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Geologic and Environmental Consulting Services

WA State Department of Ecology
Toxics Cleanup Program/Central Region Office
Attn: Frosti Smith
1250 W. Alder Street
Union Gap, WA, 98903-0009

March 1, 2022

Subject: **Addendum to UST Decommissioning and Excavation Cleanup Report - Irrigation Well and Excavation Cavity Water Sample Analyses**
Klickitat County Courthouse Property
205 S Columbus Avenue
Goldendale, Washington 98620

Dear Ms. Smith,

Martin S. Burck Associates, Inc., (MSBA) has prepared this addendum to the *UST Decommissioning and Excavation Cleanup Report* (Cleanup Report) dated December 16, 2021. This addendum addresses your request to sample the on-site irrigation water well for analysis. In addition, a water sample was collected from within the excavation cleanup area. The sampling activities described herein were performed in general accordance with the MSBA Field Methods and Procedures and the Scope of Work Summary presented in Attachment A. The sampling activities were proposed in a work plan email dated February 4, 2022 and approved by Ecology.

Irrigation Well Purging and Sampling

On February 16, 2022, MSBA collected a water sample from the on-site irrigation well. The sample was collected from a valve located at the well head. The approximate irrigation water well location is illustrated on Figure 1. Based on the apparent drillers log (1946), the well is constructed of 8-inch solid steel casing to a depth of 43 feet and is open to the formation below that with a total depth of 200 feet. The static water level from the drillers log was 6 feet. No seal, other than the solid steel casing, was listed. The calculated volume of water in the well approximately 510 gallons. In order to maintain a water pressure of less than or equal to 60 psi at the well head as stipulated by Klickitat County, a continuous purge rate of approximately 100 gpm was required. Therefore, approximately 3,000 gallons were purged at a separate location during the low flow parameter monitoring, stabilization, and sampling process at the well head. The water was temporarily stored in a tanker truck provided by Klickitat County pending disposal.

Groundwater parameters were monitored during purging using a Horiba U-52 Multi-Probe meter. An equipment blank sample was collected prior to the sampling. The parameters temperature, redox potential, conductivity, dissolved oxygen (DO), and turbidity were monitored during purging until stabilized in accordance with field methods and procedures. The parameters were documented on a Groundwater Parameters field data sheet included in Attachment B.

After the parameters stabilized, irrigation water well sample ***Irrigation Well*** and field duplicate ***Irrigation Well (2)*** were collected. The water samples and equipment blank were submitted to Pace Analytical for laboratory analysis of gasoline using method NWTPH-Gx and volatile organic compounds (VOCs) using method 8260D, which were either not detected or present at concentrations below the applicable MTCA Method A cleanup levels (CULs). The only constituent detected in samples ***Irrigation Well*** and field duplicate ***Irrigation Well (2)*** was tetrachloroethylene (PCE) at relatively low concentrations of 0.302 ppb and 0.325 ppb, which is below the CUL of 5 ppb. PCE has not been detected in any soil or water samples collected at the site, therefore, it appears the detection may be the result of an off-site source. MSBA noted that a former dry cleaner site (Triplex Cleaners, Cleanup Site ID #4660) is located approximately 230 feet southeast of the irrigation well (Figure 1). PCE was not detected in the equipment blank sample, however, low concentrations of non-target VOCs bromodichloromethane, chlorodibromomethane, and chloroform were detected. The non-target VOCs were not detected in the irrigation well sample and are potentially due to excess pipe thread compound that was observed on the well head manifold. MSBA performed a quality control review of the laboratory analytical report and concludes that these water sample data can be relied on for the intended purpose of this investigation. A copy of the laboratory analytical report is presented in Attachment C. The groundwater sample results are listed in Tables 1 and 2. Based on the analytical results, the county plans to dispose of the purge water in accordance with best management practice (BMP) C236:E Vegetative Filtration.

Excavation Cleanup Cavity Water Sampling

On February 16, 2022, MSBA collected a water sample from the excavation cleanup cavity using a peristaltic pump. The excavation cavity was not purged, although a small volume of water was run through the tubing prior to sample collection. The water was approximately 3 feet deep at the collection point near the east sidewall of the excavation. Water sample ***Excavation Cavity Water*** was collected and submitted to Pace Analytical for laboratory analysis of diesel and oil using method NWTPH-Dx, gasoline using method NWTPH-Gx, volatile organic compounds (VOCs) using method 8260D, polycyclic aromatic hydrocarbons (PAHs), and total cadmium, chromium, and lead, which were either not detected or present at concentrations below the applicable CULs. MSBA performed a quality control review of the laboratory analytical report and concludes that these water sample data can be relied on for the intended purpose of this investigation. A copy of the laboratory analytical report is presented in Attachment C. The water sample results are listed in Tables 1 and 2.

Summary and Conclusions

No analytes related to the on-site release were detected in the irrigation well water samples. Relatively low concentrations of PCE were detected at concentrations below the CUL and are attributed to an off-site source. The well is constructed with a solid steel casing to 43 feet and appears to draw water through the open formation from 43 to 200 feet. Regulatory concentrations of COCs were removed from the soil at the former tank cavity during the excavation cleanup. In addition, the COCs were not present in shallow perched groundwater samples collected before the cleanup. Based on these data, MSBA concludes the site appears to be in compliance with the applicable Ecology regulations consistent with the recommendation for closure (Closure Report).

Remarks/Signatures

The information/conclusions contained in this report were arrived at in accordance with currently accepted professional geological and environmental practices at this time and location, no warranties are intended or implied. This report was prepared solely for Klickitat County; Martin S. Burck Associates, Inc. is not responsible for the independent interpretations, conclusions, or actions of others derived from or based on the information presented herein.

Information and opinions presented in this report are based on the collection and review of data from limited portions of the site subsurface and surroundings. Martin S. Burck Associates, Inc. is not responsible for conditions that may exist in portions of the site that were not investigated, for conditions that were not reported or properly presented, and for future activities or investigations that may alter the current condition or understanding of the site.

Please contact me at (541) 387-4422 if you have any questions regarding this addendum.

Sincerely,

Martin S. Burck Associates, Inc.

Prepared By:

Josh Owen — 3/1/22
Project Manager — Date

Reviewed By:

Martin S. Burck, LG/RG — 3/1/2022
Licensed/Registered Geologist: OR WA CA — Date

Figure 1 Area Layout Map
Table 1 Water Sample Analytical Data - PHCs and VOCs
Table 2 Water Sample Analytical Data - PAHs, RCRA 8 Metals, & PCBs
Attachment A Field Methods and Procedures
Scope of Work Summary
Attachment B Groundwater Parameters
Attachment C Laboratory Analytical Report

State of Washington 1321 Licensed Geologist
Martin S. Burck

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Figure

Figure 1 Area Layout Map

Adapted from: Google Earth Image (9/28/20)

Revised: 3/1/2022 1:49 PM

Inferred Shallow Groundwater Flow Direction Based on Reports from Nearby Sites (Others)

NORTH

0 60 120

Approximate Scale (feet)

MSBA

Martin S. Burck Associates, Inc.

Geologic and Environmental Consulting Services

FIGURE 1

AREA LAYOUT MAP

Klickitat County Courthouse
205 S Columbus Avenue
Goldendale, WA

S:\Project Files\Allyn St USTs-Goldendale\Figures\Addendum\F 1 Area Layout.vsd

Tables

TABLE 1
WATER SAMPLE ANALYTICAL DATA - PHCs & VOCs

Klickitat County Courthouse
205 S Columbus Ave
Goldendale, WA 98620

Sample ID	Sample Date	PHCs [a] (ppb) [b]				VOCs [c] (ppb)																												
						BTEX [d] VOCs				Detected Additional VOCs																										
		HCID (G, D, O) [e]	Gasoline	Diesel	Oil	Benzene	Toluene	Ethylbenzene	Total Xylenes	1,2-Dichloroethane	1,2-Dichloropropane	1,1,2,2-Tetrachloroethane	Isopropylbenzene	N-Propylbenzene	2-Chlorotoluene	4-Chlorotoluene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane (EDB) [f]	sec-Butylbenzene	p-Isoprppylyoluene	n-Butylybenzene	Styrene	tert-Butylbenzene	Chloromethane	Chloroethane	1,2,3-Trichloropropane	Naphthalene	Tetrachloroethene	Acetone	Bromodichloromethane	Chloroform	Chlorodibromomethane
Tank Content Samples																																		
UST1-H2O	10/6/21	G,D,O	- [g]	-	-	**1.5** [h]	**1.0**	**2.4**	**9.6**	**7.9** [i]	< 0.23 [j]	**3.0**	**4.2**	**5.7**	**1.3**	**0.29** [k]	**6.8**	**9.4**	**2.3** [k]	< 0.20	**4.7**	**8.5**	**10**	**0.25** [k]	**0.79** [k]	< 0.50	< 0.40	< 0.50	**88**	< 0.22	-	< 0.29	< 0.24	-
UST2-H2O	10/6/21	G,D	-	-	-	**190**	**1,500**	**330**	**2,720**	**8.5**	**0.75** [k]	**3.3**	**72**	**95**	**63**	< 0.26	**240**	**640**	**3.1** [k]	< 0.20	**20**	**26**	**25**	**22**	**1.9**	**1.9** [k]	**1.7** [k]	**8.2**	**67**	< 0.22	-	< 0.29	< 0.24	-
Groundwater Samples																																		
UST Cavity GW	10/14/21	G,D	**430**	**320**	< 160	< 0.093	< 0.31	< 0.20	**0.33** [k]	< 0.31	< 0.23	< 0.32	**0.86** [k]	**0.35** [k]	< 0.36	< 0.26	< 0.32	< 0.31	< 1.5	< 0.0025 [l]	**1.0**	**0.70** [k]	**0.46** [k]	< 0.24	**0.31** [k]	**0.51** [k]	< 0.40	< 0.50	**1.1** [k]	< 0.22	-	< 0.29	< 0.24	-
UST Cavity GW (2)	10/14/21	G,D	**470**	**340**	< 130	< 0.093	< 0.31	< 0.20	< 0.44	< 0.31	< 0.23	< 0.32	**0.87** [k]	< 0.25	< 0.36	< 0.26	< 0.32	**0.39** [k]	< 1.5	< 0.0025 [l]	**0.95** [k]	**0.76** [k]	**0.55** [k]	< 0.24	**0.25** [k]	< 0.50	< 0.40	< 0.50	**0.82** [k]	< 0.22	-	< 0.29	< 0.24	-
Excavation Cavity Water	2/16/22	-	< 100	**210**	< 250	< 0.0400	< 0.200	< 0.100	< 0.260	< 0.100	< 0.200	< 0.100	< 0.100	< 0.200	< 0.100	< 0.200	< 0.200	< 0.200	< 1.00	< 0.0200	< 0.500	< 0.200	< 0.500	< 0.500	< 0.200	< 0.500	< 0.200	< 0.500	< 0.500	< 0.100	**46.4**	< 0.100	< 0.100	< 0.100
Irrigation Well	2/16/22	-	< 100	-	-	< 0.0400	< 0.200	< 0.100	< 0.260	< 0.100	< 0.200	< 0.100	< 0.100	< 0.200	< 0.100	< 0.200	< 0.200	< 0.200	< 1.00	< 0.0204	< 0.500	< 0.200	< 0.500	< 0.500	< 0.200	< 0.500	< 0.200	< 0.500	< 0.500	**0.302**	< 10.0	< 0.100	< 0.100	< 0.100
Irrigation Well (2)	2/16/22	-	< 100	-	-	< 0.0400	< 0.200	< 0.100	< 0.260	< 0.100	< 0.200	< 0.100	< 0.100	< 0.200	< 0.100	< 0.200	< 0.200	< 0.200	< 1.00	< 0.0204	< 0.500	< 0.200	< 0.500	< 0.500	< 0.200	< 0.500	< 0.200	< 0.500	< 0.500	**0.325**	< 10.0	< 0.100	< 0.100	< 0.100
Trip Blank and Equipment Blank Samples																																		
Trip Blank	10/14/21	-	-	-	-	< 0.093	< 0.31	< 0.20	< 0.44	< 0.31	< 0.23	< 0.32	< 0.24	< 0.25	< 0.36	< 0.26	< 0.32	< 0.31	< 1.5	< 0.20	< 0.22	< 0.27	< 0.20	< 0.24	< 0.12	< 0.50	< 0.40	< 0.50	< 0.63	< 0.22	< 0.63	< 0.29	< 0.24	-
Trip Blank	11/1/21	-	< 70	-	-	< 0.093	< 0.31	< 0.20	< 0.44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trip Blank	2/16/22	-	-	-	-	< 0.0400	< 0.200	< 0.100	< 0.260	< 0.100	< 0.200	< 0.100	< 0.100	< 0.200	< 0.100	< 0.200	< 0.200	< 0.200	< 1.00	< 0.100	< 0.500	< 0.200	< 0.500	< 0.500	< 0.200	< 0.500	< 0.200	< 0.500	< 0.500	< 0.100	< 10.0	< 0.100	< 0.100	< 0.100
Equip 1	11/1/21	O	< 70	< 0.11	**160** [k]	< 0.093	< 0.31	< 0.20	< 0.44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equip 2	2/16/22	-	< 100			< 0.0400	< 0.200	< 0.100	< 0.260	< 0.100	< 0.200	< 0.100	< 0.100	< 0.200	< 0.100	< 0.200	< 0.200	< 0.200	< 1.00	< 0.0210	< 0.500	< 0.200	< 0.500	< 0.500	< 0.200	< 0.500	< 0.200	< 0.500	< 0.500	< 0.100	< 10.0	**0.268**	**0.232**	**0.134**
MTCA Method A Groundwater Cleanup Levels																																		
Unrestricted Land Uses		**-**	800 / 1,000 [m]	500	500	5	1,000	700	1,000	5	- - [n]	- -	- -	5	5	- -	- -	- -	- -	0.01	- -	- -	- -	- -	- -	- -	- -	- -	160	5	- -	- -	- -	- -

a Petroleum hydrocarbons (PHCs) were analyzed using NWTPH methods Gx (gasoline) and Dx (diesel and oil)
b Analytical results reported in parts per billion (ppb)
c Volatile organic compounds (VOCs) were analyzed using EPA method 8260D. VOCs not listed in the table were not detected in any samples and are listed in the laboratory report
d Benzene, toluene, ethylbenzene, and xylenes (BTEX)
e Hydrocarbon Identification analyzed using NWTPH method HCID. "G" denotes gasoline hydrocarbon detection, "D" denotes diesel hydrocarbon detection, and "O" denotes heavy oil hydrocarbon detection
f EDB analyzed using EPA method 8260D or method 8011
g (-) Not analyzed / Not applicable
h Bold value indicates analyte concentration exceeded laboratory reporting limit
i Yellow Shading indicates analyte concentration, one-half the laboratory reporting limit, or TEF-adjusted total cPAH concentration exceeds the MTCA Method A Cleanup Level.
j (<) Analyte concentration not detected above the laboratory reporting limit, as listed
k Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
l Sample was prepped or analyzed beyond the specified holding time
m MTCA Method A Groundwater Cleanup Level is 800 µg/kg when benzene is present in the groundwater and 1,000 µg/kg when benzene is not detected.
n (- -) Not Available (Washington Department of Ecology has not established a Method A Cleanup Level for the respective analyte)

S:\Project Files\Allyn St USTs-Goldendale\Tables\[Copy of T1 GW - PHCs & VOCs (CN).xlsx]PHCs & VOCs

TABLE 2
WATER SAMPLE ANALYTICAL DATA - PAHs, RCRA 8 METALS & PCBs

Klickitat County Courthouse
205 S Columbus Ave
Goldendale, WA 98620

Sample ID	Sample Date	PAHs [a] (ppb) [b]										RCRA 8 Metals [d] (ppb)								PCBs [e] (ppb)									
		Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) [c]							Detected Additional PAHs																				
		Benzo(a)pyrene	Benz(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Naphthalene	2-Methylnaphthalene	1-Methylnaphthalene	Arsenic	Barium	Cadmium	Chromium (Total)	Lead	Mercury	Selenium	Silver	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs
Tank Content Samples																													
UST1-H2O	10/6/21	- [g]	-	-	-	-	-	-	-	-	-	< 10 [h]	**640** [i]	**6.3** [j, k]	**2.2** [j, l]	< 5.1	< 0.090	< 49	< 2.5	< 0.076	< 0.076	< 0.076	< 0.076	< 0.076	< 0.076	< 0.053	< 0.076	< 0.076	ND [m]
UST2-H2O	10/6/21	-	-	-	-	-	-	-	-	-	-	< 10	**340**	**70**	**15** [j, l]	**54** [j]	< 0.090	< 49	< 2.5	< 0.076	< 0.076	< 0.076	< 0.076	< 0.076	< 0.076	< 0.053	< 0.076	< 0.076	ND
Groundwater Samples																													
UST Cavity GW	10/14/21	< 0.022	< 0.028	< 0.022	< 0.024	< 0.032	< 0.030	< 0.028	**0.28**	**0.21** [j]	**0.82**	-	-	< 1.2	-	< 5.1	-	-	-	-	-	-	-	-	-	-	-	-	-
UST Cavity GW (2)	10/14/21	< 0.024	< 0.030	< 0.024	< 0.026	< 0.034	< 0.032	< 0.030	**0.26**	**0.19** [j]	**0.75**	-	-	< 1.2	-	< 5.1	-	-	-	-	-	-	-	-	-	-	-	-	-
Excavation Cavity Water	2/16/22	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.250	< 0.250	< 0.250	-	-	< 1.00	**2.65**	**2.52**	-	-	-	-	-	-	-	-	-	-	-	-	-
Trip Blank and Equipment Blank Samples																													
Trip Blank	10/14/21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trip Blank	11/1/21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equip 1	11/1/21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MTCA Method A Groundwater Cleanup Levels																													
Unrestricted Land Uses		0.1							160	160	160	5	- - [n]	5	- -	15	2	- -	- -	**0.1**									

a Polycyclic aromatic hydrocarbons (PAHs) were analyzed using EPA method 8270E-SIM. PAHs not listed in the table were not detected in any samples and are listed in the laboratory report
b Analytical results reported in parts per billion (ppb)
c (cPAHs) Carcinogenic Polycyclic Aromatic Hydrocarbons
d Resource Conservation and Recovery Act (RCRA) 8 Metals analyzed using EPA method 6010D and 7470A
e Polychlorinated Biphenyls (PCBs) analyzed using EPA method 8082A
f Toxicity Equivalency Factors (TEFs) calculated under WAC 173-340-708(e) in accordance with Table 708-2 (in WAC 173-340-900). TEF is shown with less than (<) symbol when no cPAHs were detected
g (-) Not analyzed / Not applicable
h (<) Analyte concentration not detected above the laboratory reporting limit, as listed
i Bold value indicates analyte concentration exceeded laboratory reporting limit
j Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
k Yellow Shading indicates analyte concentration, one-half the laboratory reporting limit, or TEF-adjusted total cPAH concentration exceeds the MTCA Method A Cleanup Level.
l Initial Calibration Verification (ICV) is outside acceptance limits, high biased
m (ND) No PCBs were detected
n (- -) Not Available (Washington Department of Ecology has not established a Method A Cleanup Level for the respective analyte)

S:\Project Files\Allyn St USTs-Goldendale\Tables\[T2 GW - SVOCs, Metals & PCBs (CN).xlsx]PHCs & VOCs

Attachment A

Field Methods and Procedures
Scope of Work Summary

FIELD METHODS AND PROCEDURES

The following presents the general methods and procedures that are utilized to complete field activities. These activities include: advancing borings, soil excavation, groundwater level monitoring and surveying, installing temporary or monitoring wells, and collecting of soil and groundwater samples for laboratory analyses. Soil and groundwater samples are collected, preserved, and transported for analysis in general accordance with the Washington Department of Ecology (Ecology) methodology as presented under Chapter 173-340 Washington Administrative Code (WAC). If not specified by current Ecology regulations, sampling and analytical methods are implemented in general accordance with EPA protocol and/or commonly accepted industry standards for this time and place.

Utility Locating

Utilities, including overhead and underground, are identified and located prior to conducting work at the site. For overhead utilities, a safe minimum working distance is maintained with all sampling equipment dependant on the activity. For drilling or direct push equipment, a minimum 15-20 foot buffer is recommended. For other work such as excavation by backhoe, hand augering, hand probing, etc., a minimum distance is maintained such that the sampling equipment cannot come in contact with the utilities.

Underground utilities are located by contacting Utility Notification Center (UNC) for all underground sampling, excavation, and all other activities performed below the surface. The notification is performed at least 48 hours in advance of the work or as required by local laws and regulations to allow sufficient time for marking of the affected utilities. When warranted, MSBA will arrange on-site meetings with the contracted locators for the utilities to resolve any issues of proximity to the planned work.

In addition to contacting the UNC, MSBA may also perform one or more of the following activities intended to help prevent incidental contact with underground utilities during subsurface activities.

1) **Field Observation**: MSBA observes the site and surroundings for any signs of overhead and/or underground utilities.

2) **Private Utility Locate**: MSBA may contract with private utility locators if warranted to provide additional clarification of potential utilities and their locations.

3) **Hand Clearing**: MSBA may clear up to a maximum of the first five feet of subsurface soil for potential underground utilities by hand digging, hand augering, or air knifing.

Grab Soil Sampling

Grab soil samples are collected by hand or using a decontaminated shovel or hand trowel directly from surface/shallow soil or the sidewalls/base of a test pit or excavation area up to a depth of 4 feet below surface grade (bsg). At depths deeper than 4 feet bsg, soil samples are collected from an excavator bucket. The excavator bucket may be decontaminated prior to sampling. Just prior to collecting each sample, approximately 3 inches of soil is scraped away from the sampling surface. Soil samples are collected with a minimum amount of disturbance.

Soil samples are placed into laboratory provided wide-mouth glass jars, leaving as little headspace as possible. Soil samples are also collected in 40 milliliter (ml) volatile organic analysis (VOA) EPA method 5035 vials with a preservative. The jar is immediately sealed firmly with a Teflon-lined screw cap. After the samples are properly sealed, they are placed in an ice chest with ice and maintained at a temperature of 4° C (+/- 2° C) until preparation for analysis by the laboratory. Soil samples are analyzed within the laboratory designated hold times.

Disposable latex gloves are worn by the sampler and discarded after each sample. Sampling equipment is thoroughly cleaned and decontaminated between sampling events to help eliminate the potential for cross-contamination between samples. Each sample is clearly labeled with a unique name. A written record is maintained which includes, but is not limited to, the date, time, and location where the sample is collected, and any conditions which may have affected the sample integrity.

Drilling Method and Soil Sampling

Subsurface explorations are completed using drilling equipment operated by a licensed drilling subcontractor. The drilling method is selected based on the anticipated subsurface conditions. In general, push-probe or hollow-stem methods are utilized for softer silty soils and sonic or air-rotary methods are utilized for harder, rocky conditions. An MSBA representative oversees and directs the explorations and obtains all soil and groundwater samples.

Soil samples are collected by MSBA and placed into laboratory provided wide-mouth glass jars, leaving as little headspace as possible. Soil samples are also collected in 40 ml VOA EPA method 5035 vials with a preservative. The jar is immediately sealed firmly with a Teflon-lined screw cap. After the samples are properly sealed, they are placed in an ice chest with ice and maintained at a temperature of 4° C (+/- 2° C) until preparation for analysis by the laboratory. Soil samples are analyzed within the laboratory designated hold times.

Disposable latex gloves are worn by the sampler and discarded after each sample. Sampling equipment is thoroughly cleaned and decontaminated between sampling events to help eliminate the potential for cross-contamination between samples. Each sample is clearly labeled with a unique name. A written record is maintained which includes, but is not limited to, the date, time, and location where the sample is collected, and any conditions which may have affected the sample integrity. The soil type and other pertinent information is recorded on a field Subsurface Exploration Log.

Hand Auger Soil Boring and Sampling

Auger borings are advanced by hand. Samples of soil are collected directly from the barrel of the auger at the target depth or as warranted based on observed conditions. A written record is maintained which includes, but is not limited to, the date, time, and location where the sample is collected, and any unusual conditions which may affect the sample integrity.

Soil samples are collected by MSBA and placed into laboratory provided wide-mouth glass jars, leaving as little headspace as possible. Soil samples are also collected in 40 ml VOA EPA method 5035 vials with a preservative. The jar is immediately sealed firmly with a Teflon-lined screw cap. After the samples are properly sealed, they are placed in an ice chest with ice and maintained at a temperature of 4° C (+/- 2° C) until preparation for analysis by the laboratory. Soil samples are analyzed within the laboratory designated hold times.

Disposable latex gloves are worn by the sampler and discarded after each sample. Sampling equipment is thoroughly cleaned and decontaminated between sampling events to help eliminate the potential for cross-contamination between samples. Each sample is clearly labeled with a unique name. A written record is maintained which includes, but is not limited to, the date, time, and location where the sample is collected, and any conditions which may have affected the sample integrity. The soil type and other pertinent information is recorded on a field Subsurface Exploration Log.

Soil Field Screening Methods

Field screening methods consist of visual observations, water sheen screening, and/or headspace vapor screening using a MiniRAE photoionization detector (PID). Visual screening methods include observations of staining, discoloration, and other indicators of petroleum. Water sheen screening involves placing a small amount of soil into water and making observations of any sheens. Water sheen classifications are made as follows:

No Sheen: No visible sheen on the water surface.

Slight Sheen: Faint and dull sheen with no color; dissipates quickly. Naturally occurring organic matter may produce a slight sheen.

Moderate Sheen: May have some color or iridescence; spread of sheen is irregular to flowing; most of water surface covered with sheen.

Heavy Sheen: Obvious color and iridescence; spread is rapid; entire water surface may be covered with sheen.

Headspace vapor screening is conducted by creating a small hole in the soil core or placing a small portion of soil into a Zip-Loc bag and sealing it shut. The probe of the PID is inserted into the soil core. The soil sample within the bag is allowed to volatilize and the probe of the PID is inserted into the bag. The reported accuracy of a MiniRAE PID is 10% discrepancy at concentrations between 1 and 2,000 ppm and 20% discrepancy at concentrations greater than 2,000 ppm. The PID is calibrated in accordance with the manufacturer recommended procedures prior to each day of use.

Temporary Well Installation

Following completion of the soil borings, temporary wells may be installed to allow for groundwater level monitoring and sample collection. Following completion of the groundwater level monitoring and sampling, the temporary well is abandoned in accordance with the Washington Ecology Water Resources Program standards.

Well Development

Following installation, the temporary wells are developed to remove fines and to enhance the recharge and representative quality of water if sufficient water column and recharge is present. The development is performed using a bailer or pump (peristaltic or submersible). The well may be surged prior to development. Well development continues until the discharge is relatively sediment free. Well development may be discontinued if there is insufficient recharge.

Monitoring Well Elevation Survey

The top of each well casing is surveyed to within plus or minus (+/-) 0.01-foot relative to a common temporary benchmark. A temporary benchmark is designated with an assumed elevation relative to the approximate surface elevation above mean sea level (msl). The surveyed locations are marked on each casing for future reference and measuring. The purpose of the survey is to allow precise correlation of measured groundwater levels between each of the wells at the site. The survey information is recorded on a survey data sheet.

Groundwater Level Monitoring

The depth to groundwater (water level) is measured with an electronic, hand-held, water level indicator. The probe of the indicator is lowered in the well until contact with groundwater completes a circuit causing a buzzer to activate. The depth to water, measured from the surveyed point at the top of the well casing, is read directly from a graduated cord attached to the probe with marked increments of 0.01-foot. The groundwater level data is recorded on a groundwater level data sheet.

If present, free product thickness in a well is measured with an electronic, hand-held oil/water interface probe. The oil/water interface probe is lowered into the well until contact with fluids initiates a signal tone. An intermittent tone indicates water and a continuous tone indicates product. A measuring tape in increments of 0.01-foot is attached to the probe and is used to measure thickness of product in a well.

Groundwater Sampling

Prior to collecting a sample for laboratory analysis, the depth to water is measured and the wetted casing length and corresponding well volume is calculated. A minimum of three well volumes of groundwater is then purged with a bailer, submersible pump or peristaltic pump to remove potentially stagnant groundwater and allow the surrounding formation water to enter the well for sampling. During the purging process, the pH, conductivity, and turbidity may be monitored until these parameters are stabilized to confirm that representative formation water is collected for analysis. Stable parameters are generally defined by three successive readings within plus or minus 0.1 for pH, 3 percent for conductivity, and 10 percent for turbidity. Parameter stabilization is typically achieved in less than three well volumes.

After purging, a groundwater sample is collected when the water level in the well has recharged to within 85 percent of the initial static water level. If the desired amount of recharge is not achieved within a period of 60 minutes, the sample is collected and the deficient water level is recorded. If the water column does not contain sufficient volume, the sample may be collected incrementally as recharge allows. The sample is collected from the well using a bailer, submersible pump, or peristaltic pump with dedicated tubing, under low flow conditions to minimize the loss of volatile components, if present.

The groundwater is transferred into laboratory provided 40 ml glass VOA vials, one liter amber glass jars, and 250 ml polyethylene bottles. Some containers may contain a preservative. The type of container, and whether or not it is preserved, is determined by the type of laboratory analysis to be performed. Groundwater samples collected in VOAs are transferred with minimal agitation and sealed with Teflon-lined septum lids so that no head space is present. Samples collected in VOA vials are submitted for volatile organic compound (VOC) analysis. The vials may contain 2-5 drops of dilute HCL as a preservative increasing the sample hold time from 7 to 14 days. Groundwater

samples are collected in preserved or non-preserved one liter amber glass jars for analysis of non-volatile petroleum constituents. Groundwater samples are collected in non-preserved 250 ml polyethylene bottles for analysis of metals. Samples collected for analysis of dissolved metals are filtered in the field to remove 0.45 micron size particles or immediately upon receipt by the laboratory. Samples collected for analysis of total metals are not filtered. Groundwater purge and sample data is recorded on a Purge and Sample Data sheet.

After the samples are properly sealed, they are placed immediately in an ice chest with ice and maintained at a temperature of 4° C (+/- 2° C) until being prepared by the laboratory for analysis.

Irrigation Water Well Water Purging and Sampling

A minimum of one well volume is purged from the well. The well is purged at the lowest possible flow rate. Groundwater parameters are monitored during purging using a Horiba U-52 Multi-Probe meter or equivalent meter. Due to the flow rate restrictions associated with flow-through cells, a sampling manifold is attached to the well piping to bypass the majority of water flowing from the well. Additional water is also purged from a nearby valve to reduce pressure, as needed. Temperature, redox potential, conductivity, dissolved oxygen (DO), and turbidity are monitored during purging. The parameters are considered stabilized after three successive readings measured approximately three to five minutes apart in accordance with EPA low-flow sampling guidance. Stabilized readings are generally considered as follows: +/- 0.1 for pH, +/- 3% for conductivity, +/- 10 mv for redox potential, and +/- 10% for turbidity and DO. The general stabilization readings may require modification based on site conditions. The water level and drawdown are not measured during the purging and sampling activities since the well is sealed and the piping would need to be dismantled.

After the parameters are considered stabilized, the irrigation water well sample and field duplicate sample are collected. The water is collected in laboratory provided containers. Some containers contain a preservative. The type of container, type of preservative, and whether or not it is preserved, is determined by the type of laboratory analysis to be performed. Water samples collected in VOAs are transferred with minimal agitation and sealed with Teflon-lined septum lids so that no head space is present. Samples collected in VOA vials are submitted for NWTPH-Gx and VOC analysis. The vials may contain 2-5 drops of dilute HCL as a preservative increasing the sample hold time. Well water samples are collected in preserved or non-preserved amber glass jars for analysis of non-volatile petroleum constituents. Well water samples are collected in non-preserved 250 ml polyethylene bottles for analysis of metals. Samples collected for analysis of dissolved metals are filtered in the field to remove 0.45 micron or larger size particles or immediately upon receipt by the laboratory. Samples collected for analysis of total metals are not filtered. Samples are typically analyzed for total metals and a follow-up for dissolved metals is performed if warranted based on the total metal results. After the samples are properly sealed, they are immediately placed in an ice chest with ice and maintained at a temperature of 4° C (+/- 2° C) until they are prepared by the laboratory for analysis.

Chain-of-Custody and Labeling

The Chain-of-Custody (COC) is a form that documents the custody of a sample from the time of origin to the time of disposal or destruction. A COC is initiated in the field at the time the samples are collected. The sampler documents such information as the time, date, type of sample, and requested analyses. Any individual in custody of the samples, including the laboratory, is required to document the transfer of custody (beginning with the sampler) by signing the COC (including date and time of transfer).

Equipment Decontamination

Equipment used to collect soil and groundwater samples such as; bailers, water level indicators, etc., is decontaminated prior to each use. Strict decontamination procedures are utilized to help eliminate the potential for cross-contamination between samples and sample locations.

The decontamination procedure includes a thorough washing in tap water with Liquinox (or similar product) followed by two rinses in tap water and a third and final spray rinse using distilled water. If time permits, the sampling equipment is allowed to air dry. Disposable latex gloves are worn during sampling to help eliminate the potential for cross-contamination by the sampler. The gloves are discarded after each sample event and a new pair is utilized for each subsequent sampling event.

Investigation Derived Waste

Investigation derived waste (IDW) accumulated during the explorations typically consists of soil, groundwater, or decontamination and rinse waters. Soil and water are collected and placed into suitable containers. A label is affixed to each storage container including the date, contents, and contact information. The containers are stored onsite in a secure location pending disposal at an authorized facility. Disposable items such as sampling gloves, paper towels, and plastic sheeting are placed into plastic garbage bags and disposed in a municipal trash receptacle.

Scope of Work Summary

Irrigation Well Sampling:

- Decontaminate manifold
- Collect equipment blank sample ***Equip 2***
  - Run water through manifold and over well piping
  - NWTPH-Gx analysis
  - VOCs analysis
- Connect manifold and flow through cell to gate valve in well vault
  - Flow through cell needs to receive less than 500 ml/min
  - Discharge water goes to tanker truck
- Turn on well pump
  - Check for leaks
  - Check water quality/clarity
  - Measure purge rate
  - Measure flow through cell flow rate
- Purge at least ~510 gal (one well volume)
  - Maintain steady flow rate as low as possible
  - Document parameters and verify stabilization
    - pH (+/- 0.1)
    - Redox potential (ORP) (+/- 10mv)
    - Turbidity (+/- 10%)
    - Dissolved oxygen (+/- 10%)
- Collect sample ***Irrigation Well*** and duplicate ***Irrigation Well(2)***
  - Disconnect and bypass flow through cell
  - Reduce flow rate, if possible
  - Alternate between sample & duplicate containers
  - NWTPH-Gx analysis
  - VOCs analysis

Excavation Cavity Water Sampling:

- Insert clean casing into edge of tank cavity at deepest point within reach from edge
- Place new polyethylene tubing in water column
- Collect sample ***Excavation Cavity Water*** with peristaltic pump
  - NWTPH-Gx analysis
  - NWTPH-Dx analysis
  - VOCs analysis
  - PAHs analysis
  - Cd, Cr, Pb (total & dissolved) analysis

Attachment B

Groundwater Parameters

GROUNDWATER PARAMETERS

Well ID	Time	Multi-Probe Meter Data [b]								
		Temperature (°C)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Disolved Oxygen (%)	pH	pHmV	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Notes
Irrigation Well	10:24	—	—	—	—	—	—	—	—	Start purge
	10:28	15.45	0.531	9.75	97.8	6.98	-29	114	2.2	—
	10:31	15.54	0.514	9.05	90.9	6.94	-27	70	Ø	—
	10:34	15.64	0.509	8.55	86.1	6.92	-25	50	Ø	—
	10:37	15.64	0.507	8.17	82.3	6.90	-24	54	Ø	—
	10:40	15.64	0.506	7.80	78.5	6.86	-22	65	Ø	—
	10:43	15.47	0.509	7.54	75.6	6.85	-21	76	Ø	—
	10:46	15.45	0.510	7.24	72.5	6.82	-19	98	Ø	—
	10:49	15.48	0.511	6.91	69.3	6.79	-18	96	Ø	—
	10:52	15.46	0.511	6.64	66.6	6.82	-20	98	Ø	—
	10:55	—	—	—	—	—	—	—	—	OK to sample

a Depth of sample, in feet below the top of casing
b Multi-Probe Meter Data measured using a Horiba U52 Multi-Probe Meter
c (-) Not Analyzed/Not Measured/NotAvailable

C:\Users\jwhite.MSBA\Desktop\[Groundwater Parameters.xls]T 3

Attachment C

Laboratory Analytical Report

ANALYTICAL REPORT

February 28, 2022

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

Martin S. Burck Assoc.-Hood River, OR

Sample Delivery Group:	L1462848
Samples Received:	02/17/2022
Project Number:	ALLYN STREET
Description:	Allyn Street USTs - Goldendale, WA
Site:	ALLYN STREET
Report To:	Jon White 200 N. Wasco Ct. Hood River, OR 97031

Entire Report Reviewed By:

Brian Ford
Project Manager

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

TABLE OF CONTENTS

IRRIGATION WELL L1462848-01 GW

Collected by: Jon White | Collected date/time: 02/16/22 10:58 | Received date/time: 02/17/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1820546	1	02/19/22 05:26	02/19/22 05:26	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1820243	1	02/18/22 23:38	02/18/22 23:38	ACG	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1820956	1.02	02/21/22 12:54	02/22/22 17:55	HMH	Mt. Juliet, TN

IRRIGATION WELL (2) L1462848-02 GW

Collected by: Jon White | Collected date/time: 02/16/22 10:58 | Received date/time: 02/17/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1820546	1	02/19/22 05:49	02/19/22 05:49	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1820243	1	02/18/22 23:57	02/18/22 23:57	ACG	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1820956	1.02	02/21/22 12:54	02/22/22 18:07	HMH	Mt. Juliet, TN

EXCAVATION CAVITY WATER L1462848-03 GW

Collected by: Jon White | Collected date/time: 02/16/22 10:14 | Received date/time: 02/17/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020B	WG1820096	1	02/18/22 11:10	02/19/22 00:16	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1820096	1	02/18/22 11:10	02/19/22 18:16	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1820546	1	02/19/22 06:12	02/19/22 06:12	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1820243	1	02/19/22 00:16	02/19/22 00:16	ACG	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1820956	1	02/21/22 12:54	02/22/22 18:19	HMH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1823301	1	02/24/22 22:56	02/25/22 23:37	WCR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1821333	1	02/23/22 04:27	02/23/22 18:29	LEA	Mt. Juliet, TN

EQUIP 2 L1462848-04 GW

Collected by: Jon White | Collected date/time: 02/16/22 08:44 | Received date/time: 02/17/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG1820546	1	02/19/22 06:36	02/19/22 06:36	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1820243	1	02/19/22 00:35	02/19/22 00:35	ACG	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1820956	1.05	02/21/22 12:54	02/22/22 18:31	HMH	Mt. Juliet, TN

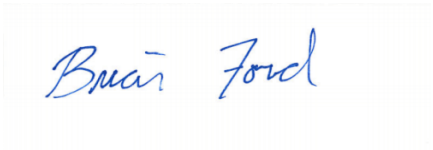
TRIP BLANK L1462848-06 GW

Collected by: Jon White | Collected date/time: 02/16/22 00:00 | Received date/time: 02/17/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1820243	1	02/18/22 21:05	02/18/22 21:05	ACG	Mt. Juliet, TN

CASE NARRATIVE

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



Brian Ford
Project Manager

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		100	1	02/19/2022 05:26	WG1820546
(S) a,a,a-Trifluorotoluene(FID)	*110*		*78.0-120*		*02/19/2022 05:26*	WG1820546

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	ND	J4	10.0	1	02/18/2022 23:38	WG1820243
Acrylonitrile	ND	J3 J4	0.500	1	02/18/2022 23:38	WG1820243
Acrolein	ND	J3 J4	50.0	1	02/18/2022 23:38	WG1820243
Benzene	ND		0.0400	1	02/18/2022 23:38	WG1820243
Bromobenzene	ND		0.500	1	02/18/2022 23:38	WG1820243
Bromodichloromethane	ND		0.100	1	02/18/2022 23:38	WG1820243
Bromoform	ND		1.00	1	02/18/2022 23:38	WG1820243
Bromomethane	ND		0.500	1	02/18/2022 23:38	WG1820243
n-Butylbenzene	ND	C3	0.500	1	02/18/2022 23:38	WG1820243
sec-Butylbenzene	ND		0.500	1	02/18/2022 23:38	WG1820243
tert-Butylbenzene	ND	C3	0.200	1	02/18/2022 23:38	WG1820243
Carbon disulfide	ND		0.500	1	02/18/2022 23:38	WG1820243
Carbon tetrachloride	ND		0.200	1	02/18/2022 23:38	WG1820243
Chlorobenzene	ND		0.100	1	02/18/2022 23:38	WG1820243
Chlorodibromomethane	ND		0.100	1	02/18/2022 23:38	WG1820243
Chloroethane	ND		0.200	1	02/18/2022 23:38	WG1820243
Chloroform	ND		0.100	1	02/18/2022 23:38	WG1820243
Chloromethane	ND		0.500	1	02/18/2022 23:38	WG1820243
2-Chlorotoluene	ND		0.100	1	02/18/2022 23:38	WG1820243
4-Chlorotoluene	ND		0.200	1	02/18/2022 23:38	WG1820243
1,2-Dibromo-3-Chloropropane	ND		1.00	1	02/18/2022 23:38	WG1820243
1,2-Dibromoethane	ND		0.100	1	02/18/2022 23:38	WG1820243
Dibromomethane	ND		0.200	1	02/18/2022 23:38	WG1820243
1,2-Dichlorobenzene	ND		0.200	1	02/18/2022 23:38	WG1820243
1,3-Dichlorobenzene	ND		0.200	1	02/18/2022 23:38	WG1820243
1,4-Dichlorobenzene	ND		0.200	1	02/18/2022 23:38	WG1820243
Dichlorodifluoromethane	ND		0.100	1	02/18/2022 23:38	WG1820243
1,1-Dichloroethane	ND		0.100	1	02/18/2022 23:38	WG1820243
1,2-Dichloroethane	ND		0.100	1	02/18/2022 23:38	WG1820243
1,1-Dichloroethene	ND		0.100	1	02/18/2022 23:38	WG1820243
cis-1,2-Dichloroethene	ND		0.100	1	02/18/2022 23:38	WG1820243
trans-1,2-Dichloroethene	ND		0.200	1	02/18/2022 23:38	WG1820243
1,2-Dichloropropane	ND		0.200	1	02/18/2022 23:38	WG1820243
1,1-Dichloropropene	ND		0.100	1	02/18/2022 23:38	WG1820243
1,3-Dichloropropane	ND		0.200	1	02/18/2022 23:38	WG1820243
cis-1,3-Dichloropropene	ND		0.100	1	02/18/2022 23:38	WG1820243
trans-1,3-Dichloropropene	ND		0.200	1	02/18/2022 23:38	WG1820243
2,2-Dichloropropane	ND		0.100	1	02/18/2022 23:38	WG1820243
Di-isopropyl ether	ND		0.0400	1	02/18/2022 23:38	WG1820243
Ethylbenzene	ND		0.100	1	02/18/2022 23:38	WG1820243
Hexachloro-1,3-butadiene	ND	C3	1.00	1	02/18/2022 23:38	WG1820243
2-Hexanone	ND		1.00	1	02/18/2022 23:38	WG1820243
Isopropylbenzene	ND		0.100	1	02/18/2022 23:38	WG1820243
p-Isopropyltoluene	ND		0.200	1	02/18/2022 23:38	WG1820243
2-Butanone (MEK)	ND		1.00	1	02/18/2022 23:38	WG1820243
Methylene Chloride	ND		1.00	1	02/18/2022 23:38	WG1820243
4-Methyl-2-pentanone (MIBK)	ND		1.00	1	02/18/2022 23:38	WG1820243
Methyl tert-butyl ether	ND		0.0400	1	02/18/2022 23:38	WG1820243
Naphthalene	ND	C3	0.500	1	02/18/2022 23:38	WG1820243

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
n-Propylbenzene	ND		0.200	1	02/18/2022 23:38	WG1820243
Styrene	ND	C3	0.500	1	02/18/2022 23:38	WG1820243
1,1,1,2-Tetrachloroethane	ND		0.100	1	02/18/2022 23:38	WG1820243
1,1,2,2-Tetrachloroethane	ND		0.100	1	02/18/2022 23:38	WG1820243
1,1,2-Trichlorotrifluoroethane	ND		0.100	1	02/18/2022 23:38	WG1820243
Tetrachloroethene	0.302		0.100	1	02/18/2022 23:38	WG1820243
Toluene	ND		0.200	1	02/18/2022 23:38	WG1820243
1,2,3-Trichlorobenzene	ND	C4 J4	0.500	1	02/18/2022 23:38	WG1820243
1,2,4-Trichlorobenzene	ND	C4	0.500	1	02/18/2022 23:38	WG1820243
1,1,1-Trichloroethane	ND		0.100	1	02/18/2022 23:38	WG1820243
1,1,2-Trichloroethane	ND		0.100	1	02/18/2022 23:38	WG1820243
Trichloroethene	ND		0.0400	1	02/18/2022 23:38	WG1820243
Trichlorofluoromethane	ND		0.100	1	02/18/2022 23:38	WG1820243
1,2,3-Trichloropropane	ND		0.500	1	02/18/2022 23:38	WG1820243
1,2,4-Trimethylbenzene	ND		0.200	1	02/18/2022 23:38	WG1820243
1,2,3-Trimethylbenzene	ND		0.200	1	02/18/2022 23:38	WG1820243
1,3,5-Trimethylbenzene	ND		0.200	1	02/18/2022 23:38	WG1820243
Vinyl chloride	ND		0.100	1	02/18/2022 23:38	WG1820243
Xylenes, Total	ND		0.260	1	02/18/2022 23:38	WG1820243
(S) Toluene-d8	*99.4*		*75.0-131*		*02/18/2022 23:38*	WG1820243
(S) 4-Bromofluorobenzene	*94.5*		*67.0-138*		*02/18/2022 23:38*	WG1820243
(S) 1,2-Dichloroethane-d4	*117*		*70.0-130*		*02/18/2022 23:38*	WG1820243

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND		0.0204	1.02	02/22/2022 17:55	WG1820956

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		100	1	02/19/2022 05:49	WG1820546
(S) a,a,a-Trifluorotoluene(FID)	*110*		*78.0-120*		*02/19/2022 05:49*	WG1820546

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	ND	J4	10.0	1	02/18/2022 23:57	WG1820243
Acrylonitrile	ND	J3 J4	0.500	1	02/18/2022 23:57	WG1820243
Acrolein	ND	J3 J4	50.0	1	02/18/2022 23:57	WG1820243
Benzene	ND		0.0400	1	02/18/2022 23:57	WG1820243
Bromobenzene	ND		0.500	1	02/18/2022 23:57	WG1820243
Bromodichloromethane	ND		0.100	1	02/18/2022 23:57	WG1820243
Bromoform	ND		1.00	1	02/18/2022 23:57	WG1820243
Bromomethane	ND		0.500	1	02/18/2022 23:57	WG1820243
n-Butylbenzene	ND	C3	0.500	1	02/18/2022 23:57	WG1820243
sec-Butylbenzene	ND		0.500	1	02/18/2022 23:57	WG1820243
tert-Butylbenzene	ND	C3	0.200	1	02/18/2022 23:57	WG1820243
Carbon disulfide	ND		0.500	1	02/18/2022 23:57	WG1820243
Carbon tetrachloride	ND		0.200	1	02/18/2022 23:57	WG1820243
Chlorobenzene	ND		0.100	1	02/18/2022 23:57	WG1820243
Chlorodibromomethane	ND		0.100	1	02/18/2022 23:57	WG1820243
Chloroethane	ND		0.200	1	02/18/2022 23:57	WG1820243
Chloroform	ND		0.100	1	02/18/2022 23:57	WG1820243
Chloromethane	ND		0.500	1	02/18/2022 23:57	WG1820243
2-Chlorotoluene	ND		0.100	1	02/18/2022 23:57	WG1820243
4-Chlorotoluene	ND		0.200	1	02/18/2022 23:57	WG1820243
1,2-Dibromo-3-Chloropropane	ND		1.00	1	02/18/2022 23:57	WG1820243
1,2-Dibromoethane	ND		0.100	1	02/18/2022 23:57	WG1820243
Dibromomethane	ND		0.200	1	02/18/2022 23:57	WG1820243
1,2-Dichlorobenzene	ND		0.200	1	02/18/2022 23:57	WG1820243
1,3-Dichlorobenzene	ND		0.200	1	02/18/2022 23:57	WG1820243
1,4-Dichlorobenzene	ND		0.200	1	02/18/2022 23:57	WG1820243
Dichlorodifluoromethane	ND		0.100	1	02/18/2022 23:57	WG1820243
1,1-Dichloroethane	ND		0.100	1	02/18/2022 23:57	WG1820243
1,2-Dichloroethane	ND		0.100	1	02/18/2022 23:57	WG1820243
1,1-Dichloroethene	ND		0.100	1	02/18/2022 23:57	WG1820243
cis-1,2-Dichloroethene	ND		0.100	1	02/18/2022 23:57	WG1820243
trans-1,2-Dichloroethene	ND		0.200	1	02/18/2022 23:57	WG1820243
1,2-Dichloropropane	ND		0.200	1	02/18/2022 23:57	WG1820243
1,1-Dichloropropene	ND		0.100	1	02/18/2022 23:57	WG1820243
1,3-Dichloropropane	ND		0.200	1	02/18/2022 23:57	WG1820243
cis-1,3-Dichloropropene	ND		0.100	1	02/18/2022 23:57	WG1820243
trans-1,3-Dichloropropene	ND		0.200	1	02/18/2022 23:57	WG1820243
2,2-Dichloropropane	ND		0.100	1	02/18/2022 23:57	WG1820243
Di-isopropyl ether	ND		0.0400	1	02/18/2022 23:57	WG1820243
Ethylbenzene	ND		0.100	1	02/18/2022 23:57	WG1820243
Hexachloro-1,3-butadiene	ND	C3	1.00	1	02/18/2022 23:57	WG1820243
2-Hexanone	ND		1.00	1	02/18/2022 23:57	WG1820243
Isopropylbenzene	ND		0.100	1	02/18/2022 23:57	WG1820243
p-Isopropyltoluene	ND		0.200	1	02/18/2022 23:57	WG1820243
2-Butanone (MEK)	ND		1.00	1	02/18/2022 23:57	WG1820243
Methylene Chloride	ND		1.00	1	02/18/2022 23:57	WG1820243
4-Methyl-2-pentanone (MIBK)	ND		1.00	1	02/18/2022 23:57	WG1820243
Methyl tert-butyl ether	ND		0.0400	1	02/18/2022 23:57	WG1820243
Naphthalene	ND	C3	0.500	1	02/18/2022 23:57	WG1820243

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
n-Propylbenzene	ND		0.200	1	02/18/2022 23:57	WG1820243
Styrene	ND	C3	0.500	1	02/18/2022 23:57	WG1820243
1,1,1,2-Tetrachloroethane	ND		0.100	1	02/18/2022 23:57	WG1820243
1,1,2,2-Tetrachloroethane	ND		0.100	1	02/18/2022 23:57	WG1820243
1,1,2-Trichlorotrifluoroethane	ND		0.100	1	02/18/2022 23:57	WG1820243
Tetrachloroethene	0.325		0.100	1	02/18/2022 23:57	WG1820243
Toluene	ND		0.200	1	02/18/2022 23:57	WG1820243
1,2,3-Trichlorobenzene	ND	C4 J4	0.500	1	02/18/2022 23:57	WG1820243
1,2,4-Trichlorobenzene	ND	C4	0.500	1	02/18/2022 23:57	WG1820243
1,1,1-Trichloroethane	ND		0.100	1	02/18/2022 23:57	WG1820243
1,1,2-Trichloroethane	ND		0.100	1	02/18/2022 23:57	WG1820243
Trichloroethene	ND		0.0400	1	02/18/2022 23:57	WG1820243
Trichlorofluoromethane	ND		0.100	1	02/18/2022 23:57	WG1820243
1,2,3-Trichloropropane	ND		0.500	1	02/18/2022 23:57	WG1820243
1,2,4-Trimethylbenzene	ND		0.200	1	02/18/2022 23:57	WG1820243
1,2,3-Trimethylbenzene	ND		0.200	1	02/18/2022 23:57	WG1820243
1,3,5-Trimethylbenzene	ND		0.200	1	02/18/2022 23:57	WG1820243
Vinyl chloride	ND		0.100	1	02/18/2022 23:57	WG1820243
Xylenes, Total	ND		0.260	1	02/18/2022 23:57	WG1820243
(S) Toluene-d8	*98.3*		*75.0-131*		*02/18/2022 23:57*	WG1820243
(S) 4-Bromofluorobenzene	*95.1*		*67.0-138*		*02/18/2022 23:57*	WG1820243
(S) 1,2-Dichloroethane-d4	*117*		*70.0-130*		*02/18/2022 23:57*	WG1820243

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Ethylene Dibromide	ND		0.0204	1.02	02/22/2022 18:07	WG1820956

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Cadmium	ND		1.00	1	02/19/2022 00:16	WG1820096
Chromium	2.65		2.00	1	02/19/2022 00:16	WG1820096
Lead	2.52		2.00	1	02/19/2022 18:16	WG1820096

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		100	1	02/19/2022 06:12	WG1820546
(S) a,a,a-Trifluorotoluene(FID)	*109*		*78.0-120*		*02/19/2022 06:12*	WG1820546

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	46.4	C5 J4	10.0	1	02/19/2022 00:16	WG1820243
Acrylonitrile	ND	J3 J4	0.500	1	02/19/2022 00:16	WG1820243
Acrolein	ND	J3 J4	50.0	1	02/19/2022 00:16	WG1820243
Benzene	ND		0.0400	1	02/19/2022 00:16	WG1820243
Bromobenzene	ND		0.500	1	02/19/2022 00:16	WG1820243
Bromodichloromethane	ND		0.100	1	02/19/2022 00:16	WG1820243
Bromoform	ND		1.00	1	02/19/2022 00:16	WG1820243
Bromomethane	ND		0.500	1	02/19/2022 00:16	WG1820243
n-Butylbenzene	ND	C3	0.500	1	02/19/2022 00:16	WG1820243
sec-Butylbenzene	ND		0.500	1	02/19/2022 00:16	WG1820243
tert-Butylbenzene	ND	C3	0.200	1	02/19/2022 00:16	WG1820243
Carbon disulfide	ND		0.500	1	02/19/2022 00:16	WG1820243
Carbon tetrachloride	ND		0.200	1	02/19/2022 00:16	WG1820243
Chlorobenzene	ND		0.100	1	02/19/2022 00:16	WG1820243
Chlorodibromomethane	ND		0.100	1	02/19/2022 00:16	WG1820243
Chloroethane	ND		0.200	1	02/19/2022 00:16	WG1820243
Chloroform	ND		0.100	1	02/19/2022 00:16	WG1820243
Chloromethane	ND		0.500	1	02/19/2022 00:16	WG1820243
2-Chlorotoluene	ND		0.100	1	02/19/2022 00:16	WG1820243
4-Chlorotoluene	ND		0.200	1	02/19/2022 00:16	WG1820243
1,2-Dibromo-3-Chloropropane	ND		1.00	1	02/19/2022 00:16	WG1820243
1,2-Dibromoethane	ND		0.100	1	02/19/2022 00:16	WG1820243
Dibromomethane	ND		0.200	1	02/19/2022 00:16	WG1820243
1,2-Dichlorobenzene	ND		0.200	1	02/19/2022 00:16	WG1820243
1,3-Dichlorobenzene	ND		0.200	1	02/19/2022 00:16	WG1820243
1,4-Dichlorobenzene	ND		0.200	1	02/19/2022 00:16	WG1820243
Dichlorodifluoromethane	ND		0.100	1	02/19/2022 00:16	WG1820243
1,1-Dichloroethane	ND		0.100	1	02/19/2022 00:16	WG1820243
1,2-Dichloroethane	ND		0.100	1	02/19/2022 00:16	WG1820243
1,1-Dichloroethene	ND		0.100	1	02/19/2022 00:16	WG1820243
cis-1,2-Dichloroethene	ND		0.100	1	02/19/2022 00:16	WG1820243
trans-1,2-Dichloroethene	ND		0.200	1	02/19/2022 00:16	WG1820243
1,2-Dichloropropane	ND		0.200	1	02/19/2022 00:16	WG1820243
1,1-Dichloropropene	ND		0.100	1	02/19/2022 00:16	WG1820243
1,3-Dichloropropane	ND		0.200	1	02/19/2022 00:16	WG1820243
cis-1,3-Dichloropropene	ND		0.100	1	02/19/2022 00:16	WG1820243
trans-1,3-Dichloropropene	ND		0.200	1	02/19/2022 00:16	WG1820243
2,2-Dichloropropane	ND		0.100	1	02/19/2022 00:16	WG1820243
Di-isopropyl ether	ND		0.0400	1	02/19/2022 00:16	WG1820243
Ethylbenzene	ND		0.100	1	02/19/2022 00:16	WG1820243
Hexachloro-1,3-butadiene	ND	C3	1.00	1	02/19/2022 00:16	WG1820243
2-Hexanone	ND		1.00	1	02/19/2022 00:16	WG1820243

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Isopropylbenzene	ND		0.100	1	02/19/2022 00:16	WG1820243
p-Isopropyltoluene	ND		0.200	1	02/19/2022 00:16	WG1820243
2-Butanone (MEK)	ND		1.00	1	02/19/2022 00:16	WG1820243
Methylene Chloride	ND		1.00	1	02/19/2022 00:16	WG1820243
4-Methyl-2-pentanone (MIBK)	ND		1.00	1	02/19/2022 00:16	WG1820243
Methyl tert-butyl ether	ND		0.0400	1	02/19/2022 00:16	WG1820243
Naphthalene	ND	C3	0.500	1	02/19/2022 00:16	WG1820243
n-Propylbenzene	ND		0.200	1	02/19/2022 00:16	WG1820243
Styrene	ND	C3	0.500	1	02/19/2022 00:16	WG1820243
1,1,1,2-Tetrachloroethane	ND		0.100	1	02/19/2022 00:16	WG1820243
1,1,2,2-Tetrachloroethane	ND		0.100	1	02/19/2022 00:16	WG1820243
1,1,2-Trichlorotrifluoroethane	ND		0.100	1	02/19/2022 00:16	WG1820243
Tetrachloroethene	ND		0.100	1	02/19/2022 00:16	WG1820243
Toluene	ND		0.200	1	02/19/2022 00:16	WG1820243
1,2,3-Trichlorobenzene	ND	C4 J4	0.500	1	02/19/2022 00:16	WG1820243
1,2,4-Trichlorobenzene	ND	C4	0.500	1	02/19/2022 00:16	WG1820243
1,1,1-Trichloroethane	ND		0.100	1	02/19/2022 00:16	WG1820243
1,1,2-Trichloroethane	ND		0.100	1	02/19/2022 00:16	WG1820243
Trichloroethene	ND		0.0400	1	02/19/2022 00:16	WG1820243
Trichlorofluoromethane	ND		0.100	1	02/19/2022 00:16	WG1820243
1,2,3-Trichloropropane	ND		0.500	1	02/19/2022 00:16	WG1820243
1,2,4-Trimethylbenzene	ND		0.200	1	02/19/2022 00:16	WG1820243
1,2,3-Trimethylbenzene	ND		0.200	1	02/19/2022 00:16	WG1820243
1,3,5-Trimethylbenzene	ND		0.200	1	02/19/2022 00:16	WG1820243
Vinyl chloride	ND		0.100	1	02/19/2022 00:16	WG1820243
Xylenes, Total	ND		0.260	1	02/19/2022 00:16	WG1820243
(S) Toluene-d8	*97.0*		*75.0-131*		*02/19/2022 00:16*	WG1820243
(S) 4-Bromofluorobenzene	*93.4*		*67.0-138*		*02/19/2022 00:16*	WG1820243
(S) 1,2-Dichloroethane-d4	*118*		*70.0-130*		*02/19/2022 00:16*	WG1820243

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND		0.0200	1	02/22/2022 18:19	WG1820956

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	210		200	1	02/25/2022 23:37	WG1823301
Residual Range Organics (RRO)	ND		250	1	02/25/2022 23:37	WG1823301
(S) o-Terphenyl	*85.0*		*52.0-156*		*02/25/2022 23:37*	WG1823301

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	ND		0.0500	1	02/23/2022 18:29	WG1821333
Acenaphthene	ND		0.0500	1	02/23/2022 18:29	WG1821333
Acenaphthylene	ND		0.0500	1	02/23/2022 18:29	WG1821333
Benzo(a)anthracene	ND		0.0500	1	02/23/2022 18:29	WG1821333
Benzo(a)pyrene	ND		0.0500	1	02/23/2022 18:29	WG1821333
Benzo(b)fluoranthene	ND		0.0500	1	02/23/2022 18:29	WG1821333
Benzo(g,h,i)perylene	ND		0.0500	1	02/23/2022 18:29	WG1821333
Benzo(k)fluoranthene	ND		0.0500	1	02/23/2022 18:29	WG1821333
Chrysene	ND		0.0500	1	02/23/2022 18:29	WG1821333
Dibenz(a,h)anthracene	ND		0.0500	1	02/23/2022 18:29	WG1821333

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Fluoranthene	ND		0.100	1	02/23/2022 18:29	WG1821333
Fluorene	ND		0.0500	1	02/23/2022 18:29	WG1821333
Indeno(1,2,3-cd)pyrene	ND		0.0500	1	02/23/2022 18:29	WG1821333
Naphthalene	ND		0.250	1	02/23/2022 18:29	WG1821333
Phenanthrene	ND		0.0500	1	02/23/2022 18:29	WG1821333
Pyrene	ND		0.0500	1	02/23/2022 18:29	WG1821333
1-Methylnaphthalene	ND		0.250	1	02/23/2022 18:29	WG1821333
2-Methylnaphthalene	ND		0.250	1	02/23/2022 18:29	WG1821333
2-Chloronaphthalene	ND		0.250	1	02/23/2022 18:29	WG1821333
(S) Nitrobenzene-d5	*81.6*		*31.0-160*		*02/23/2022 18:29*	WG1821333
(S) 2-Fluorobiphenyl	*85.8*		*48.0-148*		*02/23/2022 18:29*	WG1821333
(S) p-Terphenyl-d14	*82.1*		*37.0-146*		*02/23/2022 18:29*	WG1821333

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	ND		100	1	02/19/2022 06:36	WG1820546
(S) a,a,a-Trifluorotoluene(FID)	*110*		*78.0-120*		*02/19/2022 06:36*	WG1820546

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	ND	J4	10.0	1	02/19/2022 00:35	WG1820243
Acrylonitrile	ND	J3 J4	0.500	1	02/19/2022 00:35	WG1820243
Acrolein	ND	J3 J4	50.0	1	02/19/2022 00:35	WG1820243
Benzene	ND		0.0400	1	02/19/2022 00:35	WG1820243
Bromobenzene	ND		0.500	1	02/19/2022 00:35	WG1820243
Bromodichloromethane	0.268		0.100	1	02/19/2022 00:35	WG1820243
Bromoform	ND		1.00	1	02/19/2022 00:35	WG1820243
Bromomethane	ND		0.500	1	02/19/2022 00:35	WG1820243
n-Butylbenzene	ND	C3	0.500	1	02/19/2022 00:35	WG1820243
sec-Butylbenzene	ND		0.500	1	02/19/2022 00:35	WG1820243
tert-Butylbenzene	ND	C3	0.200	1	02/19/2022 00:35	WG1820243
Carbon disulfide	ND		0.500	1	02/19/2022 00:35	WG1820243
Carbon tetrachloride	ND		0.200	1	02/19/2022 00:35	WG1820243
Chlorobenzene	ND		0.100	1	02/19/2022 00:35	WG1820243
Chlorodibromomethane	0.134		0.100	1	02/19/2022 00:35	WG1820243
Chloroethane	ND		0.200	1	02/19/2022 00:35	WG1820243
Chloroform	0.232		0.100	1	02/19/2022 00:35	WG1820243
Chloromethane	ND		0.500	1	02/19/2022 00:35	WG1820243
2-Chlorotoluene	ND		0.100	1	02/19/2022 00:35	WG1820243
4-Chlorotoluene	ND		0.200	1	02/19/2022 00:35	WG1820243
1,2-Dibromo-3-Chloropropane	ND		1.00	1	02/19/2022 00:35	WG1820243
1,2-Dibromoethane	ND		0.100	1	02/19/2022 00:35	WG1820243
Dibromomethane	ND		0.200	1	02/19/2022 00:35	WG1820243
1,2-Dichlorobenzene	ND		0.200	1	02/19/2022 00:35	WG1820243
1,3-Dichlorobenzene	ND		0.200	1	02/19/2022 00:35	WG1820243
1,4-Dichlorobenzene	ND		0.200	1	02/19/2022 00:35	WG1820243
Dichlorodifluoromethane	ND		0.100	1	02/19/2022 00:35	WG1820243
1,1-Dichloroethane	ND		0.100	1	02/19/2022 00:35	WG1820243
1,2-Dichloroethane	ND		0.100	1	02/19/2022 00:35	WG1820243
1,1-Dichloroethene	ND		0.100	1	02/19/2022 00:35	WG1820243
cis-1,2-Dichloroethene	ND		0.100	1	02/19/2022 00:35	WG1820243
trans-1,2-Dichloroethene	ND		0.200	1	02/19/2022 00:35	WG1820243
1,2-Dichloropropane	ND		0.200	1	02/19/2022 00:35	WG1820243
1,1-Dichloropropene	ND		0.100	1	02/19/2022 00:35	WG1820243
1,3-Dichloropropane	ND		0.200	1	02/19/2022 00:35	WG1820243
cis-1,3-Dichloropropene	ND		0.100	1	02/19/2022 00:35	WG1820243
trans-1,3-Dichloropropene	ND		0.200	1	02/19/2022 00:35	WG1820243
2,2-Dichloropropane	ND		0.100	1	02/19/2022 00:35	WG1820243
Di-isopropyl ether	ND		0.0400	1	02/19/2022 00:35	WG1820243
Ethylbenzene	ND		0.100	1	02/19/2022 00:35	WG1820243
Hexachloro-1,3-butadiene	ND	C3	1.00	1	02/19/2022 00:35	WG1820243
2-Hexanone	ND		1.00	1	02/19/2022 00:35	WG1820243
Isopropylbenzene	ND		0.100	1	02/19/2022 00:35	WG1820243
p-Isopropyltoluene	ND		0.200	1	02/19/2022 00:35	WG1820243
2-Butanone (MEK)	ND		1.00	1	02/19/2022 00:35	WG1820243
Methylene Chloride	ND		1.00	1	02/19/2022 00:35	WG1820243
4-Methyl-2-pentanone (MIBK)	ND		1.00	1	02/19/2022 00:35	WG1820243
Methyl tert-butyl ether	ND		0.0400	1	02/19/2022 00:35	WG1820243
Naphthalene	ND	C3	0.500	1	02/19/2022 00:35	WG1820243

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

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
n-Propylbenzene	ND		0.200	1	02/19/2022 00:35	WG1820243
Styrene	ND	C3	0.500	1	02/19/2022 00:35	WG1820243
1,1,1,2-Tetrachloroethane	ND		0.100	1	02/19/2022 00:35	WG1820243
1,1,2,2-Tetrachloroethane	ND		0.100	1	02/19/2022 00:35	WG1820243
1,1,2-Trichlorotrifluoroethane	ND		0.100	1	02/19/2022 00:35	WG1820243
Tetrachloroethene	ND		0.100	1	02/19/2022 00:35	WG1820243
Toluene	ND		0.200	1	02/19/2022 00:35	WG1820243
1,2,3-Trichlorobenzene	ND	C4 J4	0.500	1	02/19/2022 00:35	WG1820243
1,2,4-Trichlorobenzene	ND	C4	0.500	1	02/19/2022 00:35	WG1820243
1,1,1-Trichloroethane	ND		0.100	1	02/19/2022 00:35	WG1820243
1,1,2-Trichloroethane	ND		0.100	1	02/19/2022 00:35	WG1820243
Trichloroethene	ND		0.0400	1	02/19/2022 00:35	WG1820243
Trichlorofluoromethane	ND		0.100	1	02/19/2022 00:35	WG1820243
1,2,3-Trichloropropane	ND		0.500	1	02/19/2022 00:35	WG1820243
1,2,4-Trimethylbenzene	ND		0.200	1	02/19/2022 00:35	WG1820243
1,2,3-Trimethylbenzene	ND		0.200	1	02/19/2022 00:35	WG1820243
1,3,5-Trimethylbenzene	ND		0.200	1	02/19/2022 00:35	WG1820243
Vinyl chloride	ND		0.100	1	02/19/2022 00:35	WG1820243
Xylenes, Total	ND		0.260	1	02/19/2022 00:35	WG1820243
(S) Toluene-d8	*96.6*		*75.0-131*		*02/19/2022 00:35*	WG1820243
(S) 4-Bromofluorobenzene	*91.9*		*67.0-138*		*02/19/2022 00:35*	WG1820243
(S) 1,2-Dichloroethane-d4	*119*		*70.0-130*		*02/19/2022 00:35*	WG1820243

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Ethylene Dibromide	ND		0.0210	1.05	02/22/2022 18:31	WG1820956

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	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	ND	J4	10.0	1	02/18/2022 21:05	WG1820243
Acrylonitrile	ND	J3 J4	0.500	1	02/18/2022 21:05	WG1820243
Acrolein	ND	J3 J4	50.0	1	02/18/2022 21:05	WG1820243
Benzene	ND		0.0400	1	02/18/2022 21:05	WG1820243
Bromobenzene	ND		0.500	1	02/18/2022 21:05	WG1820243
Bromodichloromethane	ND		0.100	1	02/18/2022 21:05	WG1820243
Bromoform	ND		1.00	1	02/18/2022 21:05	WG1820243
Bromomethane	ND		0.500	1	02/18/2022 21:05	WG1820243
n-Butylbenzene	ND	C3	0.500	1	02/18/2022 21:05	WG1820243
sec-Butylbenzene	ND		0.500	1	02/18/2022 21:05	WG1820243
tert-Butylbenzene	ND	C3	0.200	1	02/18/2022 21:05	WG1820243
Carbon disulfide	ND		0.500	1	02/18/2022 21:05	WG1820243
Carbon tetrachloride	ND		0.200	1	02/18/2022 21:05	WG1820243
Chlorobenzene	ND		0.100	1	02/18/2022 21:05	WG1820243
Chlorodibromomethane	ND		0.100	1	02/18/2022 21:05	WG1820243
Chloroethane	ND		0.200	1	02/18/2022 21:05	WG1820243
Chloroform	ND		0.100	1	02/18/2022 21:05	WG1820243
Chloromethane	ND		0.500	1	02/18/2022 21:05	WG1820243
2-Chlorotoluene	ND		0.100	1	02/18/2022 21:05	WG1820243
4-Chlorotoluene	ND		0.200	1	02/18/2022 21:05	WG1820243
1,2-Dibromo-3-Chloropropane	ND		1.00	1	02/18/2022 21:05	WG1820243
1,2-Dibromoethane	ND		0.100	1	02/18/2022 21:05	WG1820243
Dibromomethane	ND		0.200	1	02/18/2022 21:05	WG1820243
1,2-Dichlorobenzene	ND		0.200	1	02/18/2022 21:05	WG1820243
1,3-Dichlorobenzene	ND		0.200	1	02/18/2022 21:05	WG1820243
1,4-Dichlorobenzene	ND		0.200	1	02/18/2022 21:05	WG1820243
Dichlorodifluoromethane	ND		0.100	1	02/18/2022 21:05	WG1820243
1,1-Dichloroethane	ND		0.100	1	02/18/2022 21:05	WG1820243
1,2-Dichloroethane	ND		0.100	1	02/18/2022 21:05	WG1820243
1,1-Dichloroethene	ND		0.100	1	02/18/2022 21:05	WG1820243
cis-1,2-Dichloroethene	ND		0.100	1	02/18/2022 21:05	WG1820243
trans-1,2-Dichloroethene	ND		0.200	1	02/18/2022 21:05	WG1820243
1,2-Dichloropropane	ND		0.200	1	02/18/2022 21:05	WG1820243
1,1-Dichloropropene	ND		0.100	1	02/18/2022 21:05	WG1820243
1,3-Dichloropropane	ND		0.200	1	02/18/2022 21:05	WG1820243
cis-1,3-Dichloropropene	ND		0.100	1	02/18/2022 21:05	WG1820243
trans-1,3-Dichloropropene	ND		0.200	1	02/18/2022 21:05	WG1820243
2,2-Dichloropropane	ND		0.100	1	02/18/2022 21:05	WG1820243
Di-isopropyl ether	ND		0.0400	1	02/18/2022 21:05	WG1820243
Ethylbenzene	ND		0.100	1	02/18/2022 21:05	WG1820243
Hexachloro-1,3-butadiene	ND	C3	1.00	1	02/18/2022 21:05	WG1820243
2-Hexanone	ND		1.00	1	02/18/2022 21:05	WG1820243
Isopropylbenzene	ND		0.100	1	02/18/2022 21:05	WG1820243
p-Isopropyltoluene	ND		0.200	1	02/18/2022 21:05	WG1820243
2-Butanone (MEK)	ND		1.00	1	02/18/2022 21:05	WG1820243
Methylene Chloride	ND		1.00	1	02/18/2022 21:05	WG1820243
4-Methyl-2-pentanone (MIBK)	ND		1.00	1	02/18/2022 21:05	WG1820243
Methyl tert-butyl ether	ND		0.0400	1	02/18/2022 21:05	WG1820243
Naphthalene	ND	C3	0.500	1	02/18/2022 21:05	WG1820243
n-Propylbenzene	ND		0.200	1	02/18/2022 21:05	WG1820243
Styrene	ND	C3	0.500	1	02/18/2022 21:05	WG1820243
1,1,1,2-Tetrachloroethane	ND		0.100	1	02/18/2022 21:05	WG1820243
1,1,2,2-Tetrachloroethane	ND		0.100	1	02/18/2022 21:05	WG1820243
1,1,2-Trichlorotrifluoroethane	ND		0.100	1	02/18/2022 21:05	WG1820243
Tetrachloroethene	ND		0.100	1	02/18/2022 21:05	WG1820243
Toluene	ND		0.200	1	02/18/2022 21:05	WG1820243

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	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
1,2,3-Trichlorobenzene	ND	C4 J4	0.500	1	02/18/2022 21:05	WG1820243
1,2,4-Trichlorobenzene	ND	C4	0.500	1	02/18/2022 21:05	WG1820243
1,1,1-Trichloroethane	ND		0.100	1	02/18/2022 21:05	WG1820243
1,1,2-Trichloroethane	ND		0.100	1	02/18/2022 21:05	WG1820243
Trichloroethene	ND		0.0400	1	02/18/2022 21:05	WG1820243
Trichlorofluoromethane	ND		0.100	1	02/18/2022 21:05	WG1820243
1,2,3-Trichloropropane	ND		0.500	1	02/18/2022 21:05	WG1820243
1,2,4-Trimethylbenzene	ND		0.200	1	02/18/2022 21:05	WG1820243
1,2,3-Trimethylbenzene	ND		0.200	1	02/18/2022 21:05	WG1820243
1,3,5-Trimethylbenzene	ND		0.200	1	02/18/2022 21:05	WG1820243
Vinyl chloride	ND		0.100	1	02/18/2022 21:05	WG1820243
Xylenes, Total	ND		0.260	1	02/18/2022 21:05	WG1820243
(S) Toluene-d8	*98.4*		*75.0-131*		*02/18/2022 21:05*	WG1820243
(S) 4-Bromofluorobenzene	*96.1*		*67.0-138*		*02/18/2022 21:05*	WG1820243
(S) 1,2-Dichloroethane-d4	*119*		*70.0-130*		*02/18/2022 21:05*	WG1820243

Method Blank (MB)

(MB) R3761664-1 02/18/22 22:55

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Cadmium	U		0.150	1.00
Chromium	U		1.24	2.00

Method Blank (MB)

(MB) R3761731-1 02/19/22 17:56

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Lead	U		0.849	2.00

Laboratory Control Sample (LCS)

(LCS) R3761664-2 02/18/22 22:58

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Cadmium	50.0	49.3	98.6	80.0-120	
Chromium	50.0	47.0	93.9	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3761731-2 02/19/22 18:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Lead	50.0	47.2	94.5	80.0-120	

L1462827-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1462827-19 02/18/22 23:02 • (MS) R3761664-4 02/18/22 23:08 • (MSD) R3761664-5 02/18/22 23:12

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Cadmium	50.0	ND	49.4	49.3	98.9	98.6	1	75.0-125			0.222	20
Chromium	50.0	7.36	51.8	52.5	88.9	90.3	1	75.0-125			1.35	20

L1462827-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1462827-19 02/19/22 18:03 • (MS) R3761731-4 02/19/22 18:09 • (MSD) R3761731-5 02/19/22 18:13

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead	50.0	ND	48.0	47.0	96.0	94.0	1	75.0-125			2.08	20

Method Blank (MB)

(MB) R3762548-2 02/19/22 03:40

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	U		31.6	100
(S) a,a,a-Trifluorotoluene(FID)	*109*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3762548-1 02/19/22 02:42

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Gasoline Range Organics-NWTPH	5500	6300	115	70.0-124	
(S) a,a,a-Trifluorotoluene(FID)			*100*	*78.0-120*	

L1463248-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1463248-03 02/19/22 08:56 • (MS) R3762548-3 02/19/22 12:01 • (MSD) R3762548-4 02/19/22 12:25

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	ND	3390	6280	60.4	113	1	10.0-155		J3	59.8	21
(S) a,a,a-Trifluorotoluene(FID)					*103*	*100*		*78.0-120*				

Method Blank (MB)

(MB) R3763016-2 02/18/22 20:27

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		0.548	10.0
Acrolein	U		0.758	50.0
Acrylonitrile	U		0.0760	0.500
Benzene	U		0.0160	0.0400
Bromobenzene	U		0.0420	0.500
Bromodichloromethane	U		0.0315	0.100
Bromoform	U		0.239	1.00
Bromomethane	U		0.148	0.500
n-Butylbenzene	U		0.153	0.500
sec-Butylbenzene	U		0.101	0.500
tert-Butylbenzene	U		0.0620	0.200
Carbon disulfide	U		0.162	0.500
Carbon tetrachloride	U		0.0432	0.200
Chlorobenzene	U		0.0229	0.100
Chlorodibromomethane	U		0.0180	0.100
Chloroethane	U		0.0432	0.200
Chloroform	U		0.0166	0.100
Chloromethane	U		0.0556	0.500
2-Chlorotoluene	U		0.0368	0.100
4-Chlorotoluene	U		0.0452	0.200
1,2-Dibromo-3-Chloropropane	U		0.204	1.00
1,2-Dibromoethane	U		0.0210	0.100
Dibromomethane	U		0.0400	0.200
1,2-Dichlorobenzene	U		0.0580	0.200
1,3-Dichlorobenzene	U		0.0680	0.200
1,4-Dichlorobenzene	U		0.0788	0.200
Dichlorodifluoromethane	U		0.0327	0.100
1,1-Dichloroethane	U		0.0230	0.100
1,2-Dichloroethane	U		0.0190	0.100
1,1-Dichloroethene	U		0.0200	0.100
cis-1,2-Dichloroethene	U		0.0276	0.100
trans-1,2-Dichloroethene	U		0.0572	0.200
1,2-Dichloropropane	U		0.0508	0.200
1,1-Dichloropropene	U		0.0280	0.100
1,3-Dichloropropane	U		0.0700	0.200
cis-1,3-Dichloropropene	U		0.0271	0.100
trans-1,3-Dichloropropene	U		0.0612	0.200
2,2-Dichloropropane	U		0.0317	0.100
Di-isopropyl ether	U		0.0140	0.0400
Ethylbenzene	U		0.0212	0.100

Method Blank (MB)

(MB) R3763016-2 02/18/22 20:27

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Hexachloro-1,3-butadiene	U		0.508	1.00
2-Hexanone	U		0.400	1.00
Isopropylbenzene	U		0.0345	0.100
p-Isopropyltoluene	U		0.0932	0.200
2-Butanone (MEK)	U		0.500	1.00
Methylene Chloride	U		0.265	1.00
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00
Methyl tert-butyl ether	U		0.0118	0.0400
Naphthalene	U		0.124	0.500
n-Propylbenzene	U		0.0472	0.200
Styrene	U		0.109	0.500
1,1,1,2-Tetrachloroethane	U		0.0200	0.100
1,1,2,2-Tetrachloroethane	U		0.0156	0.100
Tetrachloroethene	U		0.0280	0.100
Toluene	U		0.0500	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100
1,2,3-Trichlorobenzene	U		0.0250	0.500
1,2,4-Trichlorobenzene	U		0.193	0.500
1,1,1-Trichloroethane	U		0.0110	0.100
1,1,2-Trichloroethane	U		0.0353	0.100
Trichloroethene	U		0.0160	0.0400
Trichlorofluoromethane	U		0.0200	0.100
1,2,3-Trichloropropane	U		0.204	0.500
1,2,3-Trimethylbenzene	U		0.0460	0.200
1,2,4-Trimethylbenzene	U		0.0464	0.200
1,3,5-Trimethylbenzene	U		0.0432	0.200
Vinyl chloride	U		0.0273	0.100
Xylenes, Total	U		0.191	0.260
(S) Toluene-d8	*96.9*			*75.0-131*
(S) 4-Bromofluorobenzene	*92.4*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*118*			*70.0-130*

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

(LCS) R3763016-1 02/18/22 19:12 • (LCSD) R3763016-3 02/18/22 21:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	37.2	50.6	149	202	10.0-160		J4	30.5	31
Acrolein	25.0	84.9	123	340	492	10.0-160	J4	J3 J4	36.7	31

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

(LCS) R3763016-1 02/18/22 19:12 • (LCSD) R3763016-3 02/18/22 21:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acrylonitrile	25.0	32.2	44.5	129	178	45.0-153		J3 J4	32.1	22
Benzene	5.00	4.67	5.20	93.4	104	70.0-123			10.7	20
Bromobenzene	5.00	4.17	4.41	83.4	88.2	73.0-121			5.59	20
Bromodichloromethane	5.00	5.29	5.82	106	116	73.0-121			9.54	20
Bromoform	5.00	4.54	4.86	90.8	97.2	64.0-132			6.81	20
Bromomethane	5.00	4.54	4.44	90.8	88.8	56.0-147			2.23	20
n-Butylbenzene	5.00	3.98	4.37	79.6	87.4	68.0-135			9.34	20
sec-Butylbenzene	5.00	4.12	4.60	82.4	92.0	74.0-130			11.0	20
tert-Butylbenzene	5.00	3.95	4.27	79.0	85.4	75.0-127			7.79	20
Carbon disulfide	5.00	4.91	5.91	98.2	118	56.0-133			18.5	20
Carbon tetrachloride	5.00	5.62	6.12	112	122	66.0-128			8.52	20
Chlorobenzene	5.00	4.41	4.69	88.2	93.8	76.0-128			6.15	20
Chlorodibromomethane	5.00	5.24	5.45	105	109	74.0-127			3.93	20
Chloroethane	5.00	5.35	4.93	107	98.6	61.0-134			8.17	20
Chloroform	5.00	5.24	5.55	105	111	72.0-123			5.75	20
Chloromethane	5.00	4.11	4.38	82.2	87.6	51.0-138			6.36	20
2-Chlorotoluene	5.00	4.43	4.76	88.6	95.2	75.0-124			7.18	20
4-Chlorotoluene	5.00	4.27	4.62	85.4	92.4	75.0-124			7.87	20
1,2-Dibromo-3-Chloropropane	5.00	4.04	4.85	80.8	97.0	59.0-130			18.2	20
1,2-Dibromoethane	5.00	4.70	5.13	94.0	103	74.0-128			8.75	20
Dibromomethane	5.00	5.44	5.73	109	115	75.0-122			5.19	20
1,2-Dichlorobenzene	5.00	4.37	4.47	87.4	89.4	76.0-124			2.26	20
1,3-Dichlorobenzene	5.00	4.10	4.34	82.0	86.8	76.0-125			5.69	20
1,4-Dichlorobenzene	5.00	4.39	4.50	87.8	90.0	77.0-121			2.47	20
Dichlorodifluoromethane	5.00	4.19	4.79	83.8	95.8	43.0-156			13.4	20
1,1-Dichloroethane	5.00	4.89	5.58	97.8	112	70.0-127			13.2	20
1,2-Dichloroethane	5.00	5.73	6.15	115	123	65.0-131			7.07	20
1,1-Dichloroethene	5.00	5.46	6.30	109	126	65.0-131			14.3	20
cis-1,2-Dichloroethene	5.00	4.60	5.21	92.0	104	73.0-125			12.4	20
trans-1,2-Dichloroethene	5.00	4.69	5.39	93.8	108	71.0-125			13.9	20
1,2-Dichloropropane	5.00	5.44	5.93	109	119	74.0-125			8.62	20
1,1-Dichloropropene	5.00	4.98	5.34	99.6	107	73.0-125			6.98	20
1,3-Dichloropropane	5.00	4.37	4.74	87.4	94.8	80.0-125			8.12	20
cis-1,3-Dichloropropene	5.00	5.34	5.79	107	116	76.0-127			8.09	20
trans-1,3-Dichloropropene	5.00	4.90	5.25	98.0	105	73.0-127			6.90	20
2,2-Dichloropropane	5.00	5.45	6.10	109	122	59.0-135			11.3	20
Di-isopropyl ether	5.00	4.35	4.43	87.0	88.6	60.0-136			1.82	20
Ethylbenzene	5.00	4.31	4.75	86.2	95.0	74.0-126			9.71	20
Hexachloro-1,3-butadiene	5.00	3.50	4.26	70.0	85.2	57.0-150			19.6	20
2-Hexanone	25.0	27.7	31.1	111	124	54.0-147			11.6	20

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

(LCS) R3763016-1 02/18/22 19:12 • (LCSD) R3763016-3 02/18/22 21:24

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Isopropylbenzene	5.00	4.27	4.63	85.4	92.6	72.0-127			8.09	20
p-Isopropyltoluene	5.00	4.24	4.74	84.8	94.8	72.0-133			11.1	20
2-Butanone (MEK)	25.0	29.9	36.4	120	146	30.0-160			19.6	24
Methylene Chloride	5.00	4.99	5.42	99.8	108	68.0-123			8.26	20
4-Methyl-2-pentanone (MIBK)	25.0	24.5	27.3	98.0	109	56.0-143			10.8	20
Methyl tert-butyl ether	5.00	5.24	5.45	105	109	66.0-132			3.93	20
Naphthalene	5.00	3.07	3.06	61.4	61.2	59.0-130			0.326	20
n-Propylbenzene	5.00	4.06	4.46	81.2	89.2	74.0-126			9.39	20
Styrene	5.00	3.91	4.27	78.2	85.4	72.0-127			8.80	20
1,1,1,2-Tetrachloroethane	5.00	4.61	4.96	92.2	99.2	74.0-129			7.31	20
1,1,2,2-Tetrachloroethane	5.00	4.59	5.30	91.8	106	68.0-128			14.4	20
Tetrachloroethene	5.00	4.32	4.68	86.4	93.6	70.0-136			8.00	20
Toluene	5.00	4.38	4.76	87.6	95.2	75.0-121			8.32	20
1,1,2-Trichlorotrifluoroethane	5.00	4.24	4.62	84.8	92.4	61.0-139			8.58	20
1,2,3-Trichlorobenzene	5.00	2.40	2.15	48.0	43.0	59.0-139	J4	J4	11.0	20
1,2,4-Trichlorobenzene	5.00	3.18	3.39	63.6	67.8	62.0-137			6.39	20
1,1,1-Trichloroethane	5.00	5.22	5.68	104	114	69.0-126			8.44	20
1,1,2-Trichloroethane	5.00	4.51	4.85	90.2	97.0	78.0-123			7.26	20
Trichloroethene	5.00	5.21	5.40	104	108	76.0-126			3.58	20
Trichlorofluoromethane	5.00	4.35	4.53	87.0	90.6	61.0-142			4.05	20
1,2,3-Trichloropropane	5.00	5.12	5.57	102	111	67.0-129			8.42	20
1,2,3-Trimethylbenzene	5.00	5.15	5.55	103	111	74.0-124			7.48	20
1,2,4-Trimethylbenzene	5.00	4.24	4.57	84.8	91.4	70.0-126			7.49	20
1,3,5-Trimethylbenzene	5.00	4.15	4.45	83.0	89.0	73.0-127			6.98	20
Vinyl chloride	5.00	5.29	5.67	106	113	63.0-134			6.93	20
Xylenes, Total	15.0	12.7	13.6	84.7	90.7	72.0-127			6.84	20
(S) Toluene-d8				*96.0*	*97.2*	*75.0-131*				
(S) 4-Bromofluorobenzene				*98.9*	*99.4*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*118*	*120*	*70.0-130*				

Method Blank (MB)

(MB) R3762902-1 02/22/22 16:09

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylene Dibromide	U		0.00536	0.0200

L1462918-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1462918-01 02/22/22 16:56 • (DUP) R3762902-3 02/22/22 16:44

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	ND	ND	1.03	0.000		20

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

(LCS) R3762902-4 02/22/22 18:54 • (LCSD) R3762902-5 02/22/22 21:28

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.250	0.301	0.295	120	118	60.0-140			2.01	20

L1463220-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1463220-01 02/22/22 16:32 • (MS) R3762902-2 02/22/22 16:20

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.102	ND	0.0998	97.8	1.02	64.0-159	

Method Blank (MB)

(MB) R3764137-1 02/25/22 21:37

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		66.7	200
Residual Range Organics (RRO)	U		83.3	250
(S) o-Terphenyl	*87.5*			*52.0-156*

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

(LCS) R3764137-2 02/25/22 21:57 • (LCSD) R3764137-3 02/25/22 22:17

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1500	1620	1640	108	109	50.0-150			1.23	20
(S) o-Terphenyl				*89.0*	*89.0*	*52.0-156*				

Method Blank (MB)

(MB) R3763188-3 02/23/22 11:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.0190	0.0500
Acenaphthene	U		0.0190	0.0500
Acenaphthylene	U		0.0171	0.0500
Benzo(a)anthracene	U		0.0203	0.0500
Benzo(a)pyrene	U		0.0184	0.0500
Benzo(b)fluoranthene	U		0.0168	0.0500
Benzo(g,h,i)perylene	U		0.0184	0.0500
Benzo(k)fluoranthene	U		0.0202	0.0500
Chrysene	U		0.0179	0.0500
Dibenz(a,h)anthracene	U		0.0160	0.0500
Fluoranthene	U		0.0270	0.100
Fluorene	U		0.0169	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500
Naphthalene	U		0.0917	0.250
Phenanthrene	U		0.0180	0.0500
Pyrene	U		0.0169	0.0500
1-Methylnaphthalene	U		0.0687	0.250
2-Methylnaphthalene	U		0.0674	0.250
2-Chloronaphthalene	U		0.0682	0.250
(S) Nitrobenzene-d5	*89.0*			*31.0-160*
(S) 2-Fluorobiphenyl	*100*			*48.0-148*
(S) p-Terphenyl-d14	*103*			*37.0-146*

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

(LCS) R3763188-1 02/23/22 11:09 • (LCSD) R3763188-2 02/23/22 11:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	1.87	1.85	93.5	92.5	67.0-150			1.08	20
Acenaphthene	2.00	1.88	1.91	94.0	95.5	65.0-138			1.58	20
Acenaphthylene	2.00	1.87	1.87	93.5	93.5	66.0-140			0.000	20
Benzo(a)anthracene	2.00	1.86	1.85	93.0	92.5	61.0-140			0.539	20
Benzo(a)pyrene	2.00	2.06	2.08	103	104	60.0-143			0.966	20
Benzo(b)fluoranthene	2.00	1.89	1.93	94.5	96.5	58.0-141			2.09	20
Benzo(g,h,i)perylene	2.00	1.97	1.96	98.5	98.0	52.0-153			0.509	20
Benzo(k)fluoranthene	2.00	1.94	1.94	97.0	97.0	58.0-148			0.000	20
Chrysene	2.00	2.03	2.03	102	102	64.0-144			0.000	20
Dibenz(a,h)anthracene	2.00	1.86	1.89	93.0	94.5	52.0-155			1.60	20
Fluoranthene	2.00	2.00	2.03	100	102	69.0-153			1.49	20

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

(LCS) R3763188-1 02/23/22 11:09 • (LCSD) R3763188-2 02/23/22 11:29

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	2.00	2.01	2.01	100	100	64.0-136			0.000	20
Indeno(1,2,3-cd)pyrene	2.00	1.91	1.91	95.5	95.5	54.0-153			0.000	20
Naphthalene	2.00	2.04	2.04	102	102	61.0-137			0.000	20
Phenanthrene	2.00	1.91	1.91	95.5	95.5	62.0-137			0.000	20
Pyrene	2.00	2.03	2.03	102	102	60.0-142			0.000	20
1-Methylnaphthalene	2.00	1.88	1.89	94.0	94.5	66.0-142			0.531	20
2-Methylnaphthalene	2.00	1.89	1.93	94.5	96.5	62.0-136			2.09	20
2-Chloronaphthalene	2.00	2.02	2.05	101	102	64.0-140			1.47	20
(S) Nitrobenzene-d5				*95.0*	*105*	*31.0-160*				
(S) 2-Fluorobiphenyl				*102*	*101*	*48.0-148*				
(S) p-Terphenyl-d14				*101*	*100*	*37.0-146*				

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
C4	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Data is likely to show a low bias concerning the result.
C5	The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

Company Name/Address:
Martin S. Burck Assoc.-Hood River, OR

200 N. Wasco Ct.
Hood River, OR 97031

Billing Information:
Accounts Payable
200 N. Wasco Ct.
Hood River, OR 97031

Pres Chk

Report to: Jon White

Email To: jwhite@msbaenvironmental.com;jowen@msba

Project Description: Allyn Street USTs - Goldendale, WA

City/State Collected: Goldendale, WA

Please Circle: (PT) MT CT ET

Phone: 541-387-4422

Client Project # Allyn Street

Lab Project # MSBAHROR-ALLYNST

Collected by (print): Jon White

Site/Facility ID # Allyn Street

P.O. # Allyn Street

Collected by (signature): Jon White (JW)

Immediately Packed on Ice N ___ Y V

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

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	NWTPHDX no silica 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	PAHs 8270ESIM 40mlAmb-NoPres-WT	Total Cd,Cr,Pb 6020 250mlHDPE-HNO3	VOCs 8260D ULL 40mlAmb-HCl	Hold					Remarks	Sample # (lab only)
Irrigation Well		GW		2/16/22	10:58 (JW)	12		X			X							-01
Irrigation Well (2)		GW		2/16/22	10:58	6		X			X							-02
Excavation Cavity Water		GW		2/16/22	10:14	12	X	X	X	X	X							-03
Equip 2		~~GW~~ OT		2/16/22	08:44	6		X			X							-04
Equip 3		~~GW~~ OT		2/16/22	09:59	11						X						-05
Trip Blank		~~GW~~ OT		2/16/22	-	1					X							-06
		GW																

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

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

SDG # 1462848
F171

Acctnum: MSBAHROR
Template: T203419
Prelogin: P903923
PM: 110 - Brian Ford
PB:

Shipped Via:

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

Remarks:

pH ____ Temp ____
Flow ____ Other ____

Samples returned via:
__ UPS __ FedEx __ Courier ____

Tracking # 5300 4298 3986

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
Jon White	2/16/22	15:30		1	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: NSAC °C 3.8-0=3.8 Bottles Received: 47	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 02/17/22 Time: 0930	Hold: Condition: NCF / OK