



REVISED GROUNDWATER MONITORING REPORT

First Quarter 2024

July 18, 2024

Facility No: Temple Distributing
Carson Oil

Address: 808 South Columbus Ave, Goldendale,
Washington

Arcadis Contact Person / Phone No.:

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Arcadis Project No.:

30079744

Primary Agency/Regulatory ID No.:

Washington State Department of Ecology
Central Office, Toxics Cleanup Program
Mary Monahan / Enforcement Order No. DE 14134

Revisions:

On June 14, 2024, Washington State Department of Ecology (Ecology) provided a comment letter via email to Chevron Environmental Management Company (CEMC) with comments on the previously submitted Fourth Quarter 2023 Groundwater Monitoring Report and First Quarter 2023 Groundwater Monitoring Report (Ecology 2024). In that June 2024 comment letter, Ecology indicated that groundwater total petroleum hydrocarbon in the diesel range (TPH-DRO) and heavy oil range (TPH-HRO) results from laboratory analytical method NWTPH-Dx must be summed when comparing to the Model Toxics Control Act (MTCA) Method A Cleanup Level (CUL) of 500 micrograms per liter ($\mu\text{g/L}$). This Revised First Quarter 2024 Groundwater Monitoring Report (Report) has been updated and resubmitted per Ecology's request.

WORK CONDUCTED THIS PERIOD [First Quarter 2024]:

1. Submitted the *Progress Report – Fourth Quarter 2023* to Washington Department of Ecology (Ecology) on January 19, 2024 (Arcadis 2024a).
2. Submitted the *Draft Interim Action Completion Report* to Ecology on January 26, 2024 (Arcadis 2024b).
3. Submitted the *Groundwater Monitoring Report – Fourth Quarter 2023* to Ecology on March 1, 2024 (Arcadis 2024c).
4. Conducted quarterly groundwater monitoring and sampling on March 5, 2024.
5. Access agreement for the property containing wells MW-1 and MW-8 was executed and mailed to the property owner on March 14, 2024.

WORK CONDUCTED/PROPOSED NEXT PERIOD [Second Quarter 2024]:

1. Continue quarterly groundwater monitoring.

2. Submitted the *Progress Report – First Quarter 2024* to Ecology on April 5, 2024 (Arcadis 2024d).
3. Prepared the *Groundwater Monitoring Report - First Quarter 2024*.

Current Phase of Project:	Post-remedial monitoring	
Frequency of Monitoring / Sampling:	Quarterly	
Is Light Non-Aqueous Phase Liquid (LNAPL) Present On-site:	None	
Cumulative LNAPL Recovered to Date:	None	
Approximate Depth to Groundwater:	3.71 (MW-10) to 4.69 (MW-5A)	(feet below top of casing)
Approximate Groundwater Elevation:	1,635.72 (MW-5A) to 1,637.98 (MW-9 and MW-4A)	(feet above NAVD 88)
Groundwater Flow Direction	North-northwest	
Groundwater Gradient	0.008	(feet per foot)
Current Remediation Techniques:	None	
Permits for Discharge:	Not Applicable	
Summary of Unusual Activity:	Monitoring well MW-7 was observed to be dry. Wells MW-1 and MW-8 were inaccessible due to access agreement restrictions. A blind duplicate was not collected during this sampling event due to field error.	

DISCUSSION

Arcadis U.S., Inc. (Arcadis) directed Blaine Tech Services, on behalf of Chevron Environmental Management Company (CEMC), Temple Distributing, Temple Family Credit Shelter Trust, and Temple Family Survivor Trust (PLPs), to conduct groundwater monitoring activities on March 5, 2024. The groundwater monitoring program includes gauging and sampling monitoring wells MW-1, MW-2, MW-3A through MW-5A, and MW-6 through MW-10. The groundwater monitoring event was completed as scoped with the following deviations:

- Well MW-7 was observed to be dry and thus was not sampled.
- Wells MW-1 and MW-8 were not sampled due to access agreement restrictions. Access agreement restrictions were resolved on March 14, 2024.
- A blind duplicate sample was not collected during the sampling event due to a field error.

LNAPL was not observed in any of the site monitoring wells during the sampling event. Historical and current groundwater gauging results are presented in Table 1. A site location map and a site plan are presented on Figures 1 and 2, respectively.

The calculated groundwater flow direction is to the north-northwest with a hydraulic gradient of 0.008 feet/foot for the March 2024 groundwater monitoring event, which is comparable to previous events. A groundwater elevation contour map, including a rose diagram of historical flow directions, is presented on Figure 3.

Wells were sampled using low-flow methodology using a peristaltic pump and dedicated disposable tubing. Field parameters including pH, temperature, electrical conductivity, turbidity, dissolved oxygen, and oxidation reduction potential were collected during the purging process with a multiparameter water quality meter and flow-through cell. Field parameters were allowed to stabilize prior to collecting samples (Arcadis 2023). The groundwater monitoring field data sheets are included as Attachment A.

Following field parameter stabilization, samples were collected in pre-preserved laboratory-provided bottles and placed in a cooler with ice. Groundwater samples were submitted to Pace Analytical in Mount Juliet, Tennessee, an Ecology-accredited laboratory, under standard chain-of-custody protocols. Groundwater samples were analyzed for the following:

- Total petroleum hydrocarbons as gasoline range organics (TPH-GRO) by Northwest Method NWTPH-Gx;
- TPH-DRO and TPH-HRO by Method NWTPH-Dx without Silica Gel Treatment (SGT);
- Benzene, toluene, ethylbenzene, and total xylenes (collectively BTEX) by United States Environmental Protection Agency (USEPA) Method 8260D;
- Ethylene dibromide (EDB) by USEPA Method 8011;
- Polycyclic aromatic hydrocarbons (PAHs) by USEPA Method 8270E-SIM;
- Total lead by USEPA Method 6010D.

RESULTS

Groundwater analytical results for samples collected from monitoring wells for the current sampling event were greater than the MTCA Method A CULs for the following analytes: Monitoring wells MW-3A, MW-4A, MW-5A, and MW-10 results for the summed TPH-DRO and TPH-HRO concentration exceeded the MTCA Method A CUL of 500 µg/L with summed concentrations of 674, 703, 1,302, and 625 µg/L, respectively. However, individual concentrations provided by the laboratory for individual TPH-DRO and

TPH-HRO did not exceed the MTCA Method A CUL of 500 µg/L with the exception of MW-5A (TPH-DRO and TPH-HRO).

Analytical results from wells MW-2 and MW-9 were either less than the MTCA Method A CULs or were not detected at concentrations greater than the respective laboratory reporting limits. Historical and current groundwater analytical results for TPH, BTEX, fuel additives, and lead are presented in Table 1. Historical and current groundwater analytical results for PAHs are presented in Table 2. The laboratory analytical report and chain-of-custody documentation are included as Attachment B.

Groundwater TPH analytical results for wells sampled on March 5, 2024, are presented on Figure 4. TPH-GRO, TPH-DRO, TPH-HRO, and TPH-DRO combined with TPH-HRO concentrations and groundwater elevations versus time plots for wells MW-2, MW-3/3A, MW-4/4A, MW-5/5A, MW-6 and MW-10 are presented on Figures 5 through 10, respectively. Groundwater concentrations appear to be decreasing since the implementation of the interim action. Groundwater monitoring will continue on a quarterly basis to further evaluate groundwater quality and concentration trends following the remedial excavation.

PROPOSED SCOPE OF WORK CHANGES

Based on the current and historical results, Arcadis, on behalf of the PLPs, respectfully requests Ecology approve the following changes to the groundwater monitoring program for implementation beginning in Third Quarter 2024:

- Remove BTEX, MTBE, EDB, EDC, PAHs, and lead from the sampling program. Concentrations of these constituents have either been non-detect or below applicable CULs since at least 2012 (Table 1).
- Analyze groundwater samples for DRO and HRO using NWTPH-Dx both with and without silica gel cleanup. The concentrations of petroleum organic compounds and non-polar organics will be evaluated using Ecology guidance (Ecology 2023). NWTPH-HCID will also be added to the analytical list for all groundwater samples as well as the addition of chromatograms to associated laboratory reports.

LIMITATIONS

This report was prepared in accordance with the scope of work outlined in Arcadis' contract with Chevron Environmental Management Company (CEMC) and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the site. It was prepared for the exclusive use of CEMC, Temple Distributing, Temple Family Credit Shelter Trust, and Temple Family Survivor Trust for the express purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to Arcadis. To the extent that this report is based on information provided to Arcadis by third parties, Arcadis may have made efforts to verify this third-party information, but Arcadis cannot guarantee the completeness or accuracy of this information. The opinions expressed and data collected are based on the conditions of the site existing at the time of the field investigation. No other warranties expressed or implied are made by Arcadis.



Eric Epple
Project Manager

Date: July 18, 2024



Paul T. McCullough, PE
Principal Environmental Engineer



Date: July 18, 2024

ATTACHMENTS:

Table 1	Groundwater Gauging Data and TPH, BTEX, Fuel Additives, and Lead Analytical Results
Table 2	Groundwater Gauging Data and PAH Analytical Results
Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Groundwater Elevation Contour Map, March 5, 2024
Figure 4	Groundwater Analytical Map, March 5, 2024
Figure 5	Groundwater Concentration and Elevation vs. Time Plots MW-2
Figure 6	Groundwater Concentration and Elevation vs. Time Plots MW-3 / MW-3A
Figure 7	Groundwater Concentration and Elevation vs. Time Plots MW-4 / MW-4A
Figure 8	Groundwater Concentration and Elevation vs. Time Plots MW-5 / MW-5A
Figure 9	Groundwater Concentration and Elevation vs. Time Plots MW-6
Figure 10	Groundwater Concentration and Elevation vs. Time Plots MW-10
Attachment A	Field Data Sheets
Attachment B	Laboratory Reports and Chain-of-Custody Documentation

REFERENCES:

- Arcadis. 2024a. *Progress Report – Fourth Quarter 2023*. Temple Distributing Carson Oil Site. 808 South Columbus Avenue. Goldendale, Washington. January 19.
- Arcadis. 2024b. *Draft Interim Action Completion Report*. Temple Distributing Carson Oil Site. 808 South Columbus Avenue. Goldendale, Washington. January 26.
- Arcadis. 2024c. *Groundwater Monitoring Report – Fourth Quarter 2023*. Temple Distributing Carson Oil Site. 808 South Columbus Avenue. Goldendale, Washington. March 1.
- Arcadis. 2024d. *Progress Report – First Quarter 2024*. Temple Distributing Carson Oil Site. 808 South Columbus Avenue. Goldendale, Washington. April 5.
- Ecology. 2023. *Guidance for Silica Gel Cleanup in Washington State*. Toxics Cleanup Program. Publication No. 22-09-059. November.
- Ecology. 2024. RE: Comments on the Temple Distributing Groundwater Monitoring Report, First Quarter 2024. June 14.

TABLES



Table 1
 Groundwater Gauging Data and TPH, BTEX, Fuel Additives, and Lead Analytical Results
 Temple Distributing Carson Oil Site
 808 South Columbus Avenue
 Goldendale, Washington



Sample Location	Date	TOC (feet)	DTW (feet bgs)	Total Depth (feet bgs)	Water Column (feet)	LNAPL	GWE (feet)	TPH-GRO	TPH-DRO	TPH-HRO	TPH-DRO+HRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	EDB	EDC	Total Lead	Comments
MTCA Method A CULS							800/1,000	500	500	500	5	1,000	700	1,000	20	0.01	5	15		
MW-7	4/18/2018	--	DRY	5.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled – well dry
MW-7	4/6/2021	--	DRY	7.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled – well dry
MW-7	8/18/2021	--	DRY	7.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled – well dry
MW-7	2/23/2022	--	DRY	7.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled – well dry
MW-7	6/15/2022	--	DRY	7.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled – well dry
MW-7	9/2/2022	--	4.67	4.76	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Could not be sampled due to Potential blockage in well
MW-7	12/1/2022	--	DRY	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled – well dry
MW-7	12/18/2023	1,641.21	DRY	4.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled- well is dry
MW-7	3/5/2024	1,641.21	DRY	4.76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled- well is dry
MW-8	4/18/2018	1,641.18	2.34	5.00	2.66	--	1,638.84	<50	<49	<110	<110	<0.500	<0.500	<0.500	<0.500	<0.500	<0.0094	<0.500	<6.00	Not sampled – well dry
MW-8	4/6/2021	1,641.18	DRY	4.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled – well dry
MW-8	8/18/2021	1,641.18	DRY	4.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled – well dry
MW-8	2/23/2022	1,641.18	DRY	4.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled – well dry
MW-8	6/15/2022	1,641.18	DRY	4.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled – well dry
MW-8	9/2/2022	1,641.18	DRY	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled – well dry
MW-8	12/1/2022	1,641.18	DRY	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled – well dry
MW-8	12/18/2023	1,641.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled - due to access limitations
MW-8	3/5/2024	1,641.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled - due to access limitations
MW-9	4/18/2018	1,642.88	3.01	7.00	3.99	--	1,639.87	<50	<47	<100	<100	<0.500	<0.500	<0.500	<0.500	<0.500	<0.0094	<0.500	<6.00	Not sampled – well dry
MW-9	4/6/2021	1,642.88	5.25	6.61	1.36	--	1,637.63	<31.6	<66.7	234 J	267 J	<0.09	<0.28	<0.14	<0.17	<0.100	<0.005	<0.08	<2.99	Not sampled – well dry
MW-9	8/18/2021	1,642.88	6.25	6.75	0.50	--	1,636.63	221 B	156 J	232 J	388 J	--	--	--	--	--	--	<1.00	--	Not sampled – well dry
MW-9	2/23/2022	1,642.88	5.26	6.67	1.41	--	1,637.62	<31.6	107 J	248 J	355 J	<0.0941	<0.278	<0.137	<0.174	--	<0.00547	--	<2.99	Not sampled – well dry
MW-9	6/16/2022	1,642.88	5.31	6.25	0.94	--	1,637.57	<31.6	157 J	233 J	390 J	<0.0941	<0.278	<0.137	<0.174	--	<0.00536	--	<2.99	Not sampled – well dry
MW-9	9/2/2022	1,642.88	6.09	6.78	0.69	--	1,636.79	<100	117 J	246 J	363 J	<1.00	<1.00	<1.00	<3.00	--	<0.0204	--	<6.00	Not sampled – well dry
MW-9	12/1/2022	1,642.88	5.86	6.70	0.84	--	1,637.02	<100	157 J	187 J	344 J	<1.00	<1.00	<1.00	<3.00	<1.00	<0.0214	<1.00	<6.00	Not sampled – well dry
MW-9	12/18/2023	1,642.36	5.17	6.75	1.58	--	1,637.19	<100	<200	<250	<250	<1.00	<1.00	<1.00	0.333 J	--	<0.0204	--	<6.00	Not sampled - due to access limitations
MW-9	3/5/2024	1,642.36	4.38	6.67	2.29	--	1,637.98	<100	206	<250	331	<1.00	<1.00	<1.00	<3.00	--	<0.0200	--	<6.00	Not sampled - due to access limitations
MW-10	12/18/2023	1,641.28	4.17	7.29	3.12	--	1,637.11	<100	81.4 J	<250	206 J	<1.00	<1.00	<1.00	0.327 J	--	<0.0212	--	3.62 J	Not sampled – well dry
MW-10 DUP	12/18/2023	--	--	--	--	--	--	<100	108 J	112 J	220 J	<1.00	<1.00	<1.00	0.342 J	--	<0.0208	--	5.46 J	Not sampled – well dry
MW-10	3/5/2024	1,641.28	3.71	7.20	3.49	--	1,637.57	<100	218	407	625	<1.00	<1.00	<1.00	<3.00	--	<0.0202	--	<6.00	Not sampled – well dry
TB	9/2/2022	--	--	--	--	--	--	<100	--	--	--	<1.00	<1.00	<1.00	<3.00	--	--	--	--	Not sampled – well dry
TB	12/1/2022	--	--	--	--	--	--	<100	--	--	--	<1.00	<1.00	<1.00	<3.00	<1.00	<0.0218	<1.00	--	Not sampled – well dry
TB-1	12/19/2023	--	--	--	--	--	--	<100	--	--	--	<1.00	<1.00	<1.00	<3.00	--	--	--	--	Not sampled – well dry
TB-1	3/5/2024	--	--	--	--	--	--	<100	--	--	--	<1.00	<1.00	<1.00	<3.00	--	--	--	--	Not sampled – well dry

Table 1
Groundwater Gauging Data and TPH, BTEX, Fuel Additives, and Lead Analytical Results
Temple Distributing Carson Oil Site
808 South Columbus Avenue
Goldendale, Washington

Notes:

1. 800/1,000 = TPH-GRO MTCA Method A CUL with benzene present is 800 µg/L and without is 1,000 µg/L.
2. Analytical results are presented in µg/L.
3. Historical analytical methods for the site may vary. Refer to historical site reports referenced below for specific analytical methods prior to 2022.
4. **BOLD and highlighted values are greater than their respective MTCA Method A CUL.**
5. **BOLD** values are non-detect and less than the laboratory reporting limit, but the reporting limit is greater than the MTCA Method A CUL.
6. TPH-DRO + TPH-HRO summed value includes qualifiers either individual result; half the reporting limit value is used in the sum if an individual result was non-detectable; highest reporting limit for individual results was used for the summed value if individual results were non-detectable.

Acronyms and Abbreviations:

-- = not analyzed
µg/L = microgram per liter
bgs = below ground surface
BTEX = benzene, toluene, ethylbenzene, and total xylenes
CUL = cleanup level
DTW = depth to water in feet below TOC
DUP = blind duplicate sample results
EDB = 1,2-dibromoethane
EDC = 1,2-dichloroethane
GWE = groundwater elevation
MTBE = methyl tertiary butyl ether
MTCA = Model Toxics Control Act
ND = analyte not detected
TB = Trip Blank
TOC = top of casing
TPH = total petroleum hydrocarbons
TPH-DRO = total petroleum hydrocarbons as diesel-range organics
TPH-GRO = total petroleum hydrocarbons as gasoline-range organics
TPH-HRO = total petroleum hydrocarbons as heavy-oil range organics
TPH-DRO + TPH-HRO = total petroleum hydrocarbons as a sum of diesel-range and heavy-oil range organics results
USEPA = United States Environmental Protection Agency

Qualifiers:

U = Not detected at the reporting limit (or MDL where applicable)
< = Not detected at or greater than the laboratory method detection limit.
J = The identification of the analyte is acceptable; the reported value is an estimate.
J+ = Reported result was flagged "J" because it is an estimated value with a high bias.
Y = The chromatograph response resembles a typical fuel pattern.
B = The compound has been found in the sample as well as its associated blank. Its presence in the sample may be a suspect

Current Analytical Methods:

2022 - Current Volatile Organic compounds (GC) analyzed by Northwest Method NWTTPH-Gx
TPH-GRO
Volatile Organic compounds (GC/MS) analyzed by Method 8260D
Benzene, Toluene, Ethylbenzene, and Total Xylenes
EDB / DBCP analyzed by Method 8011
Ethylene Dibromide
Semi-Volatile Organic compounds (GC) analyzed by Northwest Method NWTTPHDX- NO SGT
TPH-DRO and TPH-HRO
Metals (ICP) by USEPA Method 6010D
Lead

References:

Leidos, Inc. 2018 Draft Remedial Investigation/ Feasibility Study Former Temple Distributing Site. 808 South Columbus Ave., Goldendale, Washington. April 12.
TerraGraphics Environmental Engineering, Inc. 2015. Final 2015 Supplemental Environmental Site Assessment Report Columbus Square, Goldendale, Washington. December 18.

Table 2
Groundwater Gauging Data and PAH Analytical Results
Temple Distributing Carson Oil Site
808 South Columbus Avenue
Goldendale, Washington



Sample Location	Date	TOC (feet)	DTW (feet bgs)	Total Depth (feet bgs)	Water Column (feet)	GWE (feet)	MTC A CULS																	Total PAHs	Comments
							Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(e)pyrene	Benzo(g,h)perylene	Benzo(i)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene		
MW-7	4/18/2018	--	DRY	5.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - Well Dry
MW-7	4/6/2021	--	DRY	7.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - Well Dry
MW-7	8/18/2021	--	DRY	7.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - Well Dry
MW-7	2/23/2022	--	DRY	7.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - Well Dry
MW-7	6/16/2022	--	DRY	7.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - Well Dry
MW-7	9/2/2022	--	4.67	4.76	0.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Could not sample. Potential blockage in well
MW-7	12/1/2022	--	DRY	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	12/2/2022	--	DRY	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	12/18/2023	1,641.21	DRY	4.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled - well is dry
MW-7	3/5/2024	1,641.21	DRY	4.76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled - well is dry
MW-8	4/18/2018	1,641.18	2.34	5.00	2.66	1,638.84	<-0.01	<-0.01	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0151
MW-8	4/6/2021	--	DRY	4.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - Well Dry
MW-8	8/18/2021	--	DRY	4.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - Well Dry
MW-8	2/23/2022	--	DRY	4.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - Well Dry
MW-8	6/16/2022	--	DRY	4.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not Sampled - Well Dry
MW-8	9/2/2022	--	DRY	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled - well dry
MW-8	12/1/2022	--	DRY	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	12/18/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled - due to access agreement issue
MW-8	3/5/2024	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	Not sampled - due to access agreement issue
MW-9	4/18/2018	1,642.88	3.01	7.00	3.99	1,639.87	<-0.0100	<-0.01	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0100	<-0.0151
MW-9	4/6/2021	1,642.88	5.25	6.61	1.36	1,637.63	--	--	--	<-0.0200	<-0.0200	<-0.017	--	<-0.0200	<-0.0200	<-0.016	--	--	<-0.016	<-0.0900	--	--	--	<-0.129	
MW-9	8/18/2021	1,642.88	6.25	6.75	0.50	1,636.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-9	2/23/2022	1,642.88	5.26	6.67	1.41	1,637.62	--	--	--	<-0.0203	<-0.0184	<-0.0168	--	<-0.0202	<-0.0179	<-0.0160	--	--	<-0.0158	<-0.0917	--	--	--	<-0.130	
MW-9	6/16/2022	1,642.88	5.31	6.25	0.94	1,637.57	--	--	--	<-0.0203	<-0.0184	<-0.0168	--	<-0.0202	<-0.0179	<-0.0160	--	--	<-0.0158	<-0.0917	--	--	--	<-0.130	
MW-9	9/2/2022	1,642.88	6.09	6.78	0.69	1,636.79	--	--	--	<-0.0500	<-0.0500	<-0.0500	--	<-0.0500	<-0.0500	<-0.0500	--	--	--	<-0.250	--	--	--	--	
MW-9	12/1/2022	1,642.88	5.86	6.7	0.84	1,637.02	--	--	--	<-0.0500	<-0.0500	<-0.0500	--	<-0.0500	<-0.0500	<-0.0500	--	--	<-0.0500	<-0.250	--	--	--	--	
MW-9	12/18/2023	1,642.36	5.17	6.75	1.58	1,637.19	--	--	--	<-0.0500	<-0.0500	<-0.0500	--	<-0.0500	<-0.0500	<-0.0500	--	--	<-0.0500	<-0.250	--	--	--	--	
MW-9	3/5/2024	1,642.36	4.38	6.67	2.29	1,637.98	--	--	--	<-0.0500	<-0.0500	<-0.0500	--	<-0.0500	<-0.0500	<-0.0500	--	--	<-0.0500	<-0.250	--	--	--	--	
MW-10	12/18/2023	1,641.28	4.17	7.29	3.12	1,637.11	--	--	--	<-0.0500	<-0.0500	<-0.0500	--	<-0.0500	<-0.0500	<-0.0500	--	--	<-0.0500	<-0.250	--	--	--	--	
MW-10 DUP	12/18/2023	--	--	--	--	--	--	--	--	<-0.0500	<-0.0500	<-0.0500	--	<-0.0500	<-0.0500	<-0.0500	--	--	<-0.0500	<-0.250	--	--	--	--	
MW-10	3/5/2024	1,641.28	3.71	7.20	3.49	1,637.57	--	--	--	<-0.0500	<-0.0500	<-0.0500	--	<-0.0500	<-0.0500	<-0.0500	--	--	<-0.0500	<-0.250	--	--	--	--	

Table 2
Groundwater Gauging Data and PAH Analytical Results
Temple Distributing Carson Oil Site
808 South Columbus Avenue
Goldendale, Washington

Notes:

1. Analytical results are presented in µg/L.
2. Historical analytical methods for the site may vary. Refer to historical site reports referenced below for specific analytical methods prior to 2021.
3. **BOLD and highlighted** values are greater than their respective MTCA Method A CUL.
4. **BOLD** values are nondetect and less than the laboratory reporting limit, but the reporting limit is greater than the MTCA Method A CUL.
5. Total cPAHs derived according to MTCA Cleanup Regulation Table 740-1 [d].

Acronyms and Abbreviations:

-- = not analyzed
µg/L = microgram per liter
bgs = below ground surface
cPAH = carcinogenic polycyclic aromatic hydrocarbons
CUL = cleanup level
DTW = depth to water in feet below TOC
DUP = blind duplicate sample results
GWE = groundwater elevation
MTCA = Model Toxics Control Act
NA = no applicable MTCA Method A CUL
TOC = top of casing
USEPA = United States Environmental Protection Agency

Qualifier:

< = Not detected at or above the reporting limit (or method detection limit where applicable)
J = The identification of the analyte is acceptable; the reported value is an estimate

Analytical Methods:

<u>Year</u>	<u>Analyte and Analytical Method</u>
2021 - Current	cPAHs analyzed by USEPA Method 8270E-SIM

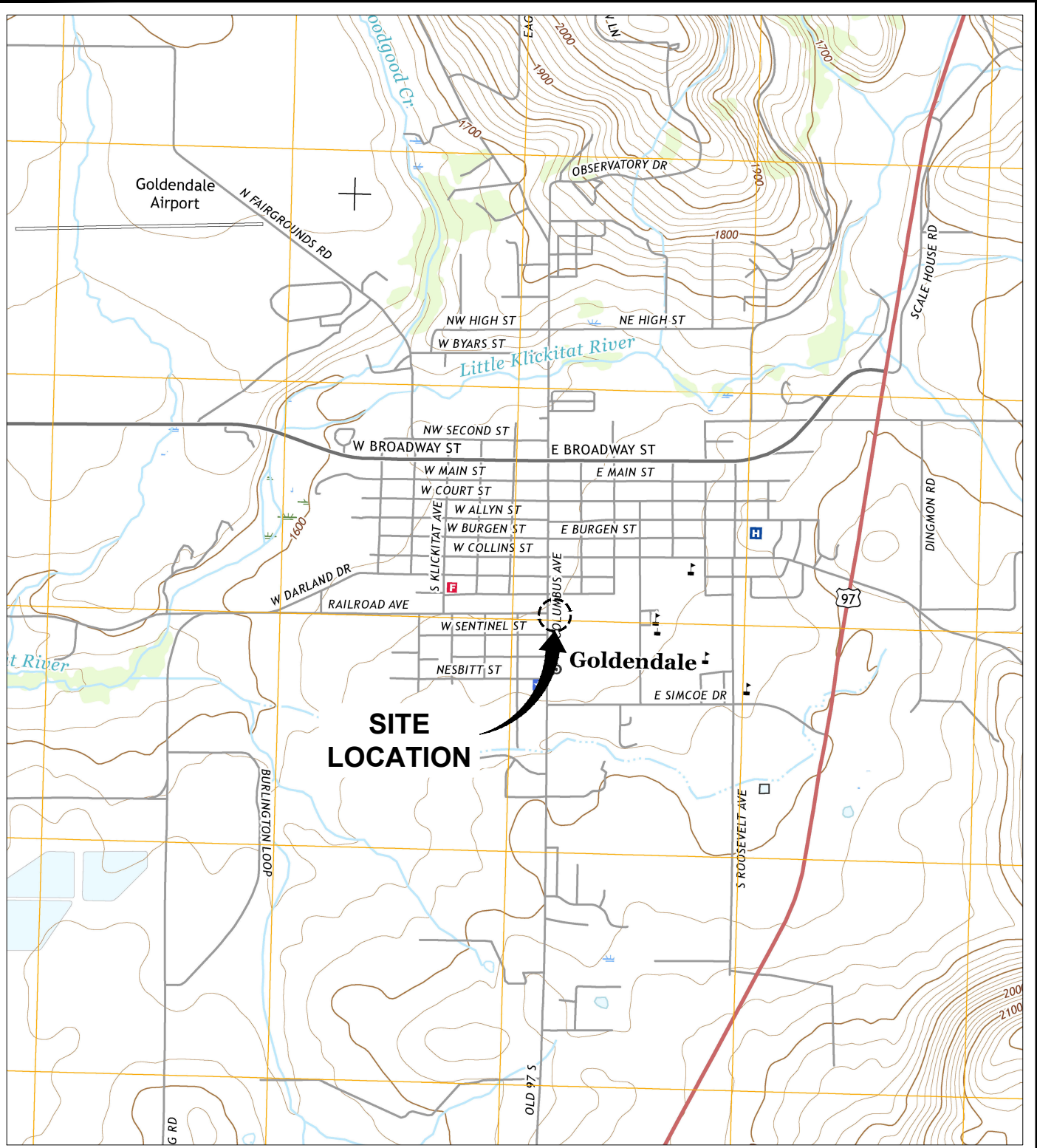
References:

Leidos, Inc. 2018. Draft Remedial Investigation/ Feasibility Study Former Temple Distributing Site. 808 South Columbus Ave., Goldendale, Washington. April 12.
TerraGraphics Environmental Engineering, Inc. 2015. Final 2015 Supplemental Environmental Site Assessment Report Columbus Square, Goldendale, Washington. December 18.

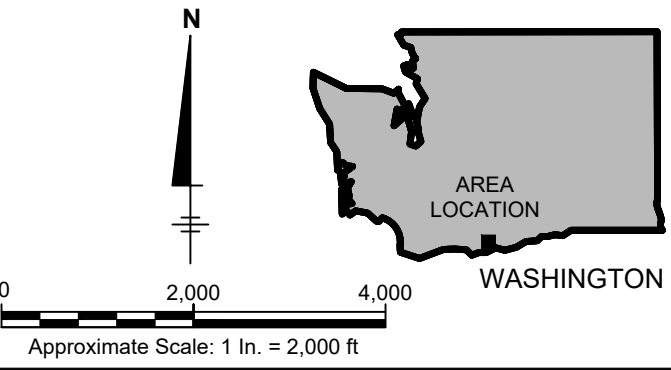
FIGURES



CITY: DIV/PROJECT: ENV_CAD_DBCAD
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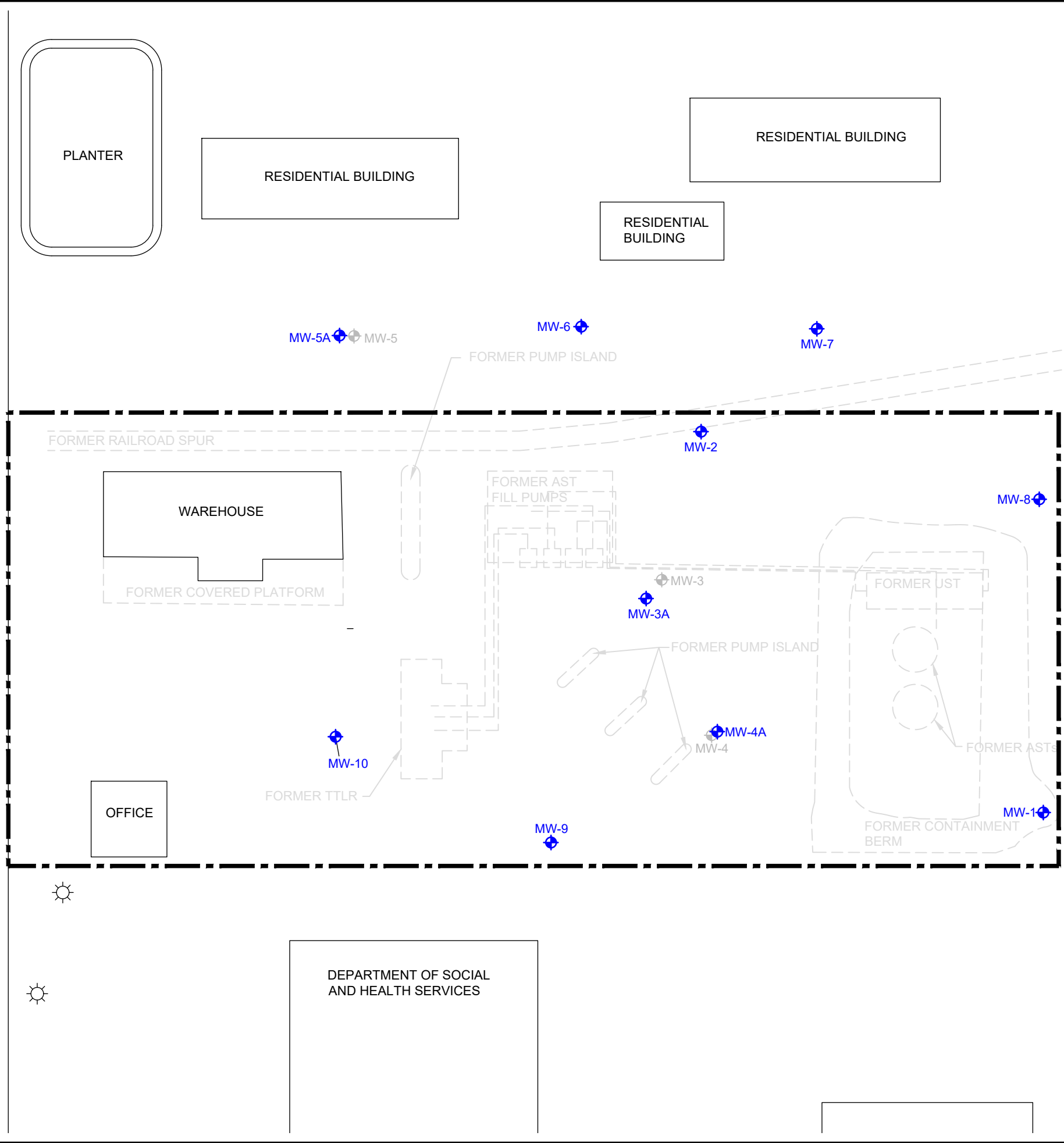
SOURCE: BASEMAP USGS 7.5. MIN. TOPO. QUAD., GOLDENDALE, WASHINGTON 2017.



TEMPLE DISTRIBUTING CARSON OIL SITE 808 SOUTH COLUMBUS AVENUE GOLDENDALE, WASHINGTON	
SITE LOCATION MAP	
	FIGURE 1

CITY:\Rect\ DIV\GROUP\Rect\ DB\Rect\ LD\Opt\ PIC\Opt\ PM\Rect\ TM\Opt\ LXR\Opt\ON*OFF+REF*
 C:\Users\ar0071\OneDrive\Arcadis ACC US\AUS-9998999-CHEV_375289_GOLDENDALE_WA\Project Files\10_WIP\101_ARC_ENV\202401-DWG\GEN\2023-F02-SITE MAP.dwg LAYOUT: 2 SAVED: 2/6/2024 3:46 PM ACADVER: 24.2S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ----
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S COLUMBUS AVE



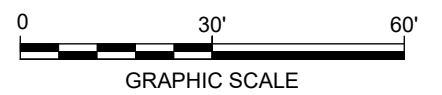
LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- ◆ MONITORING WELL LOCATION
- ⊕ ABANDONED MONITORING WELL LOCATION
- ☀ LIGHT POLE
- UST UNDERGROUND STORAGE TANK
- AST ABOVEGROUND STORAGE TANK
- ▭ TTLR TANK TRUNK LOADING RACK



NOTE:

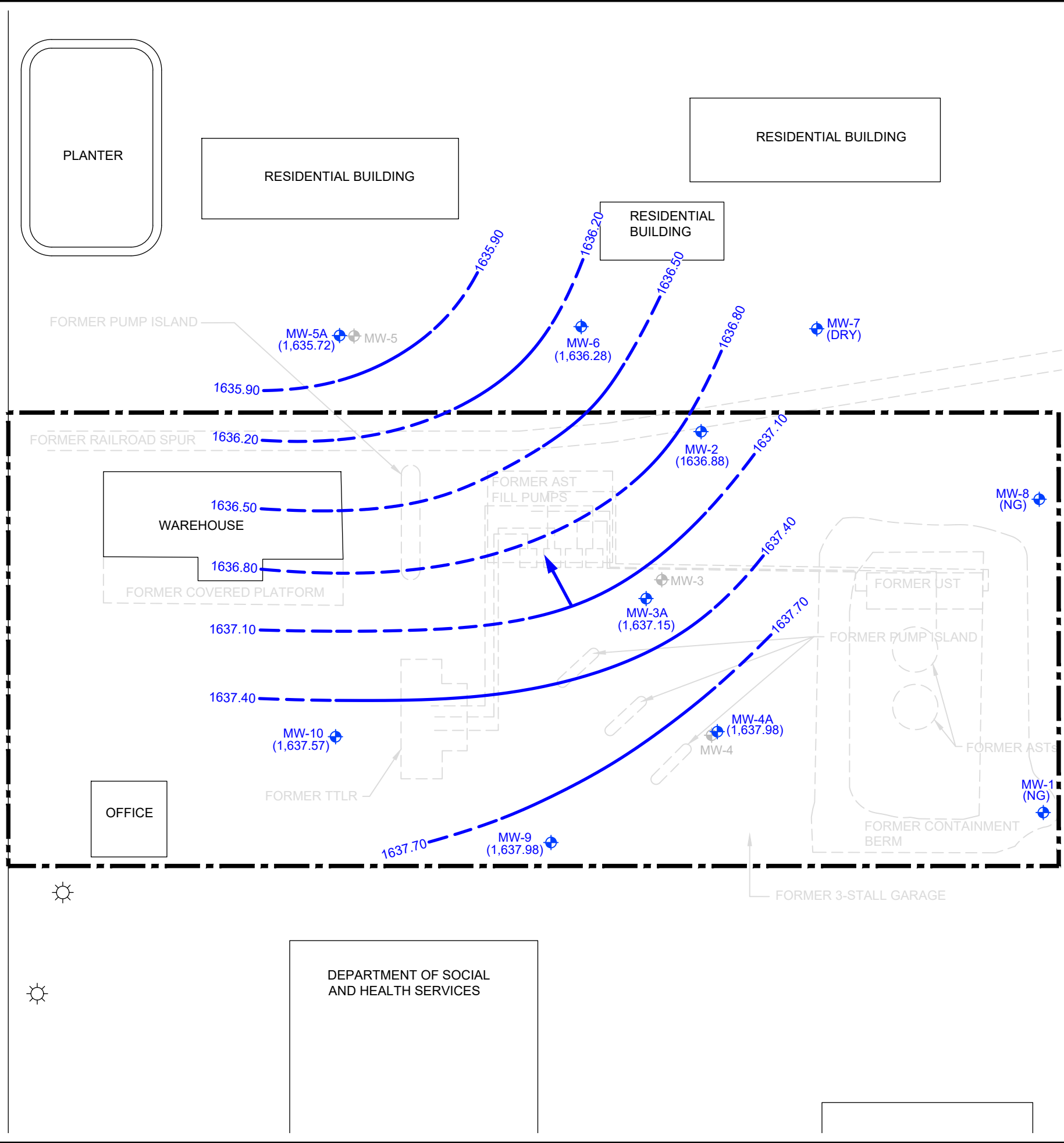
1. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.



FORMER TEMPLE DISTRIBUTING SITE No. 375289 808 SOUTH COLUMBUS AVENUE GOLDENDALE, WASHINGTON	
SITE PLAN	
	FIGURE 2

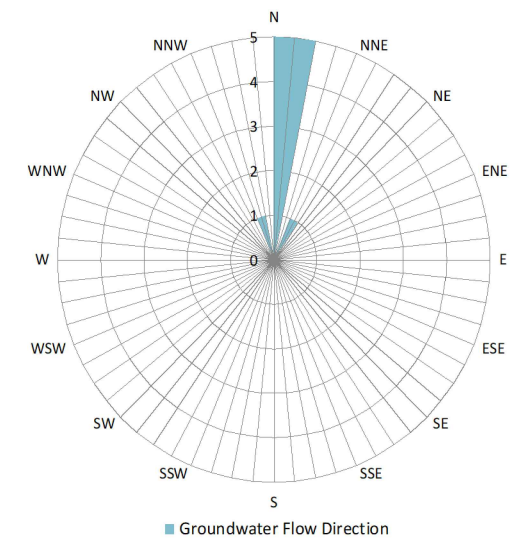
CITY:\Rect\ DIV\GROUP\Rect\ DB\Rect\ LD\Opt\ PIC\Opt\ PM\Rect\ PM\Rect\ Lyr\Opt\ON+OFF+REF*
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 PLOTTED: 4/15/2024 1:39 PM BY: R, ANITA

S COLUMBUS AVE



- LEGEND:**
- APPROXIMATE PROPERTY BOUNDARY
 - ⊕ MONITORING WELL LOCATION
 - ⊕ ABANDONED MONITORING WELL LOCATION
 - ☀ LIGHT POLE
 - 1637.70 - - - GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
 - (1,637.98) GROUNDWATER ELEVATION IN FEET ABOVE NAVD 88
 - ← INFERRED GROUNDWATER FLOW DIRECTION
 - (DRY) WELL IS DRY
 - (NG) NOT GAUGED

- ACRONYMS AND ABBREVIATIONS :**
- AST ABOVEGROUND STORAGE TANK
 - NAVD 88 NORTH AMERICAN VERTICAL DATUM OF 1988
 - TTLR TANK TRUNK LOADING RACK
 - UST UNDERGROUND STORAGE TANK



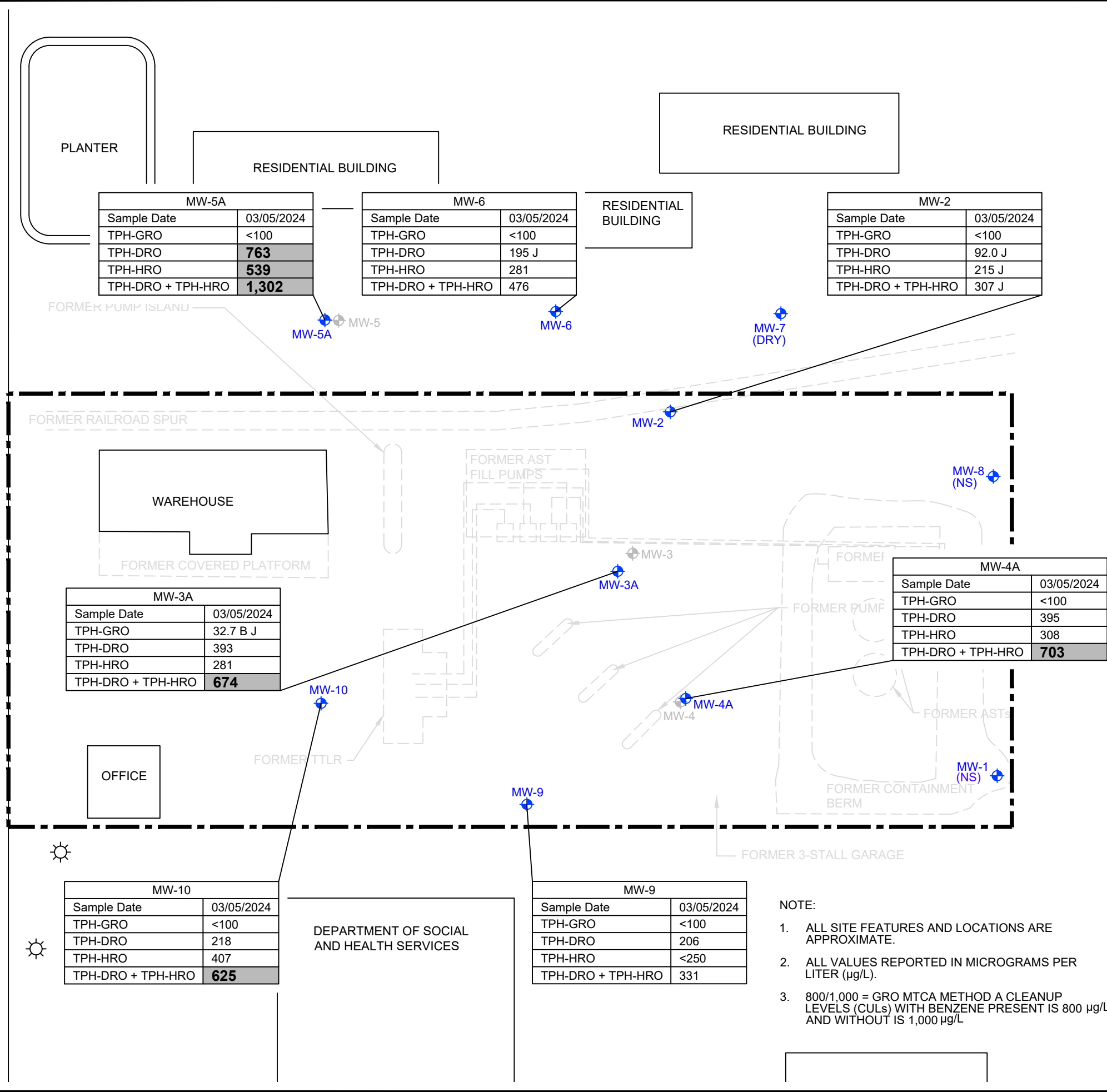
NOTE:
 1. ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.



TEMPLE DISTRIBUTING CARSON OIL SITE 808 SOUTH COLUMBUS AVENUE GOLDENDALE, WASHINGTON	
GROUNDWATER ELEVATION CONTOUR MAP MARCH 5, 2024	
	FIGURE 3

CITY:\Bead\DIV\GROUP\Bead\B\Bead\LD\Opt\PIC\Opt\PM\Bead\TM\Opt\LYR\Opt\ON\OFF+REF*
 C:\Users\cm52\OneDrive\Arcadis\ACC\US\AS\98989898\CHEV_375289_GOLDENDALE_IWAP\Project Files\10_WPT101_ARC_ENV\202401-DWG\GWM-202401-F04-GW_ANALYTICAL.dwg LAYOUT: 4 SAVED: 3/29/2024 11:47 AM ACADVER: 24.2S (LMS TECH) PAGES: 10 PLOTSTYLETABLE: PLOT101.dwt PLOTTED: 7/12/2024 1:51 PM BY: C. MUNIRAJU

S COLUMBUS AVE



LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- ⊕ MONITORING WELL LOCATION
- ⊕ ABANDONED MONITORING WELL LOCATION
- ☀ LIGHT POLE
- BOLD** VALUES ARE GREATER THAN THEIR RESPECTIVE MODEL TOXICS CONTROL ACT (MTCA) METHOD A CLEANUP LEVEL
- < NOT DETECTED AT OR ABOVE THE REPORTED DETECTION LIMIT (RDL)
- (DRY) WELL IS DRY
- (NS) NOT SAMPLED

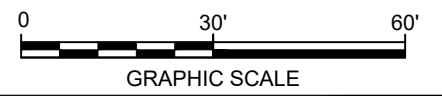
ACRONYMS AND ABBREVIATIONS

- AST ABOVEGROUND STORAGE TANK
- TPH-DRO TOTAL PETROLEUM HYDROCARBONS, DIESEL RANGE ORGANICS
- TPH-GRO TOTAL PETROLEUM HYDROCARBONS, GASOLINE RANGE ORGANICS
- TPH-HRO TOTAL PETROLEUM HYDROCARBONS, HEAVY OIL-RANGE ORGANICS
- TTLR TANK TRUNK LOADING RACK
- UST UNDERGROUND STORAGE TANK

LABORATORY QUALIFIERS

- J THE IDENTIFICATION OF THE ANALYTE IS ACCEPTABLE; THE REPORTED VALUE IS AN ESTIMATE
- B THE SAME ANALYTE IS FOUND IN THE ASSOCIATED BLANK

Well ID	
Constituent	MTCA CULs
TPH-GRO	800/1,000
TPH-DRO	500
TPH-HRO	500
TPH-DRO + TPH-HRO	500



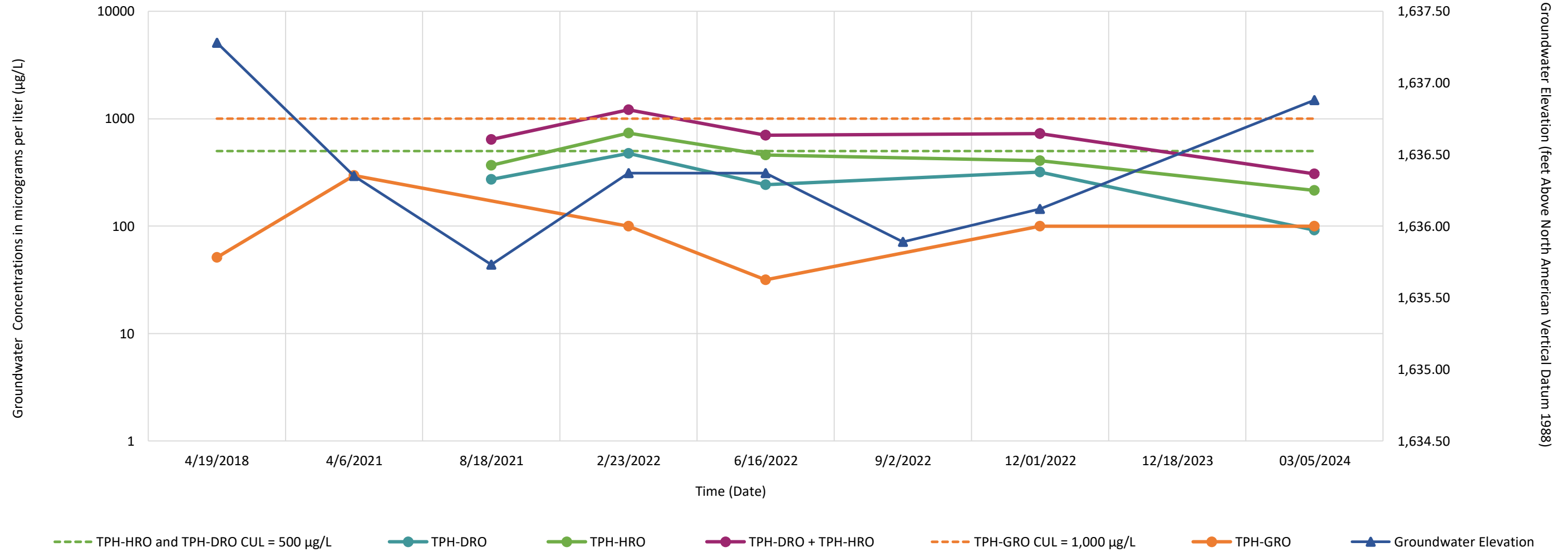
- NOTE:**
- ALL SITE FEATURES AND LOCATIONS ARE APPROXIMATE.
 - ALL VALUES REPORTED IN MICROGRAMS PER LITER (µg/L).
 - 800/1,000 = GRO MTCA METHOD A CLEANUP LEVELS (CULs) WITH BENZENE PRESENT IS 800 µg/L AND WITHOUT IS 1,000 µg/L

TEMPLE DISTRIBUTING CARSON OIL SITE
808 SOUTH COLUMBUS AVENUE
GOLDENDALE, WASHINGTON

GROUNDWATER ANALYTICAL MAP
MARCH 5, 2024

ARCADIS | FIGURE 4

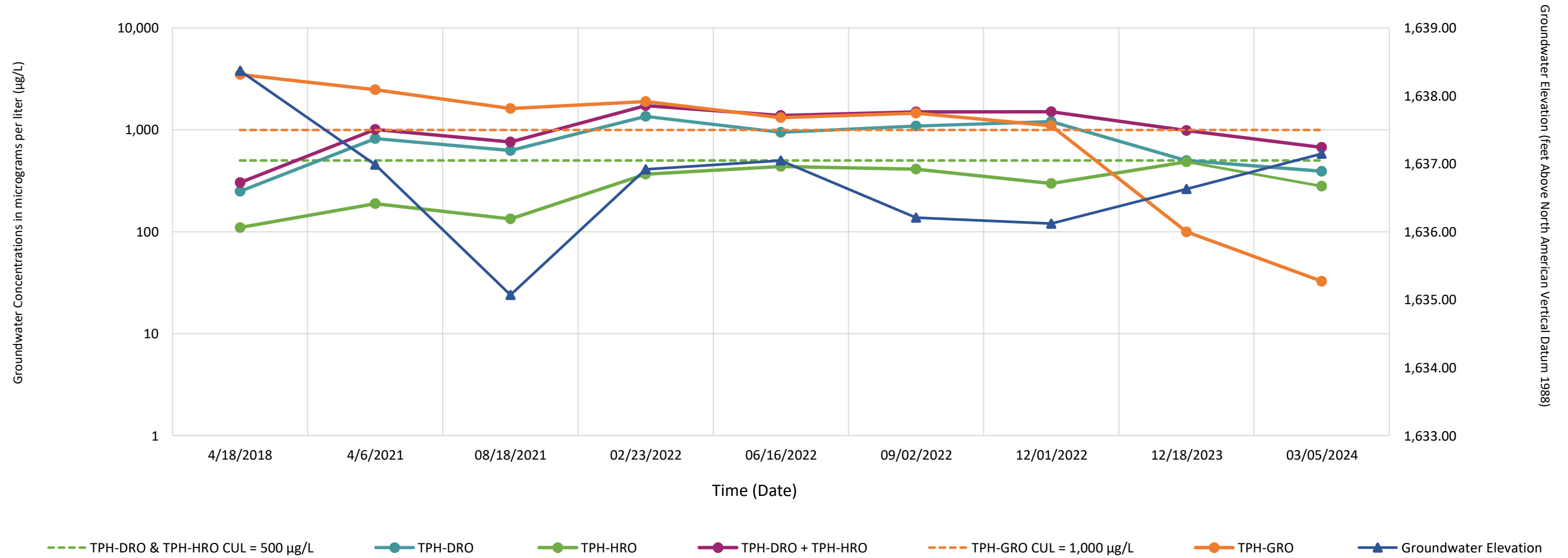
Groundwater Concentration and Elevation vs Time Plots- MW-2



Notes:
 CUL = MTCA Method A Cleanup Level

GROUNDWATER MONITORING REPORT FIRST QUARTER 2024	
GROUNDWATER CONCENTRATION AND ELEVATION VERSUS TIME PLOTS, MONITORING WELL MW-2	
ARCADIS	FIGURE 5

Groundwater Concentrations and Elevation vs Time Plots- MW-3 / MW-3A



Notes:

CUL = MTCA Method A Cleanup Level
 MW-3 was abandoned in support of the completed Interim Action. This well was reinstated as MW-3A in fourth quarter 2023.

GROUNDWATER MONITORING REPORT
 FIRST QUARTER 2024

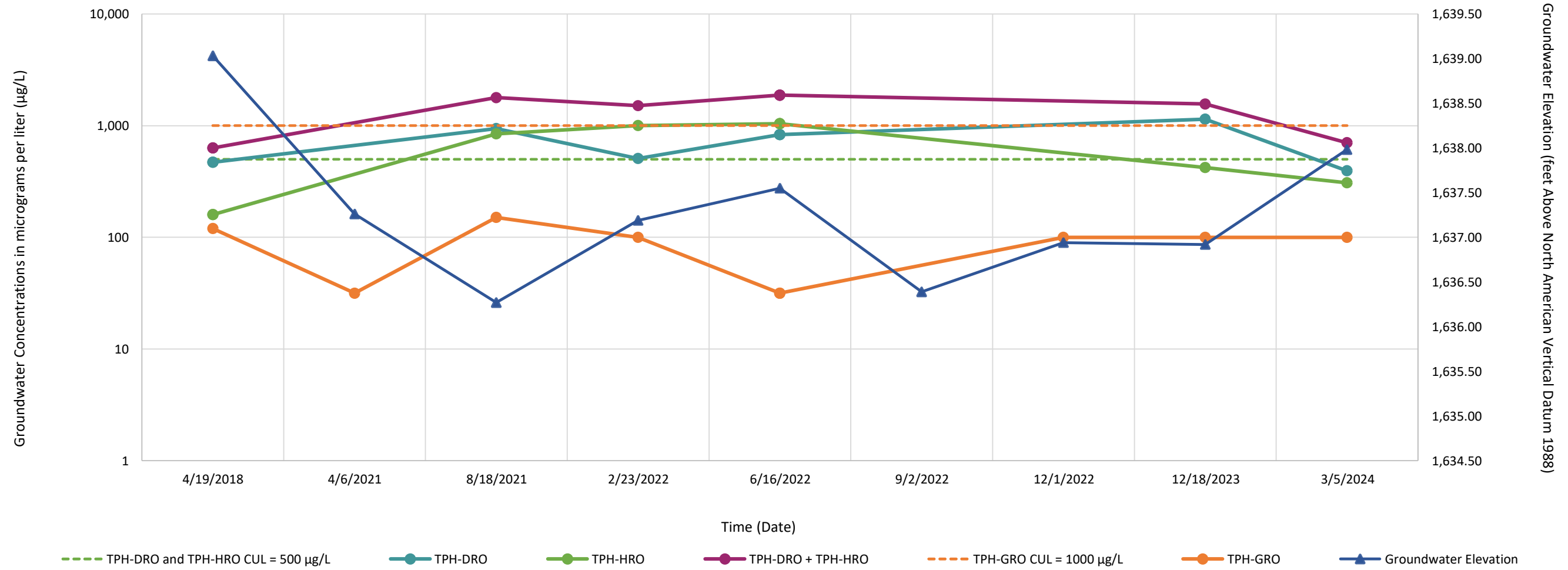
GROUNDWATER CONCENTRATION AND
 ELEVATION VERSUS TIME PLOTS,
 MONITORING WELL MW-3/MW-3A



FIGURE

6

Groundwater Concentrations and Elevation vs Time Plots- MW-4 / MW-4A



Notes:

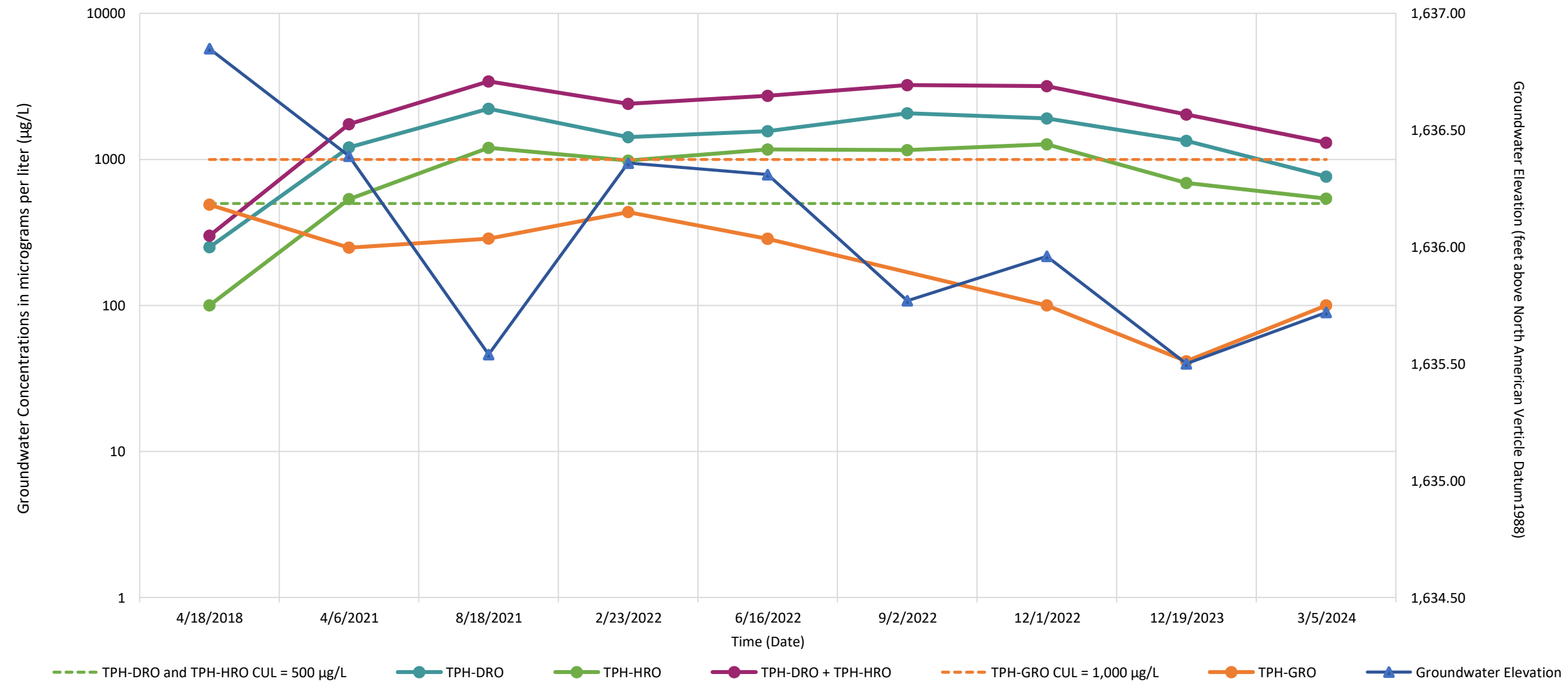
CUL = MTCA Method A Cleanup Level
 MW-4 was abandoned in support of the completed Interim Action. This well was reinstated as MW-4A in fourth quarter 2023

GROUNDWATER MONITORING REPORT
 FIRST QUARTER 2024

GROUNDWATER CONCENTRATION AND
 ELEVATION VERSUS TIME PLOTS,
 MONITORING WELL MW-4/MW-4A



Groundwater Concentrations and Elevation vs Time Plots- MW-5 / MW-5A



Notes:

CUL = MTCA Method A Cleanup Level

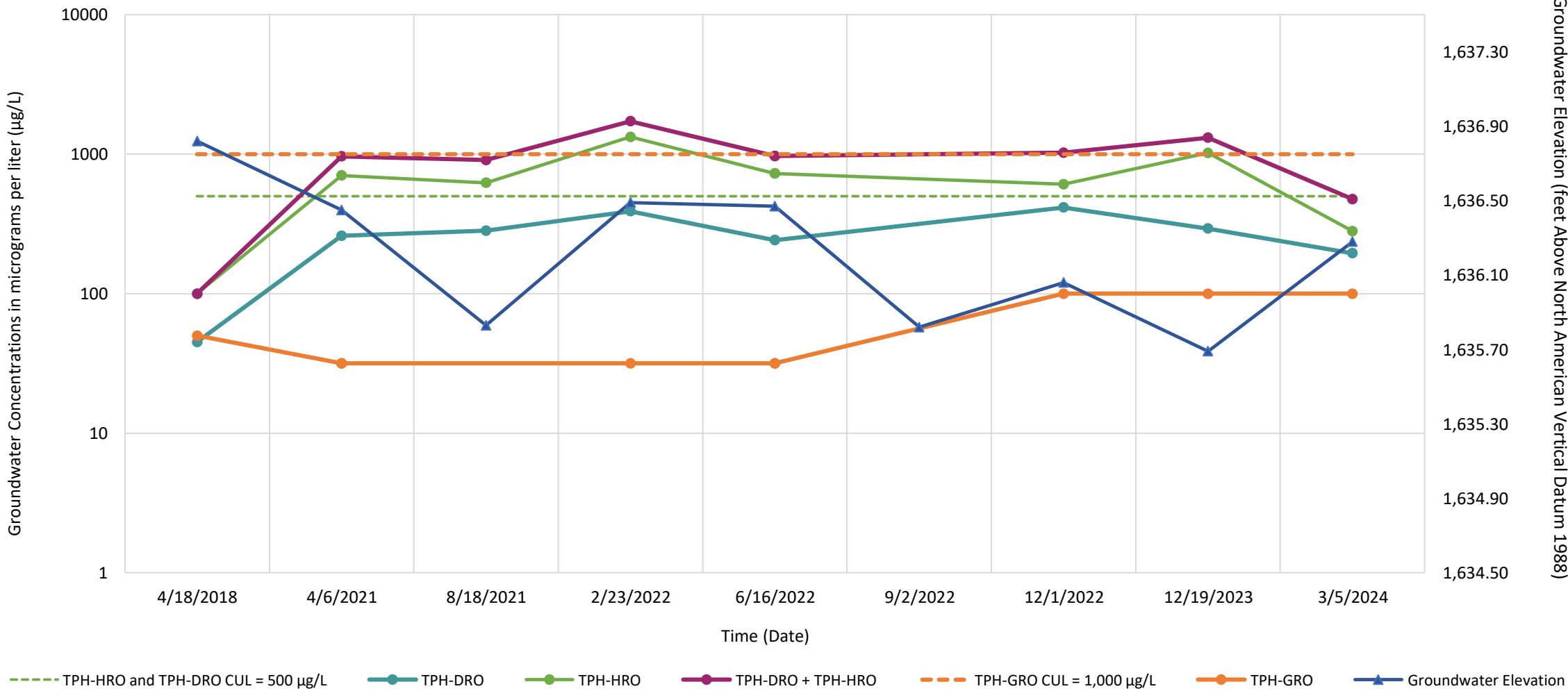
MW-5 was abandoned in support of the completed Interim Action. This well was reinstated as MW-5A in fourth quarter 2023

GROUNDWATER MONITORING REPORT
FIRST QUARTER 2024

GROUNDWATER CONCENTRATION AND
ELEVATION VERSUS TIME PLOTS,
MONITORING WELL MW-5/MW-5A



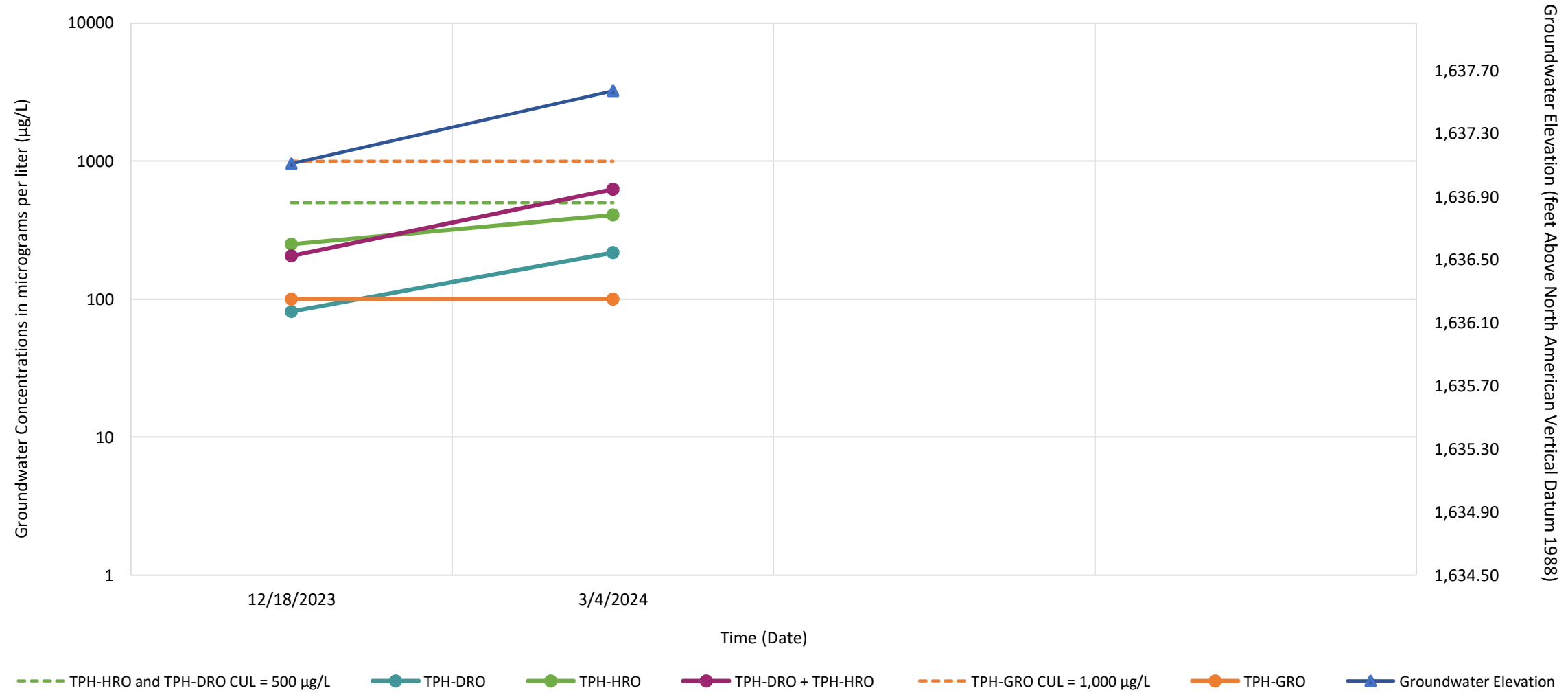
Groundwater Concentrations and Elevation vs Time Plots- MW-6



Notes:
CUL = MTCA Method A Cleanup Level

GROUNDWATER MONITORING REPORT FIRST QUARTER 2024	
GROUNDWATER CONCENTRATION AND ELEVATION VERSUS TIME PLOTS, MONITORING WELL MW-6	
ARCADIS	FIGURE 9

Groundwater Concentrations and Elevation vs Time Plots- MW-10



Notes:
CUL = MTCA Method A Cleanup Level

GROUNDWATER MONITORING REPORT FIRST QUARTER 2024	
GROUNDWATER CONCENTRATION AND ELEVATION VERSUS TIME PLOTS, MONITORING WELL MW-10	
ARCADIS	FIGURE 10

7/18/2024 4:39:22 PM

ATTACHMENT A

Field Data Sheets



BLAINE

TECH SERVICES INC.

GROUNDWATER SAMPLING SPECIALISTS
SINCE 1985

March 18, 2024

ARCADIS
Eric Epple
320 Commerce, Suite 200
Irvine, CA 92602, CA

First Quarter 2024 Monitoring at
Site Number 375289
808 South Columbus Ave
Goldendale, WA

Monitoring performed on March 5, 2024

Blaine Tech Services, Inc. Groundwater Monitoring Event 240305-KC1

This submission covers the routine monitoring of groundwater wells conducted on March 5, 2024 at this location. Eight monitoring wells were measured for depth to groundwater (DTW) and presence of separate-phase hydrocarbons (SPH). eight monitoring wells were sampled. All sampling activities were performed in accordance with local, state and federal guidelines.

Water levels and separate-phase measurements were collected using an electronic water or oil-water interface detector. All sampled wells were purged of three case volumes or until water temperature, pH and conductivity stabilized. Purging was accomplished using electric submersible pumps, positive air-displacement pumps or stainless steel, Teflon or disposable bailers. Subsequent sample collection and sample handling was performed in accordance with EPA protocols using disposable bailers. Alternately, where applicable, wells were sampled utilizing no-purge methodology. All reused equipment was decontaminated in an integrated stainless steel sink with de-ionized water supplied Hotsy pressure washer and Liquinox or equivalent.

Samples were delivered under chain-of-custody to Pace Analytical for analysis. Monitoring well purgewater and equipment rinsate water was collected and transported under bill of lading to Blaine Tech Services, Inc.'s yard in Auburn, Washington, and bulked for future transportation (within 90 days) under non-hazardous manifest for disposal at a licensed facility.

First Quarter 2024 Groundwater Monitoring at Chevron 375289 808 South Columbus Ave, Goldendale, WA

Enclosed documentation from this event includes copies of the Well Gauging Sheet, Well Monitoring Data Sheets, Bill of Lading and Chain-of-Custody.

Blaine Tech Services, Inc.'s activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrogeologic conditions or formulation of recommendations was performed.

Please call if you have any questions.

Thank you,



Lee Bures
Blaine Tech Services, Inc
Operations Manager

attachments: Well Gauging Sheet
Individual Well Monitoring Data Sheets
Chain of Custody Forms
Wellhead Inspection Form
Bill of Lading

First Quarter 2024 Groundwater Monitoring at Chevron 375289 808 South Columbus Ave, Goldendale, WA

SAN JOSE SACRAMENTO LOS ANGELES SAN DIEGO SEATTLE
1680 ROGERS AVENUE SAN JOSE, CA (408) 573-0555 FAX (408) 573-7771 LIC. 746684 WWW.BLAINETECH.COM



Groundwater Gauging Log

Project Number	30079744							
Client:	Chevron							
Site ID:	375289							
Site Location:	Goldendale, Washington							
Measuring Point:	Top of Casing							
Date(s):	03/05/2024							
Sampler(s):	Lee Bures							
Gauging Equipment:	Interface Probe							
Well ID	Date	Gauging Time	Static Water Level (ft bmp)	Depth to Product (ft bmp)	Total Depth (ft bmp)	PID Reading (ppm)	LNAPL Removed (gal)	Comments
MW-2	03/05/2024	11:50	4.50	ND	7.00	--	--	--
MW-3A	03/05/2024	11:53	4.39	ND	8.37	--	--	--
MW-4A	03/05/2024	11:56	3.95	ND	8.10	--	--	--
MW-5A	03/05/2024	11:51	4.69	ND	9.96	--	--	--
MW-6	03/05/2024	11:47	4.23	ND	5.28	--	--	--
MW-7	03/05/2024	11:44	Dry	ND	4.76	--	--	--
MW-9	03/05/2024	11:59	4.38	ND	6.67	--	--	--
MW-10	03/05/2024	12:02	3.71	ND	7.20	--	--	--

ft-bmp = feet below measuring point

ND = Not Detected

PID = Photoionization Detector Reading

ppm = parts per million

-- = Not Recorded

Project Number	30079744	Well ID	MW-2	Date	3/5/2024	
Site Location	Goldendale, Washington	Site ID	375289	Weather (°F)	Raining	Sampled by Lee Bures
Measuring Point Description	Top of Casing	Screen Depth Interval (ft-bmp)	-- to --	Casing Diameter (in.)	2	Well Casing Material
Static Water Level (ft-bmp)	4.5	Total Depth (ft-bmp)	7	Water Column (ft)	2.5	Gallons in Well 0.41
Water Quality Meter Make/Model	Hanna HI 98129	Purge Method	Low-Flow	Collection Type	Grab	
Sample Time	12:38	Well Volumes Purged	1.93	Sample ID	MW-2-W-20240305	Purge Equipment Peristaltic
Purge Start	12:20	Gallons Purged	0.79	Duplicate ID	--	Sample Equipment Peristaltic
Purge End	12:36	Total Purge Time (h:m)	0:16			

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
12:23	200	4.51	6.23	0.258	14.0	1.78	9.70	265.8	Clear	--
12:26	200	4.54	6.23	0.267	11.0	1.68	9.66	262.2	Clear	--
12:29	200	4.57	6.19	0.276	8.0	1.52	9.62	260.1	Clear	--
12:32	200	4.58	6.18	0.278	8.0	1.50	9.65	259.3	Clear	--
12:35	200	4.59	6.16	0.280	8.0	1.47	9.58	258.8	Clear	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-2-W-20240305 Sample Time: 12:38 Sample Depth (ft-bmp) (e.g. pump intake): 5.5
 Analytes and Methods: See Chain-of-Custody. Depth to Water at Time of Sampling: _____

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter
 PVC = Polyvinyl Chloride

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius
 -- = Not Recorded

Project Number	30079744	Well ID	MW-3A	Date	3/5/2024		
Site Location	Goldendale, Washington	Site ID	375289	Weather (°F)	Raining	Sampled by	Lee Bures
Measuring Point Description	Top of Casing	Screen Depth Interval (ft-bmp)	2 to 7	Casing Diameter (in.)	2	Well Casing Material	
Static Water Level (ft-bmp)	4.39	Total Depth (ft-bmp)	8.37	Water Column (ft)	3.98	Gallons in Well	0.65
Water Quality Meter Make/Model	Hanna HI 98129	Purge Method	Low-Flow	Collection Type	Grab		
Sample Time	14:35	Well Volumes Purged	1.22	Sample ID	MW-3A-W-20240305	Purge Equipment	Peristaltic
Purge Start	14:17	Gallons Purged	0.79	Duplicate ID	--	Sample Equipment	Peristaltic
Purge End	14:33	Total Purge Time (h:m)	0:16				

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
14:20	200	4.4	7.34	0.479	43.0	1.41	8.65	199.2	Clear	--
14:23	200	4.41	7.31	0.474	32.0	1.34	8.58	200.8	Clear	--
14:26	200	4.42	7.18	0.459	21.0	1.25	8.31	202.3	Clear	--
14:29	200	4.45	7.16	0.454	20.0	1.20	8.37	203.6	Clear	--
14:32	200	4.46	7.15	0.451	20.0	1.13	8.33	204.2	Clear	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-3A-W-20240305 Sample Time: 14:35 Sample Depth (ft-bmp) (e.g. pump intake): 6
Analytes and Methods: See Chain-of-Custody. Depth to Water at Time of Sampling: _____

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Project Number	30079744	Well ID	MW-4A	Date	3/5/2024	
Site Location	Goldendale, Washington	Site ID	375289	Weather (°F)	Raining	Sampled by Lee Bures
Measuring Point Description	Top of Casing	Screen Depth Interval (ft-bmp)	2 to 7	Casing Diameter (in.)	2	Well Casing Material
Static Water Level (ft-bmp)	3.95	Total Depth (ft-bmp)	8.1	Water Column (ft)	4.15	Gallons in Well 0.67
Water Quality Meter Make/Model	Hanna HI 98129	Purge Method	Low-Flow	Collection Type	Grab	
Sample Time	15:11	Well Volumes Purged	1.18	Sample ID	MW-4A-W-20240305	Purge Equipment Peristaltic
Purge Start	14:53	Gallons Purged	0.79	Duplicate ID	--	Sample Equipment Peristaltic
Purge End	15:09	Total Purge Time (h:m)	0:16			

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
14:56	200	3.96	7.23	0.509	14.0	1.14	7.92	203.4	Clear	--
14:59	200	3.97	7.20	0.510	7.0	1.08	7.89	204.1	Clear	--
15:02	200	3.99	7.12	0.506	4.0	0.95	7.96	202.6	Clear	--
15:05	200	4.01	7.11	0.504	4.0	0.92	7.95	202.1	Clear	--
15:08	200	4.02	7.10	0.503	4.0	0.91	7.93	201.9	Clear	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-4A-W-20240305 Sample Time: 15:11 Sample Depth (ft-bmp) (e.g. pump intake): 6
 Analytes and Methods: See Chain-of-Custody. Depth to Water at Time of Sampling: _____

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter
 PVC = Polyvinyl Chloride

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius
 -- = Not Recorded

Project Number	30079744	Well ID	MW-5A	Date	3/5/2024	
Site Location	Goldendale, Washington	Site ID	375289	Weather (°F)	Raining	Sampled by Lee Bures
Measuring Point Description	Top of Casing	Screen Depth Interval (ft-bmp)	2 to 7	Casing Diameter (in.)	2	Well Casing Material
Static Water Level (ft-bmp)	4.69	Total Depth (ft-bmp)	9.96	Water Column (ft)	5.27	Gallons in Well 0.86
Water Quality Meter Make/Model	Hanna HI 98129	Purge Method	Low-Flow	Collection Type	Grab	
Sample Time	13:52	Well Volumes Purged	0.92	Sample ID	MW-5A-W-20240305	Purge Equipment Peristaltic
Purge Start	13:34	Gallons Purged	0.79	Duplicate ID	--	Sample Equipment Peristaltic
Purge End	13:50	Total Purge Time (h:m)	0:16			

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
13:37	200	4.71	6.54	0.706	10.0	0.54	9.52	239.7	Clear	--
13:40	200	4.72	6.58	0.712	7.0	0.47	9.47	237.3	Clear	--
13:43	200	4.72	6.70	0.716	6.0	0.34	9.50	229.3	Clear	--
13:46	200	4.73	6.71	0.714	6.0	0.32	9.47	227.8	Clear	--
13:49	200	4.74	6.74	0.714	6.0	0.29	9.36	223.9	Clear	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-5A-W-20240305 Sample Time: 13:52 Sample Depth (ft-bmp) (e.g. pump intake): 6
Analytes and Methods: See Chain-of-Custody. Depth to Water at Time of Sampling: _____

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Project Number	30079744	Well ID	MW-6	Date	3/5/2024	
Site Location	Goldendale, Washington	Site ID	375289	Weather (°F)	Raining	Sampled by Lee Bures
Measuring Point Description	Top of Casing	Screen Depth Interval (ft-bmp)	-- to --	Casing Diameter (in.)	2	Well Casing Material
Static Water Level (ft-bmp)	4.23	Total Depth (ft-bmp)	5.28	Water Column (ft)	1.05	Gallons in Well 0.17
Water Quality Meter Make/Model	Hanna HI 98129	Purge Method	Low-Flow	Collection Type	Grab	
Sample Time	13:17	Well Volumes Purged	2.33	Sample ID	MW-6-W-20240305	Purge Equipment Peristaltic
Purge Start	12:59	Gallons Purged	0.40	Duplicate ID	--	Sample Equipment Peristaltic
Purge End	13:15	Total Purge Time (h:m)	0:16			

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
13:02	100	4.26	6.51	0.336	9.0	1.56	7.89	244.8	Clear	--
13:05	100	4.29	6.47	0.325	6.0	1.34	8.34	246.9	Clear	--
13:08	100	4.32	6.36	0.320	4.0	1.26	8.13	241.3	Clear	--
13:11	100	4.35	6.33	0.324	4.0	1.24	8.12	238.7	Clear	--
13:14	100	4.41	6.31	0.327	4.0	1.21	8.19	236.9	Clear	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-6-W-20240305 Sample Time: 13:17 Sample Depth (ft-bmp) (e.g. pump intake): 5
Analytes and Methods: See Chain-of-Custody. Depth to Water at Time of Sampling: _____

ft-bmp = feet below measuring point
in. = inches
ft = feet
mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
PVC = Polyvinyl Chloride

mV = millivolts
°F = degrees Fahrenheit
°C = degrees Celsius
-- = Not Recorded

Project Number	30079744	Well ID	MW-9	Date	3/5/2024	
Site Location	Goldendale, Washington	Site ID	375289	Weather (°F)	Raining	Sampled by Lee Bures
Measuring Point Description	Top of Casing	Screen Depth Interval (ft-bmp)	-- to --	Casing Diameter (in.)	2	Well Casing Material
Static Water Level (ft-bmp)	4.38	Total Depth (ft-bmp)	6.67	Water Column (ft)	2.29	Gallons in Well 0.37
Water Quality Meter Make/Model	Hanna HI 98129	Purge Method	Low-Flow	Collection Type	Grab	
Sample Time	15:45	Well Volumes Purged	2.14	Sample ID	MW-9-W-20240305	Purge Equipment Peristaltic
Purge Start	15:27	Gallons Purged	0.79	Duplicate ID	--	Sample Equipment Peristaltic
Purge End	15:43	Total Purge Time (h:m)	0:16			

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
15:30	200	4.41	7.40	0.275	14.0	1.85	7.61	187.9	Clear	--
15:33	200	4.43	7.38	0.273	11.0	1.79	7.65	190.2	Clear	--
15:36	200	4.45	7.24	0.272	7.0	1.76	7.90	191.3	Clear	--
15:39	200	4.45	7.23	0.269	7.0	1.74	7.94	192.1	Clear	--
15:42	200	4.46	7.21	0.266	7.0	1.73	7.93	192.9	Clear	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-9-W-20240305 Sample Time: 15:45 Sample Depth (ft-bmp) (e.g. pump intake): 5

Analytes and Methods: See Chain-of-Custody. Depth to Water at Time of Sampling

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter
 PVC = Polyvinyl Chloride

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius
 -- = Not Recorded

Project Number	30079744	Well ID	MW-10	Date	3/5/2024	
Site Location	Goldendale, Washington	Site ID	375289	Weather (°F)	Raining	Sampled by Lee Bures
Measuring Point Description	Top of Casing	Screen Depth Interval (ft-bmp)	2 to 7	Casing Diameter (in.)	2	Well Casing Material
Static Water Level (ft-bmp)	3.71	Total Depth (ft-bmp)	7.2	Water Column (ft)	3.49	Gallons in Well 0.57
Water Quality Meter Make/Model	Hanna HI 98129	Purge Method	Low-Flow	Collection Type	Grab	
Sample Time	16:17	Well Volumes Purged	1.39	Sample ID	MW-10-W-20240305	Purge Equipment Peristaltic
Purge Start	15:59	Gallons Purged	0.79	Duplicate ID	--	Sample Equipment Peristaltic
Purge End	16:15	Total Purge Time (h:m)	0:16			

Time	Rate (ml/min)	Depth to Water (ft)	pH (standard units)	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)	Appearance	
									Color	Odor
16:02	200	3.72	6.88	0.559	13.0	0.85	9.14	200.8	Clear	--
16:05	200	3.73	6.89	0.555	6.0	0.81	9.16	197.4	Clear	--
16:08	200	3.74	6.90	0.553	4.0	0.69	9.56	187	Clear	--
16:11	200	3.74	6.90	0.552	4.0	0.66	9.68	185.2	Clear	--
16:14	200	3.77	6.92	0.539	4.0	0.65	9.58	184.7	Clear	--

Comments: None

Well Casing Volume Conversion

Well diameter (in.) = 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
 gallons per foot 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Sample Information

Sample ID: MW-10-W-20240305 Sample Time: 16:17 Sample Depth (ft-bmp) (e.g. pump intake): 5.5
 Analytes and Methods: See Chain-of-Custody. Depth to Water at Time of Sampling: _____

ft-bmp = feet below measuring point
 in. = inches
 ft = feet
 mL/min = milliliters per minute

mS/cm = milliSiemens per centimeter
 NTU = Nephelometric Turbidity Unit
 mg/L = milligrams per liter
 PVC = Polyvinyl Chloride

mV = millivolts
 °F = degrees Fahrenheit
 °C = degrees Celsius
 -- = Not Recorded

Company Name/Address: **Arcadis - Chevron - WA**
 1420 5th Ave
 Unit 2400
 Seattle, WA 98101

Billing Information:
 Attn: Accounts Payable
 630 Plaza Dr., Ste. 600
 Highlands Ranch, CO 80129

Report to: **Eric Epple**
 Email To: **eric.epple@arcadis.com;environmentDM-**

Project Description: **375289**
 City/State: **Goldendale WA**
 Please Circle: MT CT ET

Client Project #: **30079744 19.45**
 Lab Project #: **CHEVARCWA-375289**

Site/Facility ID #: **808 S COLUMBUS AVE**
 P.O. #

Collected by (print): **Kendra Cutler**
 Collected by (signature): *[Signature]*
 Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day

Quote #
 Date Results Needed

Immediately Packed on Ice N Y

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 8260 40mlAmb-HCl	EDB 8011 40mlClr-NaThio	NWTPHDX no SGT 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	SVOCs 8270 100ml Amb NoPres	Total Lead 6010 250mlHDPE-HNO3	cPAHs/Naph 8270SIM 40mlAmb-NoPres-WT
MW-2-W-20240305	C2	GW	-	3/5/24	1238	14	X	X	X	X	X	X	X
MW-3A-W-20240305		GW	-		1435	14	X	X	X	X	X	X	X
MW-4A-W-20240305		GW	-		1511	14	X	X	X	X	X	X	X
MW-5A-W-20240305		GW	-		1352	14	X	X	X	X	X	X	X
MW-6-W-20240305		GW	-		1317	14	X	X	X	X	X	X	X
MW-9-W-20240305		GW	-		1545	14	X	X	X	X	X	X	X
MW-10-W-20240305		GW	-		1617	14	X	X	X	X	X	X	X
TB-1-20240305		GW	-		0900	2	X			X			
		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/hubs/pas-standard-terms.pdf>

SDG #

Table #

Acctnum: **CHEVARCWA**
 Template: **T243769**
 Prelogin: **P1060302**
 PM: **110 - Brian Ford**
 PB:

Shipped Via:

Remarks Sample # (lab only)

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

Remarks:

pH _____ Temp _____
 Flow _____ Other _____

Samples returned via: UPS FedEx Courier _____ Tracking # _____

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) *[Signature]* Date: **3/6/24** Time: **Shipped via FedEx** Received by: (Signature) Trip Blank Received: Yes / No
 HCL / MeOH
 TBR

Relinquished by: (Signature) Date: Time: Received by: (Signature) Temp: °C Bottles Received: If preservation required by Login: Date/Time




Relinquished by: (Signature) Date: Time: Received for lab by: (Signature) Date: Time: Hold: Condition: NCF / OK


Well Inspection Log



Client:		Chevron										
Site ID:		375289										
Site Location:		Goldendale, Washington										
Date(s):		3/5/2024										
Inspector(s):		Lee Bures										
Well ID	Date	Easy to Locate?	Area Prone to Flooding?	Well Type	Well Housing/Pad in Good Condition?	Well Labels Present Outside Well?	Well Labels Present Inside Well?	Lock Present?	Lock Functioning?	Well Locked at Arrival?	Photos Taken?	Comments
MW-10	03/05/2024	yes	no	flushmount	yes	yes	yes	no	--	--	No	--
MW-2	03/05/2024	yes	no	flushmount	no	yes	yes	yes	yes	yes	No	--
MW-3A	03/05/2024	yes	no	flushmount	yes	yes	yes	no	--	--	No	--
MW-4A	03/05/2024	yes	no	flushmount	yes	yes	yes	no	--	--	No	--
MW-5A	03/05/2024	yes	no	flushmount	yes	yes	yes	no	--	--	No	--
MW-6	03/05/2024	yes	no	flushmount	yes	yes	yes	no	--	--	No	--
MW-7	03/05/2024	yes	no	flushmount	yes	yes	yes	no	--	--	No	--
MW-9	03/05/2024	yes	no	flushmount	yes	yes	yes	no	--	--	No	--

Well Inspection Log Photographs

Well ID	Date	Photo	Comments
MW-10	03/05/2024		None
MW-2	03/05/2024		None
MW-3A	03/05/2024		None
MW-4A	03/05/2024		None

MW-5A	03/05/2024			None
MW-6	03/05/2024			None
MW-9	03/05/2024			None

CHEVRON-WASHINGTON/OREGON TYPE **A** BILL OF LADING

SOURCE RECORD **BILL OF LADING**
 FOR PURGEWATER RECOVERED FROM
 GROUNDWATER WELLS AT CHEVRON FACILITIES IN
 THE STATE OF WASHINGTON AND OREGON. THE
 PURGE-WATER WHICH HAS BEEN RECOVERED FROM
 GROUND- WATER WELLS IS COLLECTED BY THE
 CONTRACTOR AND HAULED TO THEIR FACILITY IN
 KENT, WASHINGTON FOR TEMPORARILY HOLDING
 PENDING TRANSPORT BY OTHERS TO FINAL
 DESTINATION.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BLAINE TECH), 22727 72ND Ave South, Suite D - 102, Kent, WA 98032. BLAINE TECH. is authorized by Chevron Environmental Management Company (CHEVRON EMC) to recover, collect, apportion into loads, and haul the purgewater that is drawn from wells at the CHEVRON EMC facility indicated below and to deliver that purgewater to BLAINE TECH for temporarily holding. Transport routing of the purgewater may be direct from one CHEVRON EMC facility to BLAINE TECH; from one CHEVRON EMC facility to BLAINE TECH via another CHEVRON EMC facility; or any combination thereof. The well purgewater is and remains the property of CHEVRON EMC.

This Source Record **BILL OF LADING** was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the Chevron facility described below:

375289
 CHEVRON # _____ Chevron Project Manager
 808 S Columbia Ave Goldensale WA
 Street number street name city state

WELL I.D.	GALS.	WELL I.D.	GALS.
MW-2	/ 1		/
MW-3A	/ 1		/
MW-4A	/ 1		/
MW-5A	/ 1		/
MW-6	/ 0.5		/
MW-9	/ 1		/
MW-10	/ 1		/
	/		/
	/		/
	/		/
added equip.		any other	
rinse water	/ 0.2	adjustments /	
TOTAL GALS.		loaded onto	
RECOVERED	6.7	BTS vehicle #	92
BTS event #		time	date
240305-KC1		1645	3/5/24
signature	<i>[Signature]</i>		

Blaine Tech Services, Inc.

Permit To Work for Chevron EMC Sites

Client: Arcadis

Date 3/5/24

Site Address: 808 S Columbus Ave Goldendale WA

Job Number: 240305-KC1 Technician(s): KC

Pre-Job Safety Review

1. JMP reviewed, site restrictions and parking/access issues addressed.	Reviewed: <input type="checkbox"/>
2. Special Permit Required Task Review	
Are there any conditions or tasks that would require:	
Confined space entry	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Working at height	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Lock-out/Tag-out	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Excavations greater than 4 feet deep	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Excavations within 3 feet of a buried active electrical line or product piping or within 10 feet of a high pressure gas line.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Use of overhead equipment within 15 feet of an overhead electrical power line or pole supporting one	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hot work	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
If "Yes" was the answer to any of the Special Permit Required Tasks above, the Project Manager will contact the client and arrange to modify the Scope of Work so that the Special Permit Required Tasks are not required to be performed by Blaine Tech Services employees.	
3. Is a Traffic Control Permit required for today's work?	
	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
If so is it in the folder?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Is it current?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Do you understand the Traffic Control Plan and what equipment you will need?	Yes <input type="checkbox"/> No <input type="checkbox"/>

On site Pre-Job Safety Review

1. Reviewed and signed the site specific HASP.	<input checked="" type="checkbox"/>
2. Route to hospital understood.	<input checked="" type="checkbox"/>
3. Reviewed "Groundwater Monitoring Well Sampling General Job Safety Analysis included in the HASP.	<input checked="" type="checkbox"/>
4. Exceptional circumstances today that are not covered by the HASP, JSA or JMP have been addressed and mitigated.	<input checked="" type="checkbox"/>
5. Understands procedure to follow, if site circumstances change, to address new site hazards.	<input checked="" type="checkbox"/>
6. There are no unexpected conditions which would make your task a Special Permit Required Task. If there is, contact your Project Manager.	<input checked="" type="checkbox"/>
7. All site hazards have been communicated to all necessary onsite personnel during tailgate safety meeting.	<input checked="" type="checkbox"/>
8. After lunch tailgate safety meeting refresher conducted.	<input checked="" type="checkbox"/>
If Checklist Task cannot be completed, explain:	

Permit To Work Authority:

Name	Title	Date	Time
------	-------	------	------

ATTACHMENT B

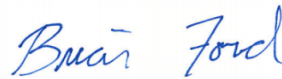
Laboratory Report and Chain-of-Custody Documentation



Arcadis - Chevron - WA

Sample Delivery Group: L1712985
Samples Received: 03/07/2024
Project Number: 30079744 19.45
Description: 375289
Site: 808 S COLUMBUS AVE
Report To: Eric Epple
1420 5th Ave
Unit 2400
Seattle, WA 98101

Entire Report Reviewed By:



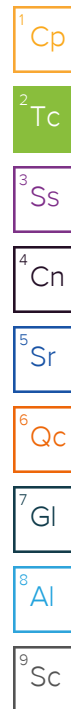
Brian Ford
Project Manager

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

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

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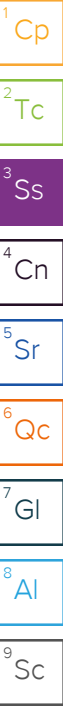


SAMPLE SUMMARY

MW-2-W-20240305 L1712985-01 GW

Collected by Kendra Cutler Collected date/time 03/05/24 12:38 Received date/time 03/07/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2242482	1	03/09/24 15:39	03/10/24 11:15	DJS	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2243184	1	03/09/24 19:59	03/09/24 19:59	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2243771	1	03/11/24 07:07	03/11/24 07:07	DYW	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG2244544	1.01	03/13/24 08:25	03/15/24 01:15	RDH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2243827	1	03/12/24 08:48	03/12/24 23:14	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2242384	1	03/10/24 15:41	03/11/24 04:02	JCH	Mt. Juliet, TN



MW-3A-W-20240305 L1712985-02 GW

Collected by Kendra Cutler Collected date/time 03/05/24 14:35 Received date/time 03/07/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2242482	1	03/09/24 15:39	03/10/24 11:16	DJS	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2243786	1	03/10/24 21:46	03/10/24 21:46	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2243771	1	03/11/24 07:29	03/11/24 07:29	DYW	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG2244544	1.02	03/13/24 08:25	03/15/24 01:27	RDH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2243827	1	03/12/24 08:48	03/12/24 23:34	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2242384	1	03/10/24 15:41	03/11/24 04:20	JCH	Mt. Juliet, TN

MW-4A-W-20240305 L1712985-03 GW

Collected by Kendra Cutler Collected date/time 03/05/24 15:11 Received date/time 03/07/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2242482	1	03/09/24 15:39	03/10/24 11:18	DJS	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2243184	1	03/09/24 20:21	03/09/24 20:21	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2243771	1	03/11/24 07:51	03/11/24 07:51	DYW	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG2244544	1	03/13/24 08:25	03/15/24 01:39	RDH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2243827	1	03/12/24 08:48	03/12/24 23:54	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2242384	1	03/10/24 15:41	03/11/24 04:38	JCH	Mt. Juliet, TN

MW-5A-W-20240305 L1712985-04 GW

Collected by Kendra Cutler Collected date/time 03/05/24 13:52 Received date/time 03/07/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2242482	1	03/09/24 15:39	03/10/24 11:20	DJS	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2243184	1	03/09/24 20:43	03/09/24 20:43	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2243771	1	03/11/24 08:14	03/11/24 08:14	DYW	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG2244544	1	03/13/24 08:25	03/15/24 01:51	RDH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2243827	1	03/12/24 08:48	03/13/24 00:14	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2242384	1	03/10/24 15:41	03/11/24 04:56	JCH	Mt. Juliet, TN

MW-6-W-20240305 L1712985-05 GW

Collected by Kendra Cutler Collected date/time 03/05/24 13:17 Received date/time 03/07/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2242484	1	03/11/24 15:05	03/12/24 09:34	DJS	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2243786	1	03/10/24 22:08	03/10/24 22:08	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2243771	1	03/11/24 08:36	03/11/24 08:36	DYW	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG2244544	1	03/13/24 08:25	03/15/24 02:03	RDH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2245007	1	03/12/24 17:10	03/13/24 09:26	DMG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2242384	1	03/10/24 15:41	03/11/24 05:13	JCH	Mt. Juliet, TN

SAMPLE SUMMARY

MW-9-W-20240305 L1712985-06 GW

Collected by Kendra Cutler Collected date/time 03/05/24 15:45 Received date/time 03/07/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2242484	1	03/11/24 15:05	03/12/24 09:23	DJS	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2243786	1	03/10/24 22:30	03/10/24 22:30	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2243771	1	03/11/24 08:58	03/11/24 08:58	DYW	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG2244544	1	03/13/24 08:25	03/15/24 02:15	RDH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2245007	1	03/12/24 17:10	03/13/24 09:46	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2242384	1	03/10/24 15:41	03/11/24 05:31	JCH	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

MW-10-W-20240305 L1712985-07 GW

Collected by Kendra Cutler Collected date/time 03/05/24 16:17 Received date/time 03/07/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2242484	1	03/11/24 15:05	03/12/24 09:37	DJS	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2243786	1	03/10/24 22:52	03/10/24 22:52	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2243771	1	03/11/24 09:20	03/11/24 09:20	DYW	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG2244544	1.01	03/13/24 08:25	03/15/24 02:27	RDH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG2245007	1	03/12/24 17:10	03/13/24 10:06	MAA	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG2242384	1	03/10/24 15:41	03/11/24 05:49	JCH	Mt. Juliet, TN

TB-1-20240305 L1712985-08 GW

Collected by Kendra Cutler Collected date/time 03/05/24 09:00 Received date/time 03/07/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method NWTPHGX	WG2243786	1	03/10/24 21:24	03/10/24 21:24	CDD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2243771	1	03/11/24 06:45	03/11/24 06:45	DYW	Mt. Juliet, TN

CASE NARRATIVE

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



Brian Ford
Project Manager

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

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Lead	U		2.99	6.00	1	03/10/2024 11:15	WG2242482

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	03/09/2024 19:59	WG2243184
(S) a,a,a-Trifluorotoluene(FID)	100			78.0-120		03/09/2024 19:59	WG2243184

6 Qc
7 Gl
8 Al
9 Sc

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	03/11/2024 07:07	WG2243771
Toluene	U		0.278	1.00	1	03/11/2024 07:07	WG2243771
Ethylbenzene	U		0.137	1.00	1	03/11/2024 07:07	WG2243771
Total Xylenes	0.800	J	0.174	3.00	1	03/11/2024 07:07	WG2243771
(S) Toluene-d8	102			80.0-120		03/11/2024 07:07	WG2243771
(S) 4-Bromofluorobenzene	82.9			77.0-126		03/11/2024 07:07	WG2243771
(S) 1,2-Dichloroethane-d4	82.1			70.0-130		03/11/2024 07:07	WG2243771

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ethylene Dibromide	U		0.00541	0.0202	1.01	03/15/2024 01:15	WG2244544

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	92.0	J	66.7	200	1	03/12/2024 23:14	WG2243827
Residual Range Organics (RRO)	215	J	83.3	250	1	03/12/2024 23:14	WG2243827
(S) o-Terphenyl	78.9			52.0-156		03/12/2024 23:14	WG2243827

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzo(a)anthracene	U		0.0203	0.0500	1	03/11/2024 04:02	WG2242384
Benzo(a)pyrene	U		0.0184	0.0500	1	03/11/2024 04:02	WG2242384
Benzo(b)fluoranthene	U		0.0168	0.0500	1	03/11/2024 04:02	WG2242384
Benzo(k)fluoranthene	U		0.0202	0.0500	1	03/11/2024 04:02	WG2242384
Chrysene	U		0.0179	0.0500	1	03/11/2024 04:02	WG2242384
Dibenz(a,h)anthracene	U		0.0160	0.0500	1	03/11/2024 04:02	WG2242384
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500	1	03/11/2024 04:02	WG2242384
Naphthalene	U		0.0917	0.250	1	03/11/2024 04:02	WG2242384
1-Methylnaphthalene	U		0.0687	0.250	1	03/11/2024 04:02	WG2242384
2-Methylnaphthalene	U		0.0674	0.250	1	03/11/2024 04:02	WG2242384
(S) Nitrobenzene-d5	128			31.0-160		03/11/2024 04:02	WG2242384
(S) 2-Fluorobiphenyl	106			48.0-148		03/11/2024 04:02	WG2242384
(S) p-Terphenyl-d14	108			37.0-146		03/11/2024 04:02	WG2242384

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Lead	U		2.99	6.00	1	03/10/2024 11:16	WG2242482

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	32.7	<u>B</u>	31.6	100	1	03/10/2024 21:46	WG2243786
(S) a,a,a-Trifluorotoluene(FID)	102			78.0-120		03/10/2024 21:46	WG2243786

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	03/11/2024 07:29	WG2243771
Toluene	U		0.278	1.00	1	03/11/2024 07:29	WG2243771
Ethylbenzene	U		0.137	1.00	1	03/11/2024 07:29	WG2243771
Total Xylenes	U		0.174	3.00	1	03/11/2024 07:29	WG2243771
(S) Toluene-d8	109			80.0-120		03/11/2024 07:29	WG2243771
(S) 4-Bromofluorobenzene	89.8			77.0-126		03/11/2024 07:29	WG2243771
(S) 1,2-Dichloroethane-d4	84.3			70.0-130		03/11/2024 07:29	WG2243771

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ethylene Dibromide	U		0.00547	0.0204	1.02	03/15/2024 01:27	WG2244544

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	393		66.7	200	1	03/12/2024 23:34	WG2243827
Residual Range Organics (RRO)	281		83.3	250	1	03/12/2024 23:34	WG2243827
(S) o-Terphenyl	88.9			52.0-156		03/12/2024 23:34	WG2243827

Sample Narrative:

L1712985-02 WG2243827: Sample resembles laboratory standard for Hydraulic Fluid.

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzo(a)anthracene	U		0.0203	0.0500	1	03/11/2024 04:20	WG2242384
Benzo(a)pyrene	U		0.0184	0.0500	1	03/11/2024 04:20	WG2242384
Benzo(b)fluoranthene	U		0.0168	0.0500	1	03/11/2024 04:20	WG2242384
Benzo(k)fluoranthene	U		0.0202	0.0500	1	03/11/2024 04:20	WG2242384
Chrysene	U		0.0179	0.0500	1	03/11/2024 04:20	WG2242384
Dibenz(a,h)anthracene	U		0.0160	0.0500	1	03/11/2024 04:20	WG2242384
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500	1	03/11/2024 04:20	WG2242384
Naphthalene	U		0.0917	0.250	1	03/11/2024 04:20	WG2242384
1-Methylnaphthalene	U		0.0687	0.250	1	03/11/2024 04:20	WG2242384
2-Methylnaphthalene	U		0.0674	0.250	1	03/11/2024 04:20	WG2242384
(S) Nitrobenzene-d5	119			31.0-160		03/11/2024 04:20	WG2242384
(S) 2-Fluorobiphenyl	101			48.0-148		03/11/2024 04:20	WG2242384
(S) p-Terphenyl-d14	104			37.0-146		03/11/2024 04:20	WG2242384

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Lead	U		2.99	6.00	1	03/10/2024 11:18	WG2242482

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	03/09/2024 20:21	WG2243184
(S) a,a,a-Trifluorotoluene(FID)	100			78.0-120		03/09/2024 20:21	WG2243184

3 Ss

4 Cn

5 Sr

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	03/11/2024 07:51	WG2243771
Toluene	U		0.278	1.00	1	03/11/2024 07:51	WG2243771
Ethylbenzene	U		0.137	1.00	1	03/11/2024 07:51	WG2243771
Total Xylenes	U		0.174	3.00	1	03/11/2024 07:51	WG2243771
(S) Toluene-d8	103			80.0-120		03/11/2024 07:51	WG2243771
(S) 4-Bromofluorobenzene	82.5			77.0-126		03/11/2024 07:51	WG2243771
(S) 1,2-Dichloroethane-d4	86.6			70.0-130		03/11/2024 07:51	WG2243771

6 Qc

7 Gl

8 Al

9 Sc

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ethylene Dibromide	U		0.00536	0.0200	1	03/15/2024 01:39	WG2244544

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	395		66.7	200	1	03/12/2024 23:54	WG2243827
Residual Range Organics (RRO)	308		83.3	250	1	03/12/2024 23:54	WG2243827
(S) o-Terphenyl	87.4			52.0-156		03/12/2024 23:54	WG2243827

Sample Narrative:

L1712985-03 WG2243827: Sample resembles laboratory standard for Hydraulic Fluid.

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzo(a)anthracene	U		0.0203	0.0500	1	03/11/2024 04:38	WG2242384
Benzo(a)pyrene	U		0.0184	0.0500	1	03/11/2024 04:38	WG2242384
Benzo(b)fluoranthene	U		0.0168	0.0500	1	03/11/2024 04:38	WG2242384
Benzo(k)fluoranthene	U		0.0202	0.0500	1	03/11/2024 04:38	WG2242384
Chrysene	U		0.0179	0.0500	1	03/11/2024 04:38	WG2242384
Dibenz(a,h)anthracene	U		0.0160	0.0500	1	03/11/2024 04:38	WG2242384
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500	1	03/11/2024 04:38	WG2242384
Naphthalene	U		0.0917	0.250	1	03/11/2024 04:38	WG2242384
1-Methylnaphthalene	U		0.0687	0.250	1	03/11/2024 04:38	WG2242384
2-Methylnaphthalene	U		0.0674	0.250	1	03/11/2024 04:38	WG2242384
(S) Nitrobenzene-d5	44.9			31.0-160		03/11/2024 04:38	WG2242384
(S) 2-Fluorobiphenyl	98.9			48.0-148		03/11/2024 04:38	WG2242384
(S) p-Terphenyl-d14	103			37.0-146		03/11/2024 04:38	WG2242384

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Lead	U		2.99	6.00	1	03/10/2024 11:20	WG2242482

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	03/09/2024 20:43	WG2243184
(S) a,a,a-Trifluorotoluene(FID)	100			78.0-120		03/09/2024 20:43	WG2243184

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	03/11/2024 08:14	WG2243771
Toluene	U		0.278	1.00	1	03/11/2024 08:14	WG2243771
Ethylbenzene	U		0.137	1.00	1	03/11/2024 08:14	WG2243771
Total Xylenes	U		0.174	3.00	1	03/11/2024 08:14	WG2243771
(S) Toluene-d8	109			80.0-120		03/11/2024 08:14	WG2243771
(S) 4-Bromofluorobenzene	88.4			77.0-126		03/11/2024 08:14	WG2243771
(S) 1,2-Dichloroethane-d4	83.9			70.0-130		03/11/2024 08:14	WG2243771

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ethylene Dibromide	U		0.00536	0.0200	1	03/15/2024 01:51	WG2244544

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	763		66.7	200	1	03/13/2024 00:14	WG2243827
Residual Range Organics (RRO)	539		83.3	250	1	03/13/2024 00:14	WG2243827
(S) o-Terphenyl	90.5			52.0-156		03/13/2024 00:14	WG2243827

Sample Narrative:

L1712985-04 WG2243827: Sample resembles laboratory standard for Hydraulic Fluid.

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzo(a)anthracene	U		0.0203	0.0500	1	03/11/2024 04:56	WG2242384
Benzo(a)pyrene	U		0.0184	0.0500	1	03/11/2024 04:56	WG2242384
Benzo(b)fluoranthene	U		0.0168	0.0500	1	03/11/2024 04:56	WG2242384
Benzo(k)fluoranthene	U		0.0202	0.0500	1	03/11/2024 04:56	WG2242384
Chrysene	U		0.0179	0.0500	1	03/11/2024 04:56	WG2242384
Dibenz(a,h)anthracene	U		0.0160	0.0500	1	03/11/2024 04:56	WG2242384
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500	1	03/11/2024 04:56	WG2242384
Naphthalene	U		0.0917	0.250	1	03/11/2024 04:56	WG2242384
1-Methylnaphthalene	U		0.0687	0.250	1	03/11/2024 04:56	WG2242384
2-Methylnaphthalene	U		0.0674	0.250	1	03/11/2024 04:56	WG2242384
(S) Nitrobenzene-d5	135			31.0-160		03/11/2024 04:56	WG2242384
(S) 2-Fluorobiphenyl	107			48.0-148		03/11/2024 04:56	WG2242384
(S) p-Terphenyl-d14	108			37.0-146		03/11/2024 04:56	WG2242384

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Lead	3.16	J	2.99	6.00	1	03/12/2024 09:34	WG2242484

1 Cp

2 Tc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	03/10/2024 22:08	WG2243786
(S) a,a,a-Trifluorotoluene(FID)	101			78.0-120		03/10/2024 22:08	WG2243786

3 Ss

4 Cn

5 Sr

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	03/11/2024 08:36	WG2243771
Toluene	U		0.278	1.00	1	03/11/2024 08:36	WG2243771
Ethylbenzene	U		0.137	1.00	1	03/11/2024 08:36	WG2243771
Total Xylenes	U		0.174	3.00	1	03/11/2024 08:36	WG2243771
(S) Toluene-d8	107			80.0-120		03/11/2024 08:36	WG2243771
(S) 4-Bromofluorobenzene	87.4			77.0-126		03/11/2024 08:36	WG2243771
(S) 1,2-Dichloroethane-d4	85.5			70.0-130		03/11/2024 08:36	WG2243771

6 Qc

7 Gl

8 Al

9 Sc

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ethylene Dibromide	U		0.00536	0.0200	1	03/15/2024 02:03	WG2244544

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	195	J	66.7	200	1	03/13/2024 09:26	WG2245007
Residual Range Organics (RRO)	281		83.3	250	1	03/13/2024 09:26	WG2245007
(S) o-Terphenyl	78.4			52.0-156		03/13/2024 09:26	WG2245007

Sample Narrative:

L1712985-05 WG2245007: Sample resembles laboratory standard for Hydraulic Oil.

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzo(a)anthracene	U		0.0203	0.0500	1	03/11/2024 05:13	WG2242384
Benzo(a)pyrene	U		0.0184	0.0500	1	03/11/2024 05:13	WG2242384
Benzo(b)fluoranthene	U		0.0168	0.0500	1	03/11/2024 05:13	WG2242384
Benzo(k)fluoranthene	U		0.0202	0.0500	1	03/11/2024 05:13	WG2242384
Chrysene	U		0.0179	0.0500	1	03/11/2024 05:13	WG2242384
Dibenz(a,h)anthracene	U		0.0160	0.0500	1	03/11/2024 05:13	WG2242384
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500	1	03/11/2024 05:13	WG2242384
Naphthalene	U		0.0917	0.250	1	03/11/2024 05:13	WG2242384
1-Methylnaphthalene	U		0.0687	0.250	1	03/11/2024 05:13	WG2242384
2-Methylnaphthalene	U		0.0674	0.250	1	03/11/2024 05:13	WG2242384
(S) Nitrobenzene-d5	112			31.0-160		03/11/2024 05:13	WG2242384
(S) 2-Fluorobiphenyl	87.4			48.0-148		03/11/2024 05:13	WG2242384
(S) p-Terphenyl-d14	86.3			37.0-146		03/11/2024 05:13	WG2242384

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Lead	U		2.99	6.00	1	03/12/2024 09:23	WG2242484

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	03/10/2024 22:30	WG2243786
(S) a,a,a-Trifluorotoluene(FID)	101			78.0-120		03/10/2024 22:30	WG2243786

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	03/11/2024 08:58	WG2243771
Toluene	U		0.278	1.00	1	03/11/2024 08:58	WG2243771
Ethylbenzene	U		0.137	1.00	1	03/11/2024 08:58	WG2243771
Total Xylenes	U		0.174	3.00	1	03/11/2024 08:58	WG2243771
(S) Toluene-d8	106			80.0-120		03/11/2024 08:58	WG2243771
(S) 4-Bromofluorobenzene	88.2			77.0-126		03/11/2024 08:58	WG2243771
(S) 1,2-Dichloroethane-d4	85.9			70.0-130		03/11/2024 08:58	WG2243771

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ethylene Dibromide	U		0.00536	0.0200	1	03/15/2024 02:15	WG2244544

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	206		66.7	200	1	03/13/2024 09:46	WG2245007
Residual Range Organics (RRO)	U		83.3	250	1	03/13/2024 09:46	WG2245007
(S) o-Terphenyl	80.0			52.0-156		03/13/2024 09:46	WG2245007

Sample Narrative:

L1712985-06 WG2245007: Sample does not resemble laboratory standards.

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzo(a)anthracene	U		0.0203	0.0500	1	03/11/2024 05:31	WG2242384
Benzo(a)pyrene	U		0.0184	0.0500	1	03/11/2024 05:31	WG2242384
Benzo(b)fluoranthene	U		0.0168	0.0500	1	03/11/2024 05:31	WG2242384
Benzo(k)fluoranthene	U		0.0202	0.0500	1	03/11/2024 05:31	WG2242384
Chrysene	U		0.0179	0.0500	1	03/11/2024 05:31	WG2242384
Dibenz(a,h)anthracene	U		0.0160	0.0500	1	03/11/2024 05:31	WG2242384
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500	1	03/11/2024 05:31	WG2242384
Naphthalene	U		0.0917	0.250	1	03/11/2024 05:31	WG2242384
1-Methylnaphthalene	U		0.0687	0.250	1	03/11/2024 05:31	WG2242384
2-Methylnaphthalene	U		0.0674	0.250	1	03/11/2024 05:31	WG2242384
(S) Nitrobenzene-d5	125			31.0-160		03/11/2024 05:31	WG2242384
(S) 2-Fluorobiphenyl	101			48.0-148		03/11/2024 05:31	WG2242384
(S) p-Terphenyl-d14	101			37.0-146		03/11/2024 05:31	WG2242384

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Lead	U		2.99	6.00	1	03/12/2024 09:37	WG2242484

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Gasoline Range Organics-NWTPH	U		31.6	100	1	03/10/2024 22:52	WG2243786
(S) a,a,a-Trifluorotoluene(FID)	100			78.0-120		03/10/2024 22:52	WG2243786

6 Qc

7 Gl

8 Al

9 Sc

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.0941	1.00	1	03/11/2024 09:20	WG2243771
Toluene	U		0.278	1.00	1	03/11/2024 09:20	WG2243771
Ethylbenzene	U		0.137	1.00	1	03/11/2024 09:20	WG2243771
Total Xylenes	U		0.174	3.00	1	03/11/2024 09:20	WG2243771
(S) Toluene-d8	108			80.0-120		03/11/2024 09:20	WG2243771
(S) 4-Bromofluorobenzene	86.7			77.0-126		03/11/2024 09:20	WG2243771
(S) 1,2-Dichloroethane-d4	83.2			70.0-130		03/11/2024 09:20	WG2243771

EDB / DBCP by Method 8011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Ethylene Dibromide	U		0.00541	0.0202	1.01	03/15/2024 02:27	WG2244544

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Diesel Range Organics (DRO)	218		66.7	200	1	03/13/2024 10:06	WG2245007
Residual Range Organics (RRO)	407		83.3	250	1	03/13/2024 10:06	WG2245007
(S) o-Terphenyl	79.5			52.0-156		03/13/2024 10:06	WG2245007

Sample Narrative:

L1712985-07 WG2245007: Sample resembles laboratory standards for Gasoline and Hydraulic oil.

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzo(a)anthracene	U		0.0203	0.0500	1	03/11/2024 05:49	WG2242384
Benzo(a)pyrene	U		0.0184	0.0500	1	03/11/2024 05:49	WG2242384
Benzo(b)fluoranthene	U		0.0168	0.0500	1	03/11/2024 05:49	WG2242384
Benzo(k)fluoranthene	U		0.0202	0.0500	1	03/11/2024 05:49	WG2242384
Chrysene	U		0.0179	0.0500	1	03/11/2024 05:49	WG2242384
Dibenz(a,h)anthracene	U		0.0160	0.0500	1	03/11/2024 05:49	WG2242384
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500	1	03/11/2024 05:49	WG2242384
Naphthalene	U		0.0917	0.250	1	03/11/2024 05:49	WG2242384
1-Methylnaphthalene	U		0.0687	0.250	1	03/11/2024 05:49	WG2242384
2-Methylnaphthalene	U		0.0674	0.250	1	03/11/2024 05:49	WG2242384
(S) Nitrobenzene-d5	126			31.0-160		03/11/2024 05:49	WG2242384
(S) 2-Fluorobiphenyl	102			48.0-148		03/11/2024 05:49	WG2242384
(S) p-Terphenyl-d14	103			37.0-146		03/11/2024 05:49	WG2242384

Volatile Organic Compounds (GC) by Method NWTPHGX

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Gasoline Range Organics-NWTPH	U		31.6	100	1	03/10/2024 21:24	WG2243786
(S) a,a,a-Trifluorotoluene(FID)	99.8			78.0-120		03/10/2024 21:24	WG2243786

- 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	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Benzene	U		0.0941	1.00	1	03/11/2024 06:45	WG2243771
Toluene	U		0.278	1.00	1	03/11/2024 06:45	WG2243771
Ethylbenzene	U		0.137	1.00	1	03/11/2024 06:45	WG2243771
Total Xylenes	U		0.174	3.00	1	03/11/2024 06:45	WG2243771
(S) Toluene-d8	105			80.0-120		03/11/2024 06:45	WG2243771
(S) 4-Bromofluorobenzene	86.4			77.0-126		03/11/2024 06:45	WG2243771
(S) 1,2-Dichloroethane-d4	83.4			70.0-130		03/11/2024 06:45	WG2243771

Method Blank (MB)

(MB) R4043701-1 03/10/24 10:50

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Lead	U		2.99	6.00

1 Cp

2 Tc

3 Ss

Laboratory Control Sample (LCS)

(LCS) R4043701-2 03/10/24 10:52

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Lead	1000	954	95.4	80.0-120	

4 Cn

5 Sr

6 Qc

L1712984-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1712984-01 03/10/24 10:54 • (MS) R4043701-4 03/10/24 10:57 • (MSD) R4043701-5 03/10/24 10:58

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Lead	1000	U	979	989	97.9	98.9	1	75.0-125			0.989	20

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4044449-1 03/12/24 09:18

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Lead	U		2.99	6.00

¹Cp

²Tc

³Ss

Laboratory Control Sample (LCS)

(LCS) R4044449-2 03/12/24 09:21

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Lead	1000	983	98.3	80.0-120	

⁴Cn

⁵Sr

L1712985-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1712985-06 03/12/24 09:23 • (MS) R4044449-4 03/12/24 09:29 • (MSD) R4044449-5 03/12/24 09:31

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Lead	1000	U	954	968	95.4	96.8	1	75.0-125			1.41	20

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4045854-3 03/09/24 11:37

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)	99.9			78.0-120

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

(LCS) R4045854-1 03/09/24 09:40 • (LCSD) R4045854-2 03/09/24 10:53

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5000	4970	4980	99.4	99.6	70.0-124			0.201	20
(S) a,a,a-Trifluorotoluene(FID)				103	103	78.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4044833-3 03/10/24 20:49

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Gasoline Range Organics-NWTPH	35.0	↓	31.6	100
(S) a,a,a-Trifluorotoluene(FID)	99.8			78.0-120

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

(LCS) R4044833-1 03/10/24 19:43 • (LCSD) R4044833-2 03/10/24 20:05

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Gasoline Range Organics-NWTPH	5500	5560	5590	101	102	70.0-124			0.538	20
(S) a,a,a-Trifluorotoluene(FID)				103	103	78.0-120				

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

Method Blank (MB)

(MB) R4044931-2 03/11/24 06:23

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Benzene	U		0.0941	1.00
Toluene	U		0.278	1.00
Ethylbenzene	U		0.137	1.00
Total Xylenes	U		0.174	3.00
<i>(S) Toluene-d8</i>	107			80.0-120
<i>(S) 4-Bromofluorobenzene</i>	85.1			77.0-126
<i>(S) 1,2-Dichloroethane-d4</i>	83.3			70.0-130

Laboratory Control Sample (LCS)

(LCS) R4044931-1 03/11/24 05:39

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	ug/l	ug/l	%	%	
Benzene	5.00	4.73	94.6	70.0-123	
Toluene	5.00	5.10	102	79.0-120	
Ethylbenzene	5.00	5.29	106	79.0-123	
Total Xylenes	15.0	15.7	105	79.0-123	
<i>(S) Toluene-d8</i>			103	80.0-120	
<i>(S) 4-Bromofluorobenzene</i>			88.8	77.0-126	
<i>(S) 1,2-Dichloroethane-d4</i>			83.4	70.0-130	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Method Blank (MB)

(MB) R4046218-1 03/14/24 22:05

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Ethylene Dibromide	U		0.00536	0.0200

1 Cp

2 Tc

3 Ss

L1712984-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1712984-01 03/14/24 22:52 • (DUP) R4046218-3 03/14/24 22:40

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Ethylene Dibromide	U	U	1	0.000		20

4 Cn

5 Sr

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

(LCS) R4046218-4 03/15/24 00:51 • (LCSD) R4046218-5 03/15/24 03:27

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Ethylene Dibromide	0.250	0.217	0.220	86.8	88.0	60.0-140			1.37	20

6 Qc

7 Gl

L1713029-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1713029-01 03/14/24 22:29 • (MS) R4046218-2 03/14/24 22:17

Analyte	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Ethylene Dibromide	0.108	U	0.112	104	1.08	64.0-159	

8 Al

9 Sc

Method Blank (MB)

(MB) R4044940-1 03/12/24 14:37

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
<i>(S) o-Terphenyl</i>	82.0			52.0-156

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

(LCS) R4044940-2 03/12/24 14:57 • (LCSD) R4044940-3 03/12/24 15:17

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	1550	1560	103	104	50.0-150			0.643	20
<i>(S) o-Terphenyl</i>				89.0	89.0	52.0-156				

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

Method Blank (MB)

(MB) R4044821-1 03/13/24 00:01

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
<i>(S) o-Terphenyl</i>	72.0			52.0-156

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

(LCS) R4044821-2 03/13/24 00:21 • (LCSD) R4044821-3 03/13/24 00:41

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	1420	1460	94.7	97.3	50.0-150			2.78	20
<i>(S) o-Terphenyl</i>				75.0	78.5	52.0-156				

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

Method Blank (MB)

(MB) R4045166-3 03/11/24 00:09

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
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(k)fluoranthene	U		0.0202	0.0500
Chrysene	U		0.0179	0.0500
Dibenz(a,h)anthracene	U		0.0160	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500
Naphthalene	U		0.0917	0.250
1-Methylnaphthalene	U		0.0687	0.250
2-Methylnaphthalene	U		0.0674	0.250
<i>(S) Nitrobenzene-d5</i>	130			31.0-160
<i>(S) 2-Fluorobiphenyl</i>	103			48.0-148
<i>(S) p-Terphenyl-d14</i>	107			37.0-146

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

(LCS) R4045166-1 03/10/24 23:33 • (LCSD) R4045166-2 03/10/24 23:51

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Benzo(a)anthracene	2.00	2.31	2.03	115	102	61.0-140			12.9	20
Benzo(a)pyrene	2.00	2.15	1.85	107	92.5	60.0-143			15.0	20
Benzo(b)fluoranthene	2.00	2.32	1.99	116	99.5	58.0-141			15.3	20
Benzo(k)fluoranthene	2.00	1.99	1.79	99.5	89.5	58.0-148			10.6	20
Chrysene	2.00	2.22	2.01	111	100	64.0-144			9.93	20
Dibenz(a,h)anthracene	2.00	2.26	1.95	113	97.5	52.0-155			14.7	20
Indeno(1,2,3-cd)pyrene	2.00	2.30	2.00	115	100	54.0-153			14.0	20
Naphthalene	2.00	2.21	1.89	111	94.5	61.0-137			15.6	20
1-Methylnaphthalene	2.00	2.27	1.93	114	96.5	66.0-142			16.2	20
2-Methylnaphthalene	2.00	2.17	1.87	108	93.5	62.0-136			14.9	20
<i>(S) Nitrobenzene-d5</i>				135	119	31.0-160				
<i>(S) 2-Fluorobiphenyl</i>				106	94.5	48.0-148				
<i>(S) p-Terphenyl-d14</i>				103	93.5	37.0-146				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

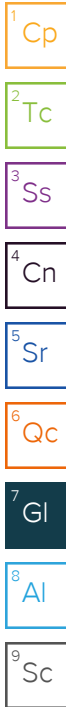
Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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



ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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

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

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

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

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Company Name/Address: **Arcadis - Chevron - WA**
 1420 5th Ave
 Unit 2400
 Seattle, WA 98101

Billing Information:
 Attn: Accounts Payable
 630 Plaza Dr., Ste. 600
 Highlands Ranch, CO 80129

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
 PEOPLE ADVANCING SCIENCE

Report to: **Eric Epple**
 Email To: **eric.epple@arcadis.com;environmentDM-**

Project Description: **375289** City/State Collected: **Goldendale WA** Please Circle: **PT** MT CT ET

Phone: **206-325-5254** Client Project # **30079744 19.45** Lab Project # **CHEVARCWA-375289**

Collected by (print): **Kendra Cutler** Site/Facility ID # **808 S COLUMBUS AVE** P.O. #

Collected by (signature): *[Signature]* **Rush?** (Lab MUST Be Notified)
 ___ Same Day ___ Five Day
 ___ Next Day ___ 5 Day (Rad Only)
 ___ Two Day ___ 10 Day (Rad Only)
 ___ Three Day

Immediately Packed on Ice N ___ Y ___ Date Results Needed No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 8260 40mlAmb-HCl	EDB 8011 40mlCl- Na Thio	NWTPHDX no SGT 40mlAmb-HCl-BT	NWTPHGX 40mlAmb HCl	SVOCS 8270 100ml Amb NoPres	Total Lead 6010 250mlHDPE-HNO3	cPAHs/Naph 8270SIM 40mlAmb-NoPres-WT
MW-2-W-20240305	Ca	GW	-	3/5/24	1238	14	X	X	X	X	X	X	X
MW-3A-W-20240305		GW	-		1435	14	X	X	X	X	X	X	X
MW-4A-W-20240305		GW	-		1511	14	X	X	X	X	X	X	X
MW-5A-W-20240305		GW	-		1352	14	X	X	X	X	X	X	X
MW-6-W-20240305		GW	-		1317	14	X	X	X	X	X	X	X
MW-9-W-20240305		GW	-		1545	14	X	X	X	X	X	X	X
MW-10-W-20240305		GW	-		1617	14	X	X	X	X	X	X	X
TB-1-20240305		GW	-		0900	2	X			X			
		GW											

SAC # **1712989**
D168

Acctnum: **CHEVARCWA**
 Template: **T243769**
 Prelogin: **P1060302**
 PM: **110 - Brian Ford**
 PB:
 Shipped Via:

Remarks	Sample # (lab only)
	-01
	-02
	-03
	-04
	-05
	-06
	-07
	-08

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

Remarks:

Samples returned via: ___ UPS ___ FedEx ___ Courier Tracking # **7155 0302 2023**

pH ___ Temp ___
 Flow ___ Other ___

Sample Receipt Checklist

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

Relinquished by: (Signature) *[Signature]* Date: **3/6/24** Time: **shipped via FedEx** Received by: (Signature) Trip Blank Received: Yes / No **2** HCL / MeOH TBR

Relinquished by: (Signature) Date: Time: Received by: (Signature) Temp: °C **97** Bottles Received: If preservation required by Login: Date/Time

Relinquished by: (Signature) Date: Time: Received for lab by: (Signature) **Alisa Mitchenor** Date: **3/7/24** Time: **0900** Hold: Condition: **NCF / OK**

41712985

<u>Tracking Numbers</u>	<u>Temperature</u>
7155 0302 2834	1.3 \pm 0.1.2
7155 0302 2823	0.3 \pm 0.03

Name ANNA MITCHELL MD

Date 3/7/24

