



May 27, 2025

Mr. Mark Pugh, Project Manager
Oregon Department of Environmental Quality
700 NE Multnomah Street, Suite #600
Portland, Oregon 97232

**Re: First Quarter 2025 GTS O&M Data Report
Milwaukie International Way Site (ECSI No. 2079)
Milwaukie, Oregon
2060.007.002/Task Order 065-23-007**

Dear Mr. Pugh:

This letter report presents the operations and maintenance (O&M) data and maintenance activities performed for the groundwater extraction and treatment system (GTS) at the Milwaukie International Way (MIW) site in Milwaukie, Oregon, for the first quarter of 2025. A summary of the flow rate data, analytical results, and maintenance activities performed for the quarter are included in this report. Figure 1 shows the locations of the treatment system, extraction wells, and extraction trench.

System Performance

GTS performance is described below and includes a summary of system flow rates, mass removal, and analytical results. The GTS sampling was performed on March 21, 2025, and included collecting water samples from the system effluent, extraction wells EXT-2R and EXT-3R, and the extraction trench. A sample was not collected from EXT-4 as the pump was not operational.

System Flow Rates

Table 1 provides a summary of the total monthly and total average flow rates through the system for the past 5 years and is based on flow measurements from the flow totalizer on the effluent line from the equalization tank. Table 2 provides the average monthly individual flow rates from EXT-2R, EXT-3R, EXT-4, and the extraction trench since May 2022 when the upgraded system was started. Extraction rates for the previous extraction wells, EXT-1, EXT-2, EXT-3, and the extraction trench are also included in Table 2 from April 2020 through the GTS shutdown in January 2022. The average monthly total effluent from the GTS from April 2020 through March 2025 is also included in Table 2. Individual flow rates are based on flow measurements from the individual flow meters installed in the four influent lines to the treatment system. The total system discharge rate is measured using a flow totalizer installed in the treatment system effluent line.

In the first quarter of 2025, the monthly flow rate for the GTS ranged from 17,214 gallons per day (gpd) in February 2025 to 17,943 gpd in January 2025 (Table 1), or from 11.95 to 12.46 gallons per minute (gpm) (Table 2). Extraction well pump EXT-4 has been offline since December 12, 2024, and remained offline during the first quarter of 2025 (a new pump control motor was installed on April 9, 2025). The average flow rates for the individual extraction wells for the first quarter of 2025 were as follows:

- EXT-2R: 6.71 gpm
- EXT-3R: 3.38 gpm
- EXT-4: 0 gpm
- Trench: 1.49 gpm

The target flow rate for each of the three extraction wells is 10 gpm.

System Mass Removal

In addition to flow rates, Table 1 shows the influent groundwater concentrations and GTS mass removal rates for chlorinated volatile organic compounds (cVOCs). The mass removal is calculated using the system effluent sample concentrations (see below) and multiplying by the total effluent discharge volume recorded at the flow totalizer. In the first quarter of 2025, approximately 1.07 pounds of cVOCs were removed. Monthly mass removal rates include 0.42 pounds in January 2025, 0.32 pounds in February 2025, and 0.33 pounds in March 2025. EXT-4 has historically been the source for the greatest mass removal since the GTS was started in June 2023. With EXT-4 remaining offline during the first quarter of 2025, the mass removal rates continue to be among the lowest cVOC removal rates observed since the upgraded GTS was brought online in June 2023.

Water Analytical Results

Extraction wells EXT-2R, EXT-3R, and the trench were sampled on March 21, 2025, and analyzed for cVOCs using U.S. Environmental Protection Agency (EPA) Method 8260D. Pace Analytical National of Mt. Juliet, Tennessee, performed the chemical analyses. Table 3 shows the analytical results for the first quarter 2025 samples collected from the extraction wells along with results since June 2020. The analytical laboratory report and chain-of-custody documentation are provided as Attachment A. Analytical results for March 2025 are summarized below:

- In EXT-2R, the total cVOC concentration was 100 micrograms per liter ($\mu\text{g/L}$); this is within range of samples collected in 2023 and 2024 (71 to 125 $\mu\text{g/L}$). Trichloroethene (TCE) was detected at 60.7 $\mu\text{g/L}$ and is the cVOC with the highest concentration compared to the other cVOCs. The *cis*-1,2-dichloroethene (*cis*-1,2-DCE) concentration was detected at 39.6 $\mu\text{g/L}$. Tetrachloroethene (PCE), *trans*-1,2-dichloroethene (*trans*-1,2-DCE), 1,1-dichloroethene (1,1-DCE), and vinyl chloride (VC) were all below 5 $\mu\text{g/L}$. The distribution of cVOC concentrations in EXT-2R is similar to previous samples and similar to EXT-2 where TCE was the highest detected cVOC followed by *cis*-1,2-DCE and all other cVOCs generally below the laboratory reporting limit.
- In EXT-3R, the total cVOC concentration was 58.0 $\mu\text{g/L}$, similar to the fourth quarter 2024 detection of 58.3 $\mu\text{g/L}$. This is less than the total cVOC concentration detected since December 2023. For this well, *cis*-1,2-DCE was detected at 38.9 $\mu\text{g/L}$ and is the cVOC with the highest concentration compared to the other cVOCs. The VC concentration was 17.2 $\mu\text{g/L}$. The TCE concentration was detected at 1.48 $\mu\text{g/L}$ with other target cVOCs being less than 1.0 $\mu\text{g/L}$ or below the laboratory reporting limits. The distribution of cVOC concentrations in EXT-3R is similar to EXT-3 where *cis*-1,2-DCE is found at the highest concentration, followed by VC.
- In the trench, the total cVOC concentration was approximately 0.155 $\mu\text{g/L}$. Only *cis*-1,2-DCE was detected at an estimated concentration of 0.155 $\mu\text{g/L}$ while all other cVOCs were not detected above the laboratory reporting limit. The trench was brought back into operation on December 12, 2024, after a year of being offline. Total cVOC concentrations in this well range from not detected above the laboratory reporting limit up to 30.8 $\mu\text{g/L}$ detected in September 2023.

A system effluent sample was collected on March 21, 2025, for the purpose of verifying compliance with the Clackamas County Service District (CCSD) discharge permit. The system effluent sample was analyzed for cVOCs by EPA Method 624 in accordance with the CCSD discharge permit requirements. Results showed detections of TCE (37.2 $\mu\text{g/L}$), *cis*-1,2-DCE (38.8 $\mu\text{g/L}$), and VC (4.22 $\mu\text{g/L}$). Other cVOCs were less than

1.0 µg/L or the laboratory's method reporting limits. Table 4 provides a summary of the analytical results for the GTS effluent sample.

The CCSD permit has a discharge limit for pH between 5.5 and 11.5. The pH of the system effluent sample was recorded in the field at the time of sampling as 7.03. The CCSD discharge permit specifies a total toxic organics (TTO) limit of 2.13 milligrams per liter (mg/L), which was calculated using the sum of cVOC detections above 0.010 mg/L. The system effluent sample collected in March 2025 had a TTO concentration of 0.076 mg/L.

Operations and Maintenance

Maintenance activities are completed by A.Y.M. Maintenance, Inc. (AYM), of Happy Valley, Oregon. AYM conducts weekly site inspections to perform routine O&M. Weekly O&M logs provided by AYM are included in Attachment B.

Routine Operation and Maintenance

Routine O&M includes weekly site visits by AYM to inspect and maintain the treatment system. Routine maintenance includes:

- Maintaining the sequestering agent addition system.
- Changing the sediment bag filters.
- Performing maintenance on the transfer pump (i.e., greasing).

Sequestering agent is added to the influent groundwater to reduce the tendency for dissolved iron in groundwater to oxidize and foul the conveyance lines and treatment system components. Metering pumps are installed in each of the extraction well vaults to continuously add a small amount of the sequestering agent into the influent flow line. AYM checks and refills the sequestering agent in the vaults as needed.

Two sediment bag filters are installed after the influent transfer tank to trap most of the iron flocculate present in the groundwater before discharging to the municipal sewer. AYM replaces these filters weekly to maintain good, consistent flow rates through the effluent line. Without frequent maintenance, the bag filters become clogged, causing pressure buildup and reduced flow through the discharge line, subsequently triggering a high-level alarm in the transfer tank and shutting the system down. The bag filters have a 100-micron opening that allows for good flow through the system while remaining effective in filtering iron flocculates and reducing the number of system shutdowns.

Non-Routine Maintenance

There were two system alarms triggered during the first quarter of 2025. Neither alarm resulted in the GTS being offline. On February 23, 2025, the GTS alarm autodialer called staff to notify them of a power outage. AYM visited the site the same day to find that the system was operating as intended. A power fluctuation caused by heavy storm activity likely triggered the alarm. No action was taken. On February 25, 2025, staff were notified that the trench sump high level alarm had been triggered. GSI staff visited the site the same day to find that the trench sump pump was no longer operational and water within the trench vault had risen above the trench high level sensor level. Approximately 2.6 inches of rain had fallen in the Milwaukie area from February 23 through 25, 2025. GSI ordered a new sump pump, and AYM installed the new sump pump on March 6, 2025.

All work performed by GSI was completed in accordance with generally accepted professional practices related to the nature of the work accomplished in the same or similar localities, at the time the services were performed. This report is for the specific application to the referenced project and for the exclusive use of DEQ. No other warranty, express or implied, is made.

Sincerely,

GSI Water Solutions, Inc.



Christopher W. Martin, PE
Task Order Manager

GSI Water Solutions, Inc.



Richard D. Ernst, RG
Program Manager

Attachments:

- Table 1 – GTS Hydraulic Performance and Mass Removal
- Table 2 – Average Monthly Extraction Rates for Extraction Wells and Trench
- Table 3 – Analytical Results for Extraction Wells and Trench
- Table 4 – GTS Groundwater Analytical Results
- Figure 1 – Extraction Well Plan
- Attachment A – Analytical Laboratory Report and Data Validation
- Attachment B – Weekly O&M Logs

Date	Influent Groundwater Concentrations ¹				Flow Summary		Mass Removal Summary ¹				
	TCE (µg/L)	<i>cis</i> -1,2- DCE (µg/L)	VC (µg/L)	Total cVOCs (mg/L)	Monthly Flow (MG)	Average Flow (gpd) ²	TCE (lbs)	<i>cis</i> -1,2- DCE (lbs)	VC (lbs)	Total Monthly Mass (lbs)	Cumulative Mass (lbs)
Apr-20	86	66	0.83	0.15	0.658	18,800	0.47	0.36	0.005	0.84	709.53
May-20	86	66	0.83	0.15	0.512	18,286	0.37	0.28	0.004	0.65	710.19
Jun-20	86	66	0.83	0.15	0.417	14,893	0.30	0.23	0.003	0.53	710.72
Jul-20	127	82	1.1	0.21	0.619	17,686	0.66	0.42	0.006	1.09	711.80
Aug-20	127	82	1.1	0.21	0.268	12,762	0.28	0.18	0.002	0.47	712.27
Sep-20	127	82	1.1	0.21	0.580	16,571	0.61	0.40	0.005	1.0	713.29
Oct-20	79	70	1.2	0.15	0.621	17,743	0.41	0.36	0.006	0.78	714.07
Nov-20	79	70	1.2	0.15	0.455	16,250	0.30	0.27	0.005	0.57	714.64
Dec-20	79	70	1.2	0.15	0.491	14,029	0.32	0.29	0.005	0.62	715.26
Jan-21	85	74	4.0	0.16	0.476	17,000	0.34	0.29	0.016	0.65	715.90
Feb-21	85	74	4.0	0.16	0.428	15,286	0.30	0.26	0.014	0.58	716.48
Mar-21	85	74	4.0	0.16	0.482	16,621	0.34	0.30	0.02	0.66	717.14
Apr-21	94	69	2.4	0.17	0.515	15,147	0.41	0.30	0.010	0.71	717.85
May-21	94	69	2.4	0.17	0.374	13,357	0.29	0.21	0.008	0.52	718.37
Jun-21	94	69	2.4	0.17	0.328	11,714	0.26	0.19	0.007	0.45	718.82
Jul-21	113	86	2.2	0.20	0.330	9,706	0.31	0.24	0.006	0.55	719.37
Aug-21	113	86	2.2	0.20	0.232	8,593	0.22	0.17	0.004	0.39	719.76
Sep-21	113	86	2.2	0.20	0.242	8,345	0.23	0.17	0.004	0.41	720.17
Oct-21	79	73	5.3	0.16	0.282	8,057	0.18	0.17	0.013	0.37	720.54
Nov-21	79	73	5.3	0.16	0.215	7,963	0.14	0.13	0.010	0.28	720.82
Dec-21	79	73	5.3	0.16	0.372	10,333	0.24	0.23	0.017	0.49	721.30
Jan-22	79	73	5.3	0.16	0.096	8,000	0.06	0.06	0.004	0.13	721.43
Feb-22	—	—	—	—	0	0	—	—	—	—	721.43
Mar-22	—	—	—	—	0	0	—	—	—	—	721.43
Apr-22	—	—	—	—	0	0	—	—	—	—	721.43
May-22	43.6	39.5	ND (1.0)	0.08	0.204	29,143	0.07	0.07	0.00	0.14	721.57
Jun-22	72.4	65.7	3.7	0.142	0.925	26,429	0.56	0.51	0.028	1.09	722.66
Jul-22	75.2	63.8	2.76	0.142	0.582	20,786	0.37	0.31	0.013	0.69	723.35
Aug-22	59.8	54.3	4.45	0.119	0.624	22,286	0.31	0.28	0.023	0.62	723.97
Sep-22	90.2	73.1	10.1	0.173	0.409	27,267	0.31	0.25	0.034	0.59	724.56
Oct-22	91.0	71.1	0.70	0.163	0.281	25,545	0.21	0.17	0.002	0.38	724.94
Nov-22	79.6	67.0	3.66	0.150	0.192	27,429	0.13	0.11	0.006	0.24	725.18
Dec-22	79.6	67.0	3.66	0.150	0.607	26,391	0.40	0.34	0.019	0.76	725.94
Jan-23	—	—	—	—	0	0	—	—	—	—	725.94
Feb-23	—	—	—	—	0	0	—	—	—	—	725.94
Mar-23	—	—	—	—	0	0	—	—	—	—	725.94

See notes on the next page.

Date	Influent Groundwater Concentrations ¹				Flow Summary		Mass Removal Summary ¹				
	TCE (µg/L)	<i>cis</i> -1,2-DCE (µg/L)	VC (µg/L)	Total cVOCs (mg/L)	Monthly Flow (MG)	Average Flow (gpd) ²	TCE (lbs)	<i>cis</i> -1,2-DCE (lbs)	VC (lbs)	Total Monthly Mass (lbs)	Cumulative Mass (lbs)
Apr-23	—	—	—	—	0	0	—	—	—	—	725.94
May-23	—	—	—	—	0	0	—	—	—	—	725.94
Jun-23	20.0	21.9	0.347	0.04	0.567	25,773	0.09	0.10	0.002	0.20	726.14
Jul-23	66.1	65.7	5.67	0.14	0.212	24,530	0.12	0.12	0.010	0.24	726.38
Aug-23	66.1	65.7	5.67	0.14	0.517	27,147	0.29	0.28	0.024	0.59	726.98
Sep-23	66.1	65.7	5.67	0.14	0.724	26,041	0.40	0.40	0.034	0.83	727.81
Oct-23	54.3	50.7	2.98	0.11	0.695	25,714	0.31	0.29	0.017	0.63	728.43
Nov-23	54.3	50.7	2.98	0.11	0.897	27,182	0.41	0.38	0.022	0.81	729.24
Dec-23	54.3	50.7	2.98	0.11	0.715	26,481	0.32	0.30	0.018	0.64	729.88
Jan-24	75.6	76.6	5.77	0.16	0.737	25,414	0.46	0.47	0.035	0.97	730.86
Feb-24	75.6	76.6	5.77	0.16	0.646	23,071	0.41	0.41	0.031	0.85	731.71
Mar-24	75.6	76.6	5.77	0.16	0.625	21,552	0.39	0.40	0.030	0.82	732.53
Apr-24	54.2	79.3	14.40	0.15	0.664	18,971	0.30	0.44	0.080	0.82	733.35
May-24	54.2	79.3	14.40	0.15	0.278	10,296	0.13	0.18	0.033	0.34	733.69
Jun-24	54.2	79.3	14.40	0.15	0.277	9,893	0.13	0.18	0.033	0.34	734.03
Jul-24	51.3	72.7	12.5	0.14	0.326	9,314	0.14	0.20	0.034	0.37	734.41
Aug-24	51.3	72.7	12.5	0.14	0.252	9,333	0.11	0.15	0.026	0.29	734.69
Sep-24	51.3	72.7	12.5	0.14	0.249	8,893	0.11	0.15	0.026	0.28	734.98
Oct-24	45.9	47.9	3.3	0.10	0.416	12,606	0.16	0.17	0.011	0.34	735.31
Nov-24	45.9	47.9	3.3	0.10	0.530	18,929	0.20	0.21	0.015	0.43	735.74
Dec-24	45.9	47.9	3.3	0.10	0.496	19,077	0.19	0.20	0.014	0.40	736.14
Jan-25	37.2	38.8	4.2	0.08	0.628	17,943	0.19	0.20	0.022	0.42	736.56
Feb-25	37.2	38.8	4.2	0.08	0.482	17,214	0.15	0.16	0.017	0.32	736.89
Mar-25	37.2	38.8	4.2	0.08	0.487	17,393	0.15	0.16	0.017	0.33	737.21
Cumulative Flow Total (MG)					133.98		TCE	<i>cis</i> -1,2-DCE	VC		Total Mass
Estimated Mass Removed Since Startup (lbs)							264	433	39		737

Notes

¹ Mass removed from subsurface [lbs] = influent concentration [mg/L] * flow [MG] * 8.34 [constant].

² Monthly system flow recorded from Clackamas County Service District (CCSD) reports.

For months where no effluent sample is collected, mass removal is calculated using the effluent sample collected during the quarter multiplied by the discharge volume for the month.

Abbreviations and Acronyms

Gray Italicized values are inferred from quarterly monitoring results.

— = No sample collected and/or no mass removal calculated.

µg/L = micrograms per liter

cis-1,2-DCE = *cis*-1,2-dichloroethene

cVOCs = chlorinated volatile organic compounds

gpd = gallons per day

GTS = groundwater extraction and treatment system

lbs = pounds

MG = million gallons

mg/L = milligrams per liter

ND = not detected

TCE = trichloroethene

VC = vinyl chloride

Month	Monthly Average Extraction Rates (gpm)						Extraction Trench	Totalizer
	EXT-1	EXT-2	EXT-3	EXT-2R	EXT-3R	EXT-4		
Apr-20	3.17	9.96	0	—	—	—	0.190	13.1
May-20	3.11	9.74	0	—	—	—	0.120	12.7
Jun-20	2.56	7.84	0	—	—	—	0.000	10.3
Jul-20	2.78	9.64	0	—	—	—	0.000	12.3
Aug-20	1.67	7.23	0	—	—	—	0.000	8.86
Sep-20	1.96	9.29	0	—	—	—	0.420	11.5
Oct-20	2.27	9.76	0	—	—	—	0.670	12.3
Nov-20	2.37	9.38	0	—	—	—	0.080	11.3
Dec-20	2.28	7.98	0	—	—	—	0.010	9.74
Jan-21	3.22	9.05	0	—	—	—	0.008	11.8
Feb-21	3.02	8.09	0	—	—	—	0.007	10.6
Mar-21	3.21	8.63	0	—	—	—	0.008	11.5
Apr-21	3.04	7.92	0	—	—	—	0.007	10.5
May-21	2.73	7.07	0	—	—	—	0.007	9.28
Jun-21	2.51	6.16	0	—	—	—	0.007	8.13
Jul-21	1.92	5.21	0	—	—	—	0.007	6.55
Aug-21	1.46	3.60	0	—	—	—	0.006	5.97
Sep-21	1.57	4.42	0	—	—	—	0.006	5.80
Oct-21	1.97	4.01	0	—	—	—	0.007	5.60
Nov-21	2.31	3.82	0	—	—	—	0.007	5.53
Dec-21	2.59	3.53	0	—	—	—	0.006	5.63
Jan-22	3.02	2.87	0	—	—	—	0	5.36
Feb-22	Extraction wells taken offline			—	—	—	—	—
Mar-22	—	—	—	—	—	—	—	—
Apr-22	—	—	—	Extraction wells brought online May 2022			—	—
May-22	—	—	—	10.45	6.56	2.70	—	20.24
Jun-22	—	—	—	9.84	5.64	2.45	—	18.35
Jul-22	—	—	—	8.87	5.26	2.31	—	14.43
Aug-22	—	—	—	7.56	5.21	2.26	—	15.48
Sep-22	—	—	—	10.03	7.65	4.16	—	18.94
Oct-22	—	—	—	11.78	6.58	3.84	—	17.74
Nov-22	—	—	—	10.85	4.68	2.64	—	19.05
Dec-22	—	—	—	10.32	4.56	2.64	0.003	18.33
Jan-23	—	—	—	—	—	—	—	—
Feb-23	—	—	—	—	—	—	—	—
Mar-23	—	—	—	—	—	—	—	—

See note on the next page.

Month	Monthly Average Extraction Rates (gpm)							Extraction Trench	Totalizer
	EXT-1	EXT-2	EXT-3	EXT-2R	EXT-3R	EXT-4			
Apr-23	—	—	—	—	—	—	—	—	
May-23	—	—	—	—	—	—	—	—	
Jun-23	—	—	—	9.26	4.96	2.39	0.463	17.90	
Jul-23	—	—	—	8.69	4.95	2.43	0.010	17.03	
Aug-23	—	—	—	9.41	5.18	2.48	0.710	18.85	
Sep-23	—	—	—	9.04	5.19	2.60	0.550	18.08	
Oct-23	—	—	—	9.01	5.39	2.02	0.680	17.86	
Nov-23	—	—	—	8.95	5.20	2.87	1.30	18.88	
Dec-23	—	—	—	8.45	5.49	2.67	1.27	18.39	
Jan-24	—	—	—	9.04	4.96	2.65	—	17.65	
Feb-24	—	—	—	8.11	4.47	2.65	—	16.02	
Mar-24	—	—	—	7.96	3.99	2.34	—	14.97	
Apr-24	—	—	—	7.30	6.37	2.51	—	13.17	
May-24	—	—	—	—	4.14	2.51	—	7.15	
Jun-24	—	—	—	—	4.03	2.48	—	6.87	
Jul-24	—	—	—	—	3.82	2.25	—	6.47	
Aug-24	—	—	—	—	3.75	2.15	—	6.48	
Sep-24	—	—	—	—	3.67	2.15	—	6.18	
Oct-24	—	—	—	8.53	3.08	2.39	—	8.75	
Nov-24	—	—	—	6.83	3.20	2.57	—	13.14	
Dec-24	—	—	—	6.78	2.51	2.30	2.83	12.30	
Jan-25	—	—	—	6.72	3.37	—	1.75	12.46	
Feb-25	—	—	—	6.64	3.33	—	1.45	11.95	
Mar-25	—	—	—	6.77	3.45	—	1.26	12.08	

Note

Total extraction rates calculated from system effluent totalizer readings.
 Individual extraction rates calculated from individual flow totalizer readings.

Abbreviations and Acronyms

— = no flow data
 gpm = gallons per minute.

System Operational Events

System was down from January 10, 2022, to May 17, 2022, during system expansion. EXT-1 and EXT-2 were take out of service, and EXT-4, EXT-2R, and EXT-3R were installed.
 The system operated intermittently from May 17, 2022, through December 2022.
 The system was offline from December 16, 2022, through June 6, 2023, then offline again from July 7, 2023, through August 10, 2023.

Date/ Sample ID	Concentration in µg/L						
	PCE	TCE	<i>cis</i> -1,2-DCE	<i>trans</i> -1,2-DCE	1,1-DCE	VC	Total cVOCs
June 16, 2020							
EXT-1	<1.0	10	31	<1.0	<1.0	7.1	49
EXT-2	0.99	124	88	0.64	0.29	<1.0	214
EXT-3	Not sampled due to pump offline						
Trench	Not sampled due to pump offline						
September 3-4, 2020							
EXT-1	<1.0	14	30	0.21	0.21	4.2	49
EXT-2	0.92	87	64	0.54	0.22	<1.0	153
EXT-3	Not sampled due to pump offline						
Trench	Not sampled due to pump offline						
December 2, 2020							
EXT-1	<1.0	11	29	<1.0	<1.0	3.9	44
EXT-2	0.71	65	56	0.33	<1.0	<1.0	122
EXT-3	Not sampled due to pump offline						
Trench	0.50	61	59	0.24	0.20	<1.0	121
First Quarter 2021 Second Quarter 2021 September 15-17, 2021							
Not sampled due to system offline							
Not sampled due to system offline							
Not sampled due to system offline							
September 15-17, 2021							
EXT-1	<1.0	11	24	<1.0	<1.0	4.9	40
EXT-2	2.12	177	106	0.65	0.31	<1.0	286
EXT-3	Not sampled due to pump offline						
Trench	Not sampled due to pump offline						
Fourth Quarter 2021 First Quarter 2022 May 17, 2022							
Not sampled due to system offline							
Not sampled due to system offline							
Not sampled due to system offline							
May 17, 2022							
EXT-2R	<1.0	38.6	24.1	<1.0	<1.0	<1.0	62.7
EXT-3R	<1.0	<1.0	0.17	<1.0	<1.0	<1.0	0.17
EXT-4	1.22	141	159	1.42	0.56	0.97	304
Trench	Not sampled due to pump offline						
June 29, 2022							
EXT-2R	0.86	81.2	60.4	0.63	0.33	0.39	144
EXT-3R	<1.0	3.48	28.4	<1.0	0.21	11.9	44.0
EXT-4	2.41	163	148	1.33	0.72	1.10	317
Trench	Not sampled due to pump offline						
July 21, 2022							
EXT-2R	0.90	81.5	58.5	0.44	0.46	<1.0	142
EXT-3R	<1.0	5.91	38.9	<1.0	<1.0	14.5	59.3
EXT-4	2.93	191	160	1.41	0.87	1.25	357
Trench	Not sampled due to pump offline						
October 20, 2022							
EXT-2R	0.83	87.0	60.6	0.54	0.26	0.43	150
EXT-3R	<1.0	3.60	37.2	0.21	<1.0	9.71	50.7
EXT-4	2.16	186	145	1.56	0.69	1.48	337
Trench	Not sampled due to pump offline						
First Quarter 2023 June 6, 2023							
Not sampled due to system offline							
Not sampled due to system offline							
Not sampled due to system offline							
June 6, 2023							
EXT-2R	0.701	42.8	27.7	0.193	<1.0	<1.0	71.4
EXT-3R	<1.0	<1.0	3.98	<1.0	<1.0	1.15	5.13
EXT-4	1.60	125	159	1.92	<1.0	1.14	289
Trench	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

See notes on the next page.

Date/ Sample ID	Concentration in µg/L						
	PCE	TCE	<i>cis</i> -1,2-DCE	<i>trans</i> -1,2-DCE	1,1-DCE	VC	Total cVOCs
September 21, 2023							
EXT-2R	0.876	74.1	48.8	0.600	0.217	<1.0	125
EXT-3R	<1.0	<1.0	26.4	<1.0	<1.0	2.74	29.1
EXT-4	1.95	136	121	1.67	0.645	1.16	262
Trench	<1.0	0.193	27.8	<1.0	<1.0	2.80	30.8
December 7, 2023							
EXT-2R	0.516	65.1	44.3	0.332	<1.0	<1.0	110
EXT-3R	<1.0	2.19	50.3	0.639	<1.0	12.2	65.3
EXT-4	<10.0	152	107	1.64	<10.0	<10.0	261
Trench	<1.0	<1.0	3.37	<1.0	<1.0	1.21	4.58
February 29, 2024							
EXT-2R	0.969	60.2	58.6	0.920	0.267	0.241	121
EXT-3R	<1.0	1.74	64.9	1.10	<1.0	24.4	92.1
EXT-4	<10.0	143	123	1.64	<10.0	2.34	270
Trench	Not sampled due to pump offline						
June 17, 2024							
EXT-2R	Not sampled due to pump offline						
EXT-3R	<1.0	2.12	66.8	1.34	<1.0	24.1	94.4
EXT-4	<10.0	151	126	3.10	<10.0	<10.0	280
Trench	Not sampled due to pump offline						
September 10, 2024							
EXT-2R	Not sampled due to pump offline						
EXT-3R	<1.0	1.63	53.2	0.820	<1.0	22.1	77.8
EXT-4	<10.0	123	97.4	1.88	<10.0	<10.0	222
Trench	Not sampled due to pump offline						
December 9, 2024							
EXT-2R	<1.0	53.4	31.8	1.25	<1.0	<5.0	86.5
EXT-3R	<1.0	1.42	40.4	1.32	<1.0	15.2	58.3
EXT-4	<10.0	119	95.0	<10.0	<10.0	<10.0	214
Trench	Not sampled due to pump offline						
March 21, 2025							
EXT-2R	<5.0	60.7	39.6	<5.0	<5.0	<5.0	100
EXT-3R	<1.0	1.48	38.9	0.446	<1.0	17.2	58.0
EXT-4	Not sampled due to pump offline						
Trench	<1.0	<1.0	0.155	<1.0	<1.0	<1.0	0.155

Notes

System offline from January 10 through May 17, 2022, for system expansion.
 New extraction wells EXT-2R, EXT-3R, and EXT-4 began operation on May 17, 2022.
 System operated intermittently between May 17 and December 16, 2022, to troubleshoot repairs.
 System offline from December 16, 2022, through June 6, 2023, for repairs.
 System offline from July 7 through August 10, 2023, for repairs.

Abbreviations and Acronyms

< = Indicates concentration less than method reporting limit shown.
 µg/L = micrograms per liter
 1,1-DCE = 1,1-dichloroethene
cis-1,2-DCE = *cis*-1,2-dichloroethene
 cVOCs = chlorinated volatile organic compounds

PCE = tetrachloroethene
 TCE = trichloroethene
trans-1,2-DCE = *trans*-1,2-dichloroethene
 VC = vinyl chloride

Effluent Sample Date	Concentrations in µg/L							pH
	PCE	TCE	<i>cis</i> -1,2-DCE	<i>trans</i> -1,2-DCE	1,1-DCE	VC	Total cVOCs	
June 16, 2020	0.83	86	66	0.43	0.27	0.83	155	—
September 3, 2020	1.3	127	82	0.56	0.34	1.1	213	—
December 2, 2020	0.7	79	70	0.35	<1.0	1.2	151	—
March 25, 2021	0.61	85	75	0.44	<1.0	3.9	165	—
June 10, 2021	0.71	94	69	0.41	0.26	2.4	167	—
September 16, 2021	1.0	113	86	0.49	0.24	2.2	203	—
December 29, 2021	0.7	79	73	0.33	0.47	5.3	158	—
May 17, 2022	0.493	43.6	39.5	0.284	<1.0	<1.0	84	—
June 29, 2022	0.969	72.4	65.7	0.565	0.317	3.66	144	—
July 21, 2022	0.958	75.2	63.8	0.385	<1.0	2.76	143	—
August 9, 2022	0.553	59.8	54.3	0.426	<1.0	4.45	120	—
September 14, 2022	0.919	90.2	73.1	0.841	0.479	10.1	176	—
October 20, 2022	0.920	91.0	71.1	0.605	0.238	0.697	165	—
November 22, 2022	0.897	79.6	67.0	0.554	0.255	3.66	152	—
June 6, 2023	<1.0	20.0	21.9	0.231	<1.0	0.347	42	7.05
September 21, 2023	0.711	66.1	65.7	0.527	<1.0	5.67	139	6.66
December 7, 2023	0.731	54.3	50.7	0.523	<1.0	2.98	109	7.07
February 29, 2024	0.715	75.6	76.6	0.884	0.537	5.77	160	7.57
June 17, 2024	0.527	54.2	79.3	1.09	0.256	14.4	150	7.17
September 10, 2024	<1.0	51.3	72.7	0.912	<1.0	12.5	137	7.33
December 9, 2024	0.348	45.9	47.9	0.290	<1.0	3.26	98	6.77
March 21, 2025	0.422	37.2	38.8	0.317	<1.0	4.22	81	7.03

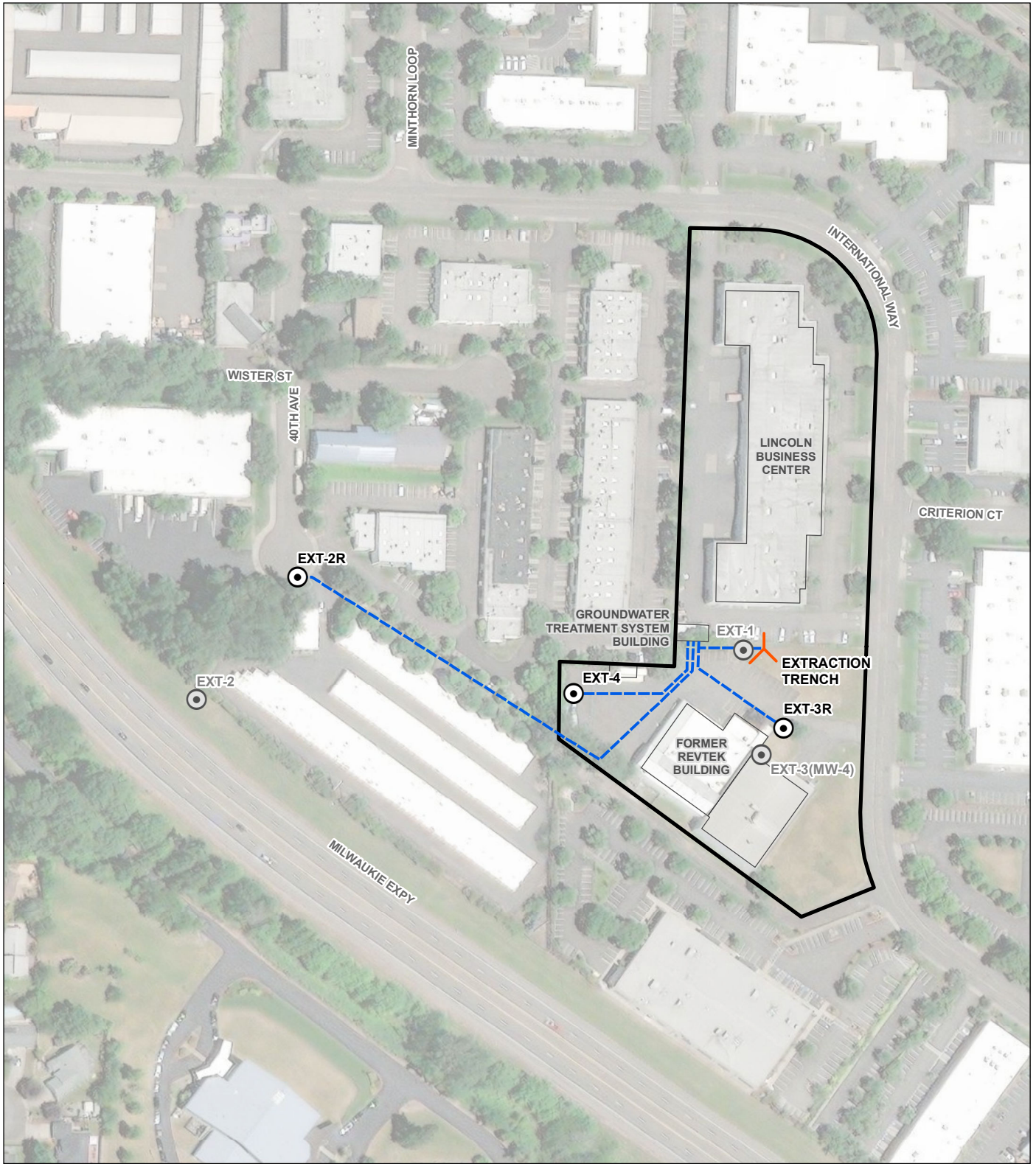
Notes

Final Effluent is the final system effluent discharge to conveyance line to sanitary sewer.
 Total cVOCs are the sum of detected cVOCs plus half the method reporting limit for each non-detect cVOC constituent.
 pH measured using hand held water meter at the time of sampling.

Abbreviations and Acronyms

— =not measured or not recorded	GTS = groundwater extraction and treatment system
µg/L = micrograms per liter	PCE = tetrachloroethene
1,1-DCE = 1,1-dichloroethene	TCE = trichloroethene
<i>cis</i> -1,2-DCE = <i>cis</i> -1,2-dichloroethene	<i>trans</i> -1,2-DCE = <i>trans</i> -1,2-dichloroethene
cVOCs = chlorinated volatile organic compounds	VC = vinyl chloride

Figure



LEGEND

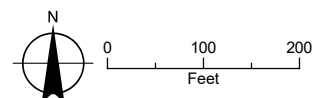
- Extraction Well
- Extraction Well (Out of Service)
- Groundwater Conveyance Line
- Extraction Trench
- Property
- Building

NOTES

EXT-1 and EXT-2 were taken offline in January 2022.
 EXT-3 has been offline since May 2019.
 The new extraction wells (EXT-2R, EXT-3R, AND EXT-4) began operation in May 2022.

FIGURE 1

Extraction Well Plan
 Milwaukie International Way
 Milwaukie, Oregon



ATTACHMENT A

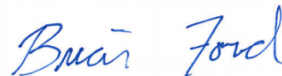
Analytical Laboratory Report and Data Validation

Oregon Dept. of Env. Quality - ODEQ

Sample Delivery Group: L1839203
Samples Received: 03/22/2025
Project Number: 2060.007
Description: Milwaukie International Way

Report To: Mark Pugh
3150 NW 229th St., Suite 150
Hillsboro, OR 97124

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 National

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

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SAMPLE SUMMARY

EXT-2R L1839203-01 GW

Collected by: Alex McCarthy
 Collected date/time: 03/21/25 11:00
 Received date/time: 03/22/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2478166	5	03/28/25 07:59	03/28/25 07:59	DYW	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

EXT-3R L1839203-02 GW

Collected by: Alex McCarthy
 Collected date/time: 03/21/25 10:15
 Received date/time: 03/22/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2478166	1	03/28/25 03:36	03/28/25 03:36	DYW	Mt. Juliet, TN

4 Cn

5 Sr

TRENCH L1839203-03 GW

Collected by: Alex McCarthy
 Collected date/time: 03/21/25 10:30
 Received date/time: 03/22/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2478166	1	03/28/25 03:56	03/28/25 03:56	DYW	Mt. Juliet, TN

6 Qc

7 Gl

8 Al

EFF L1839203-04 WW

Collected by: Alex McCarthy
 Collected date/time: 03/21/25 10:45
 Received date/time: 03/22/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 624.1	WG2479270	1	03/30/25 04:55	03/30/25 04:55	DYW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 624.1	WG2480394	1	04/01/25 20:43	04/01/25 20:43	JHH	Mt. Juliet, TN

9 Sc

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

Volatile Organic Compounds (GC/MS) by Method 624.1/8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	C3	56.5	250	5	03/28/2025 07:59	WG2478166
Acrolein	U	C3	12.7	250	5	03/28/2025 07:59	WG2478166
Acrylonitrile	U		3.36	50.0	5	03/28/2025 07:59	WG2478166
Benzene	U		0.471	5.00	5	03/28/2025 07:59	WG2478166
Bromobenzene	U		0.590	5.00	5	03/28/2025 07:59	WG2478166
Bromodichloromethane	U		0.680	5.00	5	03/28/2025 07:59	WG2478166
Bromoform	U		0.645	5.00	5	03/28/2025 07:59	WG2478166
Bromomethane	U		3.03	25.0	5	03/28/2025 07:59	WG2478166
n-Butylbenzene	U		0.785	5.00	5	03/28/2025 07:59	WG2478166
sec-Butylbenzene	U		0.625	5.00	5	03/28/2025 07:59	WG2478166
tert-Butylbenzene	U		0.635	5.00	5	03/28/2025 07:59	WG2478166
Carbon disulfide	U		0.481	5.00	5	03/28/2025 07:59	WG2478166
Carbon tetrachloride	U		0.640	5.00	5	03/28/2025 07:59	WG2478166
Chlorobenzene	U		0.580	5.00	5	03/28/2025 07:59	WG2478166
Chlorodibromomethane	U		0.700	5.00	5	03/28/2025 07:59	WG2478166
Chloroethane	U		0.960	25.0	5	03/28/2025 07:59	WG2478166
Chloroform	U		0.555	25.0	5	03/28/2025 07:59	WG2478166
Chloromethane	U		4.80	12.5	5	03/28/2025 07:59	WG2478166
2-Chlorotoluene	U		0.530	5.00	5	03/28/2025 07:59	WG2478166
4-Chlorotoluene	U		0.570	5.00	5	03/28/2025 07:59	WG2478166
1,2-Dibromo-3-Chloropropane	U		1.38	25.0	5	03/28/2025 07:59	WG2478166
1,2-Dibromoethane	U		0.630	5.00	5	03/28/2025 07:59	WG2478166
Dibromomethane	U		0.610	5.00	5	03/28/2025 07:59	WG2478166
1,2-Dichlorobenzene	U		0.535	5.00	5	03/28/2025 07:59	WG2478166
1,3-Dichlorobenzene	U		0.550	5.00	5	03/28/2025 07:59	WG2478166
1,4-Dichlorobenzene	U		0.600	5.00	5	03/28/2025 07:59	WG2478166
Dichlorodifluoromethane	U		1.87	25.0	5	03/28/2025 07:59	WG2478166
1,1-Dichloroethane	U		0.500	5.00	5	03/28/2025 07:59	WG2478166
1,2-Dichloroethane	U		0.409	5.00	5	03/28/2025 07:59	WG2478166
1,1-Dichloroethene	U		0.940	5.00	5	03/28/2025 07:59	WG2478166
cis-1,2-Dichloroethene	39.6		0.630	5.00	5	03/28/2025 07:59	WG2478166
trans-1,2-Dichloroethene	U		0.745	5.00	5	03/28/2025 07:59	WG2478166
1,2-Dichloropropane	U		0.745	5.00	5	03/28/2025 07:59	WG2478166
1,1-Dichloropropene	U		0.710	5.00	5	03/28/2025 07:59	WG2478166
1,3-Dichloropropane	U		0.550	5.00	5	03/28/2025 07:59	WG2478166
cis-1,3-Dichloropropene	U		0.555	5.00	5	03/28/2025 07:59	WG2478166
trans-1,3-Dichloropropene	U		0.590	5.00	5	03/28/2025 07:59	WG2478166
2,2-Dichloropropane	U	C3	0.805	5.00	5	03/28/2025 07:59	WG2478166
Di-isopropyl ether	U		0.525	5.00	5	03/28/2025 07:59	WG2478166
Ethylbenzene	U		0.685	5.00	5	03/28/2025 07:59	WG2478166
Hexachloro-1,3-butadiene	U		1.69	5.00	5	03/28/2025 07:59	WG2478166
Isopropylbenzene	U		0.525	5.00	5	03/28/2025 07:59	WG2478166
p-Isopropyltoluene	U		0.600	5.00	5	03/28/2025 07:59	WG2478166
2-Butanone (MEK)	U		5.95	50.0	5	03/28/2025 07:59	WG2478166
Methylene Chloride	U		2.15	25.0	5	03/28/2025 07:59	WG2478166
4-Methyl-2-pentanone (MIBK)	U		2.39	50.0	5	03/28/2025 07:59	WG2478166
Methyl tert-butyl ether	U		0.505	5.00	5	03/28/2025 07:59	WG2478166
Naphthalene	U		5.00	25.0	5	03/28/2025 07:59	WG2478166
n-Propylbenzene	U		0.497	5.00	5	03/28/2025 07:59	WG2478166
Styrene	U		0.590	5.00	5	03/28/2025 07:59	WG2478166
1,1,1,2-Tetrachloroethane	U		0.735	5.00	5	03/28/2025 07:59	WG2478166
1,1,2,2-Tetrachloroethane	U		0.665	5.00	5	03/28/2025 07:59	WG2478166
1,1,2-Trichlorotrifluoroethane	U		0.900	5.00	5	03/28/2025 07:59	WG2478166
Tetrachloroethene	U		1.50	5.00	5	03/28/2025 07:59	WG2478166
Toluene	U		1.39	5.00	5	03/28/2025 07:59	WG2478166
1,2,3-Trichlorobenzene	U		1.15	5.00	5	03/28/2025 07:59	WG2478166

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 624.1/8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	U		2.41	5.00	5	03/28/2025 07:59	WG2478166
1,1,1-Trichloroethane	U		0.745	5.00	5	03/28/2025 07:59	WG2478166
1,1,2-Trichloroethane	U		0.790	5.00	5	03/28/2025 07:59	WG2478166
Trichloroethene	60.7		0.950	5.00	5	03/28/2025 07:59	WG2478166
Trichlorofluoromethane	U		0.800	25.0	5	03/28/2025 07:59	WG2478166
1,2,3-Trichloropropane	U		1.19	12.5	5	03/28/2025 07:59	WG2478166
1,2,4-Trimethylbenzene	U		1.61	5.00	5	03/28/2025 07:59	WG2478166
1,2,3-Trimethylbenzene	U		0.520	5.00	5	03/28/2025 07:59	WG2478166
1,3,5-Trimethylbenzene	U		0.520	5.00	5	03/28/2025 07:59	WG2478166
Vinyl chloride	U		1.17	5.00	5	03/28/2025 07:59	WG2478166
Xylenes, Total	U		0.870	15.0	5	03/28/2025 07:59	WG2478166
(S) Toluene-d8	108			80.0-120		03/28/2025 07:59	WG2478166
(S) 4-Bromofluorobenzene	101			77.0-126		03/28/2025 07:59	WG2478166
(S) 1,2-Dichloroethane-d4	93.1			70.0-130		03/28/2025 07:59	WG2478166

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 624.1/8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	C3	11.3	50.0	1	03/28/2025 03:36	WG2478166
Acrolein	U	C3	2.54	50.0	1	03/28/2025 03:36	WG2478166
Acrylonitrile	U		0.671	10.0	1	03/28/2025 03:36	WG2478166
Benzene	U		0.0941	1.00	1	03/28/2025 03:36	WG2478166
Bromobenzene	U		0.118	1.00	1	03/28/2025 03:36	WG2478166
Bromodichloromethane	U		0.136	1.00	1	03/28/2025 03:36	WG2478166
Bromoform	U		0.129	1.00	1	03/28/2025 03:36	WG2478166
Bromomethane	U		0.605	5.00	1	03/28/2025 03:36	WG2478166
n-Butylbenzene	U		0.157	1.00	1	03/28/2025 03:36	WG2478166
sec-Butylbenzene	U		0.125	1.00	1	03/28/2025 03:36	WG2478166
tert-Butylbenzene	U		0.127	1.00	1	03/28/2025 03:36	WG2478166
Carbon disulfide	U		0.0962	1.00	1	03/28/2025 03:36	WG2478166
Carbon tetrachloride	U		0.128	1.00	1	03/28/2025 03:36	WG2478166
Chlorobenzene	U		0.116	1.00	1	03/28/2025 03:36	WG2478166
Chlorodibromomethane	U		0.140	1.00	1	03/28/2025 03:36	WG2478166
Chloroethane	U		0.192	5.00	1	03/28/2025 03:36	WG2478166
Chloroform	U		0.111	5.00	1	03/28/2025 03:36	WG2478166
Chloromethane	U		0.960	2.50	1	03/28/2025 03:36	WG2478166
2-Chlorotoluene	U		0.106	1.00	1	03/28/2025 03:36	WG2478166
4-Chlorotoluene	U		0.114	1.00	1	03/28/2025 03:36	WG2478166
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/28/2025 03:36	WG2478166
1,2-Dibromoethane	U		0.126	1.00	1	03/28/2025 03:36	WG2478166
Dibromomethane	U		0.122	1.00	1	03/28/2025 03:36	WG2478166
1,2-Dichlorobenzene	U		0.107	1.00	1	03/28/2025 03:36	WG2478166
1,3-Dichlorobenzene	U		0.110	1.00	1	03/28/2025 03:36	WG2478166
1,4-Dichlorobenzene	U		0.120	1.00	1	03/28/2025 03:36	WG2478166
Dichlorodifluoromethane	U		0.374	5.00	1	03/28/2025 03:36	WG2478166
1,1-Dichloroethane	U		0.100	1.00	1	03/28/2025 03:36	WG2478166
1,2-Dichloroethane	U		0.0819	1.00	1	03/28/2025 03:36	WG2478166
1,1-Dichloroethene	U		0.188	1.00	1	03/28/2025 03:36	WG2478166
cis-1,2-Dichloroethene	38.9		0.126	1.00	1	03/28/2025 03:36	WG2478166
trans-1,2-Dichloroethene	0.446	J	0.149	1.00	1	03/28/2025 03:36	WG2478166
1,2-Dichloropropane	U		0.149	1.00	1	03/28/2025 03:36	WG2478166
1,1-Dichloropropene	U		0.142	1.00	1	03/28/2025 03:36	WG2478166
1,3-Dichloropropane	U		0.110	1.00	1	03/28/2025 03:36	WG2478166
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/28/2025 03:36	WG2478166
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/28/2025 03:36	WG2478166
2,2-Dichloropropane	U	C3	0.161	1.00	1	03/28/2025 03:36	WG2478166
Di-isopropyl ether	U		0.105	1.00	1	03/28/2025 03:36	WG2478166
Ethylbenzene	U		0.137	1.00	1	03/28/2025 03:36	WG2478166
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/28/2025 03:36	WG2478166
Isopropylbenzene	U		0.105	1.00	1	03/28/2025 03:36	WG2478166
p-Isopropyltoluene	U		0.120	1.00	1	03/28/2025 03:36	WG2478166
2-Butanone (MEK)	U		1.19	10.0	1	03/28/2025 03:36	WG2478166
Methylene Chloride	U		0.430	5.00	1	03/28/2025 03:36	WG2478166
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/28/2025 03:36	WG2478166
Methyl tert-butyl ether	U		0.101	1.00	1	03/28/2025 03:36	WG2478166
Naphthalene	U		1.00	5.00	1	03/28/2025 03:36	WG2478166
n-Propylbenzene	U		0.0993	1.00	1	03/28/2025 03:36	WG2478166
Styrene	U		0.118	1.00	1	03/28/2025 03:36	WG2478166
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/28/2025 03:36	WG2478166
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/28/2025 03:36	WG2478166
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/28/2025 03:36	WG2478166
Tetrachloroethene	U		0.300	1.00	1	03/28/2025 03:36	WG2478166
Toluene	U		0.278	1.00	1	03/28/2025 03:36	WG2478166
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/28/2025 03:36	WG2478166

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 624.1/8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	U		0.481	1.00	1	03/28/2025 03:36	WG2478166
1,1,1-Trichloroethane	U		0.149	1.00	1	03/28/2025 03:36	WG2478166
1,1,2-Trichloroethane	U		0.158	1.00	1	03/28/2025 03:36	WG2478166
Trichloroethene	1.48		0.190	1.00	1	03/28/2025 03:36	WG2478166
Trichlorofluoromethane	U		0.160	5.00	1	03/28/2025 03:36	WG2478166
1,2,3-Trichloropropane	U		0.237	2.50	1	03/28/2025 03:36	WG2478166
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/28/2025 03:36	WG2478166
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/28/2025 03:36	WG2478166
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/28/2025 03:36	WG2478166
Vinyl chloride	17.2		0.234	1.00	1	03/28/2025 03:36	WG2478166
Xylenes, Total	U		0.174	3.00	1	03/28/2025 03:36	WG2478166
(S) Toluene-d8	107			80.0-120		03/28/2025 03:36	WG2478166
(S) 4-Bromofluorobenzene	99.9			77.0-126		03/28/2025 03:36	WG2478166
(S) 1,2-Dichloroethane-d4	93.6			70.0-130		03/28/2025 03:36	WG2478166

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

TRENCH

SAMPLE RESULTS - 03

Collected date/time: 03/21/25 10:30

L1839203

Volatile Organic Compounds (GC/MS) by Method 624.1/8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U	C3	11.3	50.0	1	03/28/2025 03:56	WG2478166
Acrolein	U	C3	2.54	50.0	1	03/28/2025 03:56	WG2478166
Acrylonitrile	U		0.671	10.0	1	03/28/2025 03:56	WG2478166
Benzene	U		0.0941	1.00	1	03/28/2025 03:56	WG2478166
Bromobenzene	U		0.118	1.00	1	03/28/2025 03:56	WG2478166
Bromodichloromethane	U		0.136	1.00	1	03/28/2025 03:56	WG2478166
Bromoform	U		0.129	1.00	1	03/28/2025 03:56	WG2478166
Bromomethane	U		0.605	5.00	1	03/28/2025 03:56	WG2478166
n-Butylbenzene	U		0.157	1.00	1	03/28/2025 03:56	WG2478166
sec-Butylbenzene	U		0.125	1.00	1	03/28/2025 03:56	WG2478166
tert-Butylbenzene	U		0.127	1.00	1	03/28/2025 03:56	WG2478166
Carbon disulfide	U		0.0962	1.00	1	03/28/2025 03:56	WG2478166
Carbon tetrachloride	U		0.128	1.00	1	03/28/2025 03:56	WG2478166
Chlorobenzene	U		0.116	1.00	1	03/28/2025 03:56	WG2478166
Chlorodibromomethane	U		0.140	1.00	1	03/28/2025 03:56	WG2478166
Chloroethane	U		0.192	5.00	1	03/28/2025 03:56	WG2478166
Chloroform	U		0.111	5.00	1	03/28/2025 03:56	WG2478166
Chloromethane	U		0.960	2.50	1	03/28/2025 03:56	WG2478166
2-Chlorotoluene	U		0.106	1.00	1	03/28/2025 03:56	WG2478166
4-Chlorotoluene	U		0.114	1.00	1	03/28/2025 03:56	WG2478166
1,2-Dibromo-3-Chloropropane	U		0.276	5.00	1	03/28/2025 03:56	WG2478166
1,2-Dibromoethane	U		0.126	1.00	1	03/28/2025 03:56	WG2478166
Dibromomethane	U		0.122	1.00	1	03/28/2025 03:56	WG2478166
1,2-Dichlorobenzene	U		0.107	1.00	1	03/28/2025 03:56	WG2478166
1,3-Dichlorobenzene	U		0.110	1.00	1	03/28/2025 03:56	WG2478166
1,4-Dichlorobenzene	U		0.120	1.00	1	03/28/2025 03:56	WG2478166
Dichlorodifluoromethane	U		0.374	5.00	1	03/28/2025 03:56	WG2478166
1,1-Dichloroethane	U		0.100	1.00	1	03/28/2025 03:56	WG2478166
1,2-Dichloroethane	U		0.0819	1.00	1	03/28/2025 03:56	WG2478166
1,1-Dichloroethene	U		0.188	1.00	1	03/28/2025 03:56	WG2478166
cis-1,2-Dichloroethene	0.155	J	0.126	1.00	1	03/28/2025 03:56	WG2478166
trans-1,2-Dichloroethene	U		0.149	1.00	1	03/28/2025 03:56	WG2478166
1,2-Dichloropropane	U		0.149	1.00	1	03/28/2025 03:56	WG2478166
1,1-Dichloropropene	U		0.142	1.00	1	03/28/2025 03:56	WG2478166
1,3-Dichloropropane	U		0.110	1.00	1	03/28/2025 03:56	WG2478166
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/28/2025 03:56	WG2478166
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/28/2025 03:56	WG2478166
2,2-Dichloropropane	U	C3	0.161	1.00	1	03/28/2025 03:56	WG2478166
Di-isopropyl ether	U		0.105	1.00	1	03/28/2025 03:56	WG2478166
Ethylbenzene	U		0.137	1.00	1	03/28/2025 03:56	WG2478166
Hexachloro-1,3-butadiene	U		0.337	1.00	1	03/28/2025 03:56	WG2478166
Isopropylbenzene	U		0.105	1.00	1	03/28/2025 03:56	WG2478166
p-Isopropyltoluene	U		0.120	1.00	1	03/28/2025 03:56	WG2478166
2-Butanone (MEK)	U		1.19	10.0	1	03/28/2025 03:56	WG2478166
Methylene Chloride	U		0.430	5.00	1	03/28/2025 03:56	WG2478166
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0	1	03/28/2025 03:56	WG2478166
Methyl tert-butyl ether	U		0.101	1.00	1	03/28/2025 03:56	WG2478166
Naphthalene	U		1.00	5.00	1	03/28/2025 03:56	WG2478166
n-Propylbenzene	U		0.0993	1.00	1	03/28/2025 03:56	WG2478166
Styrene	U		0.118	1.00	1	03/28/2025 03:56	WG2478166
1,1,1,2-Tetrachloroethane	U		0.147	1.00	1	03/28/2025 03:56	WG2478166
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/28/2025 03:56	WG2478166
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00	1	03/28/2025 03:56	WG2478166
Tetrachloroethene	U		0.300	1.00	1	03/28/2025 03:56	WG2478166
Toluene	U		0.278	1.00	1	03/28/2025 03:56	WG2478166
1,2,3-Trichlorobenzene	U		0.230	1.00	1	03/28/2025 03:56	WG2478166

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

ACCOUNT:

Oregon Dept. of Env. Quality - ODEQ

PROJECT:

2060.007

SDG:

L1839203

DATE/TIME:

04/04/25 14:03

PAGE:

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TRENCH

SAMPLE RESULTS - 03

Collected date/time: 03/21/25 10:30

L1839203

Volatile Organic Compounds (GC/MS) by Method 624.1/8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	U		0.481	1.00	1	03/28/2025 03:56	WG2478166
1,1,1-Trichloroethane	U		0.149	1.00	1	03/28/2025 03:56	WG2478166
1,1,2-Trichloroethane	U		0.158	1.00	1	03/28/2025 03:56	WG2478166
Trichloroethene	U		0.190	1.00	1	03/28/2025 03:56	WG2478166
Trichlorofluoromethane	U		0.160	5.00	1	03/28/2025 03:56	WG2478166
1,2,3-Trichloropropane	U		0.237	2.50	1	03/28/2025 03:56	WG2478166
1,2,4-Trimethylbenzene	U		0.322	1.00	1	03/28/2025 03:56	WG2478166
1,2,3-Trimethylbenzene	U		0.104	1.00	1	03/28/2025 03:56	WG2478166
1,3,5-Trimethylbenzene	U		0.104	1.00	1	03/28/2025 03:56	WG2478166
Vinyl chloride	U		0.234	1.00	1	03/28/2025 03:56	WG2478166
Xylenes, Total	U		0.174	3.00	1	03/28/2025 03:56	WG2478166
(S) Toluene-d8	106			80.0-120		03/28/2025 03:56	WG2478166
(S) 4-Bromofluorobenzene	99.2			77.0-126		03/28/2025 03:56	WG2478166
(S) 1,2-Dichloroethane-d4	92.8			70.0-130		03/28/2025 03:56	WG2478166

- 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 624.1/8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.0941	1.00	1	03/30/2025 04:55	WG2479270
Bromodichloromethane	U		0.136	1.00	1	03/30/2025 04:55	WG2479270
Bromoform	U		0.129	1.00	1	03/30/2025 04:55	WG2479270
Bromomethane	U		0.605	5.00	1	03/30/2025 04:55	WG2479270
Carbon tetrachloride	U		0.128	1.00	1	03/30/2025 04:55	WG2479270
Chlorobenzene	U		0.116	1.00	1	03/30/2025 04:55	WG2479270
Chlorodibromomethane	U		0.140	1.00	1	03/30/2025 04:55	WG2479270
Chloroethane	U		0.192	5.00	1	03/30/2025 04:55	WG2479270
Chloroform	U		0.111	5.00	1	03/30/2025 04:55	WG2479270
Chloromethane	U		0.960	2.50	1	03/30/2025 04:55	WG2479270
1,2-Dichlorobenzene	U		0.107	1.00	1	03/30/2025 04:55	WG2479270
1,3-Dichlorobenzene	U		0.110	1.00	1	03/30/2025 04:55	WG2479270
1,4-Dichlorobenzene	U		0.120	1.00	1	03/30/2025 04:55	WG2479270
Dichlorodifluoromethane	U		0.374	5.00	1	03/30/2025 04:55	WG2479270
1,1-Dichloroethane	U		0.100	1.00	1	03/30/2025 04:55	WG2479270
1,2-Dichloroethane	U		0.0819	1.00	1	03/30/2025 04:55	WG2479270
1,1-Dichloroethene	U		0.188	1.00	1	03/30/2025 04:55	WG2479270
cis-1,2-Dichloroethene	38.8		0.126	1.00	1	03/30/2025 04:55	WG2479270
trans-1,2-Dichloroethene	0.317	J	0.149	1.00	1	03/30/2025 04:55	WG2479270
1,2-Dichloropropane	U		0.149	1.00	1	03/30/2025 04:55	WG2479270
cis-1,3-Dichloropropene	U		0.111	1.00	1	03/30/2025 04:55	WG2479270
trans-1,3-Dichloropropene	U		0.118	1.00	1	03/30/2025 04:55	WG2479270
Ethylbenzene	U		0.137	1.00	1	03/30/2025 04:55	WG2479270
Methylene Chloride	U		0.430	5.00	1	03/30/2025 04:55	WG2479270
Methyl tert-butyl ether	U		0.101	1.00	1	03/30/2025 04:55	WG2479270
Naphthalene	U	J4	1.00	5.00	1	03/30/2025 04:55	WG2479270
1,1,2,2-Tetrachloroethane	U		0.133	1.00	1	03/30/2025 04:55	WG2479270
Tetrachloroethene	0.422	J	0.300	1.00	1	04/01/2025 20:43	WG2480394
Toluene	U		0.278	1.00	1	03/30/2025 04:55	WG2479270
1,1,1-Trichloroethane	U		0.149	1.00	1	03/30/2025 04:55	WG2479270
1,1,2-Trichloroethane	U		0.158	1.00	1	03/30/2025 04:55	WG2479270
Trichloroethene	37.2		0.190	1.00	1	03/30/2025 04:55	WG2479270
Trichlorofluoromethane	U		0.160	5.00	1	03/30/2025 04:55	WG2479270
Vinyl chloride	4.22		0.234	1.00	1	03/30/2025 04:55	WG2479270
(S) Toluene-d8	112			80.0-120		03/30/2025 04:55	WG2479270
(S) Toluene-d8	102			80.0-120		04/01/2025 20:43	WG2480394
(S) 4-Bromofluorobenzene	94.2			80.0-120		03/30/2025 04:55	WG2479270
(S) 4-Bromofluorobenzene	99.7			80.0-120		04/01/2025 20:43	WG2480394
(S) 1,2-Dichloroethane-d4	106			70.0-130		03/30/2025 04:55	WG2479270
(S) 1,2-Dichloroethane-d4	96.9			70.0-130		04/01/2025 20:43	WG2480394

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R4193343-3 03/29/25 22:09

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.0941	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
Ethylbenzene	U		0.137	1.00
Methylene Chloride	U		0.430	5.00
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
Toluene	U		0.278	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
Vinyl chloride	U		0.234	1.00
(S) Toluene-d8	109			80.0-120
(S) 4-Bromofluorobenzene	91.6			80.0-120
(S) 1,2-Dichloroethane-d4	106			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

(LCS) R4193343-1 03/29/25 21:05 • (LCSD) R4193343-2 03/29/25 21:26

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	4.46	4.94	89.2	98.8	65.0-135			10.2	20
Bromodichloromethane	5.00	4.73	4.90	94.6	98.0	65.0-135			3.53	20
Bromoform	5.00	5.18	5.31	104	106	70.0-130			2.48	20
Bromomethane	5.00	8.98	8.99	180	180	15.0-185			0.111	20
Carbon tetrachloride	5.00	4.71	5.15	94.2	103	70.0-130			8.92	20
Chlorobenzene	5.00	5.24	5.51	105	110	65.0-135			5.02	20
Chlorodibromomethane	5.00	5.39	5.57	108	111	70.0-135			3.28	20
Chloroethane	5.00	4.24	4.68	84.8	93.6	40.0-160	U	U	9.87	20
Chloroform	5.00	4.43	4.73	88.6	94.6	70.0-135	U	U	6.55	20
Chloromethane	5.00	4.62	5.17	92.4	103	0.100-205			11.2	20
1,2-Dichlorobenzene	5.00	5.34	5.61	107	112	65.0-135			4.93	20
1,3-Dichlorobenzene	5.00	5.29	5.63	106	113	70.0-130			6.23	20
1,4-Dichlorobenzene	5.00	5.29	5.56	106	111	65.0-135			4.98	20
Dichlorodifluoromethane	5.00	4.52	5.05	90.4	101	49.0-155	U		11.1	20
1,1-Dichloroethane	5.00	4.50	4.89	90.0	97.8	70.0-130			8.31	20
1,2-Dichloroethane	5.00	4.49	4.73	89.8	94.6	70.0-130			5.21	20
1,1-Dichloroethene	5.00	4.50	4.80	90.0	96.0	50.0-150			6.45	20
cis-1,2-Dichloroethene	5.00	4.30	4.86	86.0	97.2	73.0-120			12.2	20
trans-1,2-Dichloroethene	5.00	4.32	4.79	86.4	95.8	70.0-130			10.3	20
1,2-Dichloropropane	5.00	4.40	4.73	88.0	94.6	35.0-165			7.23	20
cis-1,3-Dichloropropene	5.00	4.43	4.67	88.6	93.4	25.0-175			5.27	20
trans-1,3-Dichloropropene	5.00	4.97	5.30	99.4	106	50.0-150			6.43	20
Ethylbenzene	5.00	5.15	5.53	103	111	60.0-140			7.12	20
Methylene Chloride	5.00	4.55	4.89	91.0	97.8	60.0-140	U	U	7.20	20
Methyl tert-butyl ether	5.00	4.59	4.61	91.8	92.2	64.0-123			0.435	20
Naphthalene	5.00	7.17	7.42	143	148	62.0-128	J4	J4	3.43	20
1,1,2,2-Tetrachloroethane	5.00	4.86	5.06	97.2	101	60.0-140			4.03	20
Toluene	5.00	5.29	5.59	106	112	70.0-130			5.51	20
1,1,1-Trichloroethane	5.00	4.41	5.00	88.2	100	70.0-130			12.5	20
1,1,2-Trichloroethane	5.00	5.48	5.52	110	110	70.0-130			0.727	20
Trichloroethene	5.00	4.89	5.12	97.8	102	65.0-135			4.60	20
Trichlorofluoromethane	5.00	5.00	5.33	100	107	50.0-150	U		6.39	20
Vinyl chloride	5.00	4.45	5.04	89.0	101	5.00-195			12.4	20
(S) Toluene-d8				110	111	80.0-120				
(S) 4-Bromofluorobenzene				94.8	95.9	80.0-120				
(S) 1,2-Dichloroethane-d4				105	106	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) R4194290-4 04/01/25 17:22

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Tetrachloroethene	U		0.300	1.00
(S) Toluene-d8	102			80.0-120
(S) 4-Bromofluorobenzene	97.8			80.0-120
(S) 1,2-Dichloroethane-d4	102			70.0-130

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

(LCS) R4194290-1 04/01/25 15:24 • (LCSD) R4194290-2 04/01/25 15:47

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 %
Tetrachloroethene	5.00	4.52	4.40	90.4	88.0	70.0-130			2.69	20
(S) Toluene-d8				98.0	101	80.0-120				
(S) 4-Bromofluorobenzene				99.7	100	80.0-120				
(S) 1,2-Dichloroethane-d4				100	96.1	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) R4192867-3 03/28/25 02:35

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Acrolein	U		2.54	50.0
Acrylonitrile	U		0.671	10.0
Benzene	U		0.0941	1.00
Bromobenzene	U		0.118	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
n-Butylbenzene	U		0.157	1.00
sec-Butylbenzene	U		0.125	1.00
tert-Butylbenzene	U		0.127	1.00
Carbon disulfide	U		0.0962	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
2-Chlorotoluene	U		0.106	1.00
4-Chlorotoluene	U		0.114	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
Dibromomethane	U		0.122	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
1,1-Dichloropropene	U		0.142	1.00
1,3-Dichloropropane	U		0.110	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
2,2-Dichloropropane	U		0.161	1.00
Di-isopropyl ether	U		0.105	1.00
Ethylbenzene	U		0.137	1.00

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R4192867-3 03/28/25 02:35

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Hexachloro-1,3-butadiene	U		0.337	1.00
Isopropylbenzene	U		0.105	1.00
p-Isopropyltoluene	U		0.120	1.00
2-Butanone (MEK)	U		1.19	10.0
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Naphthalene	U		1.00	5.00
n-Propylbenzene	U		0.0993	1.00
Styrene	U		0.118	1.00
1,1,1,2-Tetrachloroethane	U		0.147	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
Tetrachloroethene	U		0.300	1.00
Toluene	U		0.278	1.00
1,2,3-Trichlorobenzene	U		0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,2,3-Trichloropropane	U		0.237	2.50
1,2,4-Trimethylbenzene	U		0.322	1.00
1,2,3-Trimethylbenzene	U		0.104	1.00
1,3,5-Trimethylbenzene	U		0.104	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	107			80.0-120
(S) 4-Bromofluorobenzene	99.6			77.0-126
(S) 1,2-Dichloroethane-d4	91.9			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

(LCS) R4192867-1 03/28/25 01:34 • (LCSD) R4192867-2 03/28/25 01:55

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	%	%	%			%	%
Acetone	25.0	16.3	17.1	65.2	68.4	19.0-160	J	J	4.79	27
Acrolein	25.0	15.8	16.0	63.2	64.0	10.0-160	J	J	1.26	26
Acrylonitrile	25.0	22.5	23.0	90.0	92.0	55.0-149			2.20	20

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

(LCS) R4192867-1 03/28/25 01:34 • (LCSD) R4192867-2 03/28/25 01:55

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	5.00	4.73	4.76	94.6	95.2	70.0-123			0.632	20
Bromobenzene	5.00	4.42	4.34	88.4	86.8	73.0-121			1.83	20
Bromodichloromethane	5.00	4.39	4.54	87.8	90.8	75.0-120			3.36	20
Bromoform	5.00	4.69	4.68	93.8	93.6	68.0-132			0.213	20
Bromomethane	5.00	6.27	6.73	125	135	10.0-160			7.08	25
n-Butylbenzene	5.00	4.29	4.39	85.8	87.8	73.0-125			2.30	20
sec-Butylbenzene	5.00	4.61	4.66	92.2	93.2	75.0-125			1.08	20
tert-Butylbenzene	5.00	4.64	4.59	92.8	91.8	76.0-124			1.08	20
Carbon disulfide	5.00	4.42	4.46	88.4	89.2	61.0-128			0.901	20
Carbon tetrachloride	5.00	4.65	4.64	93.0	92.8	68.0-126			0.215	20
Chlorobenzene	5.00	5.18	5.12	104	102	80.0-121			1.17	20
Chlorodibromomethane	5.00	4.71	4.82	94.2	96.4	77.0-125			2.31	20
Chloroethane	5.00	5.40	5.64	108	113	47.0-150			4.35	20
Chloroform	5.00	4.68	4.52	93.6	90.4	73.0-120	U	U	3.48	20
Chloromethane	5.00	4.37	4.50	87.4	90.0	41.0-142			2.93	20
2-Chlorotoluene	5.00	4.38	4.45	87.6	89.0	76.0-123			1.59	20
4-Chlorotoluene	5.00	4.45	4.41	89.0	88.2	75.0-122			0.903	20
1,2-Dibromo-3-Chloropropane	5.00	4.22	4.41	84.4	88.2	58.0-134	U	U	4.40	20
1,2-Dibromoethane	5.00	5.08	5.17	102	103	80.0-122			1.76	20
Dibromomethane	5.00	4.91	4.89	98.2	97.8	80.0-120			0.408	20
1,2-Dichlorobenzene	5.00	5.00	4.93	100	98.6	79.0-121			1.41	20
1,3-Dichlorobenzene	5.00	4.75	4.78	95.0	95.6	79.0-120			0.630	20
1,4-Dichlorobenzene	5.00	4.99	4.96	99.8	99.2	79.0-120			0.603	20
Dichlorodifluoromethane	5.00	5.05	5.21	101	104	51.0-149			3.12	20
1,1-Dichloroethane	5.00	4.65	4.60	93.0	92.0	70.0-126			1.08	20
1,2-Dichloroethane	5.00	4.54	4.56	90.8	91.2	70.0-128			0.440	20
1,1-Dichloroethene	5.00	4.44	4.35	88.8	87.0	71.0-124			2.05	20
cis-1,2-Dichloroethene	5.00	4.69	4.64	93.8	92.8	73.0-120			1.07	20
trans-1,2-Dichloroethene	5.00	4.48	4.52	89.6	90.4	73.0-120			0.889	20
1,2-Dichloropropane	5.00	4.82	4.68	96.4	93.6	77.0-125			2.95	20
1,1-Dichloropropene	5.00	4.65	4.62	93.0	92.4	74.0-126			0.647	20
1,3-Dichloropropane	5.00	5.06	5.13	101	103	80.0-120			1.37	20
cis-1,3-Dichloropropene	5.00	4.31	4.31	86.2	86.2	80.0-123			0.000	20
trans-1,3-Dichloropropene	5.00	4.39	4.34	87.8	86.8	78.0-124			1.15	20
2,2-Dichloropropane	5.00	3.74	3.63	74.8	72.6	58.0-130			2.99	20
Di-isopropyl ether	5.00	4.22	4.17	84.4	83.4	58.0-138			1.19	20
Ethylbenzene	5.00	4.81	4.82	96.2	96.4	79.0-123			0.208	20
Hexachloro-1,3-butadiene	5.00	4.55	4.75	91.0	95.0	54.0-138			4.30	20
Isopropylbenzene	5.00	4.88	4.83	97.6	96.6	76.0-127			1.03	20
p-Isopropyltoluene	5.00	4.48	4.57	89.6	91.4	76.0-125			1.99	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

(LCS) R4192867-1 03/28/25 01:34 • (LCSD) R4192867-2 03/28/25 01:55

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 %
2-Butanone (MEK)	25.0	20.6	21.3	82.4	85.2	44.0-160			3.34	20
Methylene Chloride	5.00	4.80	4.65	96.0	93.0	67.0-120	↓	↓	3.17	20
4-Methyl-2-pentanone (MIBK)	25.0	24.0	23.3	96.0	93.2	68.0-142			2.96	20
Methyl tert-butyl ether	5.00	4.41	4.31	88.2	86.2	68.0-125			2.29	20
Naphthalene	5.00	4.65	4.86	93.0	97.2	54.0-135	↓	↓	4.42	20
n-Propylbenzene	5.00	4.57	4.54	91.4	90.8	77.0-124			0.659	20
Styrene	5.00	4.77	4.73	95.4	94.6	73.0-130			0.842	20
1,1,1,2-Tetrachloroethane	5.00	4.77	4.77	95.4	95.4	75.0-125			0.000	20
1,1,2,2-Tetrachloroethane	5.00	4.53	4.49	90.6	89.8	65.0-130			0.887	20
1,1,2-Trichlorotrifluoroethane	5.00	4.55	4.67	91.0	93.4	69.0-132			2.60	20
Tetrachloroethene	5.00	5.28	5.30	106	106	72.0-132			0.378	20
Toluene	5.00	4.88	4.90	97.6	98.0	79.0-120			0.409	20
1,2,3-Trichlorobenzene	5.00	4.88	5.00	97.6	100	50.0-138			2.43	20
1,2,4-Trichlorobenzene	5.00	4.74	4.88	94.8	97.6	57.0-137			2.91	20
1,1,1-Trichloroethane	5.00	4.66	4.55	93.2	91.0	73.0-124			2.39	20
1,1,2-Trichloroethane	5.00	4.76	4.78	95.2	95.6	80.0-120			0.419	20
Trichloroethene	5.00	5.25	5.14	105	103	78.0-124			2.12	20
Trichlorofluoromethane	5.00	5.37	5.26	107	105	59.0-147			2.07	20
1,2,3-Trichloropropane	5.00	4.83	4.65	96.6	93.0	73.0-130			3.80	20
1,2,4-Trimethylbenzene	5.00	4.47	4.42	89.4	88.4	76.0-121			1.12	20
1,2,3-Trimethylbenzene	5.00	4.57	4.50	91.4	90.0	77.0-120			1.54	20
1,3,5-Trimethylbenzene	5.00	4.48	4.49	89.6	89.8	76.0-122			0.223	20
Vinyl chloride	5.00	5.17	5.29	103	106	67.0-131			2.29	20
Xylenes, Total	15.0	14.7	14.8	98.0	98.7	79.0-123			0.678	20
(S) Toluene-d8				105	104	80.0-120				
(S) 4-Bromofluorobenzene				97.2	97.7	77.0-126				
(S) 1,2-Dichloroethane-d4				93.6	95.1	70.0-130				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1839214-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1839214-06 03/28/25 05:17 • (MS) R4192867-4 03/28/25 09:41 • (MSD) R4192867-5 03/28/25 10:01

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	U	15.5	14.3	62.0	57.2	1	10.0-160			8.05	35
Acrolein	25.0	U	64.1	59.3	256	237	1	10.0-160	J5	J5	7.78	39
Acrylonitrile	25.0	U	26.2	25.2	105	101	1	21.0-160			3.89	32
Benzene	5.00	0.194	5.34	5.25	103	101	1	17.0-158			1.70	27
Bromobenzene	5.00	U	4.68	4.66	93.6	93.2	1	30.0-149			0.428	28
Bromodichloromethane	5.00	U	4.88	4.78	97.6	95.6	1	31.0-150			2.07	27

L1839214-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1839214-06 03/28/25 05:17 • (MS) R4192867-4 03/28/25 09:41 • (MSD) R4192867-5 03/28/25 10:01

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromoform	5.00	U	5.21	5.18	104	104	1	29.0-150			0.577	29
Bromomethane	5.00	U	6.81	7.41	136	148	1	10.0-160			8.44	38
n-Butylbenzene	5.00	U	4.86	4.88	97.2	97.6	1	31.0-150			0.411	30
sec-Butylbenzene	5.00	U	5.09	5.19	102	104	1	33.0-155			1.95	29
tert-Butylbenzene	5.00	U	5.14	5.07	103	101	1	34.0-153			1.37	28
Carbon disulfide	5.00	U	4.60	4.58	92.0	91.6	1	10.0-156			0.436	28
Carbon tetrachloride	5.00	U	5.25	5.13	105	103	1	23.0-159			2.31	28
Chlorobenzene	5.00	U	5.44	5.54	109	111	1	33.0-152			1.82	27
Chlorodibromomethane	5.00	U	5.19	5.11	104	102	1	37.0-149			1.55	27
Chloroethane	5.00	U	6.37	6.24	127	125	1	10.0-160			2.06	30
Chloroform	5.00	4.06	9.28	9.09	104	101	1	29.0-154			2.07	28
Chloromethane	5.00	U	4.66	4.60	93.2	92.0	1	10.0-160			1.30	29
2-Chlorotoluene	5.00	U	4.82	4.86	96.4	97.2	1	32.0-153			0.826	28
4-Chlorotoluene	5.00	U	4.76	4.77	95.2	95.4	1	32.0-150			0.210	28
1,2-Dibromo-3-Chloropropane	5.00	U	4.95	4.99	99.0	99.8	1	22.0-151	U	U	0.805	34
1,2-Dibromoethane	5.00	U	5.55	5.50	111	110	1	34.0-147			0.905	27
Dibromomethane	5.00	U	5.40	5.19	108	104	1	30.0-151			3.97	27
1,2-Dichlorobenzene	5.00	U	5.18	5.23	104	105	1	34.0-149			0.961	28
1,3-Dichlorobenzene	5.00	U	5.16	5.19	103	104	1	36.0-146			0.580	27
1,4-Dichlorobenzene	5.00	U	5.35	5.23	107	105	1	35.0-142			2.27	27
Dichlorodifluoromethane	5.00	U	6.37	6.14	127	123	1	10.0-160			3.68	29
1,1-Dichloroethane	5.00	U	5.00	4.96	100	99.2	1	25.0-158			0.803	27
1,2-Dichloroethane	5.00	U	4.79	4.78	95.8	95.6	1	29.0-151			0.209	27
1,1-Dichloroethene	5.00	U	5.21	5.08	104	102	1	11.0-160			2.53	29
cis-1,2-Dichloroethene	5.00	U	5.18	5.01	104	100	1	10.0-160			3.34	27
trans-1,2-Dichloroethene	5.00	U	4.81	4.95	96.2	99.0	1	17.0-153			2.87	27
1,2-Dichloropropane	5.00	U	4.98	4.88	99.6	97.6	1	30.0-156			2.03	27
1,1-Dichloropropene	5.00	U	5.32	5.08	106	102	1	25.0-158			4.62	27
1,3-Dichloropropane	5.00	U	5.40	5.50	108	110	1	38.0-147			1.83	27
cis-1,3-Dichloropropene	5.00	U	4.51	4.35	90.2	87.0	1	34.0-149			3.61	28
trans-1,3-Dichloropropene	5.00	U	4.57	4.60	91.4	92.0	1	32.0-149			0.654	28
2,2-Dichloropropane	5.00	U	3.95	3.83	79.0	76.6	1	24.0-152			3.08	29
Di-isopropyl ether	5.00	U	4.57	4.38	91.4	87.6	1	21.0-160			4.25	28
Ethylbenzene	5.00	U	5.67	5.39	113	108	1	30.0-155			5.06	27
Hexachloro-1,3-butadiene	5.00	U	4.96	5.19	99.2	104	1	20.0-154			4.53	34
Isopropylbenzene	5.00	U	5.42	5.45	108	109	1	28.0-157			0.552	27
p-Isopropyltoluene	5.00	U	5.04	5.06	101	101	1	30.0-154			0.396	29
2-Butanone (MEK)	25.0	U	19.8	19.4	79.2	77.6	1	10.0-160			2.04	32
Methylene Chloride	5.00	U	4.79	4.70	95.8	94.0	1	23.0-144			1.90	28
4-Methyl-2-pentanone (MIBK)	25.0	U	27.2	26.7	109	107	1	29.0-160			1.86	29

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L1839214-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1839214-06 03/28/25 05:17 • (MS) R4192867-4 03/28/25 09:41 • (MSD) R4192867-5 03/28/25 10:01

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	5.00	U	4.80	4.78	96.0	95.6	1	28.0-150			0.418	29
Naphthalene	5.00	U	5.42	5.23	108	105	1	12.0-156			3.57	35
n-Propylbenzene	5.00	U	4.97	5.02	99.4	100	1	31.0-154			1.00	28
Styrene	5.00	U	5.29	5.15	106	103	1	33.0-155			2.68	28
1,1,1,2-Tetrachloroethane	5.00	U	5.35	5.09	107	102	1	36.0-151			4.98	29
1,1,2,2-Tetrachloroethane	5.00	U	5.07	5.19	101	104	1	33.0-150			2.34	28
1,1,2-Trichlorotrifluoroethane	5.00	U	5.85	5.58	117	112	1	23.0-160			4.72	30
Tetrachloroethene	5.00	U	5.91	5.74	118	115	1	10.0-160			2.92	27
Toluene	5.00	U	5.47	5.41	109	108	1	26.0-154			1.10	28
1,2,3-Trichlorobenzene	5.00	U	5.31	5.34	106	107	1	17.0-150			0.563	36
1,2,4-Trichlorobenzene	5.00	U	5.24	5.15	105	103	1	24.0-150			1.73	33
1,1,1-Trichloroethane	5.00	U	5.25	5.16	105	103	1	23.0-160			1.73	28
1,1,2-Trichloroethane	5.00	U	5.32	5.33	106	107	1	35.0-147			0.188	27
Trichloroethene	5.00	U	5.35	5.20	107	104	1	10.0-160			2.84	25
Trichlorofluoromethane	5.00	U	6.42	6.16	128	123	1	17.0-160			4.13	31
1,2,3-Trichloropropane	5.00	U	5.26	5.34	105	107	1	34.0-151			1.51	29
1,2,4-Trimethylbenzene	5.00	U	4.91	4.94	98.2	98.8	1	26.0-154			0.609	27
1,2,3-Trimethylbenzene	5.00	U	4.95	4.97	99.0	99.4	1	32.0-149			0.403	28
1,3,5-Trimethylbenzene	5.00	U	4.90	4.89	98.0	97.8	1	28.0-153			0.204	27
Vinyl chloride	5.00	U	5.99	5.73	120	115	1	10.0-160			4.44	27
Xylenes, Total	15.0	0.399	16.7	16.4	109	107	1	29.0-154			1.81	28
(S) Toluene-d8					106	106		80.0-120				
(S) 4-Bromofluorobenzene					100	99.9		77.0-126				
(S) 1,2-Dichloroethane-d4					98.4	96.0		70.0-130				

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

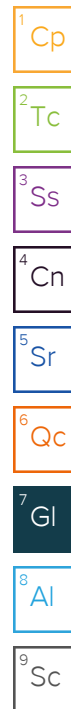
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.



ACCREDITATIONS & LOCATIONS

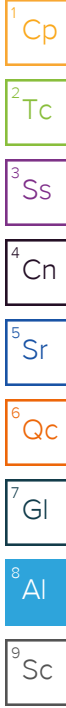
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

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.



State of Oregon Chain of Custody

Agency, Authorized Purchaser or Agent:
GSI Water Solutions for ODEQ

Send Lab Report To: Mark Pugh
Address: 700 NE Multnomah Street, Suite 600
Portland, OR 97232-4100

Tel. #: 503-229-5587
Email: Mark.PUGH@deq.oregon.gov, cmartin@gsiws.com,
amccarthy@gsiws.com, mfaragher@gsiws.com, dbs@gsiws.com

Contract Laboratory Name:

Pace Analytical National
Lab Batch #:
Invoice: ODEQ/Business Office
700 NE Multnomah Street, Suite 600
Portland, OR 97232
Email: DEQEXP@deq.state.or.us

Lab Selection Criteria:

Proximity (if TAT < 48 hrs)
Prior work on same project
Cost (for anticipated analyses)
Other labs disqualified or unable
to perform requested services
Emergency work

Turn Around Time:

10 days (std.)
5 days
72 hours
48 hours
24 hours
Other _____

Project Name: OREGON DEQ-MILWAUKIE INTERNATIONAL WAY

Project #: 2060.007

Sampler Name: Alex McCarthy

Sample Preservative

Solids: MeOH Liquids: HCl	Liquids: HCl & Na2S2O3								
------------------------------	---------------------------	--	--	--	--	--	--	--	--

B180

Requested Analyses

Sample ID#	Collection Date	Collection Time	Matrix	Number of Containers	VOCs by 8260D	VOCs by 624	total												
EXT-2R	3/21/25	1100	AQ	3	X														
EXT-3R	3/21/25	1015	AQ	3	X														
TRENCH EFF	3/21/25	1030	AQ	3	X														
Trip Blank	3/21/25	1045	AQ	3		X													
			AQ	2			X												

L1839203
Comments

-01
-02
-03
-04
-05

Sample Receipt Checklist 3. let. 4 = 4.0

COC Seal Present/Intact: Y N NP
COC Signed/Accurate: Y N NP If Applicable
Bottles arrive intact: Y N VOA Zero Headspace: Y N
Correct bottles used: Y N Pres. Correct/Check: Y N
Sufficient volume sent: Y N
RA Screen <0.5 mR/hr: Y N Condition: NCF OK

NOTES: Contact Alex McCarthy (202.538.4166, amccarthy@gsiws.com) or Chris Martin (503.432.5979, cmartin@gsiws.com) with questions. Include DEQ EDD with final lab report.

Relinquished By: Alex McCarthy	Agency/Agent: GSI WS. Inc	Received By: Alexa Mitchell	Agency/Agent: PACE
Signature: [Signature]	Time & Date: 3/21/25 12:30	Signature: Alexa Mitchell	Time & Date: 3/22/25 0930
Relinquished By:	Agency/Agent:	Received By:	Agency/Agent:
Signature:	Time & Date:	Signature:	Time & Date:

THIS PURCHASE IS SUBMITTED PURSUANT TO STATE OF OREGON SOLICITATION #102-1098-07 AND PRICE AGREEMENT # 8903. THE PRICE AGREEMENT INCLUDING CONTRACT TERMS AND CONDITIONS AND SPECIAL CONTRACT TERMS AND CONDITIONS (T'S & C'S) CONTAINED IN THE PRICE AGREEMENT ARE HEREBY INCORPORATED BY REFERENCE AND SHALL APPLY TO THIS PURCHASE AND SHALL TAKE PRECEDENCE OVER ALL OTHER CONFLICTING T'S AND C'S, EXPRESS OR IMPLIED.

#4041 0489 4687

Data Validation Report

Milwaukie International Way: Quarterly Discharge

April 11, 2025

Prepared by: Mitchell Fargher



GSI Water Solutions, Inc.

650 NE Holladay Street, Suite 900, Portland, OR 97232

Introduction

The data in this abbreviated validation and usability report (U.S. Environmental Protection Agency [EPA] Stage 2A) were reviewed using the guidance presented in the following:

- Project Quality Assurance Project Plan (where required)
- Method Specific Control Limits
- Laboratory Standard Operation Procedures and Control Limits
- EPA's *National Functional Guidelines for Organic Superfund Methods Data Review*, EPA 540-R-20-005, November 2020
- EPA's *National Functional Guidelines for Inorganic Superfund Methods Data Review*, EPA 542-R-20-006, November 2020
- EPA's *National Functional Guidelines for High Resolution Superfund Methods Data Review*, EPA 542-R-20-007, November 2020

Data that are not qualified meet the data quality objectives specified in the referenced documents and can be used for decision-making purposes. Data qualified as estimated (J/UJ) may be used for decision-making purposes but should be used in conjunction with the reason codes assigned to the qualifier for further context. Data that are rejected (R) should not be used for any decision-making purposes due to significant deviations in quality control requirements.

Sample Delivery Group (SDG) Summary

SDG	Event	Analytical Laboratory	Sample Receipt Date	Lab Report Date
L1839203	Quarterly	Pace Analytical	03/22/2025	04/04/2025

Analytical Methods and Technical Holding Times

Analytical Method	Sample Matrix	Technical Holding Time (4 °C)
EPA 8260D	Aqueous	14 Days
EPA 624.1	Aqueous	14 Days

Sample Delivery Group L1807589

SDG L1807589 was composed of a single Pace Analytical report. The section below contains qualifications related to the entirety of the package.

Sample Identification

The following four field samples were included in this SDG:

Field Sample ID	Lab Sample ID	Sample Date	Matrix	Sample Type
EXT-2R	L1839203-01	03/21/25 11:00	Aqueous	Primary
EXT-3R	L1839203-02	03/21/25 10:15	Aqueous	Primary
TRENCH	L1839203-03	03/21/25 10:30	Aqueous	Primary
EFF	L1839203-04	03/21/25 10:45	Aqueous	Primary

Sample Management

Sample Receipt

All sample receipt documentation was complete and correct. Samples were shipped to the laboratory by the client. Custody seals were used. The laboratory stated samples were received intact, and the bottle labels agreed with the COC. No other anomalies were noted.

Holding Time/Preservation

The samples were analyzed within the technical holding times and were properly preserved.

Laboratory Quality Assurance/Quality Control (QA/QC)

Initial and Continuing Calibration Verification (ICV/CCV)

Not independently verified during abbreviated Stage 2A validation with access to only the Level 2 lab report. The lab did not flag any sample results having an associated ICV/CCV outside of specified control limits except for:

Batch	Method	Analyte	Reason	Qualifier
WG2478166	EPA 8260D	2,2-Dichloropropane	CCV < LCL	UJ
WG2478166	EPA 8260D	Acetone	CCV < LCL	UJ
WG2478166	EPA 8260D	Acrolein	CCV < LCL	UJ

Method Blanks

Method blanks were performed per lab batch and no analytes were detected or did not affect qualification of samples.

Reporting Limits

Reporting limits were not verified against project-specific requirements.

Sample Dilutions

Reported sample dilutions were reviewed and detected analytes were reported from a sample analysis with the lowest dilution.

Surrogate Spikes/Labeled Standards

Surrogates or labeled standards were added to field and QC samples as required per the method where applicable. Sample surrogate percent recoveries were within QC acceptance limits, or a greater ratio of surrogates were within QC acceptance limits (example: 2 out of 3 surrogates).

Matrix Spike (MS)/Matrix Spike Duplicates (MSD)

The MS and MSD analyses performed on SDG samples met all QC acceptance criteria for percent recovery and relative percent difference (RPD) where required per the method.

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

An LCS was analyzed for each batch and all recoveries were within QC acceptance criteria where required per the method.

Laboratory Duplicates

Laboratory duplicate analyses were analyzed where required and all recoveries were within QC acceptance criteria where required per the method.

Target Compound Identification

All target compound identifications were within validation criteria for relative retention times, characteristic ions, and relative ion abundances where applicable.

Tentatively Identified Compounds (TIC)

No results were reported as TICs as a part of this SDG.

Field QA/QC

Field Duplicates

No field duplicates were collected and analyzed as part of this SDG.

Equipment Blanks

No equipment blanks were collected and analyzed as part of this SDG.

Trip Blanks

No trip blanks were collected and analyzed as part of this SDG.

SDG Overall Assessment

The data found in this report complied with the data quality objectives as specified. The data, as qualified, are acceptable to use for decision-making purposes. No results were rejected. Data qualifiers are summarized in the following table (results qualified as U due to being non-detect were not included in the table below):

Field Sample ID	Analyte	Result	Qualifier	Validation Code
EFF	Tetrachloroethene	0.422	J	BRL
EFF	trans-1,2-Dichloroethene	0.317	J	BRL
EXT-2R	2,2-Dichloropropane	0.805	UJ	CCV
EXT-2R	Acetone	56.5	UJ	CCV
EXT-2R	Acrolein	12.7	UJ	CCV
EXT-3R	2,2-Dichloropropane	0.161	UJ	CCV
EXT-3R	Acetone	11.3	UJ	CCV
EXT-3R	Acrolein	2.54	UJ	CCV
EXT-3R	trans-1,2-Dichloroethene	0.446	J	BRL
TRENCH	2,2-Dichloropropane	0.161	UJ	CCV
TRENCH	Acetone	11.3	UJ	CCV
TRENCH	Acrolein	2.54	UJ	CCV
TRENCH	cis-1,2-Dichloroethene	0.155	J	BRL

Overall Assessment

The data found in this report complied with the data quality objectives as specified. The data, as qualified, are acceptable to use for decision-making purposes. In total, 235 results were reviewed from one SDG. The overall completeness for this event was 100 percent, as no results were rejected.

Definitions of Qualifiers

The following table lists each potential validation qualifier and its associated definition.

Qualifier	Definition
U	The analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
J	The reported result is an estimated value.
J+	The reported result is an estimated value, but the result may be biased high.
J-	The reported result is an estimated value, but the result may be biased low.
UJ	The analyte was not detected and is reported as less than the LOD or as defined by the client. However, the associated numerical value is approximate.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification".
NJ	The analyte has been "tentatively identified" or "presumptively" as present, and the associated numerical value is the estimated concentration in the sample.
R	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided. Exclusion of the data is recommended.

Definitions of Validation Codes

The following table lists possible validation codes and their associated definitions.

Code	Definition
BRL	Below reporting limit
HTE	Holding time exceeded
INT	Interference
FDP	Field duplicate RPD outside of control limits
LCS	Laboratory control sample/Laboratory control sample duplicate outside of quality control limits
LDP	Laboratory duplicate sample analysis outside of quality control limits
MSD	Matrix spike/Matrix spike duplicate outside of quality control limits
PRF	Professional judgment
SUR	Surrogate/labeled standard outside of quality control limits
MBK	Method blank contamination
TIC	Tentatively identified compound
CCV	Continuing calibration verification analysis outside of quality control limits
FBK	Field blank contamination (Rinse Blank, Trip Blank, etc...)
SPV	Sample preservation outside of quality control limits

Blank Contamination Actions

The following table lists the standard guidelines (with high-resolution noted in parentheses) for applying qualifiers due to blank contamination.

Blank Result	Sample Result	Action
< RL	< RL	Report at RL & qualify U
	> RL, < 5X (2X) Blank Result	Report at sample result & qualify U
	> RL, < 10X (5X) Blank Result	Report at sample result & qualify J+
	> RL, > 10X (5X) Blank Result	No qualification
> RL	< RL	Report at RL & qualify U
	> RL, < 5X (2X) Blank Result	Report at sample result & qualify U
	> RL, < 10X (5X) Blank Result	Report at sample result & qualify J+
	> RL, > 10X (5X) Blank Result	No qualification

ATTACHMENT B

Weekly O&M Logs

GSI

INTERNATIONAL WAY-SITE REPORT



Routine Inspection & Maintenance (weekly)



Non-Routine O&M/Repair (as needed-work order)



Alarm Response (as needed-work order)

DATE: 1-2-25

PERSONNEL: Pat Yodan

WEATHER: Rain

System Components	Inspect	Clean	Perform Maintenance*
Auto Dialer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control Panel / BLU	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper Blower	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stripper Pre-Filters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Equalization Tank	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater Transfer Pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carbon Vessels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sump Pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ext-1 Sequestriant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

NOT EXT-4 waiting on Pump issue update.

Groundwater Sys 36 East Filter 36 West Filter 44 Pre-Filter

Effluent total 0000137072 Time 15:15

EXT-4 total 1915403 Time off Line

EXT-2 total 3706143 Time 15:15

EXT-3 total 1591410 Time 15:15

Trench total 1745342 Time 15:15

Comments: _____

GSI

INTERNATIONAL WAY-SITE REPORT



Routine Inspection & Maintenance (weekly)



Non-Routine O&M/Repair (as needed-work order)



Alarm Response (as needed-work order)

DATE: 1-9-25

PERSONNEL: Pat Yodan

WEATHER: Clear

System Components	Inspect	Clean	Perform Maintenance*
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Auto Dialer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control Panel / 220	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper Blower	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stripper Pre-Filters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Equalization Tank	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater Transfer Pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Carbon Vessels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sump Pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ext-1 Sequestriant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOT EXT-4 as its off line

Groundwater Sys 32 East Filter 32 West Filter 36 Pre-Filter

Effluent total 0000137207 Time 13:15

EXT-4 total -1915403- Time 13:15 *off line*

EXT-2 total 3773280 Time 13:15

EXT-3 total 1625056 Time 13:15

Trench total 1772424 Time 13:15

Comments: * Did a Test on EXT-4 Discovered That
The Control Transducer Has failed, This may or is The
Problem at this well
* Reported to Chris Today.

GSI

INTERNATIONAL WAY-SITE REPORT



Routine Inspection & Maintenance (weekly)



Non-Routine O&M/Repair (as needed-work order)



Alarm Response (as needed-work order)

DATE: 1-30-25 PERSONNEL: Pat Yodan

WEATHER: Overcast FOG

System Components	Inspect	Clean	Perform Maintenance*
Auto Dialer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control Panel / PLC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper Blower	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stripper Pre-Filters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equalization Tank	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater Transfer Pump	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carbon Vessels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sump Pump	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ext-1 Sequestriant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Groundwater Sys 38 East Filter 38 West Filter 4/4 Pre-Filter

Effluent total	<u>000137560</u>	Time	<u>10:30</u>
EXT-4 total	<u>1915482</u>	Time	<u>off line</u>
EXT-2 total	<u>3976180</u>	Time	<u>10:30</u>
EXT-3 total	<u>1727046</u>	Time	<u>10:30</u>
Trench total	<u>1800406</u>	Time	<u>10:30</u>

Comments: _____

GSI

INTERNATIONAL WAY-SITE REPORT



Routine Inspection & Maintenance (weekly)



Non-Routine O&M/Repair (as needed-work order)



Alarm Response (as needed-work order)

DATE: 2-6-25

PERSONNEL:

Pat Yodan

WEATHER:

Overcast

System Components	Inspect	Clean	Perform Maintenance*
Auto Dialer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control Panel / PLC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper	OFF	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper Blower	OFF	<input type="checkbox"/>	<input type="checkbox"/>
Stripper Pre-Filters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Equalization Tank	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater Transfer Pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carbon Vessels	OFF	<input type="checkbox"/>	<input type="checkbox"/>
Sump Pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ext-1 Sequestriant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Groundwater Sys 38 East Filter 38 West Filter 42 Pre-Filter

Effluent total 0000137682 Time 14:48

EXT-4 total -4945482- Time off line

EXT-2 total 4045696 Time 14:48

EXT-3 total 1762095 Time 14:48

Trench total 1812454 Time 14:48

Comments:

GSI

INTERNATIONAL WAY-SITE REPORT



Routine Inspection & Maintenance (weekly)



Non-Routine O&M/Repair (as needed-work order)



Alarm Response (as needed-work order)

DATE: 2-13-25

PERSONNEL: Pat Yodon

WEATHER: Snow wind sleet

System Components	Inspect	Clean	Perform Maintenance*
Auto Dialer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control Panel / etc	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper Blower	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stripper Pre-Filters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Equalization Tank	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater Transfer Pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Carbon Vessels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sump Pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ext-1 Sequestriant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Groundwater Sys 34 East Filter 34 West Filter 38 Pre-Filter

Effluent total 0000 137799 Time 14:40

EXT-4 total OFF LINE Time

EXT-2 total 4113370 Time 14:40

EXT-3 total 1796284 Time 14:40

Trench total 1820774 Time 14:40

Comments: _____

GSI

INTERNATIONAL WAY-SITE REPORT



Routine Inspection & Maintenance (weekly)



Non-Routine O&M/Repair (as needed-work order)



Alarm Response (as needed-work order)

DATE: 2-27-25

PERSONNEL: Pat Yodon

WEATHER: clear 62°

System Components	Inspect	Clean	Perform Maintenance*
Auto Dialer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control Panel / PLC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper	<input type="checkbox" value="off"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper Blower	<input type="checkbox" value="off"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stripper Pre-Filters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Equalization Tank	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater Transfer Pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carbon Vessels	<input type="checkbox" value="off"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sump Pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ext-1 Sequestriant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Groundwater Sys 40 East Filter 40 West Filter 46 Pre-Filter

Effluent total 0000138042 Time 12:20

EXT-4 total OFFLINE Time ~

EXT-2 total 4243743 Time 12:20

EXT-3 total 1861194 Time 12:20

Trench total 1858682 Time 12:20

Comments: * Come to site on 2-25-25 and installed new Vault Sump in Trench Vault.

GSI

INTERNATIONAL WAY-SITE REPORT



Routine Inspection & Maintenance (weekly)



Non-Routine O&M/Repair (as needed-work order)



Alarm Response (as needed-work order)

DATE: 3-6-25

PERSONNEL: Pat Yador

WEATHER:

System Components	Inspect	Clean	Perform Maintenance*
Auto Dialer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control Panel / PLO	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper Blower	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stripper Pre-Filters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Equalization Tank	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater Transfer Pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Carbon Vessels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sump Pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ext-1 Sequestriant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Groundwater Sys 46 East Filter 46 West Filter 48 Pre-Filter

Effluent total 0000138167 Time 14:30

EXT-4 total off line Time 14:30

EXT-2 total 4312922 Time 14:30

EXT-3 total 1896236 Time 14:30

Trench total 1872622 Time 14:30

Comments: * install Vault Sump in Trench Vault.

GSI

INTERNATIONAL WAY-SITE REPORT



Routine Inspection & Maintenance (weekly)



Non-Routine O&M/Repair (as needed-work order)



Alarm Response (as needed-work order)

DATE: 3-13-25

PERSONNEL: Pat Yodan

WEATHER: Rain Overcast

System Components	Inspect	Clean	Perform Maintenance*
Auto Dialer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control Panel / POC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper Blower	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stripper Pre-Filters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Equalization Tank	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater Transfer Pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carbon Vessels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sump Pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ext-1 Sequestriant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Groundwater Sys 46 East Filter 46 West Filter 48 Pre-Filter

Effluent total 0000138290 Time 15:00

EXT-4 total off Line Time 15:00

EXT-2 total 4381711 Time 15:00

EXT-3 total 1931263 Time 15:00

Trench total 1885334 Time 15:00

Comments: _____

GSI

INTERNATIONAL WAY-SITE REPORT



Routine Inspection & Maintenance (weekly)



Non-Routine O&M/Repair (as needed-work order)



Alarm Response (as needed-work order)

DATE: 3-27-25

PERSONNEL: Pat Yodon

WEATHER: Overcast showers

System Components	Inspect	Clean	Perform Maintenance*
Auto Dialer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control Panel / Rel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Stripper Blower	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stripper Pre-Filters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Equalization Tank	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Groundwater Transfer Pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carbon Vessels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sump Pump	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ext-1 Sequestriant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Groundwater Sys 46 East Filter 46 West Filter 48 Pre-Filter

Effluent total 0000138529 Time 13:00

EXT-4 total Off Line Time 13:00

EXT-2 total 4516685 Time 13:00

EXT-3 total 2000233 Time 13:00

Trench total 1909373 Time 13:00

Comments: _____

