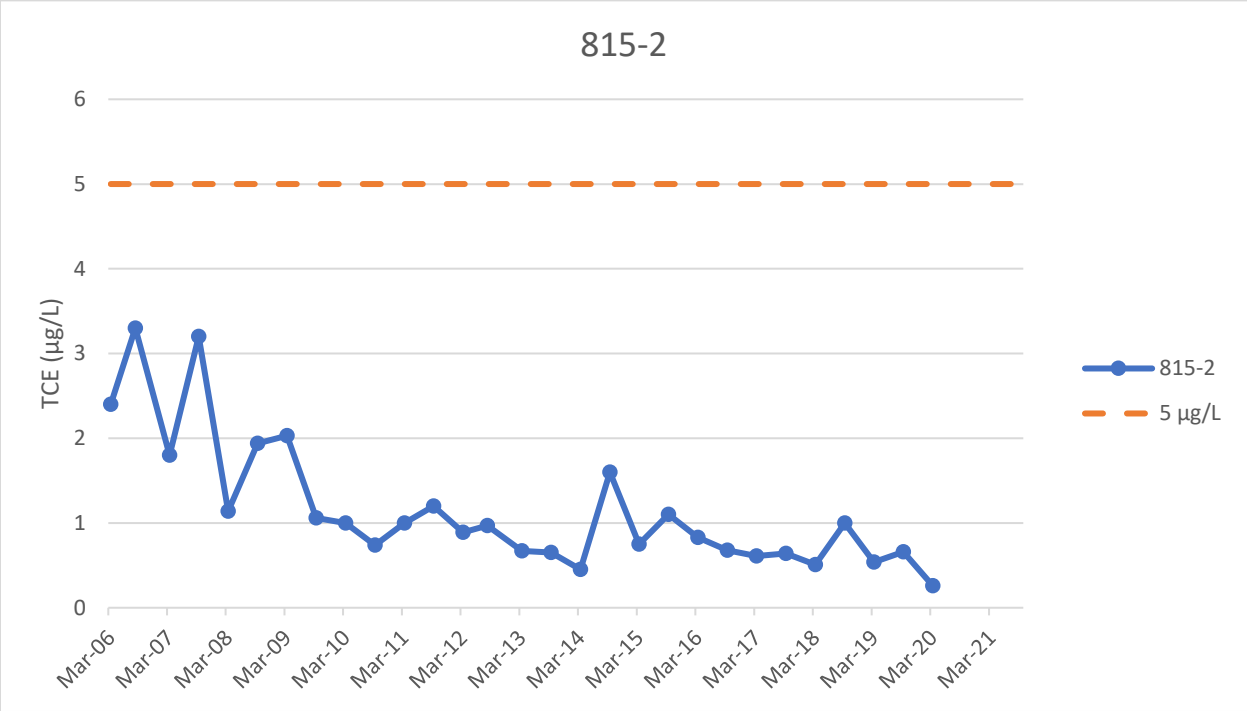
FTP – TPH Concentrations

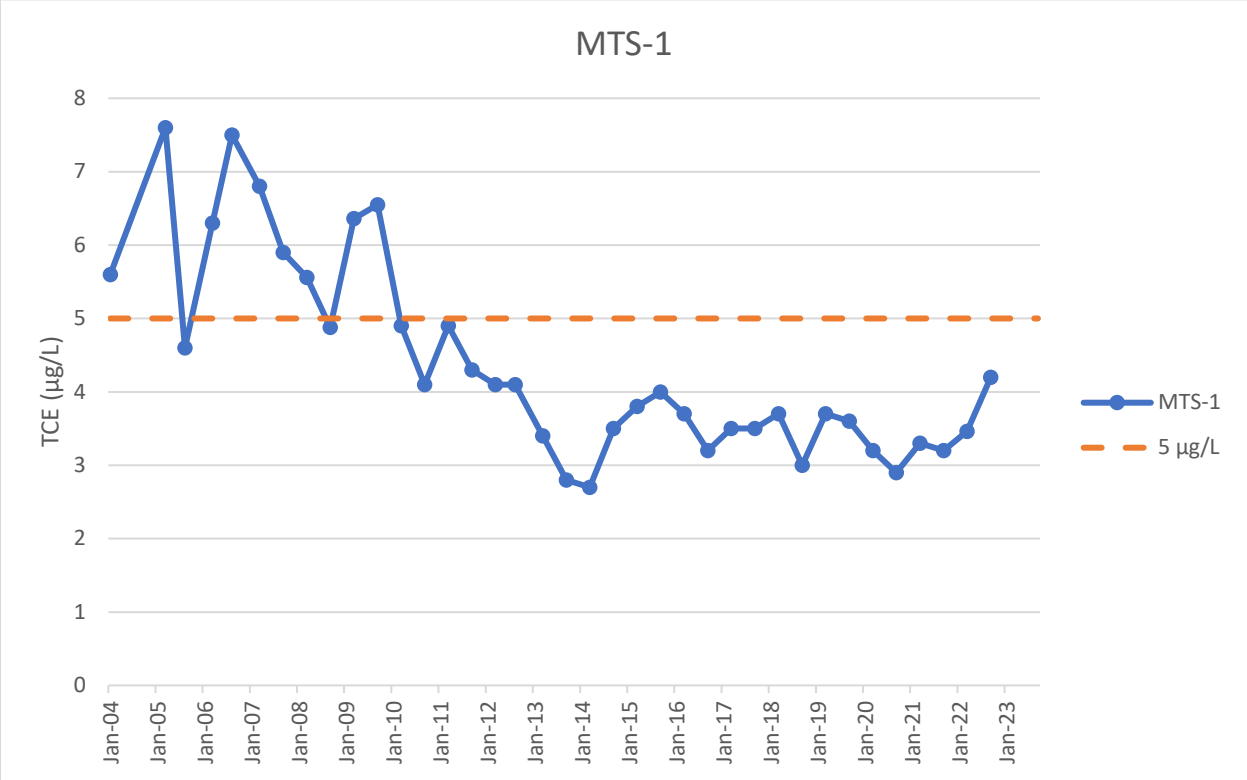


FTP – TPH Concentrations



TVR/Old MATES – TCE Concentrations





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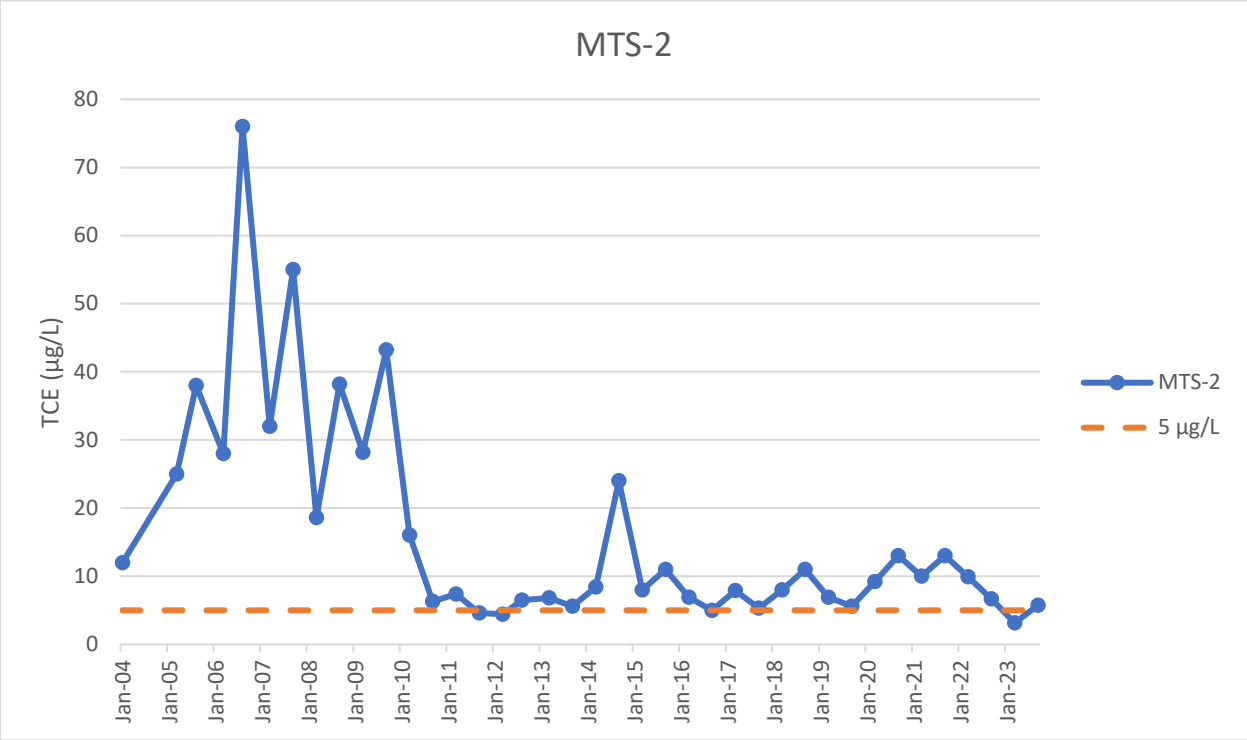

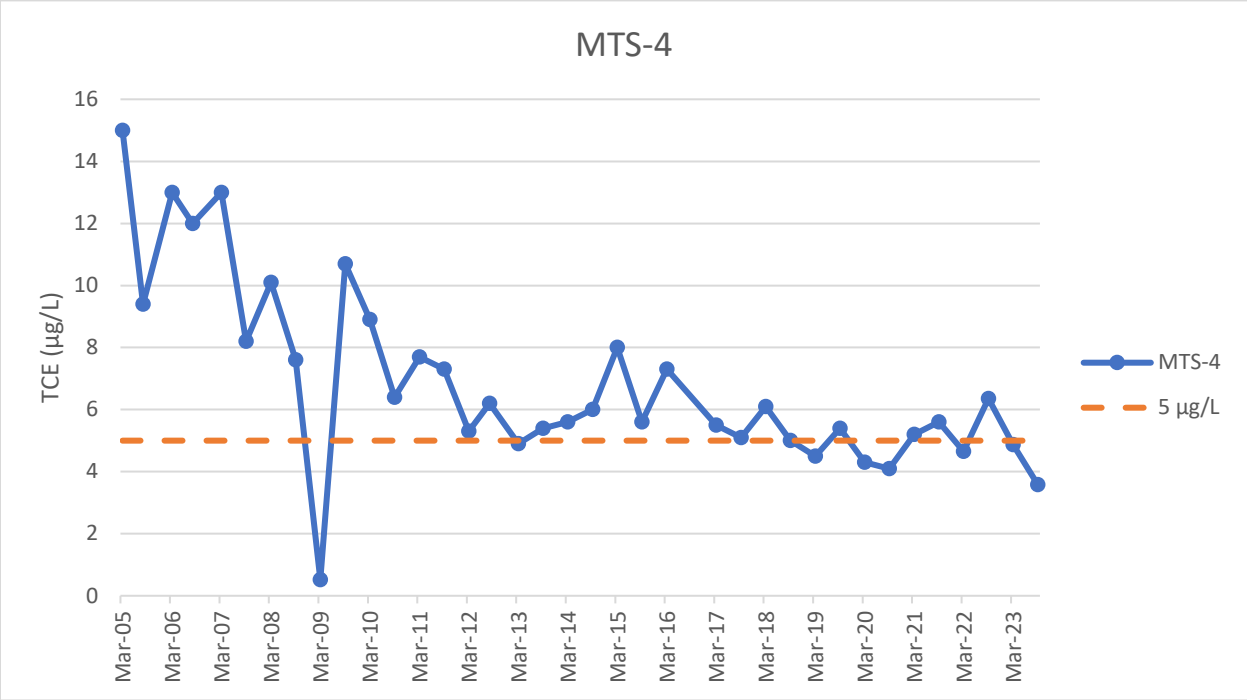

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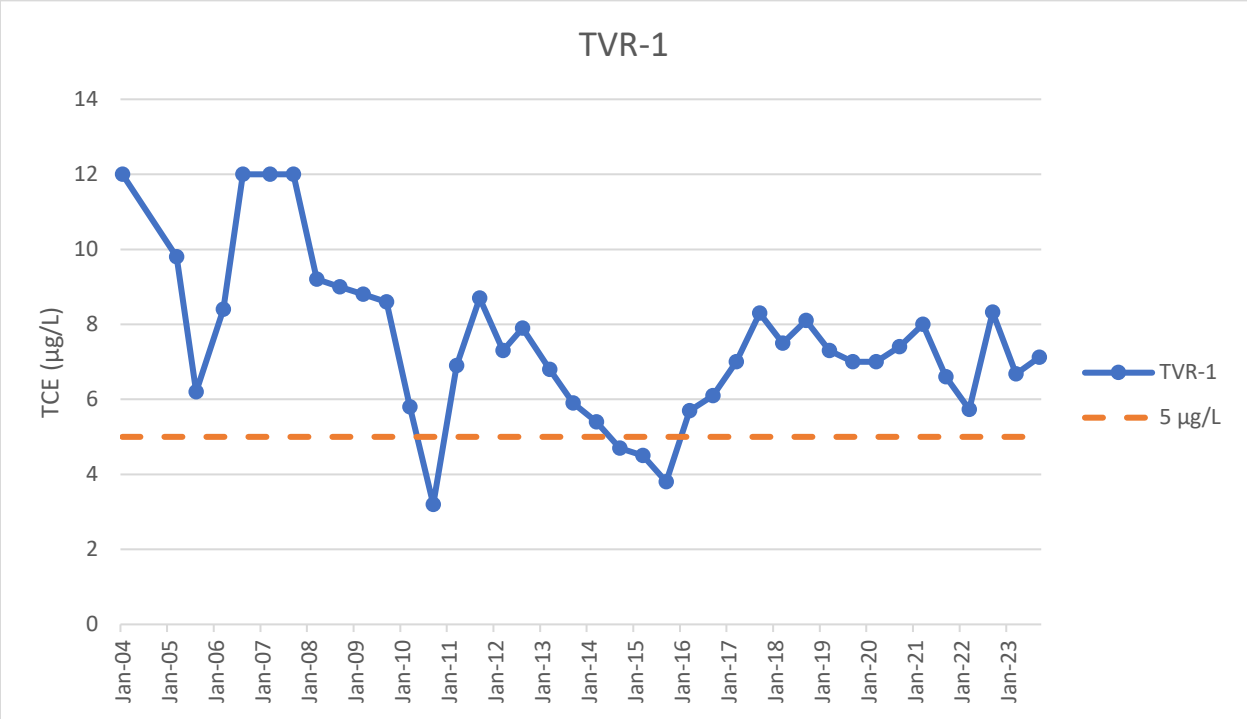

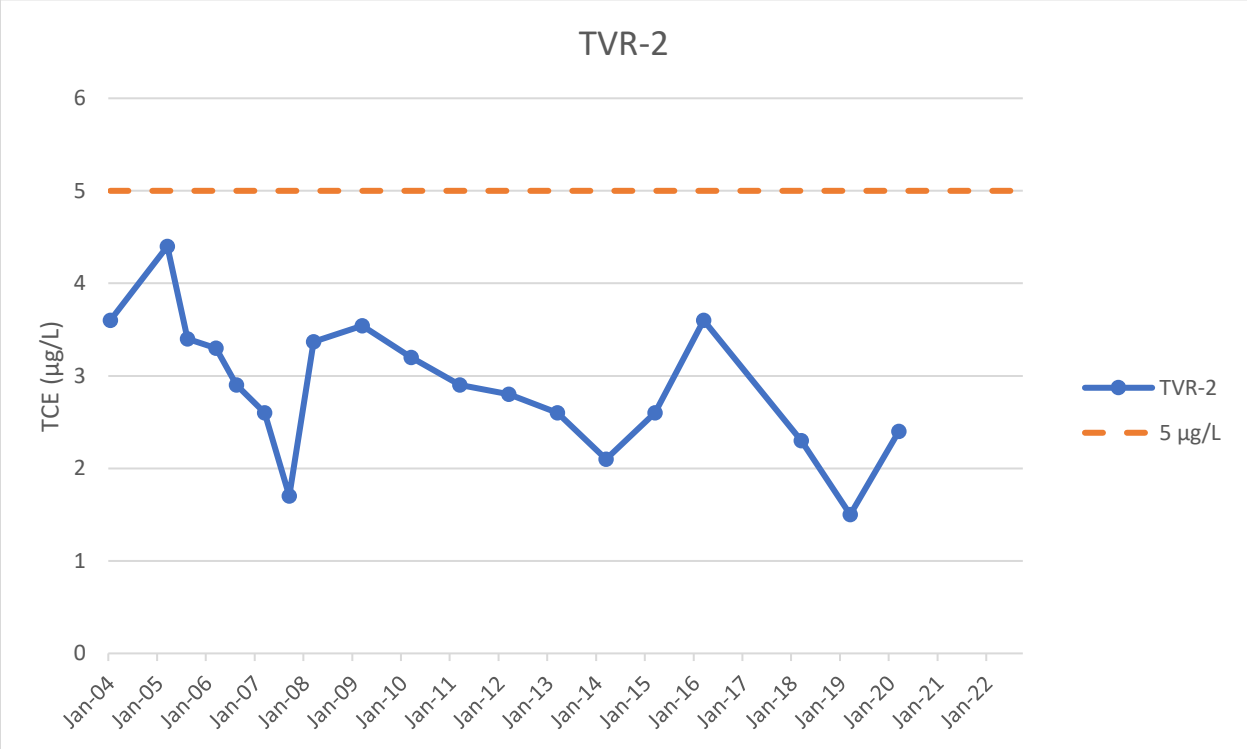

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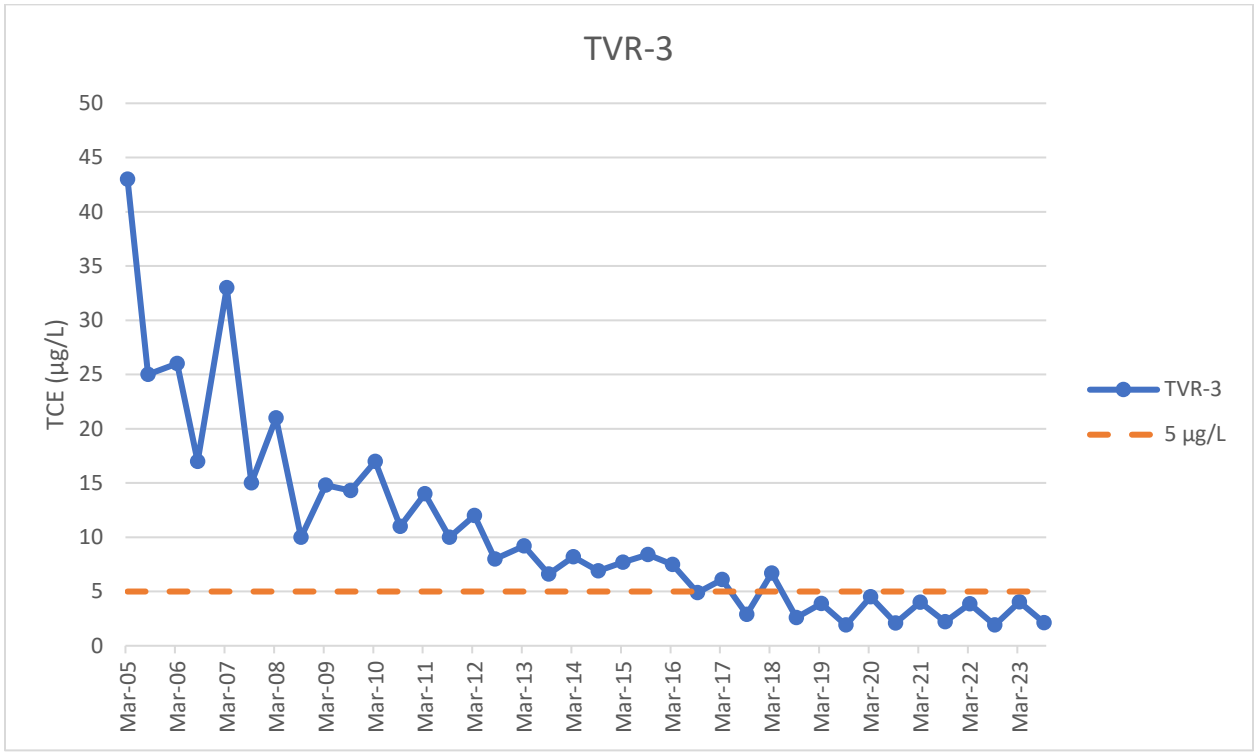

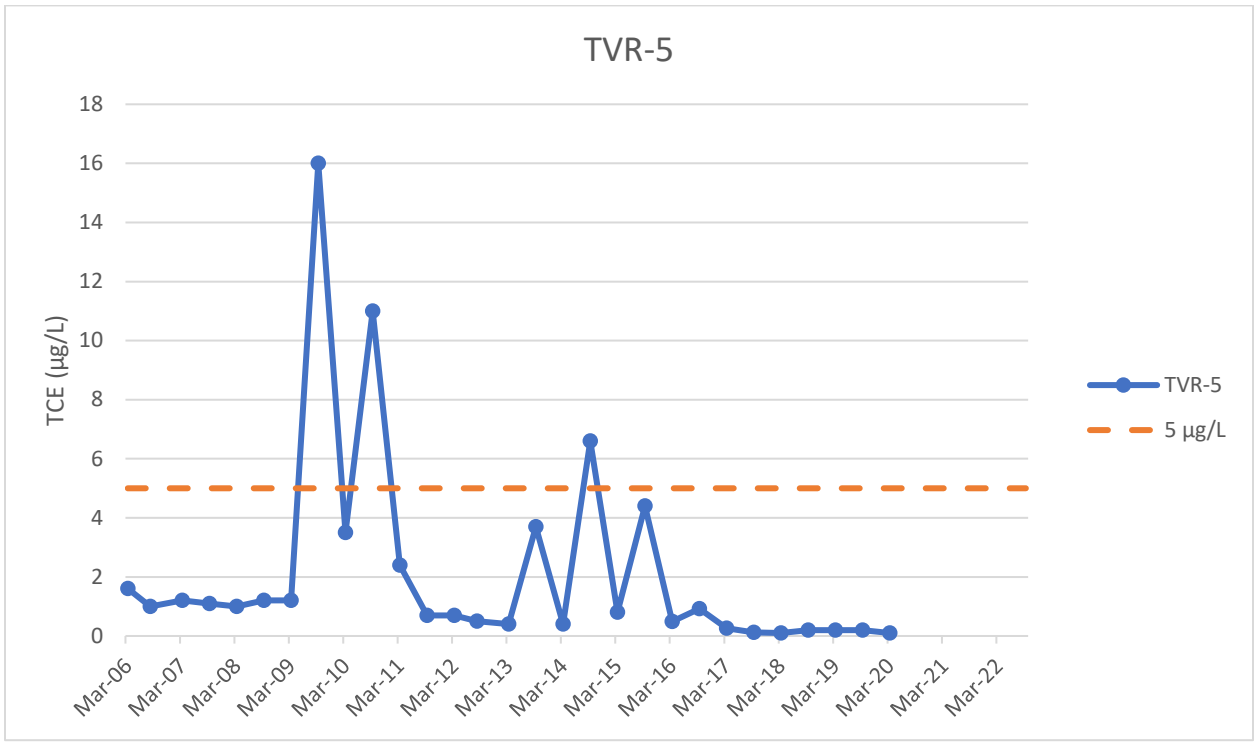

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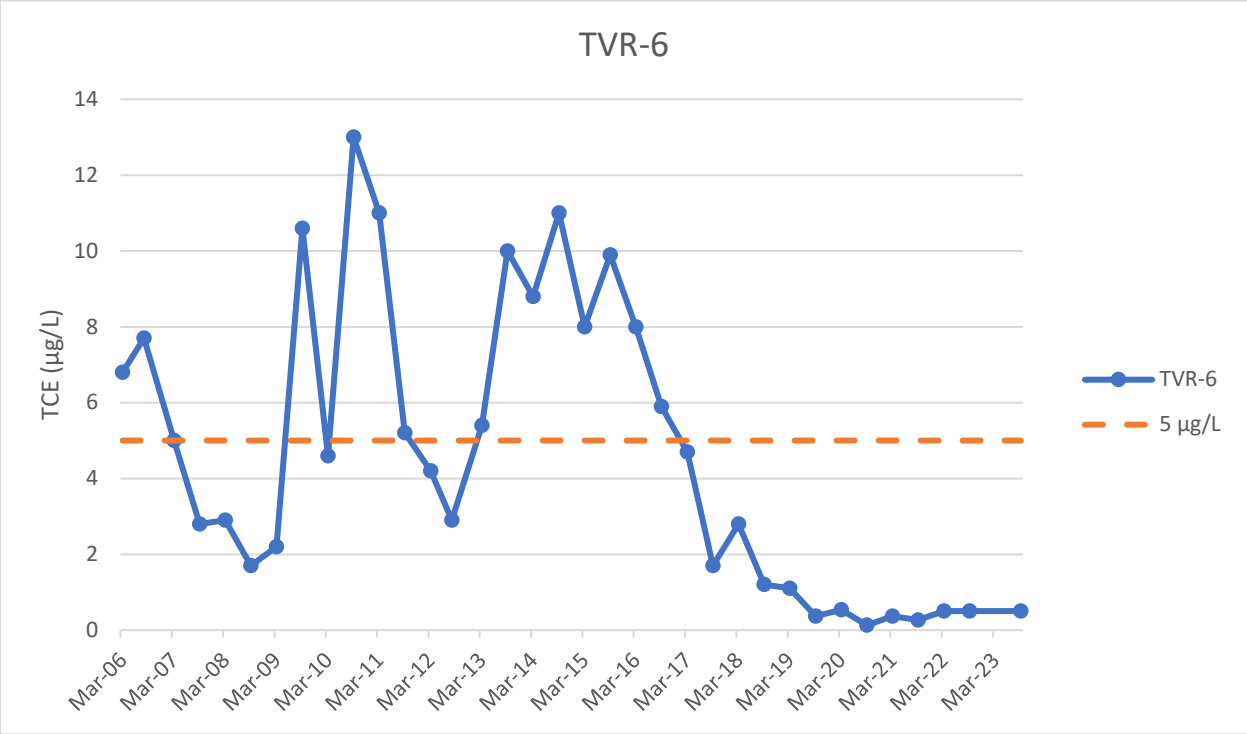

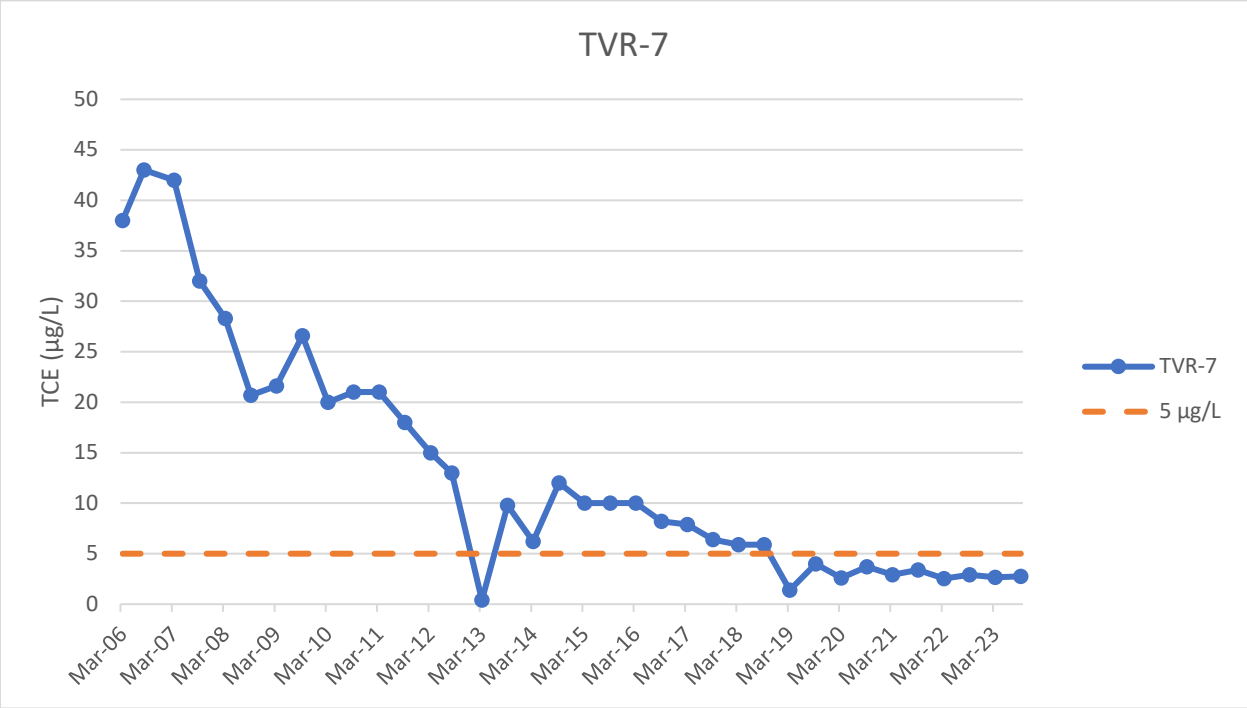

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