
**SEPTEMBER 2023
GROUNDWATER SAMPLING EVENT REPORT**

FOR

**HAHN MOTOR COMPANY
1201 SOUTH 1ST STREET
YAKIMA, WASHINGTON 98901**

**Facility Site ID No. 502
Cleanup Site ID No. 4927
VCP Project No. CE0529**

October 5, 2023

Prepared for:

Ms. Debra Manjarrez
Manjarrez & De Leon Inc, PS
2010 West Nob Hill Blvd, Suite 1
Yakima, Washington 98902

And

Mr. Kyle Parker
Department of Ecology
Toxic Cleanup Program, Central Regional Office
1250 West Alder Street
Union Gap, Washington 98903-0009

Prepared by:
Brent Bergeron, LHG, LG
Licensed Hydrogeologist and Geologist

Blue Mountain Environmental and Consulting Company, Inc.
PO Box 545/125 Main St.
Waitsburg, WA 99361
509-520-6519

PROJECT SUMMARY

Client: Ms. Debra Manjarrez
Manjarrez & De Leon Inc, PS
2010 West Nob Hill Blvd, Suite 1
Yakima, Washington 98902

Point of Contact: Ms. Debra Manjarrez

Property: Hahn Motor Company
1201 South 1st Street
Yakima, Washington 98901

Major Commercial Activity: Automotive Sales and Automobile Repair

VCP Project ID Number: CE0529

Licensed Hydrogeologist/Geologist: Brent N. Bergeron, LHG, LG

License Number/Expiration: LHG #2267, expires 1/3/2024
LG #2267, expires 1/3/2024

Project Number: E2023/0712

Report Date: October 5, 2023

Legal description: Tax Parcel 191330-13032 in the southwest quarter of the northeast quarter of Section 30, Township 13 North, Range 19 E.W.M; Latitude 46° 35' 17.37" North, Longitude 120° 29'52.41" West.

CONTENTS

PROJECT SUMMARY	2
CONTENTS	3
1.0 INTRODUCTION	5
1.1 LOCATION.....	5
1.2 GENERAL SITE INFORMATION.....	5
2.0 GEOLOGY AND HYDROGEOLOGY.....	6
3.0 PREVIOUS ENVIRONMENTAL FIELD ACTIVITIES.....	6
3.1 FEBRUARY 2022 - SUBSURFACE INVESTIGATION	7
3.2 JULY 2022 - DRY WELL REMOVAL	8
3.3 SEPTEMBER 2022 - ADDITIONAL SUBSURFACE INVESTIGATION	9
3.4 OCTOBER 2022 – GROUNDWATER SAMPLING EVENT	10
3.5 DECEMBER 2022 – GROUNDWATER SAMPLING EVENT.....	10
3.6 MARCH 2023 GROUNDWATER SAMPLING EVENT.....	11
3.7 MAY 19, 2023, MONITORING WELL INSTALLATION AND SOIL SAMPLING EVENT	12
3.8 JUNE 13, 2023, MONITORING WELL DEVELOPMENT AND GROUNDWATER SAMPLING EVENT.....	13
4.0 SEPTEMBER 2023 GROUNDWATER SAMPLING METHODOLOGY.....	13
5.0 SEPTEMBER 2023 GROUNDWATER SAMPLE RESULTS	14
6.0 CONCLUSIONS.....	15
7.0 RECOMMENDATIONS	16
8.0 STATEMENT OF ENVIRONMENTAL PROFESSIONALS	17
9.0 REFERENCES	18

TABLE OF CONTENTS

FIGURES

<u>Figure No</u>	<u>Figure Title</u>
1	SITE VICINITY MAP
2	SITE LOCATION MAP
3	GROUNDWATER FLOW DIRECTION – SEPTEMBER 26, 2023
4	TOTAL METALS IN GROUNDWATER – SEPTEMBER 26, 2023
5	CHLORINATED SOLVENTS IN GROUNDWATER – SEPTEMBER 26, 2023

TABLES

<u>Table No</u>	<u>Table Title</u>
1	Monitoring Well Installation and Groundwater Surface Elevation Data
2	Groundwater Sample Results – Total Petroleum Hydrocarbons (µg/L)
3	Groundwater Sample Results - Volatile Organic Compounds (µg/L)
4	Groundwater Sample Results – Total Metals (µg/L)

APPENDICES

<u>Appendix No</u>	<u>Appendix Title</u>
A	GROUNDWATER SAMPLE FIELD DATA SHEETS
B	LABORATORY ANALYTICAL DOCUMENTATION

1.0 INTRODUCTION

On September 26, 2023, Blue Mountain Environmental and Consulting Company, Inc. (BMEC) mobilized to 1201 South 1st Street in Yakima, Washington 98901 (Site) and performed a groundwater sampling event (GWSE) involving all nine monitoring wells (MW1, MW2, MW3A, MW4, MW5, MW6, MW7, MW8, and MW9). A Site Vicinity Map is included as **Figure 1**. A Site Location Map is included as **Figure 2**.

The scope of work (SOW) for the September 2023 was as follows:

- Collect depth-to-water measurements from all nine wells (MW1 through MW9);
- Collect groundwater samples from each of the nine monitoring wells and relinquish them to a Washington-accredited laboratory for the following analyses: TPH-D and TPH-O via Northwest Method NWTPH-Dx, chlorinated VOCs via EPA Method 8260, as well as dissolved and total metals via EPA Method 200.8/7470A; and
- Document the findings in a detailed report including groundwater laboratory analytical results, as well as the groundwater flow direction of the shallow aquifer.

1.1 Location

The 1.5-acre (approximate) Site is located in the City of Yakima, Yakima County, Washington, at the southeast corner of the intersection of South 1st Street and East Arlington Street (**Figures 2 - 5**). The Site consists of one tax parcel (191330-13032) and is located in the southwest quarter of the northeast quarter of Section 30, Township 13 North, Range 19 E.W.M. The elevation is approximately 1,040 feet above mean sea level and the Site is relatively flat with primarily asphalt ground cover. The nearest major body of water is the Yakima River approximately 1.5 miles east of the Site. The Site is surrounded by commercial then residential property to the east, commercial property then light industry to the north, commercial property to the northwest, commercial property then railroad property to the west, and commercial property to the south. There are no flood zones or wetlands associated with the Site.

1.2 General Site Information

As of February 23, 2016, the property was owned by Mr. Richard Hahn. The current owner of the property is the Estate of Douglas F Bettarel, represented by Ms. Debra Manjarrez of Manjarrez and De Leon Inc, PS. BMEC is currently working for Manjarrez and De Leon Inc, PS.

One building is located on the Site (**Figures 2 – 5**). The rectangular building located on the northwest corner of the property consists of an automobile showroom with offices on the western half, bathrooms and break room near the center of the building, and an automobile repair and automobile wash bay in the eastern half of the building. During the visit to the Site on February 1, 2022, a minimum of one sump was noticed on the interior of the eastern half of the building. The sump appeared to drain to the south toward the drywells which BMEC investigated via soil and groundwater sampling on February 1, 2022. The drywells and all associated petroleum and metals impacted soils were removed on July 12 and 13, 2022, and replaced by a single dry well on July 14, 2022.

2.0 GEOLOGY AND HYDROGEOLOGY

Based on the subsurface investigation field activities conducted at the Site on September 27 and 28, 2022, the following geologic soil conditions were encountered in soil borings MW1 and MW3 through MW6:

- 0 – 0.25': Asphalt.
- 0.25 – 2': Brown SILT (ML);
- 2 – 20': Brown to dark brown, sandy, well-rounded, coarse GRAVEL & COBBLES, with little silt, loose (GW); and
- 20 -25': Brown – gray, SAND & GRAVEL, well-rounded, coarse, loose, wet – very wet (SP/GP).

During the May 19, 2023, monitoring well installation activities, soil lithology in wells MW3A and MW7 through MW9 was similar to the afore-mentioned soil with predominantly brown to gray-brown sandy, rounded, coarse GRAVELS (GW) from 2.5 to 30 feet below ground surface (bgs) and groundwater saturation noted from 18 - 22 feet bgs. During the June 13, 2023, GWSE, depth to groundwater was measured around 18 - 20 feet below top of casing (btoc) in all nine wells. Groundwater flow direction was to the southeast at 0.004 feet per foot on June 13, 2023. During the September 26, 2023 GWSE, depth to groundwater was measured around 16 – 18 feet btoc in all nine wells. Groundwater flow direction was to the southeast at 0.005 – 0.006 feet per foot (**Figure 3**).

During February 1, 2022, field activities, groundwater was encountered in soil borings SB1 at 11 feet bgs, SB3 at 16.3 feet bgs, SB4 at 18 feet bgs, and SB5 at 14.5 feet bgs. During the October 3, 2022, GWSE conducted at the Site, depths-to-groundwater ranged from 15.48 feet btoc in well MW1, to 16.66 feet btoc in well MW2. The groundwater flow direction was determined to be to the southeast toward the Yakima River which is approximately 1.5 miles east of the Site with a hydraulic gradient of 0.005 feet per foot. The estimated flow direction in the deeper aquifer beneath the Site is also to the southeast with an approximate hydraulic gradient of 0.004 feet per foot.

3.0 PREVIOUS ENVIRONMENTAL FIELD ACTIVITIES

The existing facility was built in 1946 by Hahn Motors Company. A 2,000-gallon heating oil underground storage tank (UST) for the oil-fired boiler was installed in the northwest side of the building's basement to provide heat for the facility. A second 2,000-gallon UST was installed at the facility in the mid-1970's and both USTs were used to store used oil after the boiler was converted to burn used motor oil, which was plentiful, available from the on-site conducted car services.

It was determined by Ecology on July 9, 2007, and documented via certified mail dated July 26, 2007, that Hahn Motor Company was in *Non-Compliance with the Underground Storage Tank Regulations Chapter 173-360* for not properly registering and upgrading their 2,000-gallon USTs prior to storage of waste oil. Via directive from Ecology as defined in the July 26, 2007 certified mail, both USTs were decommissioned by removal and backfill in November 2007.

Approximately 50 cubic yards of petroleum-contaminated soil (PCS) and asphalt were hauled off-site and disposed of at the Anderson Disposal Facility in Yakima, Washington.

During the November 9, 2007, UST decommissioning activities, three soil samples were collected from the west, north, and east side of the eastern UST, yielding one heavy oil detection of 396 milligrams per Kilogram (mg/Kg) in the west sample. Similarly, three soil samples were collected from the west, north, and east side of the eastern UST, yielding heavy oil detections ranging between 155 – 492 mg/Kg. The MTCA Method A Cleanup Level for heavy oil is 2,000 mg/Kg. No gasoline range hydrocarbons were identified by laboratory analysis in any soil samples collected. Significant lead concentrations were detected in residual soil sampled and analyzed from the tank bottom(s).

In 2017, Ecology conducted semi-annual groundwater sampling of the Yakima Railroad Area (YRRA) groundwater monitoring network which is a six-square mile area located along the railroad corridor in the cities of Yakima and Union Gap, Washington. The YRRA was defined in 1991. The Site is located near the center of the YRRA which is impacted by chlorinated solvents, primarily tetrachloroethene (PCE). Circa 2017, 15 of the 39 groundwater samples collected from wells within the YRRA yielded concentrations ranging from 5 to 9,110 micrograms per liter ($\mu\text{g/L}$). The MTCA Cleanup Level for PCE in groundwater is 5 $\mu\text{g/L}$.

3.1 February 2022 - Subsurface Investigation

On February 1, 2022, BMEC hydrogeologist, Brent Bergeron, LHG, and BMEC environmental professional Yancy Meyer, supervised the advancement of six soil borings (SB1 through SB6) to depths varying between 15 feet and 25 feet bgs. The six soil borings were advanced via sonic drilling methodology by Environmental West Explorations (EWE) personnel.

TPH-D was only quantified in one of the 21 soil samples at a concentration of 670 mg/Kg in sample SB1-2-1-22-10'. TPH-O was quantified in three of the 21 soil samples at concentrations of 1400 mg/Kg in sample SB1-2-1-22-10'; 6900 mg/Kg in sample SB5-2-1-22-10'; and 1100 mg/Kg in sample SB5-2-1-22-15'. The MTCA Method A Cleanup Level for TPH-D + TPH-O is 2000 mg/Kg which was only exceeded in samples SB1-2-1-22-10' and SB5-2-1-22-10'. TPH-G was performed on one soil sample. TPH-G was quantified in sample SB1-2-1-22-10' at 220 mg/Kg which exceeds the MTCA Method A Cleanup Level of 30 mg/Kg.

VOCs were analyzed in three soil samples (SB1-2-1-22-10', SB3-2-1-22-25', and SB5-2-1-22-20') and detected in sample SB1-2-1-22-10' at concentrations that do not exceed any MTCA Method A Cleanup Levels. No VOCs were detected in soil samples SB3-2-1-22-25' and SB5-2-1-22-20'.

Cadmium was detected in one sample (SB1-2-1-22-10') at 2.5 mg/Kg which exceeds the MTCA Method A Cleanup Level of 2 mg/Kg. Chromium was detected in all 21 samples at concentrations ranging from 2.9 mg/Kg in sample SB5-2-1-22-20' to 34 mg/Kg in sample SB2-2-1-22-5' which was the only soil sample to exceed the MTCA Method A Cleanup Level of 19 mg/Kg. Lead was detected in four of the 21 soil samples at concentrations ranging from 9.4 mg/Kg in sample SB5-

2-1-22-5' to 45 mg/Kg in sample SB1-2-1-22-10'. None of the four lead detections exceed the MTCA Method A Cleanup Level of 250 mg/Kg.

Polynuclear aromatic hydrocarbons (PAHs) were analyzed in three soil samples and detected in sample SB1-2-1-22-10' at concentrations that do not exceed any MTCA Method A Cleanup Levels. No PAHs were detected in soil samples SB3-2-1-22-25' and SB5-2-1-22-20'.

TPH-D and/or TPH-O were detected above the laboratory MRLs in all three groundwater samples collected (SB1-2-1-22-GW, SB3-2-1-22-GW, and SB5-2-1-22-GW). Furthermore, TPH-D + TPH-O were detected in samples SB1-2-1-22-GW and SB5-2-1-22-GW at concentrations of 9800 µg/L and 770 µg/L, respectively, which exceeded the MTCA Method A Cleanup Level of 500 µg/L. Groundwater sample SB1-2-1-22-GW was collected from immediately down-gradient of the dry well outside the automobile engine washing bay on the south side of the building and groundwater sample SB5-2-1-22-GW was collected from between the two USTs removed from the north side of the building.

VOCs were analyzed in all three groundwater samples (SB1-2-1-22-GW, SB3-2-1-22-GW, and SB5-2-1-22-GW). A combination of VOCs including PCE, benzene, ethylbenzene, and naphthalene were detected in all three groundwater samples but not at concentrations exceeding established MTCA Method A Cleanup Levels.

Arsenic (total) was detected in all three groundwater samples at concentrations exceeding the MTCA Method A Cleanup Level of 5 µg/L. Arsenic (total) concentrations ranged from 51 µg/L in SB3-2-1-22-GW to 130 µg/L in SB5-2-1-22-GW. Chromium (total) was detected in all three groundwater samples at concentrations exceeding the MTCA Method A Cleanup Level of 50 µg/L. Chromium (total) concentrations ranged from 420 µg/L in SB3-2-1-22-GW to 1100 µg/L in SB5-2-1-22-GW. Lead (total) was detected in all three groundwater samples at concentrations exceeding the MTCA Method A Cleanup Level of 15 µg/L. Lead (total) concentrations ranged from 150 µg/L in SB3-2-1-22-GW to 1200 µg/L in SB1-2-1-22-GW. Cadmium (total) was detected in groundwater samples SB1-2-1-22-GW and SB5-2-1-22-GW at 110 µg/L and 6.4 µg/L, respectively. The MTCA Method A Cleanup Level for cadmium (total) in groundwater is 5 µg/L.

PAHs were analyzed in all three grab groundwater samples (SB1-2-1-22-GW, SB3-2-1-22-GW, and SB5-2-1-22-GW). A combination of PAHs including 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene were detected in all three groundwater samples: however, not at concentrations exceeding established MTCA Method A Cleanup Levels.

Polychlorinated biphenyls (PCBs) were analyzed in groundwater samples (SB1-2-1-22-GW, SB3-2-1-22-GW, and SB5-2-1-22-GW). PCBs were not detected above the laboratory practical quantitation limits (PQLs) in any of the three samples.

3.2 July 2022 - Dry Well Removal

From July 12 – 14, 2022, BMEC personnel supervised Clarke Construction personnel during the removal of both dry wells south of the main onsite building and collected 13 confirmation soil samples in the process. Confirmation samples indicated no contaminants (i.e., benzene, toluene,

ethylbenzene, and xylenes [BTEX]; TPH-D; TPH-O; TPH-G; arsenic; cadmium; chromium; and lead) above Ecology MTCA Method A Cleanup Levels. On July 14, 2022, after receiving soil sample results, a new drywell was placed in the location of Former Drywell 2 to allow for stormwater drainage from the parking lot, and the excavation was backfilled, compacted to grade, and paved with asphalt.

3.3 September 2022 - Additional Subsurface Investigation

On September 27 and 28, 2022, BMEC hydrogeologist, Brent Bergeron, LHG, and BMEC environmental professional Yancy Meyer, supervised AEC personnel during the advancement of six soil borings (MW1 through MW6) to depths of 25 feet bgs via sonic drilling. Each bore was completed as a 2-inch diameter flush-mounted monitoring well and subsequently developed.

TPH-Dx was performed on 12 soil samples. TPH-D was only quantified in one of the 12 soil samples at a concentration of 76 mg/Kg in sample MW3-9-27-22-15'. TPH-O was quantified in three of the 12 soil samples at concentrations of 300 mg/Kg in sample MW3-9-27-22-15' to 1000 mg/Kg in sample MW6-9-27-22-21'. The MTCA Method A Cleanup Level for TPH-D + TPH-O is 2000 mg/Kg which was not exceeded in any of the 12 soil samples. TPH-G was performed on all 12 soil samples. TPH-G was not detected in any of the 12 soil samples. VOCs were analyzed in all 12 soil samples. Index parameters such as BTEX plus naphthalene were not detected in any of the 12 soil samples. Resource Conservation and Recovery Act (RCRA) metals analyses were performed on all 12 soil samples. Arsenic, cadmium, mercury, selenium, and silver were not detected above the laboratory PQLs in any of the samples. Barium was detected in all 12 samples at concentrations ranging up to 65 mg/Kg in sample MW6-9-27-22-21'. A MTCA Method A Cleanup Level does not currently exist for barium. Chromium (hexavalent + trivalent) was detected in all 12 samples at concentrations ranging up to 16 mg/Kg in soil sample MW1-9-28-22-19'. None of the 12 chromium detections exceed the MTCA Method A Cleanup Level for chromium of 19 mg/Kg. Lead was detected in three of the 12 soil samples at concentrations ranging up to 11 mg/Kg in sample MW6-9-27-22-21'. None of the three lead detections exceed the MTCA Method A Cleanup Level of 250 mg/Kg.

TPH-D and/or TPH-O were not detected above the laboratory PQLs in all six groundwater samples collected from monitoring wells MW1 through MW6. Furthermore, TPH-G was not detected above the laboratory PQLs in the six groundwater samples. VOCs were analyzed in all six groundwater samples collected from monitoring wells MW1 through MW6. A combination of VOCs including PCE and BTEX were detected in all six groundwater samples but not at concentrations exceeding established MTCA Method A Cleanup Levels.

RCRA (total) metals were analyzed in all six groundwater samples collected from monitoring wells MW1 through MW6. Mercury was detected in three of the groundwater samples at concentrations ranging from 0.61 µg/L in well MW6 to 1.5 µg/L in well MW4. The MTCA Method A Cleanup Level for mercury is 2 µg/L. Selenium was detected in three of the groundwater samples at concentrations ranging from 5.9 µg/L in well MW6 to 9.9 µg/L in well MW4. No MTCA Method A Cleanup Level currently is established for selenium. Barium was detected in all six of the groundwater samples at concentrations ranging from 340 µg/L in well MW1 to 2700 µg/L in well MW4. No MTCA Method A Cleanup Level currently is established for barium.

Cadmium and silver were not detected above the laboratory PQLs in any of the six groundwater samples.

Arsenic (total) was detected in all six groundwater samples at concentrations exceeding the MTCA Method A Cleanup Level of 5 µg/L. Arsenic (total) concentrations ranged from 12 µg/L in the groundwater sample collected from well MW1 to 67 µg/L in MW4. Total chromium (hexavalent + trivalent) was detected in all six groundwater samples at concentrations exceeding the MTCA Method A Cleanup Level of 50 µg/L. Chromium (total) concentrations ranged from 81 µg/L in well MW6 to 430 µg/L in MW2. Lead (total) was detected in all six groundwater samples at concentrations exceeding the MTCA Method A Cleanup Level of 15 µg/L. Lead (total) concentrations ranged from 16 µg/L in the groundwater collected from well MW1 to 160 µg/L in well MW2. The highest detections of total chromium (hexavalent + trivalent) and total lead were in the groundwater sample collected from well MW2 which is located near the northwest property corner between the two former USTs. The second highest total chromium and total lead detections in groundwater were detected in the sample collected from well MW4 located in the northeast corner of the Site. The two highest total arsenic concentrations were detected in wells MW4 and MW2, respectively.

3.4 October 2022 – Groundwater Sampling Event

On October 3, 2022, BMEC personnel returned to the Site to conduct a GWSE involving all six monitoring wells (MW1 through MW6). TPH-D and/or TPH-O were not detected above the laboratory PQLs in all of the six groundwater samples collected from monitoring wells MW1 through MW6.

Various VOCs including PCE were detected in groundwater samples collected from all six monitoring wells (MW through MW6). None of the VOC detections exceeded established MTCA Method A Cleanup Levels. PCE concentrations were detected in all six groundwater samples and ranged from 1.1 µg/L in well MW4 to 2.6 µg/L in well MW1. The Cleanup Level for PCE in groundwater is 5 µg/L.

Total RCRA metals were detected in groundwater samples collected from all six monitoring wells (MW1 through MW6). Barium was detected in all six groundwater samples at concentrations ranging from 340µg/L in well MW1 to 2700 µg/L in well MW4. No MTCA Method A Cleanup Level in groundwater currently exists for barium. Selenium was detected in groundwater samples collected from wells MW2, MW4, and MW6 at concentrations of 7.6 µg/L, 9.9 µg/L, and 5.9 µg/L, respectively. No MTCA Method A Cleanup Level in groundwater currently exists for selenium. Mercury was detected in groundwater samples collected from wells MW2, MW4, and MW6 at concentrations of 1.2 µg/L, 1.5 µg/L, and 0.65 µg/L, respectively. The MTCA Method A Cleanup Level for mercury in groundwater is 2 µg/L.

3.5 December 2022 – Groundwater Sampling Event

On December 15, 2022, BMEC personnel returned to the Site to conduct a GWSE involving all six monitoring wells (MW1 through MW6). TPH-D and/or TPH-O were not detected above the laboratory PQLs in five of the six groundwater samples collected from monitoring wells MW1 and MW3 through MW6. Lube oil (i.e., TPH-O) was detected in the groundwater sample collected

from monitoring well MW2 at a concentration of 240 mg/L which does not exceed the MTCA Method A Cleanup Level of 500 mg/L. TPH-G was not detected above the laboratory PQLs in the six groundwater samples.

VOCs were analyzed in all six groundwater samples. A combination of VOCs including PCE, BTEX, and miscellaneous VOCs (i.e., chloroform, carbon disulfide, n-propylbenzene, p-isopropyltoluene, and n-butylbenzene) were detected in all six groundwater samples but at concentrations that do not exceed established MTCA Method A Cleanup Levels. PCE was detected in groundwater samples obtained from all six monitoring wells at concentrations ranging from 1.1 µg/L in well MW6 to 1.7 µg/L in the groundwater samples collected from wells MW1 and MW2. Benzene was detected in groundwater samples collected from monitoring wells MW2 and MW4 at 0.22 µg/L and 0.23 µg/L, respectively. The MTCA Method A Cleanup Levels for PCE and benzene are each 5 µg/L.

RCRA (total) metals were analyzed in all six groundwater samples collected from monitoring wells MW1 through MW6. Selenium was detected in two of the groundwater samples at concentrations ranging from 6.7 µg/L in well MW3 to 11 µg/L in well MW6. No MTCA Method A Cleanup Level currently is established for selenium. Barium was detected in all six of the groundwater samples at concentrations ranging from 580 µg/L in well MW1 to 1900 µg/L in wells MW4 and MW6. No MTCA Method A Cleanup Level currently is established for barium. Cadmium and silver were not detected above the laboratory PQLs in any of the six groundwater samples.

Arsenic (total) was detected in all six groundwater samples at concentrations exceeding the MTCA Method A Cleanup Level of 5 µg/L. Arsenic (total) concentrations ranged from 28 µg/L in the groundwater samples collected from wells MW1 and MW5 to 150 µg/L in MW6. Chromium (hexavalent + trivalent) was detected in all six groundwater samples at concentrations exceeding the MTCA Method A Cleanup Level of 50 µg/L. Chromium concentrations ranged from 150 µg/L in well MW1 to 340 µg/L in MW3. Lead was detected in all six groundwater samples at concentrations exceeding the MTCA Method A Cleanup Level of 15 µg/L. Lead concentrations ranged from 26 µg/L in the groundwater collected from well MW1 to 140 µg/L in well MW6. Mercury was detected in three of the groundwater samples at concentrations ranging from 0.58 µg/L in well MW2 to 2.1 µg/L in well MW6. The MTCA Method A Cleanup Level for mercury is 2 µg/L.

3.6 March 2023 Groundwater Sampling Event

On March 28, 2023, BMEC personnel returned to the Site to conduct a GWSE involving six monitoring wells (MW1 through MW6). TPH-D and/or TPH-O were not detected above the laboratory PQLs in five of the six groundwater samples collected from monitoring wells MW1 and MW3 through MW6. Lube oil (i.e., TPH-O) was detected in the groundwater sample collected from monitoring well MW2 at a concentration of 150 µg/L which does not exceed the MTCA Method A Cleanup Level of 500 µg/L.

The chlorinated VOCs (cis) 1,2-DCE, TCE, VC, and PCE were analyzed in all six groundwater samples. PCE was detected in all six groundwater samples at concentrations ranging from 0.70 µg/L in well MW3 to 2.4 µg/L in well MW2. None of the six groundwater concentrations exceed established MTCA Method A Cleanup Levels (5 µg/L). PCE was the only VOC detected in the six groundwater samples.

RCRA (total and dissolved) metals were analyzed in all six groundwater samples collected from monitoring wells MW1 through MW6. RCRA metals (totals) were not detected above the laboratory PQLs in groundwater samples collected from wells MW2, MW4, MW5, and MW6. Total chromium and total lead were detected at 15 µg/L and 2.5 µg/L, respectively, in the groundwater samples collected from well MW1 with neither value exceeding the MTCA Method A Cleanup Levels of 50 µg/L and 15 µg/L, respectively. Total RCRA metals were detected in the groundwater sample collected from well MW3 at the following concentrations:

- Arsenic at 88 µg/L (MTCA Method A Cleanup Level = 5 µg/L)
- Cadmium at 6.5 µg/L (MTCA Method A Cleanup Level = 5 µg/L)
- Chromium (hexavalent + trivalent) at 1100 µg/L (MTCA Method A Cleanup Level = 50 µg/L)
- Lead at 220 µg/L (MTCA Method A Cleanup Level = 15 µg/L)
- Mercury at 1.5 µg/L (MTCA Method A Cleanup Level = 2 µg/L)

As noted above, the total arsenic, total cadmium, total chromium, and total lead concentrations all exceed their respective Cleanup Levels. However, BMEC suspects the extremely high turbidity/high suspended solids content and slow recharge of the well may have impacted the high metals concentrations.

The laboratory analytical results for dissolved RCRA metals concentrations were all non-detect (arsenic, cadmium, chromium [hexavalent + trivalent], lead and mercury). Each of the six groundwater samples submitted to Onsite for dissolved RCRA metals were not field filtered. Instead, each of the six samples were filtered in the lab, prior to analysis.

3.7 May 19, 2023, Monitoring Well Installation and Soil Sampling Event

BMEC personnel mobilized to the Site on May 19, 2023, to supervise the advancement of four borings, collect eight soil samples from the four borings for laboratory analyses, and complete the four borings as monitoring wells (MW3A, MW7, MW8, and MW9). All four monitoring wells were advanced via terra sonic methodology. Borings for monitoring wells MW7 through MW9 were advanced to 25 feet bgs and screened from 10 – 25 feet bgs with Schedule 40 polyvinyl chloride (PVC), completed with flush-mounted locking caps. The boring for well MW3A was advanced to 30 feet and screened from 10 – 30 feet bgs with Schedule 40 PVC, completed with a flush-mounted locking cap.

PCE was detected in three of the eight soil samples at concentrations ranging from 0.0018 mg/Kg in soil sample MW7-5-19-23-25' to 0.0026 mg/Kg in soil sample MW9-5-19-23-27'. None of the three soil sample detections exceed the MTCA Method A Cleanup Level of 0.05 mg/Kg. VC, (cis) 1,2-DCE, and TCE were not detected above the laboratory PQLs in any of the eight soil samples.

Barium was detected in all eight soil samples at concentrations ranging from 26 mg/Kg in soil sample MW7-5-19-23-18' to 67 mg/Kg in soil sample MW9-5-19-23-27'. A MTCA Method A Cleanup Level does not currently exist for barium. Total chromium (hexavalent + trivalent) was detected in all eight soil samples at concentrations ranging from 5.4 mg/Kg in soil sample MW3a-5-19-23-20' to 12 mg/Kg in soil sample MW9-5-19-23-27'. None of the eight total chromium detections exceed the MTCA Method A Cleanup Level for Cr+6 of 19 mg/Kg. Mercury was detected in soil sample MW9-5-19-23-27' at 0.38 mg/Kg which does not exceed the MTCA Method A Cleanup Level of 2 mg/Kg. Arsenic, cadmium, silver, and selenium were not detected above the laboratory PQLs in any of the eight soil samples.

3.8 June 13, 2023, Monitoring Well Development and Groundwater Sampling Event

BMEC personnel mobilized to the Site on June 13, 2023, to develop four newly installed monitoring wells (MW3A, MW7, MW8, and MW9), obtain depth-to-water (DTW) measurements from all nine wells, and collect groundwater samples from all nine monitoring wells (MW1 through MW9) for laboratory analyses. The following text describes the May 2023 and June 2023 field activities in detail.

VC, (cis) 1,2-DCE, and TCE were not detected above the laboratory PQLs in any of the nine groundwater samples. PCE was detected in all nine groundwater samples at concentrations ranging from 0.97 µg/L in the groundwater sample collected from well MW4 to 2.3 µg/L in the sample collected from well MW2. None of the nine groundwater sample results for PCE exceed the MTCA Method A Cleanup Level of 5 µg/L.

RCRA metals (total) were analyzed in all nine groundwater samples collected from monitoring wells MW1 through MW9. RCRA metals (totals) were not detected above the laboratory PQLs in groundwater samples collected from seven of the nine wells including MW2, MW3A, MW4, MW5, MW6, MW7, and MW9. Lead was detected in the groundwater sample collected from well MW8 at 1.1 µg/L which does not exceed the MTCA Method A Cleanup Level of 15 µg/L. Arsenic, total chromium, and lead were detected in the groundwater sample collected from well MW1 at 9.3 µg/L, 73 µg/L, and 11 µg/L, respectively. The MTCA Method A Cleanup Levels for arsenic (5 µg/L) and total chromium (19 µg/L) in groundwater obtained from MW1 were exceeded. The MTCA Method A Cleanup Level for lead (15 µg/L) was not exceeded.

4.0 SEPTEMBER 2023 GROUNDWATER SAMPLING METHODOLOGY

BMEC personnel mobilized to the Site on September 26, 2023, to obtain depth-to-water (DTW) measurements from all nine wells and collect groundwater samples from all nine monitoring wells (MW1 through MW9) for laboratory analyses. The following text describes the September 26, 2023, field activities in detail.

Upon arrival at the Site on September 26, 2023, each monitoring well was opened and DTW measurements were obtained from the PVC top of casing per well. Groundwater parameters of the nine monitoring well samples were measured in the field via a Horiba U-52 for pH, temperature, conductivity, and turbidity. Approximately four to six gallons were purged from the nine monitoring wells (i.e., MW1, MW2, MW3A, MW4, MW5, MW6, MW7, MW8, and MW9), prior to stabilization of the groundwater parameters listed above, followed by sample collection. Groundwater sample field data sheets for the September 26, 2023, GWSE are included in **Appendix A**.

DTW measurements were collected via a Solinst interface probe from monitoring wells MW1 through MW9. DTW values ranged from 16.09 feet below top of casing (btoc) in well MW6 to 17.84 feet btoc in well MW9 (**Table 1**). Groundwater flow direction was to the southeast as illustrated on **Figure 3**. The hydraulic gradient varied from 0.006 feet per foot in the northwest of the Site between wells MW1 and MW8 to 0.005 in the southeast portion of the Site between wells MW3A and MW6.

The suite of analyses performed on each groundwater sample submitted to the laboratory is as follows: TPH-D and TPH-O analysis via Northwest Method NWTPH-Dx; chlorinated VOCs (VC, (cis) 1,2-DCE, TCE, and PCE) via EPA Method 8260D; and total RCRA metals (arsenic, cadmium, chromium, lead, and mercury) via EPA Method 200.8/7470A.

Groundwater was purged from each of the nine wells via peristaltic pump and dedicated tubing, prior to samples being collected in the appropriate containers, properly sealed and labeled, and placed on ice in a secured cooler. Each groundwater sample was obtained via four 40-mL glass vials preserved with HCl, two 500-mL amber glass jars preserved with HCl, one 250-mL plastic container preserved with nitric acid, and one unpreserved 250-mL plastic container. Upon collection, each groundwater sample was immediately labeled, sealed, and placed on ice in a secure cooler. The nine groundwater samples were relinquished to OnSite the following day for overnight delivery.

A fresh pair of nitril gloves was donned, prior to each successive groundwater sample collection. All trash derived from the GWSE activities (i.e., nitrile gloves, paper towels, and tubing) was placed in a plastic bag and placed in an onsite trash receptacle. All purge water was stored in 55-gallon drums temporarily staged onsite.

5.0 SEPTEMBER 2023 GROUNDWATER SAMPLE RESULTS

TPH-D and/or TPH-O were detected above the laboratory PQLs in one sample which was collected from well MW2. TPH-O was detected in the groundwater sample collected from well MW2 at 210 µg/L which does not exceed the MTCA Method A Cleanup Level of 500 µg/L. TPH results in groundwater are summarized in **Table 2**.

The chlorinated VOCs (cis) 1,2-DCE, TCE, PCE, and VC were analyzed in all nine groundwater samples. VC, (cis) 1,2-DCE, and TCE were not detected above the laboratory PQLs in any of the

nine groundwater samples. PCE was detected in eight of nine groundwater samples at concentrations ranging from 2.0 µg/L in the groundwater samples collected from wells MW5, MW6, and MW9 to 6.0 µg/L in the sample collected from well MW7. Two of the nine groundwater sample results for PCE exceeded the MTCA Method A Cleanup Level of 5 µg/L; the groundwater sample collected from well MW8 at 5.1 µg/L and the groundwater sample collected from well MW7 at 6.0 µg/L. Chlorinated VOC results in groundwater are summarized in **Table 3**.

RCRA metals (total) were analyzed in all nine groundwater samples collected from monitoring wells MW1 through MW9. RCRA metals (totals) were not detected above the laboratory PQLs in groundwater samples collected from six of the nine wells including MW3A, MW5, MW6, MW7, MW8, and MW9. Arsenic, cadmium, and mercury were not detected above the laboratory PQLs in groundwater samples collected from any of the nine wells.

Lead was detected in the groundwater samples collected from wells MW1, MW2, and MW4 at 2.9 µg/L, 9.0 µg/L, and 1.2 µg/L, respectively, none of which exceed the MTCA Method A Cleanup Level of 15 µg/L for lead in groundwater. Total chromium (hexavalent + trivalent) was detected in the groundwater samples collected from wells MW1 and MW2 at 20 µg/L and 19.0 µg/L, respectively. Neither of which exceed the MTCA Method A Cleanup Level of 50 µg/L for total chromium in groundwater.

RCRA metal (total) results in groundwater are summarized in **Table 4**.

Since none of the nine groundwater samples collected yielded total metals concentrations exceeding their respective MTCA Method A Cleanup Levels, dissolved metals analyses were not performed on any of the samples.

A copy of the laboratory analytical report and accompanying chain-of-custody documentation is included as **Appendix B**.

6.0 CONCLUSIONS

During the September 26, 2023, GWSE, depth to groundwater was measured around 16 – 18 feet btoc in all nine wells. Groundwater flow direction was to the southeast at 0.005 – 0.006 feet per foot.

TPH-D and/or TPH-O were detected above the laboratory PQLs in one sample which was collected from well MW2. TPH-O was detected in the groundwater sample collected from well MW2 at 210 µg/L which does not exceed the MTCA Method A Cleanup Level of 500 µg/L.

The chlorinated VOCs (cis) 1,2-DCE, TCE, PCE, and VC were analyzed in all nine groundwater samples. VC, (cis) 1,2-DCE, and TCE were not detected above the laboratory PQLs in any of the nine groundwater samples. PCE was detected in eight of nine groundwater samples at concentrations ranging from 2.0 µg/L in the groundwater samples collected from wells MW5, MW6, and MW9 to 6.0 µg/L in the sample collected from well MW7. Two of the nine groundwater sample results for PCE exceeded the MTCA Method A Cleanup Level of 5 µg/L; the groundwater sample collected from well MW8 at 5.1 µg/L and the groundwater sample collected from well

MW7 at 6.0 µg/L. It is the opinion of BMEC that the PCE concentrations in the groundwater beneath the Site are likely a result of an up-gradient source as suggested by the elevated concentrations in monitoring wells MW7 and MW8.

RCRA metals (total) were analyzed in all nine groundwater samples collected from monitoring wells MW1 through MW9. RCRA metals (totals) were not detected above the laboratory PQLs in groundwater samples collected from six of the nine wells including MW3A, MW5, MW6, MW7, MW8, and MW9. Arsenic, cadmium, and mercury were not detected above the laboratory PQLs in groundwater samples collected from any of the nine wells. Lead was detected in the groundwater samples collected from wells MW1, MW2, and MW4 at 2.9 µg/L, 9.0 µg/L, and 1.2 µg/L, respectively, none of which exceed the MTCA Method A Cleanup Level of 15 µg/L for lead in groundwater. Total chromium (hexavalent + trivalent) was detected in the groundwater samples collected from wells MW1 and MW2 at 20 µg/L and 19.0 µg/L, respectively. Neither of which exceed the MTCA Method A Cleanup Level of 50 µg/L for total chromium in groundwater.

7.0 RECOMMENDATIONS

BMEC recommends the following actions:

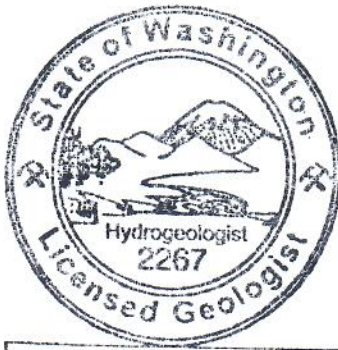
- 1) Based on groundwater sampling results over the past five quarterly sampling events, the laboratory results suggest that the PCE detections in the onsite groundwater monitoring wells is migrating onsite from an offsite source, up-gradient of wells MW1, MW7, and MW8. Furthermore, although very low levels of PCE are detectable in the shallow aquifer beneath the Site, BMEC has clearly demonstrated via recent soil sampling and 1.25 years of GWSEs that source material does not exist in Site soils and/or groundwater. Hence, further analysis for chlorinated solvents in the Site soils and shallow aquifer beneath the Site is no longer warranted.
- 2) Based on groundwater sampling results over the past five quarterly sampling events, the laboratory results suggest TPH-D and TPH-O (along with TPH-G) are not a concern in Site soils and groundwater. Hence, further analysis for petroleum hydrocarbons in the shallow aquifer and Site soils beneath the Site is no longer warranted.
- 3) Based on the lack of petroleum hydrocarbons or chlorinated solvents, in particular PCE, in Site soils or shallow groundwater, vapor intrusion (VI) is an unlikely concern and further VI assessment for the building interior is not necessary.
- 4) During the September 26, 2023, GWSE, RCRA metals were not detected in six of the nine groundwater samples. Only total lead and total chromium were detected in three of the wells and two of the wells respectively, at concentrations not exceeding the MTCA Method A Cleanup Levels. In the June 2023 GWSE report, BMEC recommended one more round of groundwater sampling for this GWSE (September 2023), and if laboratory analytical results for all nine groundwater samples were below MTCA Method A Cleanup Levels, a No Further Action (NFA) notice is warranted.
- 5) Hence, based on the aforementioned recommendations and the results of the previous field activities (May and June 2023), an NFA is warranted.
- 6) A remedial investigation/feasibility study (RIFS) shall be completed, prior to pursuit of the NFA.

8.0 STATEMENT OF ENVIRONMENTAL PROFESSIONALS

BMEC personnel performed these field activities on September 26, 2023, in accordance with generally accepted environmental practices and procedures. We employed the degree of care and skill ordinarily exercised under similar circumstances by reputable environmental professionals practicing in the discipline of environmental sciences. The groundwater sampling activities completed were conducted in accordance with standard engineering and geologic standards. However, BMEC was limited by data gaps that were encountered due to previous fieldwork inadequacies and improper documentation. This report is based on the limited data that was provided to BMEC and if additional field data or documentation exists that was not made available to BMEC, we cannot be held accountable for such data gaps or inconsistencies recognizable in this report.

Respectfully Submitted,

Blue Mountain Environmental and Consulting Company, Inc.



Brent N. Bergeron


Brent N. Bergeron, LHG, LG

Expires 1/3/24



Peter Trabusiner, Engineer

9.0 REFERENCES

Blue Mountain Environmental and Consulting Company, Inc., JUNE 2023 GROUNDWATER SAMPLING EVENT REPORT FOR HAHN MOTOR COMPANY 1201 SOUTH 1ST STREET YAKIMA, WASHINGTON 98901, Facility Site ID No. 502, Cleanup Site ID No. 4927, VCP Project No. CE0529, July 10, 2023.

Blue Mountain Environmental and Consulting Company, Inc., MARCH 2023 GROUNDWATER SAMPLING EVENT REPORT FOR HAHN MOTOR COMPANY 1201 SOUTH 1ST STREET, YAKIMA, WASHINGTON 98901, Facility Site ID No. 502, Cleanup Site ID No. 4927, VCP Project No. CE0529, April 24, 2023.

Blue Mountain Environmental and Consulting Company, Inc., DECEMBER 2022 GROUNDWATER SAMPLING EVENT REPORT FOR HAHN MOTOR COMPANY 1201 SOUTH 1ST STREET, YAKIMA, WASHINGTON 98901, Facility Site ID No. 502, Cleanup Site ID No. 4927, VCP Project No. CE0529, January 27, 2023.

Blue Mountain Environmental and Consulting Company, Inc., SEPTEMBER 2022 ADDITIONAL SUBSURFACE INVESTIGATION REPORT FOR HAHN MOTOR COMPANY, 1201 SOUTH 1ST STREET, YAKIMA, WASHINGTON 98901, Facility Site ID No. 502, Cleanup Site ID No. 4927, VCP Project No. CE0529, October 17, 2022.

Blue Mountain Environmental and Consulting Company, Inc., DRYWELL DECOMMISSIONING AND CONTAMINATED SOIL REMOVAL REPORT FOR HAHN MOTOR COMPANY, 1201 SOUTH 1ST STREET, YAKIMA, WASHINGTON 98901, Facility Site ID No. 502, Cleanup Site ID No. 4927, VCP Project No. CE0529, August 1, 2022.

Blue Mountain Environmental and Consulting Company, Inc., FEBRUARY 1, 2022 SUBSURFACE INVESTIGATION REPORT FOR HAHN MOTOR COMPANY, 1201 SOUTH 1ST STREET, YAKIMA, WASHINGTON 98901, Facility Site ID No. 502, Cleanup Site ID No. 4927, VCP Project No. CE0529, March 4, 2022.

Google Maps, 2022.

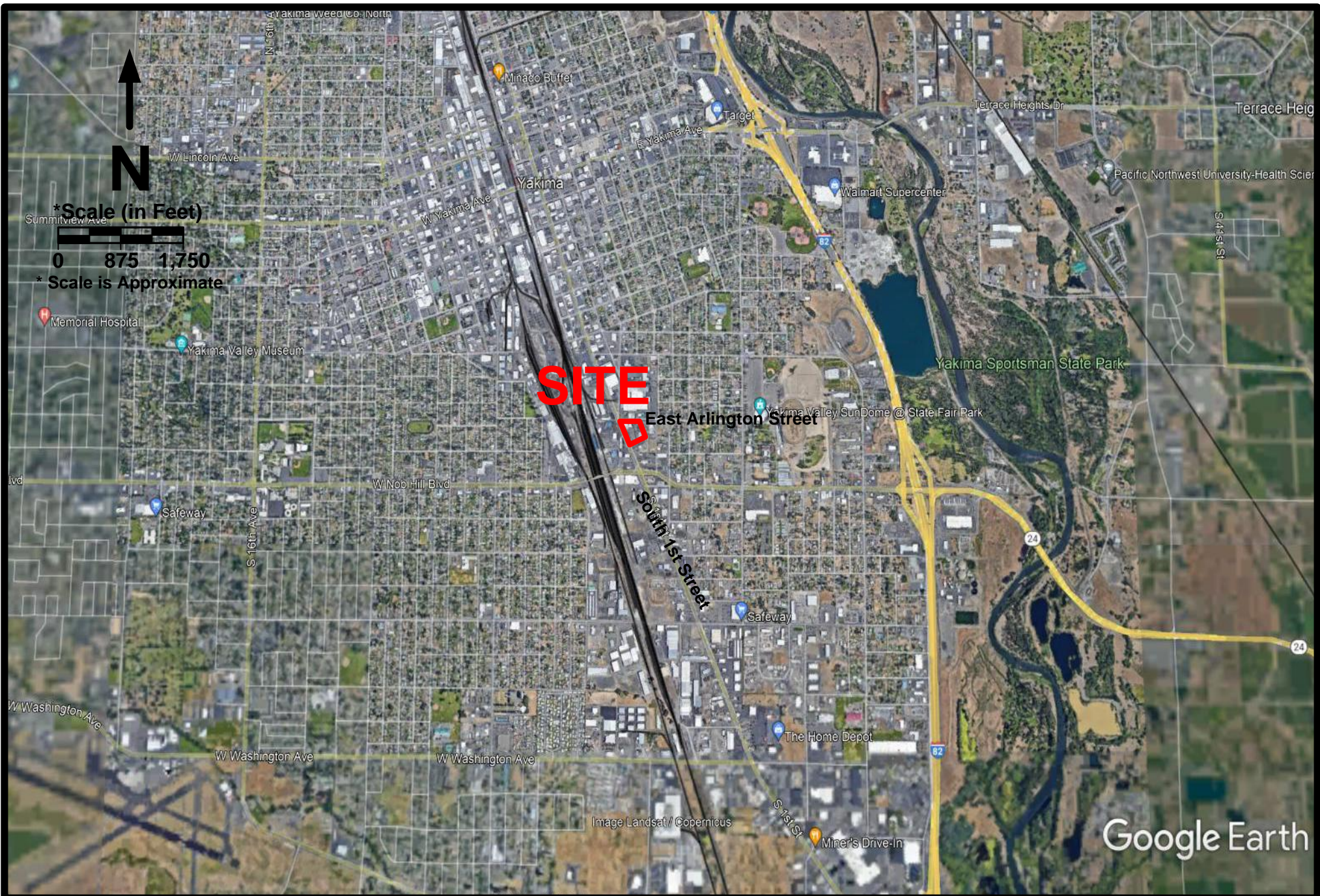
PETCO INCORPORATED, Underground Storage Tank Decommissioning & Site Assessment Report For UST Site #200130, 1201 South 1st St., Yakima, Washington, February 2008.

Washington State Department of Ecology, Yakima Railroad Area PCE Contamination – Groundwater Quality Performance Monitoring Data Summary 2017, July 2018.

Washington State Department of Ecology, Model Toxics Control Act Statute and Regulation, Revised November 2007.

Washington State Department of Ecology, Letter – Re: Acceptance Letter -Voluntary Cleanup Program, 1201 South 1st Street, Yakima, Washington, November 12, 2021.

Washington State Department of Ecology, Letter – Re: Further Action at the Site, 1201 South 1st Street, Yakima, Washington, February 23, 2016.



BMEC
P.O. Box 545/125 Main Street
Waitsburg, Washington 99361

FIGURE 1 – SITE VICINITY MAP

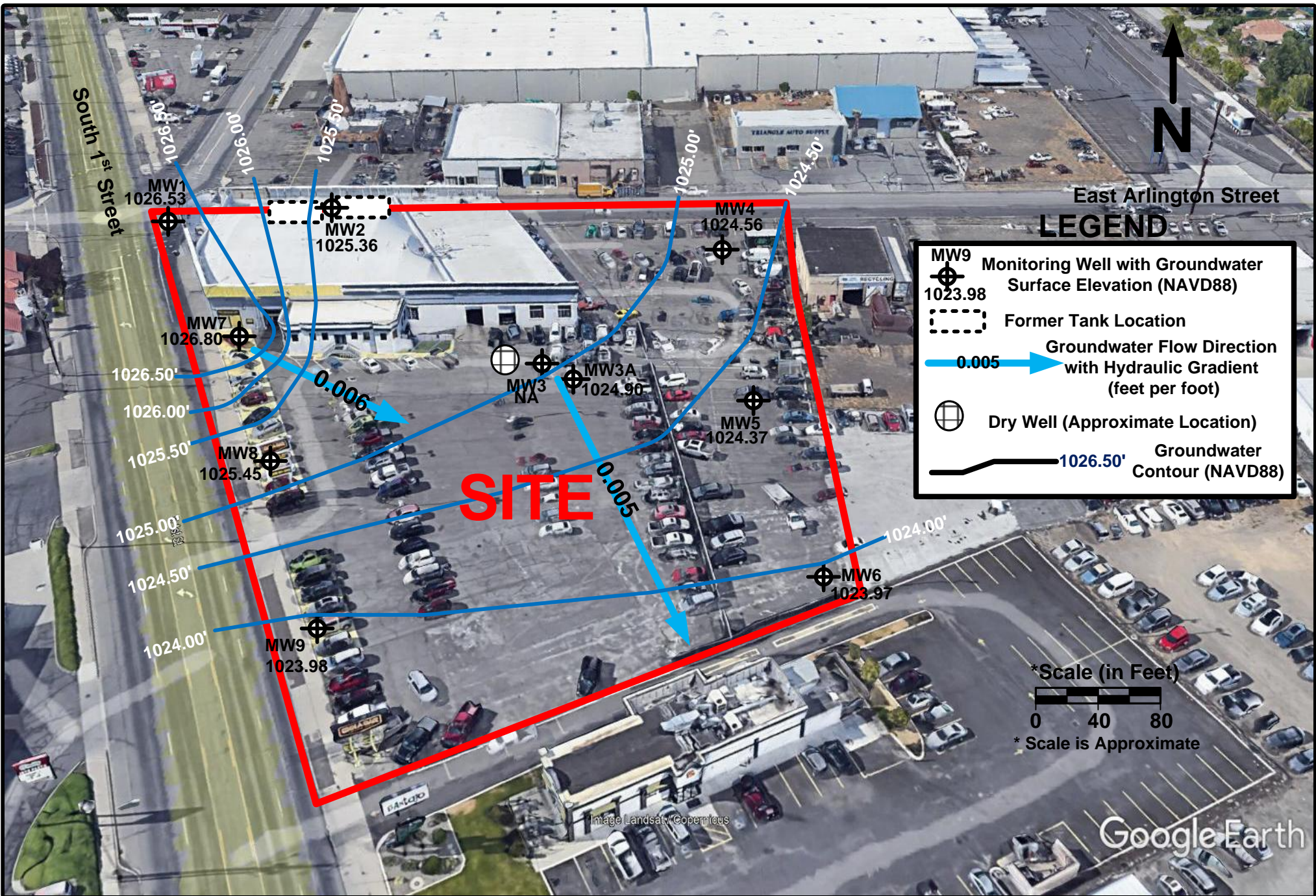
Hahn Motors Company
1201 South 1st Street
Yakima, Washington 98901



BMEC
P.O. Box 545/125 Main Street
Waitsburg, Washington 99361

FIGURE 2 – SITE LOCATION MAP

Hahn Motors Company
1201 South 1st Street
Yakima, Washington 98901



BMEC
P.O. Box 545/125 Main Street
Waitsburg, Washington 99361

FIGURE 3 – GROUNDWATER FLOW DIRECTION
SEPTEMBER 26, 2023

Hahn Motors Company
1201 South 1st Street
Yakima, Washington 98901
VCP Project # CE 0529



BMEC
P.O. Box 545/125 Main Street
Waitsburg, Washington 99361

**FIGURE 4 – TOTAL METALS IN
GROUNDWATER (µg/L)
SEPTEMBER 26, 2023**

Hahn Motors Company
1201 South 1st Street
Yakima, Washington 98901
VCP Project # CE 0529



BMEC
P.O. Box 545/125 Main Street
Waitsburg, Washington 99361

**FIGURE 5 – CHLORINATED SOLVENTS
IN GROUNDWATER (µg/L)
SEPTEMBER 26, 2023**

Hahn Motors Company
1201 South 1st Street
Yakima, Washington 98901
VCP Project # CE 0529

TABLE 1
Monitoring Well Installation and Groundwater Surface Elevation Data
Former Hahn Motors
1201 S. 1st Street in Yakima, WA 98901

Monitoring Well Number	Date Measured	Top of Casing Elevation (feet NAVD88)	Depth-To-Water Below Top of Casing (feet btoc)*	Groundwater Elevation (feet NAVD88)	LNAPL Thickness (feet)	Volume of Groundwater Purged (gallons)	Screened Interval (feet bgs)	Sandpack Interval (feet bgs)	Bentonite Interval (feet bgs)
Monitoring Wells									
MW1	10/3/22	1042.69	15.48	1027.21	0.00	15	10 - 25'	8 - 25'	2 - 8'
	12/15/22		18.35	1024.34	0.00	5			
	3/28/23		19.66	1023.03	0.00	5			
	6/13/23		18.28	1024.41	0.00	4			
	9/26/23		16.16	1026.53	0.00	5			
MW2	10/3/22	1042.89	16.66	1026.23	0.00	15	10 - 25'	8 - 25'	2 - 8'
	12/15/22		19.87	1023.02	0.00	5			
	3/28/23		21.36	1021.53	0.00	2.5			
	6/13/23		19.32	1023.57	0.00	3.5			
	9/26/23		17.53	1025.36	0.00	4.0			
MW3	10/3/22	1041.88	16.36	1025.52	0.00	15	10 - 25'	8 - 25'	2 - 8'
	12/15/22		19.06	1022.82	0.00	5			
	3/28/23		21.04	1020.84	0.00	1.5			
MW3A	6/13/23	1042.00	19.00	1023.00	0.00	18.0	10 - 30'	8 - 30'	2 - 8'
	9/26/23		17.10	1024.90	0.00	6.5			
MW4	10/3/22	1041.13	16.14	1024.99	0.00	15	10 - 25'	8 - 25'	2 - 8'
	12/15/22		19.37	1021.76	0.00	5			
	3/28/23		21.33	1019.80	0.00	4			
	6/13/23		18.43	1022.70	0.00	3.5			
	9/26/23		16.57	1024.56	0.00	5.0			
MW5	10/3/22	1040.73	15.94	1024.79	0.00	15	10 - 25'	8 - 25'	2 - 8'
	12/15/22		19.08	1021.65	0.00	5			
	3/28/23		21.15	1019.58	0.00	4			
	6/13/23		18.16	1022.57	0.00	3.5			
	9/26/23		16.36	1024.37	0.00	4.5			
MW6	10/3/22	1040.06	15.57	1024.49	0.00	15	10 - 25'	8 - 25'	2 - 8'
	12/15/22		18.88	1021.18	0.00	5			
	3/28/23		21.18	1018.88	0.00	3			
	6/13/23		17.95	1022.11	0.00	3.5			
	9/26/23		16.09	1023.97	0.00	5			
MW7	6/13/23	1043.69	19.17	1024.52	0.00	10	10 - 25'	8 - 25'	2 - 8'
	9/26/23		16.89	1026.80	0.00	4			
MW8	6/13/23	1042.69	19.58	1023.11	0.00	10	10 - 25'	8 - 25'	2 - 8'
	9/26/23		17.24	1025.45	0.00	4			
MW9	6/13/23	1041.82	19.32	1022.50	0.00	10	10 - 25'	8 - 25'	2 - 8'
	9/26/23		17.84	1023.98	0.00	4			

Notes:

NAVD88 = North American Vertical Datum 1988

btoc = below top of casing

LNAPL = light, non-aqueous phase liquid

NA = not available

TABLE 2
Groundwater Sample Results - Total Petroleum Hydrocarbons (µg/L)
1201 South First Street
Yakima, Washington 98901

Sample I.D.	Date Collected	TPH-Diesel and Heavy Oil by Northwest Method NWTPH-Dx		TPH-Gasoline by Northwest Method NWTPH-Gx
		TPH-D	TPH-O	
MONITORING WELLS				
MW1	10/3/22	< 200	< 200	< 100
	12/15/22	< 210	< 210	< 500
	3/28/23	< 150	< 150	NA
	6/13/23	< 210	< 210	NA
	9/26/23	< 200	< 200	NA
MW2	10/3/22	< 210	< 210	< 100
	12/15/22	< 220	240	< 500
	3/28/23	< 150	150	NA
	6/13/23	< 210	< 210	NA
	9/26/23	< 200	210	NA
MW3	10/3/22	< 200	< 200	< 100
	12/15/22	< 230	< 230	< 500
	3/28/23	< 220	< 220	NA
MW3A	6/13/23	< 210	< 210	NA
	9/26/23	< 150	< 150	NA
MW4	10/3/22	< 210	< 210	< 100
	12/15/22	< 230	< 230	< 500
	3/28/23	< 150	< 150	NA
	6/13/23	< 210	< 210	NA
	9/26/23	< 150	< 150	NA
MW5	10/3/22	< 210	< 210	< 100
	12/15/22	< 220	< 220	< 500
	3/28/23	< 150	< 150	NA
	6/13/23	< 210	< 210	NA
	9/26/23	< 200	< 200	NA
MW6	10/3/22	< 210	< 210	< 100
	12/15/22	< 220	< 220	< 500
	3/28/23	< 150	< 150	NA
	6/13/23	< 210	< 210	NA
	9/26/23	< 200	< 200	NA
MW7	6/13/23	< 210	< 210	NA
	9/26/23	< 150	< 150	NA
MW8	6/13/23	< 220	< 220	NA
	9/26/23	< 150	< 150	NA
MW9	6/13/23	< 210	< 210	NA
	9/26/23	< 150	< 150	NA
Ecology MTCA Method A Groundwater Cleanup Levels (µg/L)				
Cleanup Level		500	500	800/1,000 ¹
Notes:				
¹ MTCA Method A Cleanup Level for TPH-G is 800 ppb if benzene is detected in subsurface soils or groundwater. If benzene is not detected, Cleanup Level is 1,000 ppb.				
MTCA = Model Toxics Control Act				
µg/L = micrograms per Liter or parts per billion (ppb)				
BOLD = sample yielded detectable concentration of analyzed compound.				

TABLE 3
Groundwater Sample Results - Volatile Organic Compounds (µg/L)
Hahn Motors Company - 1201 South 1st Street
Yakima, Washington 98901

Sample I.D.	Date Collected	Volatile Organic Compounds (VOCs) by EPA Method 8260D (µg/L)																					
		Benzene	Toluene	Ethylbenzene	Total Xylenes	EDB	EDC	2-Hexanone	n-Propylbenzene	MTBE	Naphthalene	1,2,4-TMB	1,3,5-TMB	Isopropyltoluene	n-Butylbenzene	Acetone	Carbon Disulfide	2-Butanone	Chloroform	Vinyl Chloride	(cis) 1,2-Dichloroethane	Trichloroethane (TCE)	Tetrachloroethene (PCE)
MONITORING WELLS																							
MW1	10/3/22	< 0.20	< 1.0	< 0.20	< 0.60	< 0.010	< 0.20	< 2.0	< 0.20	< 0.20	< 1.3	< 0.20	< 0.20	< 0.20	< 0.20	< 5.0	< 0.20	< 5.0	6.1	< 0.20	< 0.20	< 0.20	2.4
	12/15/22	< 0.20	< 1.0	< 0.20	< 0.60	< 0.010	< 0.20	< 2.0	< 0.20	< 0.20	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 5.0	< 0.26	< 5.0	< 1.0	< 0.20	< 0.20	< 0.20	1.7
	3/28/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	1.8
	6/13/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	1.4
	9/26/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	3.6
MW2	10/3/22	0.62	< 1.0	0.44	0.45	< 0.010	< 0.20	< 2.0	0.30	< 0.20	< 1.3	< 0.20	< 0.20	< 0.20	< 0.20	< 5.0	< 0.20	< 5.0	5.0	< 0.20	< 0.20	< 0.20	2.6
	12/15/22	0.22	< 1.0	< 0.20	< 0.60	< 0.010	< 0.20	< 2.0	< 0.20	< 0.20	< 1.0	< 0.20	< 0.20	0.31	0.21	< 5.0	0.33	< 5.0	< 1.0	< 0.20	< 0.20	< 0.20	1.7
	3/28/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	2.4
	6/13/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	2.3
	9/26/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	2.4
MW3	10/3/22	< 0.20	< 1.0	< 0.20	< 0.60	< 0.010	< 0.20	< 2.0	< 0.20	< 0.20	< 1.3	< 0.20	< 0.20	< 0.20	< 0.20	< 5.0	< 0.20	< 5.0	4.8	< 0.20	< 0.20	< 0.20	2.2
	12/15/22	< 0.20	< 1.0	< 0.20	< 0.60	< 0.010	< 0.20	< 2.0	< 0.20	< 0.20	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 5.0	< 0.26	< 5.0	2.7	< 0.20	< 0.20	< 0.20	1.4
	3/28/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	0.70
MW3A	6/13/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	1.3
	9/26/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	4.0
MW4	10/3/22	0.67	< 1.0	0.22	0.26	< 0.010	< 0.20	< 2.0	< 0.20	< 0.20	< 1.3	< 0.20	< 0.20	< 0.20	< 0.20	5.2	0.23	< 5.0	3.6	< 0.20	< 0.20	< 0.20	1.1
	12/15/22	0.23	< 1.0	< 0.20	< 0.60	< 0.010	< 0.20	< 2.0	< 0.20	< 0.20	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 5.0	0.36	< 5.0	2.5	< 0.20	< 0.20	< 0.20	1.1
	3/28/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	1.3
	6/13/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	0.97
	9/26/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	2.1
MW5	10/3/22	1.7	2.2	0.68	1.45	< 0.010	< 0.20	2.3	0.34	< 0.20	< 1.3	0.25	< 0.20	0.30	0.25	11	< 0.20	< 5.0	5.6	< 0.20	< 0.20	< 0.20	1.6
	12/15/22	< 0.20	< 1.0	< 0.20	< 0.60	< 0.010	< 0.20	< 2.0	< 0.20	< 0.20	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 5.0	0.34	< 5.0	2.6	< 0.20	< 0.20	< 0.20	1.6
	3/28/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	1.5
	6/13/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	1.3
	9/26/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	2.0
MW6	10/3/22	0.65	1.0	0.26	0.24	< 0.010	< 0.20	< 2.0	< 0.20	< 0.20	< 1.3	< 0.20	< 0.20	< 0.20	< 0.20	< 5.0	< 0.20	< 5.0	4.5	< 0.20	< 0.20	< 0.20	1.5
	12/15/22	< 0.20	< 1.0	< 0.20	< 1.0	< 0.010	< 0.20	< 2.0	< 0.20	< 0.20	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20	< 5.0	< 0.26	< 5.0	2.9	< 0.20	< 0.20	< 0.20	1.3
	3/28/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	1.1
	6/13/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	1.1
	9/26/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	2.0
MW7	6/13/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	1.3
	9/26/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	6.0
MW8	6/13/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	1.2
	9/26/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	5.1
MW9	6/13/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	1.1
	9/26/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.20	< 0.20	< 0.20	2.0
Cleanup Level		5	1,000	700	1,000	0.010	5	DNE	DNE	20	160	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	0.2	DNE	5	5
Notes: MTCA = Model Toxics Control Act EDB = 1,2-Dibromoethane EDC = 1,2-Dichloroethane MTBE = Methyl tertiary-butyl ether 1,2,4-TMB = 1,2,4-trimethylbenzene 1,3,5-TMB = 1,3,5-trimethylbenzene PCE = Tetrachloroethylene DNE = Does Not Exist µg/L = micrograms per Liter or parts per billion (ppb) MTCA = Model Toxics Control Act BOLD = sample yielded detectable concentration of analyzed compound. BOLD Concentration exceeds the MTCA Method A Cleanup Level																							

TABLE 4
Groundwater Sample Results - Total Metals (µg/L)
1201 South First Street
Yakima, Washington 98901

Sample I.D.	Date Collected	Total Mercury by EPA Method 200.8 (µg/L)	Total Metals via EPA Method 200.8						
			Arsenic	Barium	Cadmium	Chromium ¹	Lead	Selenium	Silver
Monitoring Wells									
MW1	10/3/22	< 0.50	12	340	< 4.4	110	16	< 5.6	< 11
	12/15/22	< 0.50	28	580	< 4.4	150	26	< 5.6	< 11
	3/28/23	< 0.50	< 3.3	NA	< 4.4	15	2.5	NA	NA
	6/13/23	< 0.50	9.3	NA	< 4.4	73	11	NA	NA
	9/26/23	< 0.50	< 3.3	NA	< 4.4	20	2.9	NA	NA
MW2	10/3/22	1.2	58	2400	< 4.4	430	160	7.6	< 11
	12/15/22	0.58	34	1300	< 4.4	210	75	< 5.6	< 11
	3/28/23	< 0.50	< 3.3	NA	< 4.4	< 11	< 1.1	NA	NA
	6/13/23	< 0.50	< 3.3	NA	< 4.4	< 11	< 1.1	NA	NA
	9/26/23	< 0.50	< 3.3	NA	< 4.4	19.0	9.0	NA	NA
MW3	10/3/22	< 0.50	16	550	< 4.4	120	27	< 5.6	< 11
	12/15/22	< 0.50	43	1100	< 4.4	340	73	6.7	< 11
	3/28/23	1.5	88	NA	6.5	1100	220	NA	NA
MW3A	6/13/23	< 0.50	< 3.3	NA	< 4.4	< 11	< 1.1	NA	NA
	9/26/23	< 0.50	< 3.3	NA	< 4.4	< 11	< 1.1	NA	NA
MW4	10/3/22	1.5	67	2700	< 4.4	400	110	9.9	< 11
	12/15/22	1.3	66	1900	< 4.4	320	77	7.1	< 11
	3/28/23	< 0.50	< 3.3	NA	< 4.4	< 11	< 1.1	NA	NA
	6/13/23	< 0.50	< 3.3	NA	< 4.4	< 11	< 1.1	NA	NA
	9/26/23	< 0.50	< 3.3	NA	< 4.4	< 11	1.2	NA	NA
MW5	10/3/22	< 0.50	18	790	< 4.4	210	36	< 5.6	< 11
	12/15/22	< 0.50	28	690	< 4.4	180	38	< 5.6	< 11
	3/28/23	< 0.50	< 3.3	NA	< 4.4	< 11	< 1.1	NA	NA
	6/13/23	< 0.50	< 3.3	NA	< 4.4	< 11	< 1.1	NA	NA
	9/26/23	< 0.50	< 3.3	NA	< 4.4	< 11	< 1.1	NA	NA
MW6	10/3/22	0.61	39	600	< 4.4	81	39	5.9	< 11
	12/15/22	2.1	150	1900	< 4.4	330	140	11	< 11
	3/28/23	< 0.50	< 3.3	NA	< 4.4	< 11	< 1.1	NA	NA
	6/13/23	< 0.50	< 3.3	NA	< 4.4	< 11	< 1.1	NA	NA
	9/26/23	< 0.50	< 3.3	NA	< 4.4	< 11	< 1.1	NA	NA
MW7	6/13/23	< 0.50	< 3.3	NA	< 4.4	< 11	< 1.1	NA	NA
	9/26/23	< 0.50	< 3.3	NA	< 4.4	< 11	< 1.1	NA	NA
MW8	6/13/23	< 0.50	< 3.3	NA	< 4.4	< 11	1.1	NA	NA
	9/26/23	< 0.50	< 3.3	NA	< 4.4	< 11	< 1.1	NA	NA
MW9	6/13/23	< 0.50	< 3.3	NA	< 4.4	< 11	< 1.1	NA	NA
	9/26/23	< 0.50	< 3.3	NA	< 4.4	< 11	< 1.1	NA	NA
Ecology MTCA Method A Groundwater Cleanup Levels (µg/L)									
Cleanup Levels		2	5	DNE	5	50	15	DNE	DNE
Notes:									
¹ MTCA Method A Cleanup Level for total chromium (chromium VI + chromium III) is 50 µg/L									
MTCA = Model Toxics Control Act									
EDB = 1,2-Dibromoethane									
EDC = 1,2-Dichloroethane									
MTBE = Methyl tertiary-butyl ether									
124-TMB = 1,2,4-trimethylbenzene									
135-TMB = 1,3,5-trimethylbenzene									
DNE = Does Not Exist									
µg/L = micrograms per Liter or parts per billion (ppb)									
BOLD = sample yielded detectable concentration of analyzed compound									
BOLD	Concentration exceeds the MTCA Method A Cleanup Level								

APPENDIX A

GROUNDWATER SAMPLING FIELD DATA SHEETS

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW1

Date: Tues, 9/26/23

Facility Name/Project No.: 1201 S. 1st Street in Yakima, WA/E2023-0712

GW Sampler/Company: Yancy Meyer & Brent Bergeron/BMEC

Well Depth (TD) below Top of Casing (TOC): 25' Depth to Water (DTW) below TOC: 16.16'

Height of Groundwater Column (H) = TD - DTW (Feet): 8.84' Well Radius [r] (Inches): 1"

2-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column in Gal = [0.163 Gal/Foot] X [H (Feet)] = <u>1.44 gal</u>
4-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column in Gal = [0.653 Gal/Foot] X [H (Feet)] = <u>NA</u>

Calculated Volume of Groundwater Needed to be Removed (Gal): 3V = 4.32 gal

GROUNDWATER PARAMETERS						
Volume Purged (Gal)	pH	Temp (deg C)	Cond (µS)	Turb (ntu)	Comments [i.e., Odor(s), Water Color/Silt Content, Sheen]	DO (mg/L)
0.25	6.83	17.1	822.2	>1000	Very silty; gray	NA
1	6.87	17.0	657.0	436	Mod. silty; gray	↓
2	6.88	17.1	584.2	469	↓	↓
3	6.93	17.0	551.5	450	↓	↓
4	6.96	17.1	513.4	546	↓	↓
4.5	6.96	17.1	478.2	332	↓	↓
5	6.95	16.9	485	424	↓	↓

Actual Volume Purged (Gal) 5 gal DTW After Purging and Before Sampling: 16.17'

GROUNDWATER SAMPLE COLLECTION DATA				
Sample ID	Time	Analyses	# of Containers/Size	Preservative
MW1-9-26-23-GW	0800	Dx		HCl
		Metals		Nitric Acid
		Chlorinated Solvents		HCl
		via (8260)		

NOTES: Peristaltic pump & dedicated tubing

Weather: Cloudy, T=53°F, SE @ 3MPH

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW2

Date: Tues, 9/26/23

Facility Name/Project No.: 1201 S. 1st Street in Yakima, WA/E2023-0712

GW Sampler/Company: Yancy Meyer & Brent Bergeron/BMEC

Well Depth (TD) below Top of Casing (TOC): 25.0 Depth to Water (DTW) below TOC: 17.53'

Height of Groundwater Column (H) = TD - DTW (Feet): 7.47' Well Radius [r] (Inches): 1"

2-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column in Gal = [0.163 Gal/foot] X [H (Feet)] = <u>1.22 gal</u>
4-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column in Gal = [0.653 Gal/foot] X [H (Feet)] = <u>NA</u>

Calculated Volume of Groundwater Needed to be Removed (Gal): 3V = 3.65 gal

GROUNDWATER PARAMETERS						
Volume Purged (Gal)	pH	Temp (deg C)	Cond (µS)	Turb (ntu)	Comments [i.e., Odor(s), Water Color/Silt Content, Sheen]	DO (mg/L)
0.25	7.30	17.1	592.8	>1000	Very silty; gray	NA
1	7.31	16.8	588.5	700	↓	↓
2	7.31	16.8	568.6	379	Mod " ; "	↓
3	7.38	16.7	551.4	151	Sl. silty; "	↓
3.5	7.41	16.8	533.6	147		↓
4	7.39	16.8	532.8	130	↓	↓

Actual Volume Purged (Gal) 4 gal DTW After Purging and Before Sampling: 17.62'

GROUNDWATER SAMPLE COLLECTION DATA				
Sample ID	Time	Analyses	# of Containers/Size	Preservative
MW2-9-26-23-GW	0830	Dx		HCl
		Metals		Nitric Acid
		Chlorinated Solvents		HCl
		via (8260)		

NOTES: Peristaltic pump & dedicated tubing

Weather: Cloudy, T-55°F, SE @ 3MPH

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW3A

Date: Tues, 9/26/23

Facility Name/Project No.: 1201 S. 1st Street in Yakima, WA/E2023-0712

GW Sampler/Company: Yancy Meyer + Brent Bergeron/BMEC

Well Depth (TD) below Top of Casing (TOC): 30' Depth to Water (DTW) below TOC: 17.10'

Height of Groundwater Column (H) = TD - DTW (Feet): 12.90' Well Radius [r] (Inches): 1"

2-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column in Gal = [0.163 Gal/Foot] X [H (Feet)] = <u>2.10 gal</u>
4-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column in Gal = [0.653 Gal/Foot] X [H (Feet)] = <u>NA</u>

Calculated Volume of Groundwater Needed to be Removed (Gal): 3V = 6.30 gal

GROUNDWATER PARAMETERS						
Volume Purged (Gal)	pH	Temp (deg C)	Cond (µS)	Turb (ntu)	Comments [i.e., Odor(s), Water Color/Silt Content, Sheen]	DO (mg/L)
1	7.39	17.9	411.4	32.8	V. silty; brown	NA
2	7.35	17.9	400.6	5.3	Clear	
3	7.38	17.9	405.2	2.8		
4	7.29	17.8	411.9	2.8		
5	7.35	18.0	408.5	1.2		
6	7.20	17.9	409.8	1.3		
6.5	7.22	18.0	406.2	1.0		

Actual Volume Purged (Gal) 6.5 gal DTW After Purging and Before Sampling: 17.09'

GROUNDWATER SAMPLE COLLECTION DATA				
Sample ID	Time	Analyses	# of Containers/Size	Preservative
MW3A-9-26-23-GW	1115	Dx Metals Chlorinated Solvents via (8260)		HCl Nitric Acid HCl

NOTES: Peristaltic pump + dedicated tubing

Weather: Cloudy, T-62°F, S@10 MPH

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW4

Date: Tues, 9/26/23

Facility Name/Project No.: 1201 S. 1st Street in Yakima, WA/E2023-0712

GW Sampler/Company: Yancy Meyer & Brent Bergeron/BMEC

Well Depth (TD) below Top of Casing (TOC): 25' Depth to Water (DTW) below TOC: 16.57'

Height of Groundwater Column (H) = TD - DTW (Feet): 8.43' Well Radius [r] (Inches): 1"

2-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column, in Gal = [0.163 Gal/Foot] X [H (Feet)] = <u>1.37 gal</u>
4-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column in Gal = [0.653 Gal/Foot] X [H (Feet)] = <u>NA</u>

Calculated Volume of Groundwater Needed to be Removed (Gal): 3 V = 4.12 gal

GROUNDWATER PARAMETERS						
Volume Purged (Gal)	pH	Temp (deg C)	Cond (µS)	Turb (ntu)	Comments [i.e., Odor(s), Water Color/Silt Content, Sheen]	DO (mg/L)
0.25	7.43	18.4	404.3	>1000	Very silty; gray	NA
1	7.36	17.4	399.8	454	Mod silty; gray	↓
2	7.14	17.2	396.5	183	↓	↓
3	7.10	17.4	401.3	184	↓	↓
4	7.14	17.4	397.8	126	↓	↓
5	7.02	17.5	397.8	54.2	Sl. silty; gray	↓

Actual Volume Purged (Gal) 5 gal DTW After Purging and Before Sampling: 16.58'

GROUNDWATER SAMPLE COLLECTION DATA				
Sample ID	Time	Analyses	# of Containers/Size	Preservative
MW4-9-26-23-GW	1040	Dx Metals Chlorinated Solvents via (BZ60)		HCl Nitric Acid HCl

NOTES: Peristaltic pump & dedicated tubing

Weather: Cloudy, T=61°F, S@9 MPH

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW5

Date: Tues, 9/26/23

Facility Name/Project No.: 1201 S. 1st Street in Yakima, WA/E2023-0712

GW Sampler/Company: Yancy Meyer & Brent Bergeron/BMEC

Well Depth (TD) below Top of Casing (TOC): 25' Depth to Water (DTW) below TOC: 16.36'

Height of Groundwater Column (H) = TD - DTW (Feet): 8.64' Well Radius [r] (Inches): 1"

2-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column in Gal = [0.163 Gal/Foot] X [H (Feet)] = <u>1.41 gal</u>
4-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column in Gal = [0.653 Gal/Foot] X [H (Feet)] = <u>NA</u>

Calculated Volume of Groundwater Needed to be Removed (Gal): 3V = 4.22 gal

GROUNDWATER PARAMETERS						
Volume Purged (Gal)	pH	Temp (deg C)	Cond (µS)	Turb (ntu)	Comments [i.e., Odor(s), Water Color/Silt Content, Sheen]	DO (mg/L)
0.25	7.52	17.6	431.4	109	V. sl. silty; gray	NA
1	7.24	17.3	424.7	58	↓	↓
2	7.30	17.3	420.2	37	Clear	↓
3	7.32	17.4	419.5	32.5	↓	↓
4	7.25	17.3	418.6	29.5	↓	↓
4.5	7.28	17.3	415.3	23.8	↓	↓

Actual Volume Purged (Gal) 4.5 gal DTW After Purging and Before Sampling: 16.60'

GROUNDWATER SAMPLE COLLECTION DATA				
Sample ID	Time	Analyses	# of Containers/Size	Preservative
MW5-9-26-23-GW	0955	Dx		HCl
		Metals		Nitric Acid
		Chlorinated Solvents		HCl
		via 8260		

NOTES: Peristaltic pump & dedicated tubing

Weather: Cloudy, light rain, T~60°F, 5@7 MPH

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW6

Date: Tues, 9/26/23

Facility Name/Project No.: 1201 S. 1st Street in Yakima, WA/E2023-0712

GW Sampler/Company: Yancy Meyer & Brent Bergeron/BMEC

Well Depth (TD) below Top of Casing (TOC): 25' Depth to Water (DTW) below TOC: 16.09'

Height of Groundwater Column (H) = TD - DTW (Feet): 9.91' Well Radius [r] (Inches): 1"

2-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column in Gal = [0.163 Gal/Foot] X [H (Feet)] = <u>1.61 gal</u>
4-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column in Gal = [0.653 Gal/Foot] X [H (Feet)] = <u>NA</u>

Calculated Volume of Groundwater Needed to be Removed (Gal): 3V = 4.84 gal

GROUNDWATER PARAMETERS						
Volume Purged (Gal)	pH	Temp (deg C)	Cond (µS)	Turb (ntu)	Comments [i.e., Odor(s), Water Color/Silt Content, Sheen]	DO (mg/L)
0.25	7.43	17.5	398.6	104	v. sl. silty	NA
1	7.06	17.1	402.6	38	Clear	↓
2	7.16	17.5	404.5	27.1	↓	↓
3	7.15	17.5	401.5	16.7	↓	↓
4	7.11	17.4	404.9	7.85	↓	↓
5	7.07	17.5	402.6	6.0	↓	↓

Actual Volume Purged (Gal) 5 gal DTW After Purging and Before Sampling: 16.08'

GROUNDWATER SAMPLE COLLECTION DATA				
Sample ID	Time	Analyses	# of Containers/Size	Preservative
MW6-9-26-23-GW	0920	Dx		HCl
		Metals		Nitric Acid
		Chlorinated Solvents		HCl
		via (8260)		

NOTES: Peristaltic pump & dedicated tubing

Weather: Cloudy, T=58°F, S@5 MPH

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW7

Date: Tues, 9/26/23

Facility Name/Project No.: 1201 S. 1st Street in Yakima, WA/E2023-0712

GW Sampler/Company: Yancy Meyer & Brent Bergeron/BMEC

Well Depth (TD) below Top of Casing (TOC): 25' Depth to Water (DTW) below TOC: 16.89'

Height of Groundwater Column (H) = TD - DTW (Feet): 8.11' Well Radius [r] (Inches): 1"

2-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column in Gal = [0.163 Gal/Foot] X [H (Feet)] = <u>1.32 gal</u>
4-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column in Gal = [0.653 Gal/Foot] X [H (Feet)] = <u>NA</u>

Calculated Volume of Groundwater Needed to be Removed (Gal): 3V = 3.96 gal

GROUNDWATER PARAMETERS						
Volume Purged (Gal)	pH	Temp (deg C)	Cond (µS)	Turb (ntu)	Comments [i.e., Odor(s), Water Color/Silt Content, Sheen]	DO (mg/L)
0.25	7.55	18.1	417.2	47.3	V.S. Silty	NA
1	7.49	17.9	417.2	10.0	Clear	↓
2	7.39	17.8	418.4	8.1	↓	↓
3	7.34	18.1	418.9	5.38	↓	↓
4	7.27	18.0	416.1	4.5	↓	↓

Actual Volume Purged (Gal) 4 gal DTW After Purging and Before Sampling: 16.89'

GROUNDWATER SAMPLE COLLECTION DATA				
Sample ID	Time	Analyses	# of Containers/Size	Preservative
MW7-9-26-23-GW	1205	Dx Metals Chlorinated Solvents via (8260)		HCl Nitric Acid HCl

NOTES: Peristaltic pump & dedicated tubing

Weather: Cloudy, 62°F, SSW @ 12 MPH

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW8

Date: Tues, 9/26/23

Facility Name/Project No.: 1201 S. 1st Street in Yakima, WA/E2023-0712

GW Sampler/Company: Yancy Meyer & Brent Bergeron/BMEC

Well Depth (TD) below Top of Casing (TOC): 25' Depth to Water (DTW) below TOC: 17.24'

Height of Groundwater Column (H) = TD - DTW (Feet): 7.76' Well Radius [r] (Inches): 1"

2-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column in Gal = [0.163 Gal/Foot] X [H (Feet)] = <u>1.26 gal</u>
4-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column in Gal = [0.653 Gal/Foot] X [H (Feet)] = <u>NA</u>

Calculated Volume of Groundwater Needed to be Removed (Gal): 3V = 3.78 gal

GROUNDWATER PARAMETERS						
Volume Purged (Gal)	pH	Temp (deg C)	Cond (µS)	Turb (ntu)	Comments [i.e., Odor(s), Water Color/Silt Content, Sheen]	DO (mg/L)
0.25	7.31	18.5	420.1	334	Silty; brown-green	
1	7.24	18.3	423.2	325		
2	7.28	18.4	424.4	600		
3	7.32	18.3	424.8	313		
4	7.36	18.4	424.2	148	Mod silty; green-brown	

Actual Volume Purged (Gal) 4 gal DTW After Purging and Before Sampling: 18.35'

GROUNDWATER SAMPLE COLLECTION DATA				
Sample ID	Time	Analyses	# of Containers/Size	Preservative
MW8-9-26-23-GW	1250	Dx Metals Chlorinated Solvents via 18260		HCl Nitric Acid HCl

NOTES: Peristaltic pump & dedicated tubing

Weather: P. sunny, T-64°F, SSW@13MPH

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW9

Date: Tues, 9/26/23

Facility Name/Project No.: 1201 S. 1st Street in Yakima, WA/E2023-0712

GW Sampler/Company: Yancy Meyer & Brent Bergeron/BMEC

Well Depth (TD) below Top of Casing (TOC): 25' Depth to Water (DTW) below TOC: 17.84'

Height of Groundwater Column (H) = TD - DTW (Feet): 7.16' Well Radius [r] (Inches): 1"

2-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column in Gal = [0.163 Gal/Foot] X [H (Feet)] = <u>1.17 gal</u>
4-Inch Diameter Well:	Volume (V) of Groundwater Per Water Column in Gal = [0.653 Gal/Foot] X [H (Feet)] = <u>NA</u>

Calculated Volume of Groundwater Needed to be Removed (Gal): 3V = 3.50 gal

GROUNDWATER PARAMETERS						
Volume Purged (Gal)	pH	Temp (deg C)	Cond (µS)	Turb (ntu)	Comments [i.e., Odor(s), Water Color/Silt Content, Sheen]	DO (mg/L)
0.25	8.19	21.4	102.8	383	Silty; brown	NA
1	8.16	21.2	101.4	121	Mod silty	↓
2	8.13	21.3	102.1	83	sl. silty	↓
3	8.08	21.2	99.8	37.7	Clear	↓
4	8.06	21.3	100.5	22	↓	↓

Actual Volume Purged (Gal) 4 gal DTW After Purging and Before Sampling: 17.84'

GROUNDWATER SAMPLE COLLECTION DATA				
Sample ID	Time	Analyses	# of Containers/Size	Preservative
NW9-9-26-23-GW	1320	Dx Metals Chlorinated Solvents via (8260)		HCl Nitric Acid HCl

NOTES: Peristaltic pump & dedicated tubing

Weather: M. sunny, T=64°F, SSW @ 14 MPH

APPENDIX B

LABORATORY ANALYTICAL DOCUMENTATION



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

October 2, 2023

Peter Trabusiner
Blue Mountain Environmental, Inc.
1500 Adair Drive
Richland, WA 99352

Re: Analytical Data for Project E2023/0712; 1201 S 1st St Yakima
Laboratory Reference No. 2309-307

Dear Peter:

Enclosed are the analytical results and associated quality control data for samples submitted on September 27, 2023.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister
Project Manager

Enclosures



OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 2, 2023
Samples Submitted: September 27, 2023
Laboratory Reference: 2309-307
Project: E2023/0712; 1201 S 1st St Yakima

Case Narrative

Samples were collected on September 26, 2023 and received by the laboratory on September 27, 2023. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below. However the soil results for the QA/QC samples are reported on a wet-weight basis.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.



Date of Report: October 2, 2023
 Samples Submitted: September 27, 2023
 Laboratory Reference: 2309-307
 Project: E2023/0712; 1201 S 1st St Yakima

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW1-9-26-23-GW					
Laboratory ID:	09-307-01					
Diesel Range Organics	ND	0.20	NWTPH-Dx	9-29-23	9-29-23	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	9-29-23	9-29-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	94	50-150				

Client ID:	MW2-9-26-23-GW					
Laboratory ID:	09-307-02					
Diesel Range Organics	ND	0.20	NWTPH-Dx	9-29-23	9-29-23	
Lube Oil Range Organics	0.21	0.20	NWTPH-Dx	9-29-23	9-29-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	83	50-150				

Client ID:	MW6-9-26-23-GW					
Laboratory ID:	09-307-03					
Diesel Range Organics	ND	0.20	NWTPH-Dx	9-29-23	9-29-23	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	9-29-23	9-29-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	93	50-150				

Client ID:	MW5-9-26-23-GW					
Laboratory ID:	09-307-04					
Diesel Range Organics	ND	0.20	NWTPH-Dx	9-29-23	9-29-23	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	9-29-23	9-29-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	100	50-150				

Client ID:	MW4-9-26-23-GW					
Laboratory ID:	09-307-05					
Diesel Range Organics	ND	0.15	NWTPH-Dx	9-29-23	9-29-23	
Lube Oil Range Organics	ND	0.15	NWTPH-Dx	9-29-23	9-29-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	91	50-150				

Client ID:	MW3A-9-26-23-GW					
Laboratory ID:	09-307-06					
Diesel Range Organics	ND	0.15	NWTPH-Dx	9-29-23	9-29-23	
Lube Oil Range Organics	ND	0.15	NWTPH-Dx	9-29-23	9-29-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	92	50-150				



Date of Report: October 2, 2023
 Samples Submitted: September 27, 2023
 Laboratory Reference: 2309-307
 Project: E2023/0712; 1201 S 1st St Yakima

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW7-9-26-23-GW					
Laboratory ID:	09-307-07					
Diesel Range Organics	ND	0.15	NWTPH-Dx	9-29-23	9-29-23	
Lube Oil Range Organics	ND	0.15	NWTPH-Dx	9-29-23	9-29-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	82	50-150				

Client ID:	MW8-9-26-23-GW					
Laboratory ID:	09-307-08					
Diesel Range Organics	ND	0.15	NWTPH-Dx	9-29-23	9-29-23	
Lube Oil Range Organics	ND	0.15	NWTPH-Dx	9-29-23	9-29-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	92	50-150				

Client ID:	MW9-9-26-23-GW					
Laboratory ID:	09-307-09					
Diesel Range Organics	ND	0.15	NWTPH-Dx	9-29-23	9-29-23	
Lube Oil Range Organics	ND	0.15	NWTPH-Dx	9-29-23	9-29-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	84	50-150				



Date of Report: October 2, 2023
 Samples Submitted: September 27, 2023
 Laboratory Reference: 2309-307
 Project: E2023/0712; 1201 S 1st St Yakima

**DIESEL AND HEAVY OIL RANGE ORGANICS
 NWTPH-Dx
 QUALITY CONTROL**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0929W1					
Diesel Range Organics	ND	0.15	NWTPH-Dx	9-29-23	9-29-23	
Lube Oil Range Organics	ND	0.15	NWTPH-Dx	9-29-23	9-29-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	81	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	09-306-01							
	ORIG	DUP						
Diesel Range	ND	ND	NA	NA	NA	NA	NA	40
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	40
<i>Surrogate:</i>								
<i>o-Terphenyl</i>				77	86	50-150		



Date of Report: October 2, 2023
 Samples Submitted: September 27, 2023
 Laboratory Reference: 2309-307
 Project: E2023/0712; 1201 S 1st St Yakima

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW1-9-26-23-GW					
Laboratory ID:	09-307-01					
Vinyl Chloride	ND	0.20	EPA 8260D	9-29-23	9-29-23	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-29-23	9-29-23	
Trichloroethene	ND	0.20	EPA 8260D	9-29-23	9-29-23	
Tetrachloroethene	3.6	0.20	EPA 8260D	9-29-23	9-29-23	

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	96	75-127
Toluene-d8	97	80-127
4-Bromofluorobenzene	95	78-125

Client ID: MW2-9-26-23-GW

Laboratory ID:	09-307-02					
Vinyl Chloride	ND	0.20	EPA 8260D	9-29-23	9-29-23	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-29-23	9-29-23	
Trichloroethene	ND	0.20	EPA 8260D	9-29-23	9-29-23	
Tetrachloroethene	2.4	0.20	EPA 8260D	9-29-23	9-29-23	

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	95	75-127
Toluene-d8	99	80-127
4-Bromofluorobenzene	97	78-125

Client ID: MW6-9-26-23-GW

Laboratory ID:	09-307-03					
Vinyl Chloride	ND	0.20	EPA 8260D	9-29-23	9-29-23	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-29-23	9-29-23	
Trichloroethene	ND	0.20	EPA 8260D	9-29-23	9-29-23	
Tetrachloroethene	2.0	0.20	EPA 8260D	9-29-23	9-29-23	

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	91	75-127
Toluene-d8	97	80-127
4-Bromofluorobenzene	93	78-125



Date of Report: October 2, 2023
 Samples Submitted: September 27, 2023
 Laboratory Reference: 2309-307
 Project: E2023/0712; 1201 S 1st St Yakima

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW5-9-26-23-GW					
Laboratory ID:	09-307-04					
Vinyl Chloride	ND	0.20	EPA 8260D	9-29-23	9-29-23	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-29-23	9-29-23	
Trichloroethene	ND	0.20	EPA 8260D	9-29-23	9-29-23	
Tetrachloroethene	2.0	0.20	EPA 8260D	9-29-23	9-29-23	

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	88	75-127
Toluene-d8	97	80-127
4-Bromofluorobenzene	95	78-125

Client ID:	MW4-9-26-23-GW					
Laboratory ID:	09-307-05					
Vinyl Chloride	ND	0.20	EPA 8260D	9-29-23	9-29-23	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-29-23	9-29-23	
Trichloroethene	ND	0.20	EPA 8260D	9-29-23	9-29-23	
Tetrachloroethene	2.1	0.20	EPA 8260D	9-29-23	9-29-23	

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	85	75-127
Toluene-d8	95	80-127
4-Bromofluorobenzene	92	78-125

Client ID:	MW3A-9-26-23-GW					
Laboratory ID:	09-307-06					
Vinyl Chloride	ND	0.20	EPA 8260D	9-29-23	9-29-23	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-29-23	9-29-23	
Trichloroethene	ND	0.20	EPA 8260D	9-29-23	9-29-23	
Tetrachloroethene	4.0	0.20	EPA 8260D	9-29-23	9-29-23	

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	84	75-127
Toluene-d8	95	80-127
4-Bromofluorobenzene	91	78-125



Date of Report: October 2, 2023
 Samples Submitted: September 27, 2023
 Laboratory Reference: 2309-307
 Project: E2023/0712; 1201 S 1st St Yakima

VOLATILE ORGANICS EPA 8260D

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW7-9-26-23-GW					
Laboratory ID:	09-307-07					
Vinyl Chloride	ND	0.20	EPA 8260D	9-29-23	9-29-23	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-29-23	9-29-23	
Trichloroethene	ND	0.20	EPA 8260D	9-29-23	9-29-23	
Tetrachloroethene	6.0	0.20	EPA 8260D	9-29-23	9-29-23	

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	82	75-127
Toluene-d8	95	80-127
4-Bromofluorobenzene	91	78-125

Client ID:	MW8-9-26-23-GW					
Laboratory ID:	09-307-08					
Vinyl Chloride	ND	0.20	EPA 8260D	9-29-23	9-30-23	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-29-23	9-30-23	
Trichloroethene	ND	0.20	EPA 8260D	9-29-23	9-30-23	
Tetrachloroethene	5.1	0.20	EPA 8260D	9-29-23	9-30-23	

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	81	75-127
Toluene-d8	96	80-127
4-Bromofluorobenzene	89	78-125

Client ID:	MW9-9-26-23-GW					
Laboratory ID:	09-307-09					
Vinyl Chloride	ND	0.20	EPA 8260D	9-29-23	9-30-23	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-29-23	9-30-23	
Trichloroethene	ND	0.20	EPA 8260D	9-29-23	9-30-23	
Tetrachloroethene	ND	0.20	EPA 8260D	9-29-23	9-30-23	

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	79	75-127
Toluene-d8	96	80-127
4-Bromofluorobenzene	91	78-125



Date of Report: October 2, 2023
 Samples Submitted: September 27, 2023
 Laboratory Reference: 2309-307
 Project: E2023/0712; 1201 S 1st St Yakima

**VOLATILE ORGANICS EPA 8260D
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0929W1					
Vinyl Chloride	ND	0.20	EPA 8260D	9-29-23	9-29-23	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-29-23	9-29-23	
Trichloroethene	ND	0.20	EPA 8260D	9-29-23	9-29-23	
Tetrachloroethene	ND	0.20	EPA 8260D	9-29-23	9-29-23	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	93	75-127				
<i>Toluene-d8</i>	98	80-127				
<i>4-Bromofluorobenzene</i>	94	78-125				

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0929W1									
	SB	SBD	SB	SBD	SB	SBD				
Vinyl Chloride	9.53	10.0	10.0	10.0	95	100	71-135	5	20	
(cis) 1,2-Dichloroethene	10.2	10.8	10.0	10.0	102	108	80-129	6	17	
Trichloroethene	10.9	11.5	10.0	10.0	109	115	80-122	5	18	
Tetrachloroethene	11.9	12.4	10.0	10.0	119	124	80-124	4	18	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					100	96	75-127			
<i>Toluene-d8</i>					100	98	80-127			
<i>4-Bromofluorobenzene</i>					100	99	78-125			



Date of Report: October 2, 2023
 Samples Submitted: September 27, 2023
 Laboratory Reference: 2309-307
 Project: E2023/0712; 1201 S 1st St Yakima

TOTAL METALS
EPA 200.8/7470A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW1-9-26-23-GW					
Laboratory ID:	09-307-01					
Arsenic	ND	3.3	EPA 200.8	9-28-23	9-28-23	
Cadmium	ND	4.4	EPA 200.8	9-28-23	9-28-23	
Chromium	20	11	EPA 200.8	9-28-23	9-28-23	
Lead	2.9	1.1	EPA 200.8	9-28-23	9-28-23	
Mercury	ND	0.50	EPA 7470A	9-29-23	9-29-23	

Client ID:	MW2-9-26-23-GW					
Laboratory ID:	09-307-02					
Arsenic	ND	3.3	EPA 200.8	9-28-23	9-28-23	
Cadmium	ND	4.4	EPA 200.8	9-28-23	9-28-23	
Chromium	19	11	EPA 200.8	9-28-23	9-28-23	
Lead	9.0	1.1	EPA 200.8	9-28-23	9-28-23	
Mercury	ND	0.50	EPA 7470A	9-29-23	9-29-23	

Client ID:	MW6-9-26-23-GW					
Laboratory ID:	09-307-03					
Arsenic	ND	3.3	EPA 200.8	9-28-23	9-28-23	
Cadmium	ND	4.4	EPA 200.8	9-28-23	9-28-23	
Chromium	ND	11	EPA 200.8	9-28-23	9-28-23	
Lead	ND	1.1	EPA 200.8	9-28-23	9-28-23	
Mercury	ND	0.50	EPA 7470A	9-29-23	9-29-23	

Client ID:	MW5-9-26-23-GW					
Laboratory ID:	09-307-04					
Arsenic	ND	3.3	EPA 200.8	9-28-23	9-28-23	
Cadmium	ND	4.4	EPA 200.8	9-28-23	9-28-23	
Chromium	ND	11	EPA 200.8	9-28-23	9-28-23	
Lead	ND	1.1	EPA 200.8	9-28-23	9-28-23	
Mercury	ND	0.50	EPA 7470A	9-29-23	9-29-23	



Date of Report: October 2, 2023
 Samples Submitted: September 27, 2023
 Laboratory Reference: 2309-307
 Project: E2023/0712; 1201 S 1st St Yakima

TOTAL METALS
EPA 200.8/7470A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW4-9-26-23-GW					
Laboratory ID:	09-307-05					
Arsenic	ND	3.3	EPA 200.8	9-28-23	9-28-23	
Cadmium	ND	4.4	EPA 200.8	9-28-23	9-28-23	
Chromium	ND	11	EPA 200.8	9-28-23	9-28-23	
Lead	1.2	1.1	EPA 200.8	9-28-23	9-28-23	
Mercury	ND	0.50	EPA 7470A	9-29-23	9-29-23	

Client ID:	MW3A-9-26-23-GW					
Laboratory ID:	09-307-06					
Arsenic	ND	3.3	EPA 200.8	9-28-23	9-28-23	
Cadmium	ND	4.4	EPA 200.8	9-28-23	9-28-23	
Chromium	ND	11	EPA 200.8	9-28-23	9-28-23	
Lead	ND	1.1	EPA 200.8	9-28-23	9-28-23	
Mercury	ND	0.50	EPA 7470A	9-29-23	9-29-23	

Client ID:	MW7-9-26-23-GW					
Laboratory ID:	09-307-07					
Arsenic	ND	3.3	EPA 200.8	9-28-23	9-28-23	
Cadmium	ND	4.4	EPA 200.8	9-28-23	9-28-23	
Chromium	ND	11	EPA 200.8	9-28-23	9-28-23	
Lead	ND	1.1	EPA 200.8	9-28-23	9-28-23	
Mercury	ND	0.50	EPA 7470A	9-29-23	9-29-23	

Client ID:	MW8-9-26-23-GW					
Laboratory ID:	09-307-08					
Arsenic	ND	3.3	EPA 200.8	9-28-23	9-28-23	
Cadmium	ND	4.4	EPA 200.8	9-28-23	9-28-23	
Chromium	ND	11	EPA 200.8	9-28-23	9-28-23	
Lead	ND	1.1	EPA 200.8	9-28-23	9-28-23	
Mercury	ND	0.50	EPA 7470A	9-29-23	9-29-23	



Date of Report: October 2, 2023
 Samples Submitted: September 27, 2023
 Laboratory Reference: 2309-307
 Project: E2023/0712; 1201 S 1st St Yakima

TOTAL METALS
EPA 200.8/7470A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW9-9-26-23-GW					
Laboratory ID:	09-307-09					
Arsenic	ND	3.3	EPA 200.8	9-28-23	9-28-23	
Cadmium	ND	4.4	EPA 200.8	9-28-23	9-28-23	
Chromium	ND	11	EPA 200.8	9-28-23	9-28-23	
Lead	ND	1.1	EPA 200.8	9-28-23	9-28-23	
Mercury	ND	0.50	EPA 7470A	9-29-23	9-29-23	



Date of Report: October 2, 2023
 Samples Submitted: September 27, 2023
 Laboratory Reference: 2309-307
 Project: E2023/0712; 1201 S 1st St Yakima

**TOTAL METALS
 EPA 200.8/7470A
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0928WM1					
Arsenic	ND	3.3	EPA 200.8	9-28-23	9-28-23	
Cadmium	ND	4.4	EPA 200.8	9-28-23	9-28-23	
Chromium	ND	11	EPA 200.8	9-28-23	9-28-23	
Lead	ND	1.1	EPA 200.8	9-28-23	9-28-23	

Laboratory ID:	MB0929W1					
Mercury	ND	0.50	EPA 7470A	9-29-23	9-29-23	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	09-307-06							
	ORIG	DUP						
Arsenic	ND	ND	NA	NA	NA	NA	NA	20
Cadmium	ND	ND	NA	NA	NA	NA	NA	20
Chromium	ND	ND	NA	NA	NA	NA	NA	20
Lead	ND	ND	NA	NA	NA	NA	NA	20

Laboratory ID:	09-307-06							
Mercury	ND	ND	NA	NA	NA	NA	NA	20

MATRIX SPIKES

Laboratory ID:	09-307-06									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	101	105	111	111	ND	91	95	75-125	4	20
Cadmium	98.9	105	111	111	ND	89	94	75-125	6	20
Chromium	100	103	111	111	ND	91	93	75-125	3	20
Lead	94.4	101	111	111	ND	85	91	75-125	6	20

Laboratory ID:	09-307-06									
Mercury	11.8	11.7	12.5	12.5	ND	94	93	75-125	1	20





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
 - X2 - Sample extract treated with a silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



