

FIRST AND SECOND QUARTER 2024 GROUNDWATER MONITORING AND TREATMENT SYSTEM OPERATION AND MAINTENANCE REPORT

CHS Auburn Site Auburn, Washington

Farallon PN: 301-004

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TABLE OF CONTENTS

1.0	INTRO	DUCTION	1-1
	1.1	BACKGROUND	1-1
	1.2	ORGANIZATION	1-2
2.0	TREAT	MENT SYSTEM OPERATION AND MAINTENANCE	2-1
	2.1	AS/SVE SYSTEM OPERATION AND MAINTENANCE	
	2.2	AS/SVE SYSTEM SHUTDOWN EVALUATION	
3.0	GROUI	NDWATER MONITORING METHODS	3-1
	3.1	SAMPLING PROTOCOLS	
	3.2	SELECTED MONITORING WELLS AND ANALYSES	
	3.1	WASTE HANDLING AND DISPOSAL	3-3
4.0	GROUI	NDWATER MONITORING RESULTS	4-1
	4.1	GROUNDWATER ELEVATIONS	4-1
	4.2	GROUNDWATER ANALYTICAL RESULTS	
		4.2.1 Diesel-Range Organics	
		4.2.2 Oil-Range Organics	
		4.2.3 Gasoline-Range Organics and Benzene, Toluene, Ethylbenzene, and	
		Xylenes	
	4.0	4.2.4 Groundwater Geochemical Parameters and Data	
	4.3	DATA VALIDATION	4-3
5.0		SSION	
	5.1	DRO AND ORO	
	5.2	GRO AND BTEX	5-2
6.0	ONGO	NG AND PLANNED ACTIVITIES	6-1
7.0	REFER	ENCES	7-1
		FIGURES	
		TIGORES	
Figure	1	Site Vicinity Map	
Figure	2	Site Plan	
Figure	3	Site Plan Showing Detail of the Central Area of the Site	
Figure	4	Groundwater Elevation Contour Map, May 2024	
Figure	5	May 2024 Groundwater Analytical Results for DRO, ORO, GRO, and BTEX	

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Figure 6 May 2024 Groundwater Analytical Results for DRO and ORO With and Without Silica Gel Cleanup Procedure **TABLES** Table 1 SVE System and Well Data Table 2 AS System and Well Data Table 3 Air Analytical Data Table 4 Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater – January 2018 through May 2024 Table 5 Summary of Groundwater Elevation Data – January 2018 through May 2024 Table 6 Summary of Groundwater Water Quality Data – January 2018 through May 2024 Table 7 Summary of Laboratory Analytical Results for DRO and ORO in Groundwater -November 2021 through May 2024 **CHARTS** Chart 1 DRO and ORO Concentration Data Trends for Monitoring Well CMW-2 Chart 2 DRO and ORO Concentration Data Trends for Monitoring Well CMW-10 Chart 3 DRO, ORO, and GRO Concentration Data Trends for Monitoring Well CMW-12 Chart 4 DRO Concentration Data Trend for Monitoring Well CMW-13 Chart 5 DRO, ORO, and GRO Concentration Data Trends for Monitoring Well CMW-27 Chart 6 DRO and ORO Concentration Data Trends for Monitoring Well CMW-28

APPENDIX

DRO, ORO, and GRO Concentration Data Trends for Monitoring Well HMW-11

DRO Concentration Data Trend for Monitoring Well HMW-10

Cumulative Pounds of Benzene and GRO Removed

Appendix A Laboratory Analytical Reports

Chart 7

Chart 8

Chart 9



1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this report on behalf of CHS Inc. (CHS) to document air sparge (AS) and soil vapor extraction (SVE) system routine operation and maintenance (O&M), and groundwater monitoring activities for the first and second quarter 2024 conducted at the CHS Auburn facility at 238 8th Street Southeast in Auburn, Washington (CHS Auburn Facility) and contiguous areas where constituents of concern (COCs) in soil and groundwater exceed applicable cleanup levels from releases at the CHS Auburn Facility (herein referred to as the Site). The COCs for the Site are total petroleum hydrocarbons as diesel-range organics (DRO), as oil-range organics (ORO), and as gasoline-range organics (GRO); and benzene, toluene, ethylbenzene, and xylenes (BTEX). A Site vicinity map is provided on Figure 1, and a Site plan is provided on Figures 2 and 3.

Routine AS/SVE system 0&M was conducted between January 18 and May 13, 2024, and AS/SVE system 0&M to prepare the system equipment for a 1-year shutdown evaluation period was completed on June 13, 2024. The period from January 18 through June 13, 2024 is herein referred to as the reporting period. Groundwater monitoring activities were conducted on May 29 and 30, 2024 at the Site (herein referred to as the May 2024 monitoring event). The scope of work for the AS/SVE system 0&M activities and May 2024 monitoring event were conducted in accordance with the *Performance Monitoring Plan, CHS Auburn Site, Auburn, Washington, Facility Site No. 2487, Consent Decree No. 18-2-15430-8* dated February 15, 2019 (Farallon 2019) (Performance Monitoring Plan) that was approved by the Washington State Department of Ecology (Ecology) in January 2019 (Ecology 2019).

A request to shutdown the AS/SVE system and a plan for evaluating the effects of the shutdown on COC concentrations in groundwater was submitted to Ecology (Farallon 2024) and was approved on May 28, 2024 (Ecology 2024). The AS/SVE system was shut down on May 28, 2024 and will remain off during the shutdown evaluation period, which will be approximately 1 year. Additional details of the AS/SVE Shutdown Evaluation Plan are provided in Section 2.2, AS/SVE System Shutdown Evaluation.

1.1 BACKGROUND

A Remedial Investigation/Feasibility Study for the Site was conducted in accordance with the Washington State Model Toxics Control Act Cleanup Regulation (MTCA), as established in Chapter 173-340 of the Washington Administrative Code, and pursuant to the requirements



of Agreed Order No. 4033 entered between CHS and Ecology on June 12, 2007. The Remedial Investigation Report for the Site was submitted to Ecology on July 20, 2011 (Farallon 2011), and the Feasibility Study for the Site was submitted to Ecology on August 6, 2014 (Farallon 2014). The *Final Cleanup Action Plan, CHS Auburn Site, 238 8th Street Southeast and Contiguous Areas, Auburn, Washington, Agreed Order No. 4033, Facility Site No. 2487* dated May 8, 2018 (Ecology 2018) (Final Cleanup Action Plan) was included as Exhibit B of Consent Decree No. 18-2-15430-8 between Ecology and CHS, with an effective date of June 20, 2018.

The cleanup action outlined in the Final Cleanup Action Plan included installation of additional AS wells and expansion of the existing AS/SVE system to reduce concentrations of COCs in groundwater. The existing AS/SVE system consisted of three systems: the perimeter AS/SVE system installed in 1994, the down-gradient AS/SVE system installed in 1995, and the central AS/SVE system installed in 1996. Portions of the perimeter, down-gradient, and central AS/SVE systems were turned off with Ecology approval between the late 1990s and 2007. The down-gradient AS/SVE system was decommissioned in 2010 due to road improvements by the City of Auburn to D Street Southeast.

The current configuration of the AS/SVE system, which includes AS wells CAS-1 through CAS-22 and SVE wells CSVE-1, CSVE-5, CSV-7, CSVE-9, and CSVE-10, has been operating at the Site since June 2019¹ with the objective of reducing concentrations of COCs in groundwater to less than MTCA Method A cleanup levels within a reasonable restoration time frame. The current AS/SVE system is shown on Figure 3.

1.2 ORGANIZATION

This report is organized into the following sections:

- Section 2, Treatment System Operation and Maintenance, provides details on the AS/SVE system O&M activities along with a summary of the AS/SVE Shutdown Evaluation Plan.
- Section 3, Groundwater Monitoring Methods, describes the sampling protocols and the selected monitoring wells and analyses for the May 2024 monitoring event.

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¹ Start-up testing of the AS/SVE system was conducted on May 29, 2019. The AS/SVE system was started for continuous operation on June 13, 2019.



- Section 4, Groundwater Monitoring Results, presents groundwater elevations and analytical results from the May 2024 monitoring event, and the data validation conducted.
- Section 5, Discussion, presents a summary of contaminant distribution in groundwater at the Site.
- Section 6, Ongoing and Planned Activities, discusses planned activities for the first quarterly groundwater monitoring event scheduled for September 2024 at the Site for the AS/SVE system shutdown evaluation.
- Section 7, References, provides a list of the documents cited in this report.



2.0 TREATMENT SYSTEM OPERATION AND MAINTENANCE

This section provides details regarding the O&M of the current AS/SVE system in the central area of the Site during the reporting period. A summary of the AS/SVE Shutdown Evaluation Plan is also included. The areas historically targeted by the AS/SVE system include the former source area(s) on the CHS Auburn Facility, which included the former bulk fuel storage area, product piping, and underground storage tank areas, and areas down-gradient beyond the immediate influence of the AS wells in the central area of the Site (Figures 2 and 3).

2.1 AS/SVE SYSTEM OPERATION AND MAINTENANCE

Routine O&M of the AS/SVE system was conducted bimonthly on January 18, March 11, and May 13, 2024 to document and evaluate system performance. O&M parameters typically consisted of the following:

- AS compressor motor frequency, amperage, and total run time;
- SVE blower motor frequency, amperage, and total run time;
- SVE system total vacuum and flow rate;
- SVE system exhaust temperature;
- SVE well air flow, vacuum, and vapor volatile organic compound concentration measured by a photoionization detector;
- AS system pressure and temperature from the pre- and post-cooling piping array; and
- AS well airflow and pressure.

A summary of AS/SVE system operational parameters is provided in Tables 1 and 2. Based on the flow rates from or to individual AS and SVE wells and the pressure to individual AS wells, AS/SVE system operational settings were adjusted periodically to optimize flow and pressure to treat COCs in the subsurface more efficiently. The operating AS wells include CAS-1, CAS-2, and CAS-14 through CAS-20, and the operating SVE wells include CSVE-1, CSVE-5, CSV-7, CSVE-9, and CSVE-10. AS/SVE system operational parameters for the reporting period are summarized as follows:

- Operating time (run time) totaled approximately 3,142 hours for the AS compressor SVE blower (January 18 through May 28, 2024);
- Total vacuum for the SVE system ranged from 14.8 to 17.3 inches of water;



- The total flow rate for the SVE system ranged from 83 to 89 standard cubic feet per minute;
- Total AS system pressure ranged from 16.5 to 18.0pounds per square inch; and
- The total AS system flow rate ranged from 27.7 to 35.0 standard cubic feet per minute.

During the reporting period, no repairs or maintenance were required to optimize operation of the AS/SVE system. The AS/SVE system was shut down remotely prior to the May 2024 groundwater monitoring event on May 28, 2024 and will remain off for approximately 1 year to evaluate whether COC concentrations in groundwater rebound in the absence of active treatment or remain in a stable to decreasing state.

SVE system effluent air samples were collected on January 18, March 11, and May 13, 2024 during the O&M Site visits. The air samples were collected from the SVE system exhaust stack for each event using a 1-liter Summa canister and were delivered under standard chain-of-custody protocols to Friedman & Bruya, Inc. of Seattle, Washington (F&B) for analysis of COCs by U.S. Environmental Protection Agency (EPA) Method TO-15. Analytical results from the SVE system effluent air sampling are provided in Table 3. The laboratory analytical reports are provided in Appendix A. SVE system effluent air sampling data and the amount of GRO and benzene removed by the SVE system during the reporting period are summarized as follows:

- GRO concentrations were less than the laboratory practical quantitation limits (PQLs) for the January and March 2024 events. A GRO concentration of 1.70 nanoliters per microliter was detected during the May 2024 event.
- Benzene, toluene, and ethylbenzene were not detected at concentrations exceeding the laboratory PQLs for the January, March, and May events.
- Total xylenes were detected at concentrations of 0.00185 and 0.0024 nanoliters per microliter samples collected during the March and May events, respectively.
- The calculated mass of GRO removed between January and May 2024 is estimated at 5.65 pounds, for an estimated total GRO removal of 176.86 pounds since starting up the AS/SVE system in June 2019 (Table 1).
- The calculated amount of benzene removed between January and May 2024 is estimated at 0.001 pound, for an estimated total benzene removal of 2.84 pounds since starting up the AS/SVE system in June 2019 (Table 1).



2.2 AS/SVE SYSTEM SHUTDOWN EVALUATION

The AS/SVE Shutdown Evaluation Plan (Farallon 2024) was approved by Ecology on May 28, 2024 (Ecology 2024) and includes a plan to evaluate the effects on groundwater quality following discontinuation of active treatment, and decision criteria for reactivation of the AS/SVE system, if necessary. The AS/SVE system was shut down on May 28, 2024, and will remain off during the shutdown evaluation period which will be approximately 1 year to evaluate the effects of discontinuing active groundwater treatment on COCs in groundwater.

Groundwater samples at key Site wells will be collected on a quarterly basis for one year beginning in September 2024. The sampling scope is based on the Ecology (2005) natural attenuation guidance where key COCs and geochemical parameters will be evaluated to assess whether biodegradation continues in the absence of the oxygen introduced by the AS system. Groundwater samples will be collected from monitoring wells CMW-2, CMW-10, CMW-25, CMW-27; CMW-31, and HMW-11. Groundwater samples will be analyzed for following:

- DRO and ORO by Northwest Method NWTPH-Dx with and without silica gel cleanup procedure;
- GRO by Northwest Method NWTPH-Gx;
- BTEX constituents by EPA Method 8260;
- Sulfate by American Society for Testing Materials Method D516-11;
- Nitrate by EPA Method 353.2;
- Dissolved methane Risk Based Standards Method 175; and
- Total alkalinity by SM 2320B.

Ferrous iron and manganese (II) will be measured in the field along with pH, temperature, specific conductivity, dissolved oxygen, and oxidation-reduction potential.

If COC concentrations in select monitoring wells sampled for the shutdown evaluation exceed action levels for two consecutive quarters, Ecology will be consulted to evaluate whether the AS/SVE system should be turned back on, or the effects of the shutdown should continue to be evaluated for the full four quarters. Action levels for monitoring wells CMW-2, CMW-10, CMW-27, and HMW-11, are concentrations of DRO, ORO, or GRO exceeding the highest detected concentration in that well since the AS/SVE system startup in June 2019 (Table 4).



3.0 GROUNDWATER MONITORING METHODS

This section summarizes the sampling protocols and the selected monitoring wells and analyses for the May 2024 monitoring event conducted at the Site.

3.1 SAMPLING PROTOCOLS

Groundwater samples were collected May 29 and 30, 2024, from monitoring wells CMW-2, CMW-8, CMW-10, CMW-12, CMW-13, CMW-25 through CMW-31, HMW-9 through HMW-11, and HMW-13 (Figure 2). Standard EPA low flow groundwater sampling protocols were followed.

Before sampling was initiated, groundwater elevations and dissolved-oxygen content in groundwater were measured. The depth to groundwater in each monitoring well was measured to the nearest 0.01 foot using an electronic water-level measuring device from the surveyed location on the top of the well casing. Measurements of dissolved oxygen levels in groundwater were obtained using an InsiteIG Model 3100 dissolved oxygen analyzer and optical fluorescence down-hole probe. Depth-to-groundwater measurements and the water-level elevations obtained prior to sampling for the groundwater monitoring events conducted from January 2018 through May 2024 are presented in Table 5, and the May 2024 elevations are shown on Figure 4. Table 6 includes the dissolved oxygen measurements.

Before the monitoring wells were purged, the intake of the dedicated polyethylene tubing was placed in the approximate middle of the saturated portion of the well screen. Before sampling was initiated, groundwater was purged from each monitoring well at flow rates ranging from 100 to 200 milliliters per minute. Groundwater quality parameters for temperature, specific conductivity, dissolved oxygen, and oxidation-reduction potential (ORP) were recorded during purging using a YSI Model ProDSS water quality analyzer equipped with a flow-through cell. Water quality parameter geochemical measurements are summarized in Table 6 and include the pre-purging dissolved-oxygen measurements collected with the InsiteIG Model 3100 dissolved-oxygen analyzer and optical fluorescence down-hole probe. Groundwater samples were collected after the pH, temperature, and specific conductivity measurements stabilized. Stabilization was determined for pH as a change of +/-0.1 pH unit between readings for three consecutive measurements, and for



temperature and specific conductivity as a relative percent difference of less than 3 percent between readings for three consecutive measurements.

Following stabilization of the water quality parameters, samples were collected by pumping groundwater directly from each monitoring well through dedicated polyethylene tubing into laboratory-prepared containers, with care taken to minimize turbulence. Care was taken to not handle the container seal or lid when the samples were placed into the containers. The containers were filled to eliminate headspace, and the seal and the lid were secured. The samples were placed on ice in a cooler under standard chain-of-custody protocols, and delivered to OnSite Environmental Inc. of Redmond, Washington (OnSite) for laboratory analysis.

3.2 SELECTED MONITORING WELLS AND ANALYSES

Groundwater samples collected from monitoring wells CMW-2, CMW-8, CMW-10, CMW-12, CMW-13, CMW-25 through CMW-31, HMW-9 through HMW-11, and HMW-13 were analyzed for the following:

- DRO and ORO by Northwest Method NWTPH-Dx with and without silica gel cleanup procedure. Sulfuric acid was not used as part of the silica gel cleanup procedure.
- GRO by Northwest Method NWTPH-Gx.
- BTEX constituents by EPA Method 8021B.

On October 20, 2021, Ecology stated that DRO and ORO groundwater samples collected during future monitoring events could be analyzed both with and without using the silica gel cleanup procedure in accordance with recent Ecology (2021) guidance. Details of the Ecology request were provided in the email regarding CHS Quarterly Progress Report 7/1 through 9/30/2021 dated October 20, 2021 from Jerome Cruz of Ecology to Javan Ruark of Farallon (Ecology 2021). The purpose of the silica gel cleanup procedure is to evaluate whether polar metabolites resulting from biodegradation of DRO are present and contributing to the DRO values in the analysis conducted without the silica gel cleanup procedure.

Field duplicate groundwater samples were collected from monitoring wells CMW-12 and CMW-27 for quality assurance/quality control (QA/QC) purposes.



3.1 WASTE HANDLING AND DISPOSAL

Wastewater generated during purging of the monitoring wells is being temporarily stored in a labeled 55-gallon drum in a secure area of the Site pending disposal.



4.0 GROUNDWATER MONITORING RESULTS

This section presents groundwater elevations, geochemical parameters and data, and laboratory analytical results from the May 2024 monitoring event, and the data validation conducted.

4.1 GROUNDWATER ELEVATIONS

Groundwater elevations measured in the Site monitoring wells May 2024 ranged from 66.38 feet above mean sea level in monitoring well CMW-8 to 68.00 feet above mean sea level in monitoring well CMW-30 (Figure 4, Table 5). The groundwater flow direction was northeast, which is consistent with the historical groundwater flow direction. The average horizontal hydraulic gradient was 0.002 foot per foot. Groundwater elevations measured on May 29, 2024 were 2.46 to 2.92 feet higher than those measured during the previous monitoring event, conducted in November 2023 (Table 5).

4.2 GROUNDWATER ANALYTICAL RESULTS

The analytical results from the May 2024 monitoring event are discussed in the following sections. Comparison of analytical results for DRO, ORO, GRO, and BTEX constituents with MTCA Method A groundwater cleanup levels, which were established as the Site cleanup levels in the Final Cleanup Action Plan, is shown in Table 4. Comparison of analytical results for DRO and ORO with and without the silica gel cleanup procedure to MTCA Method A groundwater cleanup levels is shown in Table 7. Analytical results for DRO, ORO, GRO, and BTEX constituents for the May 2024 monitoring event are presented on Figure 5. Analytical results for DRO and ORO with and without the silica gel cleanup procedure for the November 2023 monitoring event are presented on Figure 6. The laboratory analytical reports are provided in Appendix A.

4.2.1 Diesel-Range Organics

In groundwater samples analyzed without the silica gel cleanup procedure, DRO was detected at concentrations exceeding the MTCA Method A cleanup level of 0.5 milligram per liter (mg/L) in groundwater samples collected from 8 of the 16 monitoring wells sampled (Tables 4 and 7) and in the QA/QC duplicate sample collected from monitoring well CMW-27. Concentrations of DRO exceeding the MTCA Method A cleanup level ranged from 0.51 mg/L in the groundwater sample collected from monitoring well CMW-29 to 3.3 mg/L in the groundwater sample collected from monitoring well HMW-11.



For samples analyzed using the silica gel cleanup procedure, DRO was detected at or exceeding the MTCA Method A cleanup level of 0.5 mg/L in 2 of the 16 monitoring wells sampled (Tables 4 and 7) and in the QA/QC duplicate sample collected from monitoring well CMW-27. Concentrations of DRO exceeding the MTCA Method A cleanup level analyzed with silica gel cleanup procedure ranged from 0.51 mg/L in the QA/QC duplicate groundwater sample collected from monitoring well CMW-27 to 0.63 mg/L in the groundwater sample collected from monitoring well HMW-11.

4.2.2 Oil-Range Organics

For the samples analyzed without the silica gel cleanup procedure, ORO was detected at concentrations exceeding the MTCA Method A cleanup level of 0.5 mg/L in groundwater samples collected from 5 of the 16 monitoring wells sampled (Tables 4 and 7). Concentrations of ORO exceeding the MTCA Method A cleanup level ranged from 0.53 mg/L in the groundwater sample collected from monitoring well CMW-28 to 1.8 mg/L in the groundwater sample collected from monitoring well CMW-10.

For the samples analyzed using the silica gel cleanup procedure, ORO was not detected at a concentration exceeding the MTCA Method A cleanup level of 0.5 mg/L during the May 2024 monitoring event (Table 7).

4.2.3 Gasoline-Range Organics and Benzene, Toluene, Ethylbenzene, and Xylenes

GRO was detected at concentrations exceeding the MTCA Method A cleanup level of 800 micrograms per liter (μ g/L) in the groundwater sample collected from monitoring well CMW-27 and the QA/QC duplicate sample collected from monitoring well CMW-27. Concentrations of GRO exceeding the MTCA Method A cleanup level were 1,100 μ g/L in the groundwater sample collected from monitoring well CMW-27 and in the QA/QC sample collected from monitoring well CMW-27 (Table 4).

BTEX constituents were not detected at concentrations exceeding MTCA Method A cleanup levels in the groundwater samples collected from Site monitoring wells during the May 2024 sampling event.

4.2.4 Groundwater Geochemical Parameters and Data

Table 6 shows the dissolved-oxygen levels in groundwater measured on May 29 and 30, 2024 before purging of groundwater was conducted, and the final groundwater quality



parameters recorded during purging of groundwater prior to sample collection (summarized below):

- Groundwater temperatures ranged from 13.4 to 18.0 degrees Celsius;
- pH values ranged from 5.88 to 6.74;
- ORP values ranged from 3.0 to 263.6 millivolts; and
- Dissolved-oxygen concentrations measured prior to purging each well ranged from 0.26 to 8.72 mg/L.

4.3 DATA VALIDATION

Farallon reviewed the analytical data package provided by OnSite, laboratory reference No. 2405-446. The groundwater samples from this group were analyzed for DRO, ORO, GRO, and BTEX constituents by the analytical methods described in Section 3.2, Selected Monitoring Wells and Analyses. The groundwater samples were analyzed within the prescribed method holding times. The QA/QC testing performed by OnSite included surrogate recovery, method blank, and spike blank/spike blank duplicate samples. Results from the QA/QC testing were within established laboratory control limits. Based on Farallon's review of the QA/QC data generated during the May 2024 monitoring event, the groundwater analytical results are acceptable for use in characterizing groundwater quality at the Site relative to the groundwater quality cleanup levels used for comparative purposes in this report. The laboratory analytical reports for the groundwater samples analyzed by OnSite are provided in Appendix A.

Farallon reviewed the analytical data packages provided by F&B for air samples collected in January, March, and May 2024 analyzed for GRO and BTEX constituents by the analytical methods described in Section 2.1, AS/SVE System Operation and Maintenance. The air samples were analyzed within the prescribed method holding time. The QA/QC testing performed by F&B included surrogate recovery, duplicate, and laboratory control samples. Results from the QA/QC testing were within established laboratory control limits. Based on Farallon's review of the QA/QC data generated during the January, March, and May 2024 monitoring events, the air analytical results are acceptable for use in characterizing effluent concentrations recovered by the AS/SVE system. The laboratory analytical reports for the air samples analyzed by F&B are provided in Appendix A.



5.0 DISCUSSION

This section provides a summary of the distribution of DRO, ORO, GRO, and BTEX constituents detected in groundwater at the Site during the May 2024 monitoring event and a comparison to conditions prior to start-up of the reconfigured AS/SVE system in June 2019. Trends in COC concentrations relative to groundwater elevation changes since 2018 also are discussed where trends appear evident. Data trends of select COC concentrations in groundwater for key monitoring wells are shown on Charts 1 through 8. The DRO and ORO results used to construct the charts are for samples analyzed without the silica gel cleanup procedure.

5.1 DRO AND ORO

DRO and/or ORO were detected at concentrations exceeding MTCA Method A cleanup levels in groundwater samples collected from select Site monitoring wells during the May 2024 sampling event. These wells included monitoring wells at the CHS Auburn Facility and downgradient approximately 650 feet (Figures 5 and 6).

Use of the silica gel cleanup procedure greatly reduced DRO and/or ORO concentrations in groundwater samples collected from monitoring wells sampled in May 2024 (Figure 6, Table 7). The DRO and ORO analytical results from the May 2024 monitoring event suggest that dissolved-phase DRO and ORO concentrations detected in groundwater samples collected from the Site are highly weathered and consist mainly of polar metabolites from the breakdown of DRO and ORO. Guidance on the use of silica gel cleanup procedures and applicable cleanup levels was recently revised and finalized in November 2023 (Ecology 2023). Application of the recently updated silica gel cleanup guidance to the Site will be discussed with Ecology.

The expanded area of influence of the reconfigured AS/SVE system mobilized dissolved-phase DRO/ORO and associated polar metabolites from the smear zone soil, as shown by a general increase in DRO and ORO concentrations in groundwater shortly after the AS/SVE system start-up in June 2019 in monitoring wells CMW-2, CMW-10, CMW-12, CMW-13, HMW-10, CMW-28, and HMW-11 (Charts 1 through 4, and 6 through 8). The general increase in DRO and ORO concentrations in groundwater continued to be observed in monitoring wells CMW-10, CMW-13, CMW-27, CMW-28, and HMW-11. (Charts 2, 4 through 6, and 8). Increases in DRO and ORO concentrations in monitoring wells CMW-12 and CMW-



13 generally have correlated with seasonally higher groundwater elevations (Charts 3 and 4).

5.2 GRO AND BTEX

GRO was detected at a concentration exceeding the MTCA Method A cleanup level in one of the monitoring wells sampled, well CMW-27 (Figure 5). BTEX constituents were not detected at concentrations exceeding the MTCA Method A cleanup levels in the groundwater samples collected from the monitoring wells sampled during the May 2024 monitoring event.

GRO concentrations in groundwater have shown a decrease to less than the MTCA Method A cleanup level in monitoring wells CMW-12 and HMW-11 following operation of the AS/SVE system (Charts 3 and 8). However, GRO at concentrations at monitoring well CMW-27 have remained relatively stable regardless of the AS/SVE operation (Table 4, Chart 5).

Except for intermittent shut-downs, the AS/SVE system operated continuously from start-up in June 2019 through May 28, 2024 when it was shut down for the May 2024 groundwater sampling event and for the AS/SVE system shutdown evaluation. The AS/SVE system has removed a total of 2.84 pounds of benzene and 176.86 pounds of GRO from the vadose zone at the Site during the operational period. The mass of benzene removed by the AS/SVE system decreased to asymptotic levels beginning in June 2019 (Table 1, Chart 9), which is consistent with groundwater data that generally indicate that BTEX compounds are likely remediated. Similarly, with the exception of that area at monitoring well CMW-27, GRO also appears to be remediated throughout the Site.

Given the decreased mass removal by the AS/SVE system and general increase in DRO/ORO and associated polar metabolite concentrations in groundwater following the AS/SVE system start-up at select wells, the AS/SVE Shutdown Evaluation Plan (Farallon 2024) was approved by Ecology May 28, 2024 (Ecology 2024). The AS/SVE system shutdown evaluation will assess the effects of shutting down the system on COCs in groundwater, including the generation of polar metabolites from ongoing biodegradation processes, and the potential for natural attenuation, without the introduction of oxygen from the AS system, to continue to reduce concentrations of residual COCs in groundwater via biodegradation processes.



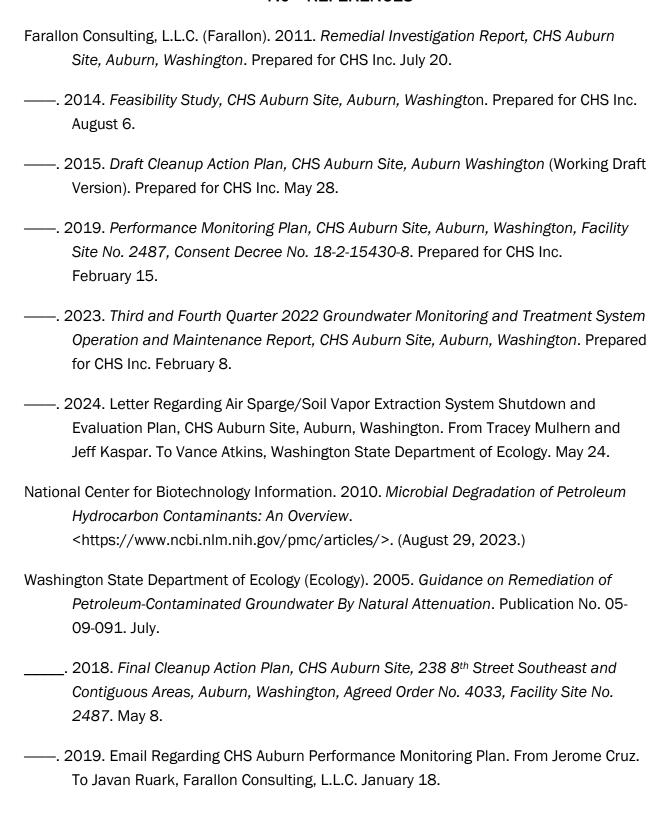
6.0 ONGOING AND PLANNED ACTIVITIES

As detailed in Table 3 in the Final Cleanup Action Plan, quarterly performance groundwater monitoring and routine O&M of the AS/SVE system were conducted for the first four quarters following start-up of the AS/SVE system and were to be conducted semiannually thereafter. The May 2024 monitoring event was the eighth semiannual groundwater monitoring event. Additional semiannual groundwater monitoring events are not planned during the AS/SVE shutdown evaluation period. Instead, quarterly monitoring at select monitoring wells will be conducted in September and December 2024, and March and June 2025.

Quarterly Progress Reports will be submitted following the current schedule in the Consent Decree via electronic mail and will include a description of the Site activities conducted during the reporting period, copies of analytical data, and a schedule of upcoming work and summary figures/tables with the analytical data. A summary report detailing the quarterly monitoring results along with an evaluation of the effects of the AS/SVE system shutdown will be prepared and submitted to Ecology approximately 45 days following receipt and validation of the laboratory analytical report from the fourth quarterly groundwater monitoring event to be conducted in June 2025.



7.0 REFERENCES



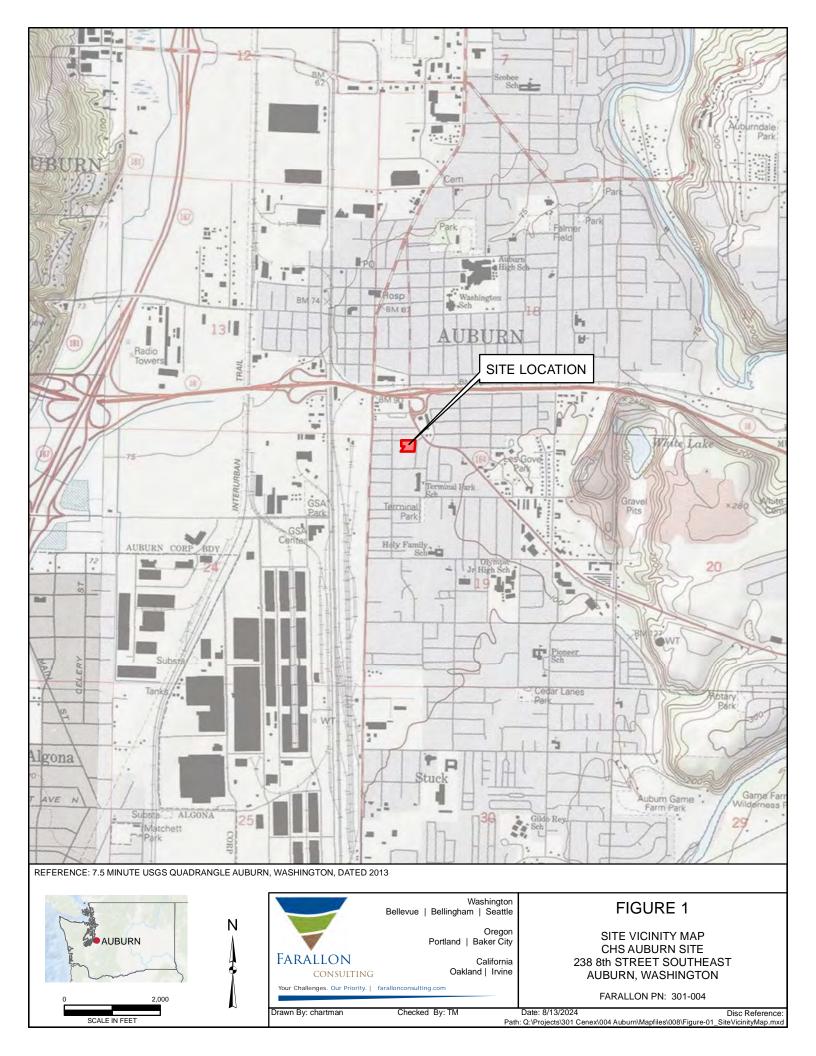


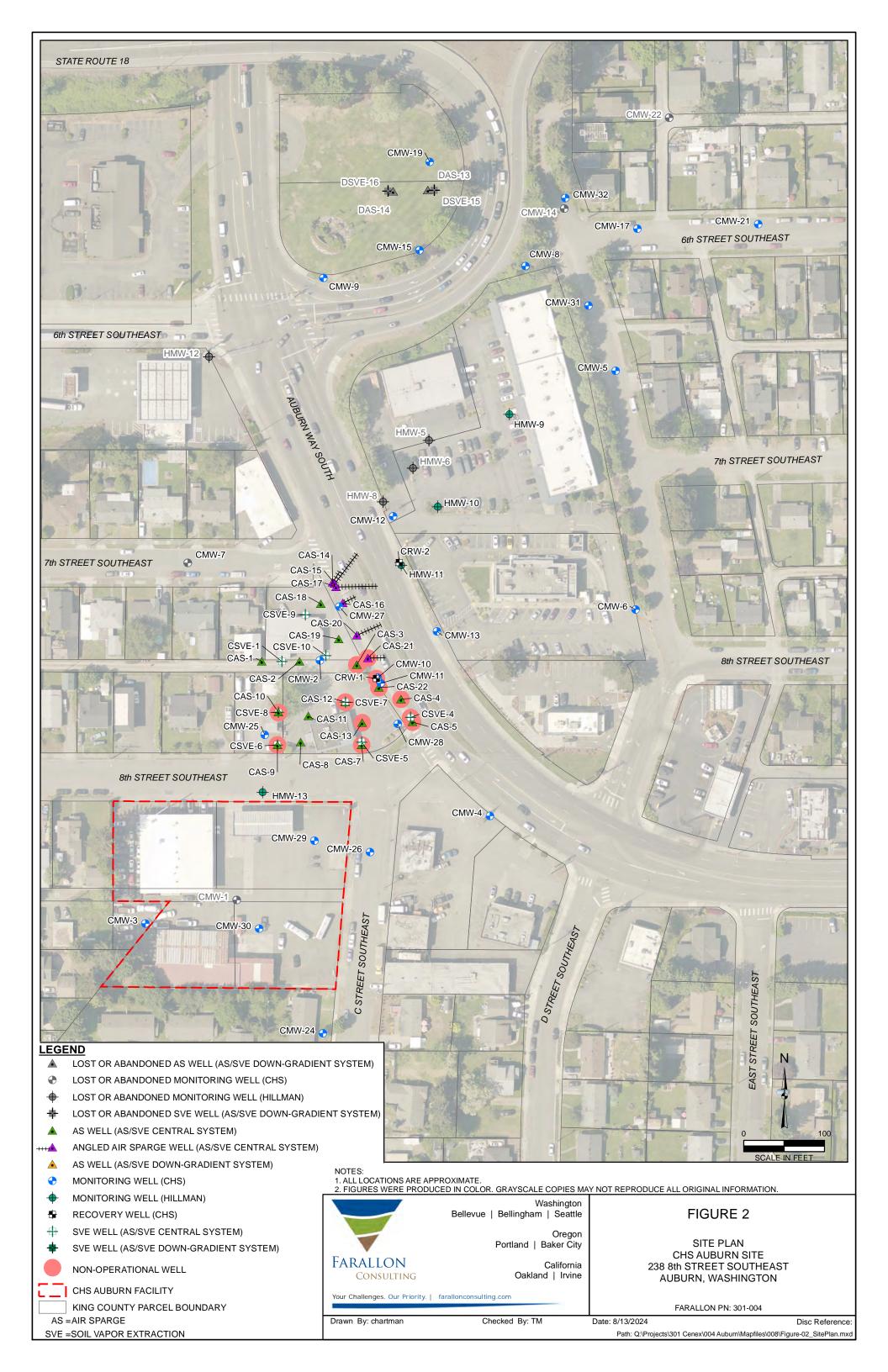
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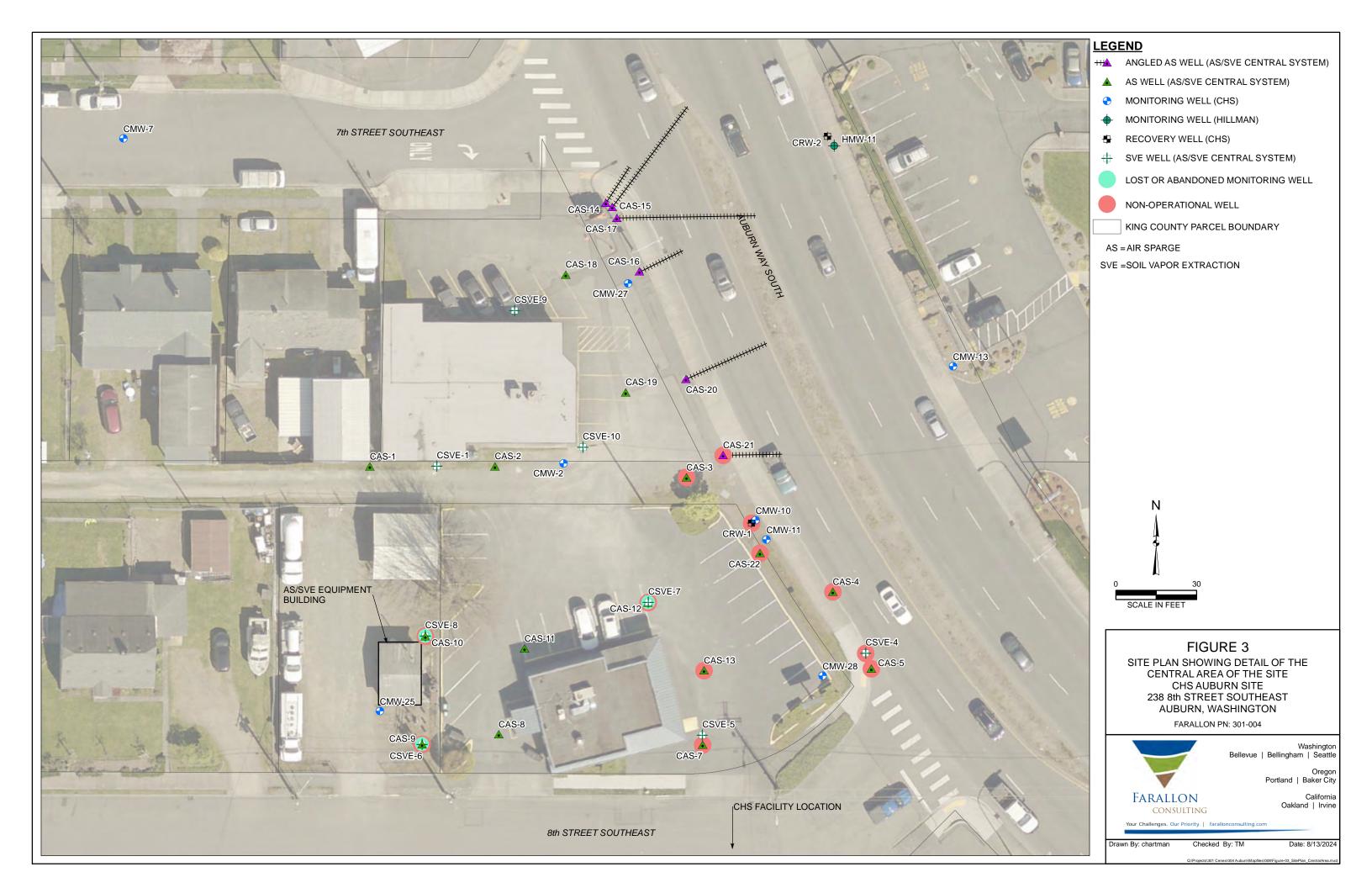
FIGURES

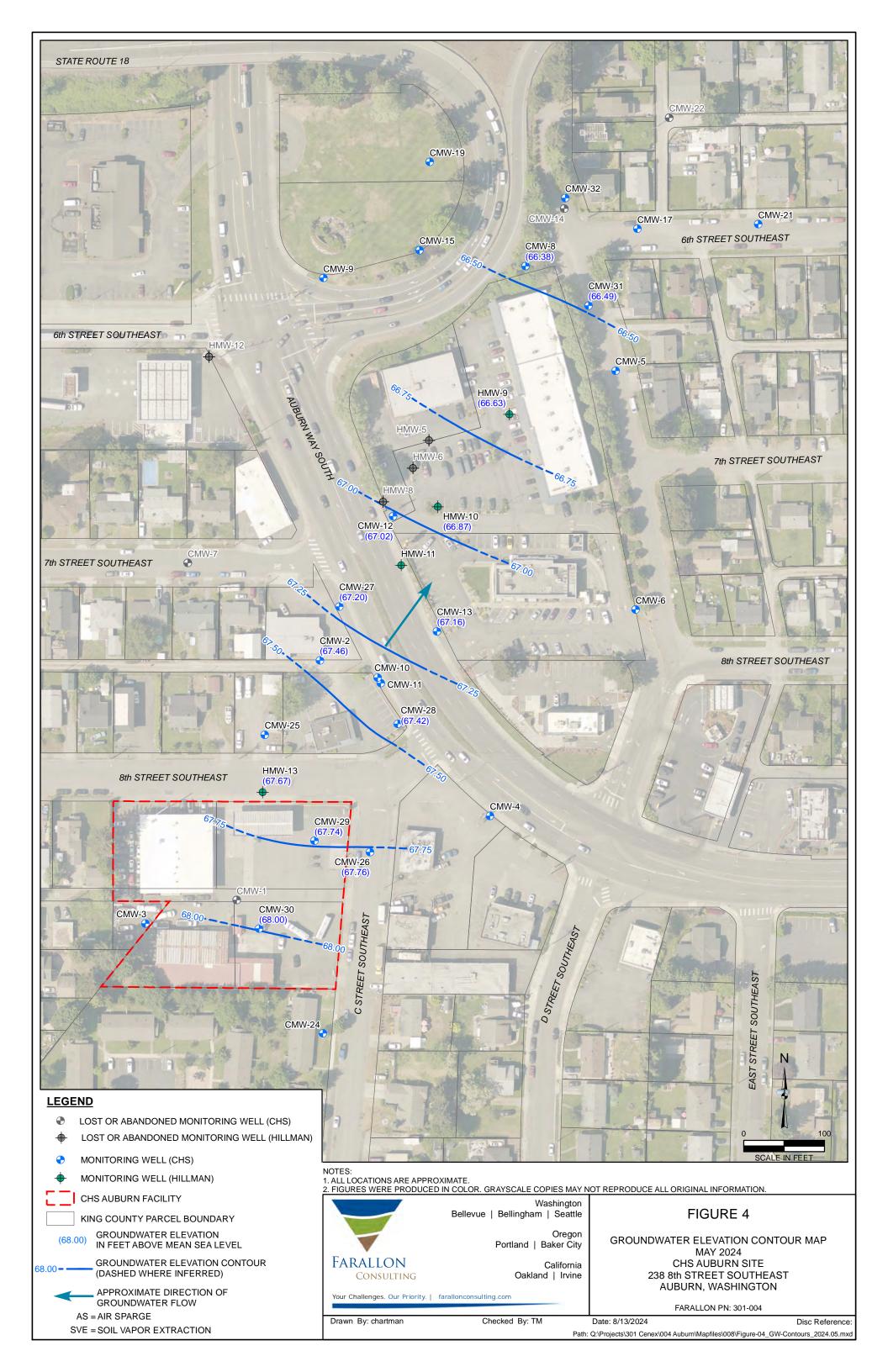
FIRST AND SECOND QUARTER 2024
GROUNDWATER MONITORING AND TREATMENT SYSTEM
OPERATION AND MAINTENANCE REPORT
CHS Auburn Site
Auburn, Washington

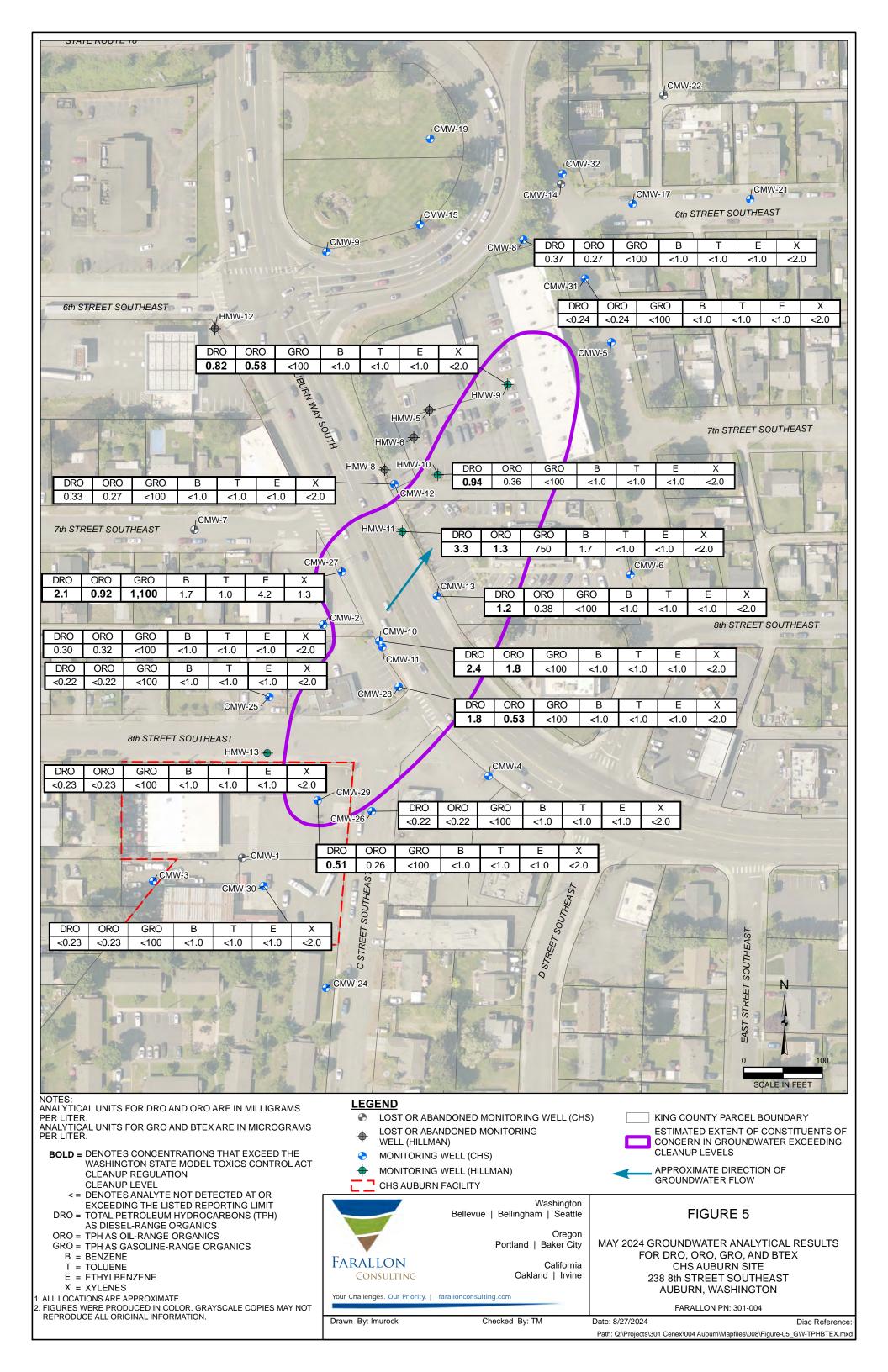
Farallon PN: 301-004

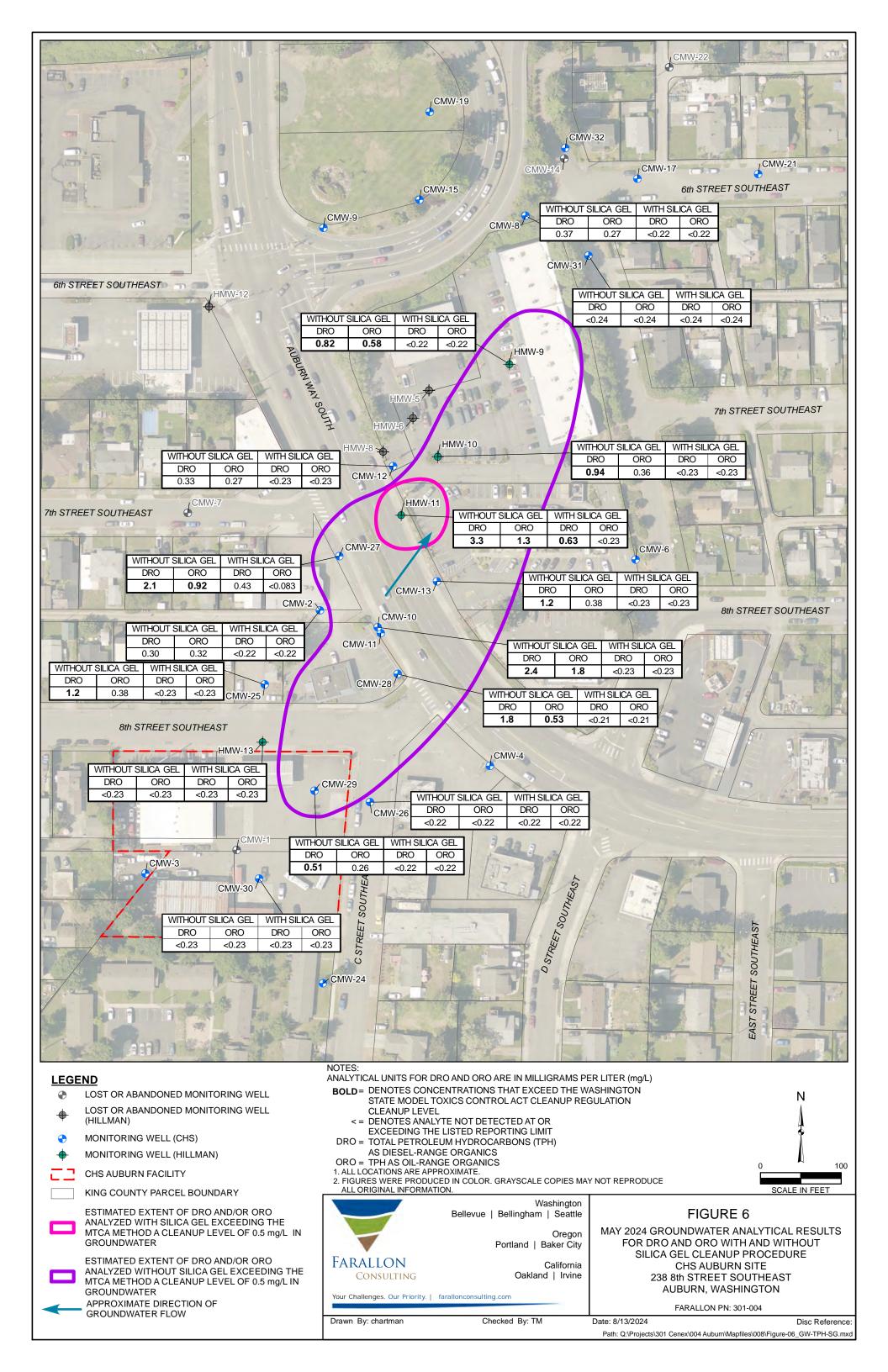












TABLES

FIRST AND SECOND QUARTER 2024
GROUNDWATER MONITORING AND TREATMENT SYSTEM
OPERATION AND MAINTENANCE REPORT
CHS Auburn Site
Auburn, Washington

Farallon PN: 301-004

Table 1 SVE System and Well Data Cenex Auburn Site Auburn, Washington Farallon PN: 301-004

													CSVE-1					CSVE-5					CSVE-7					CSVE-9					CSVE-10				7				Т.			Т			\neg
		•	S	ξ	` _				E)	~			C3VL-1					COVE-5					CSVL-7					C3VL-9					C3VL-10			g/m³)	Ľ,	(ر	lay)		Jo vec	_	<u> </u>			twee	
		n, pre-KO (IOW	n, post-KO (IO\ ate, Stack (dp)	ate, Stack (SCF	un Time (hours	, (Ambs)	s (pc)		t Temperature (ation, Vent Stac	ow)		ometer (FPM)	(M)	(md	ow)		ometer (FPM)	(M)	(wd	ow)		ometer (FPM)	(M)	(wd	ow)		ometer (FPM)	(M)	(wd	ow)		ometer (FPM)	(W.	(md	tical Results (µ	tical Results (n	entration¹ (mg/r	oval Rate² (Ibs/c	zene Removed ıg³(lbs)	of Benzene Rem	Results (ug/m	l Results (nL/m	ation¹ (mg/m3)	Rate ² (lbs/day)	S Removed Be	
		n Vacuu	n Vacuui n Flow R	n Flow R	Blower R	Runnin	r Freque		r Effluen	oncentra	acuum (I	tate (dp)	al Anem	tate (SCF	ading (p	acuum (I	tate (dp)	al Anem	tate (SCF	ading (p	acuum (I	tate (dp)	al Anem	tate (SCF	ading (p	acuum (I	tate (dp)	al Anem	tate (SCF	ading (p	acuum (I	tate (dp)	al Anem	tate (SCF	ading (p	ne Analy	ne Analy	ne Conc	ene Remo	nt of Ben en Testir	Amount o	Analytica	Analytica	Concentr	Removal	nt of GR(g³(lbs) Amount c	(sa)
	_	yster	yster	vster	tal	awo	o we		lowe	OC (md	e X	W R	merm	o ₩	D Re	ell (ow R	merm	ow R	D Re	ell V	ow R	nerm	ow R	D Re	ell V	ow R	merm	o R	D Re	ell V	ow R	nerm	Ø ₽	D Re	enze	enze	enze	enze	moul	otal /	80,	RO A	80	ROF	mour estin otal /	2
Date	Time 1210	6.0	- 0.3	2 13	3	- 4				130	S 6.0	0.157	F 	23.46	6 2	S	0.355	_ F	35.28	50	S	0.015	F :	7.25	250	S 6.0	0.204	F	26.75	35	5 .6	0.315	-F	33.23	1.2	<u>m</u>	<u>m</u>	<u> </u>		 					<u></u>	<u> </u>	1
	1240	6.0	0.3	_		-				32	5.8	0.210		27.14	42	5.6	0.330		34.02	17.9	6.0	0.023		8.98	110	6.0	0.210		27.14	24	6.0	0.340		34.53	1.0												
5/29/2019	1400	5.8	0.30	06 13	0	-				18.5	5.8	0.210		27.14	30.2	5.9	0.410		37.92	4.8	6.0	0.032		10.6	44	6.0	0.190		25.81	19.5	5.2	0.320		33.50	1.3												
	1500	5.9	0.3	2 13	3	-				23	5.2	0.210		27.14	21	5.5	0.370	-	36.02	4	5.4	0.020		8.37	16	5.7	0.200		26.48	95	6.0	0.330		34.02	1.4		<0.31	0.49	0.0059			-	<21		0.000		
6/13/2019	1415		0.1		87	2.	7 50)		14	8.5	0.210		27.1	3.2	5.0	0.320	-	33.5	1.8	4.1	0.050	1	13.24	0.1	4.7	0.200		26.50	56	5.0	0.320		33.50	1.4												
6/24/2019				130	o ¹ 35	1 -																															0.72	2.30	0.2687	2.01	2.01						
7/16/2019					44	_		_																																							_
7/18/2019	1540	3.8	0.3	-		_	_	_	95	44	3.4	0.100		18.73	0.3	3.2	0.380		36.5	5.8	3.3	0.160		23.69	34.4	3.5	0.110		19.64	165	3.4	0.160				0.578	-	0.0006	0.0000	0.821	2.8297	32800		+ +	0.3862	2.361 2.361	_
8/23/2019 9/18/2019	1130 945	4.4	0.3 0.2	_	-			_	95	21 3.7	4.0 3.8	0.159 0.157		23.12	87.7 19.2	3.8	0.532		42.3 39.11	6.1 0.9	4.1 3.9	0.020		9.32	7.3 1.0	4.2 3.9	0.143		21.92 22.44	12.5 1.2	4.0 3.8	0.239			0.0).372	-	0.0004	0.0000	0.000	2.8297	2650	-	2.65	0.0306	1.259 3.620)
9/18/2019	930	4.8	0.2	-		_	_	_	90	71.9	4.3	0.137		24.78	32.2	4.1	0.440		45.02	2.8	4.5	0.025		10.53	181	4.5	0.145		23.99	235.2	4.5	0.246				0.286	-	0.0001	0.0000	0.000	2.8298	151000		151	1.5901	8.242 11.862	62
10/22/2019	1120	13.1	0.2	_	_			-		23.8	13.0	0.219		27.27	12.8	11.9	1.482		71.03	2.8	12.3	0.129		20.94	121	12.5	0.039		11.51	20.7	13.1	0.004	-			<2.86	-	0.0014	0.0000	0.000	2.8300	+		110	1.2102	40.715 52.576	
11/27/2019	1045	17.4	0.1	_	_	-		_	80	1.3	14.5	0.251		29.13	2.7	14.3	2.165		85.59	0.4	14.2	0.123		20.40	1.1	17.3	0.004		3.66	0.8	16.7	0.022	-		0.4	-								1 1			
12/18/2019	1010	10.2	0.1	7 95	5 228	30 2.	3 40)		0.6	10.3	0.032		10.46	0.1	9.8	1.500		71.65	0.1	10.4	0.018	-	7.84	0.1	10.9	0.003		3.20	0.1	10.2	0.005	-	4.13	0.1 <	0.286		0.0001	0.0000	0.000	2.8303	837		0.84	0.0071	17.628 70.204)4
2/4/2020	1000	16.8	0.1	2 82	2 343	32 2.	4 40)			16.2	0.410		37.15		15.7	0.670		47.53		17.2	0.003		3.17		16.4	0.000		0.00		17.1	0.003	-	3.17	<	0.286		0.0001	0.0000	0.000	2.8303	105		0.11	0.0008	0.189 70.394) 4
2/21/2020	1200				384	12 2.	7 40)																												-											
2/26/2020	930	28.8	0.0			_		_	80	0.1	24.8	0.272		29.84	0.0	27.3	0.021		8.29	0.0	27.5	0.070		15.14	0.0	27.2	0.101		18.18	0.3	27.4	0.010	-		0.2	-								<u> </u>			
4/1/2020	910	11.9	0.1	-		_	_		75	0.2	11.4	2.464		91.64	0.1	10.4	0.612		45.73	0.2	11.5	0.067		15.11	0.1	11.5	0.832		53.24	0.1	11.7	0.081	-			0.286		0.0001	0.0000	0.000	2.8304	43.6		0.04	0.0003	0.029 70.422	_
5/7/2020	820	7.8	0.1	_	-	_		_	81	0.0	7.2	0.260		29.93	0.3	7.1	1.030		59.57	0.2	7.0	0.003	600	3.22	0.3	7.7	0.007	670	4.91	0.2	7.4	0.000	395			0.286	-	0.0001	0.0000	0.000	2.8304	29.5		0.03	0.0003	0.010 70.432	
6/2/2020 7/31/2020	852 1200	5.9	0.2 0.2	_	-	_	_	_		0.0	5.6 4.6	0.219 0.187		27.52 25.46	0.0	5.2 4.3	0.748		50.89 49.32	0.0	6.5 4.8	0.013		0.00	0.0	5.8 4.7	0.113		19.76 25.12	0.2	6.0 4.8	0.003	-		0.0	0.286	-	0.0001	0.0000	0.000	2.8304	234		0.23	0.0022	0.028 70.46	2
8/5/2020	1100	4.8	0.2		-	_		_			4.5	0.107		25.31		4.1	0.700		48.61		4.7	0.000	215	5.01		4.6	0.190	1370	25.30		4.7	0.000	205	4.78		-						<u> </u>	-	+			\dashv
10/2/2020	1245	5.1	0.2	_	_	-		-	85	1.9	4.8	0.187		25.46	8.4	4.5	0.753		51.10	0.2	5.0	0.000		6.41	0.0	4.9	0.172		24.41	0.1	5.0	0.000	-		0.1	-											\exists
11/6/2020	900	11.7	0.1	7 94	1 912	29 2.	3 40)	78	0.9	10.9	0.085		16.95	2.5	9.7	1.440		69.87	0.0	10.9	0.000	556.8	12.98	0.0	11.5	0.028		9.72	0.0	10.9	0.000	572.4	13.34	0.0	-		0.0001	0.0000	0.000	2.8306	1580		1.58	0.0134	1.010 71.47	.7
12/9/2020	1309	13.5	0.1	5 90	977	7 5 2.	4 40)	78	0.7	13.9	0.061	4700	14.38	0.1	12.3	1.660		76.28	0.5	12.8	0.000	627	14.61	0.1	13.8	0.000	645	15.03	0.2	12.9	0.000	609	14.19	0.1	-											
1/7/2021	1049	14.9	0.18	35 99	103	14 2.	4 40)		0.1	13.8	0.139		21.78	1.1	13.2	1.660		75.05	0.0	14.4	0.000			0.0	14.2	0.000			0.0	14.6	0.000	-		0.0	-											
3/2/2021	1400	18.9	0.07	77 64	116	02 2.	5 40)		0.0	17.8	0.216		26.91	0.0	17.0	0.611		45.31	0.0	18.3	0.000	795	18.53	0.0	17.8	0.000	774	18.04	0.1	18.2	0.000	806	18.78	0.2 <	0.319		0.0002	0.0000	0.000	2.8307	<164		0.082	0.0005	0.714 72.184	34
4/7/2021	930	10.1	0.11	-			_	_	63	0.0	9.8	0.203		26.36	0.0	9.1	1.216		64.56	0.1	10.0	0.000	249	5.80	0.0	10.2	0.000	266	6.2	0.0	10.2	0.000	254		0.0	-											
5/17/2021	930	8.1	0.11	_		_			69	0.0	7.5	0.320	205	33.19	0.0	7.1	1.020		59.28	0.0	7.8	0.000		4.78	0.0	8.1	0.000	208	4.85	0.0	8.0	0.000	201			<2.6		0.0013	0.0000			58000		58	0.4083	15.255 87.438	
6/15/2021 8/25/2021							2 40)	75 	0.1	7.4	0.315		32.93	0.0	7.0	1.015		59.14	0.0	7.7	0.000	200	4.66	0.0	7.8	0.000	196	4.57	0.0	7.8	0.007	200	4.91	0.0	<5.8										9.157 96.596 5.177 101.77	
10/13/2021																																	1511							+	_	+		_			12
1/3/2022	1330	16.5	0.11	19 79	166	82 2.	4 40)	77	0.0	16.2	0.118		12.71	0.2	14.7	1.553		72.45	0.0	15.5	0.000	696	16.22	0.0	15.9	0.000	685	15.96	0.0	16.0	0.000	752	17.52	0.0								_		-		\dashv
																																														6.692 108.46	
			0.16	67 94	1 197	47 2.	2 40) ;	82	0.1	8.7	0.286		31.33	0.0	8.2	1.025		59.34	0.1	8.9	0.000	467	10.88	0.0	9.1	0.000	482	11.23	0.0	9.0	0.000	490	11.42	0.0	<1.5		0.0008	0.0000	0.001	2.8340					2.551 111.01	
5/26/2022			0.1	8 98	3 199	43 2.	3 40) ;	83		7.8	0.286		31.36		7.7	1.070		60.67		8.5	0.000	60	1.40		8.6	0.000	55	1.28		8.6	0.000	58	1.35													
8/10/2022	1020	8					2 40			0.0	7.7	0.303		31.68	0.0	7.2	0.993		57.39	0.0	7.9	0.000	466	10.86	0.0	8.0	0.000	482	11.23	0.0	8.0	0.000	481	11.21	0.0	<3.5		0.0018	0.0000	0.001	2.8347	3800			0.0323	1.399 112.41	14
10/10/2022							2 40																																			34000				8.251 120.66	
			0.12							-		_							85.96	9.5																				_		1	-	+ +		10.899 131.56	64
12/29/2022				_			4 40														-														_						+	+					_
1/6/2023					245			_																																1	+		_	+			4
1/26/2023 2/27/2023			0.16		245				68		16.5	0.000					2.234		91.43		16.6	0.004	786				0.001		18.62			0.000	785											+			\dashv
3/10/2023			0.13					_																															0 0000			2700				3.481 135.04	145
3/17/2023			0.13	_				_									1.555																						_			+	_				_
4/10/2023								_																																							\dashv
					1						1								1		1																				1						

Table 1 **SVE System and Well Data Cenex Auburn Site** Auburn, Washington Farallon PN: 301-004

													CSVE-	l				CSVE-5					CSVE-7					CSVE-9					CSVE-10)		-]3	Ţ				þ					e e	
Date	Time	System Vacuum, pre-KO (IOW)	System Vacuum, post-KO (IOW)	System Flow Rate, Stack (dp)	System Flow Rate, Stack (SCFM)	Total Blower Run Time (hours)	Blower Running (Amps)	Blower Frequency (Hz)	Blower Effluent Temperature (F)	VOC Concentration, Vent Stack (ppm)	Well Vacuum (IOW)	Flow Rate (dp)	Thermal Anemometer (FPM)	Flow Rate (SCFM)	PID Reading (ppm)	Well Vacuum (IOW)	Flow Rate (dp)	Thermal Anemometer (FPM)	Flow Rate (SCFM)	PID Reading (ppm)	Well Vacuum (IOW)	Flow Rate (dp)	Thermal Anemometer (FPM)	Flow Rate (SCFM)	PID Reading (ppm)	Well Vacuum (IOW)	Flow Rate (dp)	Thermal Anemometer (FPM)	Flow Rate (SCFM)	PID Reading (ppm)	Well Vacuum (IOW)	Flow Rate (dp)	Thermal Anemometer (FPM)	Flow Rate (SCFM)	PID Reading (ppm)	Benzene Analytical Results (µg/m	Benzene Analytical Results (nL/m	Benzene Concentration ¹ (mg/m³)	Benzene Removal Rate² (lbs/day)	Amount of Benzene Removed Between Testing ³ (lbs)	Total Amount of Benzene Remove to Date ⁴ (lbs)	GRO Analytical Results (ug/m³)	GRO Analytical Results (nL/mL)	GRO Concentration ¹ (mg/m3)	GRO Removal Rate ² (lbs/day)	Amount of GRO Removed Betwe Testing ³ (lbs)	Total Amount of GRO Removed to Date ⁴ (lbs)
5/11/2023	1315	14.7	14.7	0.119	80	26631	2.3	40	92	0.0	14.4	0.000	619	14.42	0.0	12.9	2.158		85.6	0.0	14.4	0.000	627	14.61	0.0	14.6	0.000	652	15.19	0.0	14.6	0.000	625	14.56	0.0	<2.5	-	0.0013	0.0000	0.0015	2.8395	12000		12	0.086	3.169	138.214
5/22/2023	1200)				26670															-								-								-										
7/12/2023	1150	32.5		0.064	58	27702	2.7	40	97	0.0	31.7	0.000	544	12.68	0.0	5.2	0.845	2974	54.08	0.0	31.8	0.000	683	15.92	0.0	31.9	0.000	688	16.03	0.0	31.7	0.000	676	15.75	0.0	<2.6		0.0013	0.0000	0.00035	2.8399	39000		39	0.2017	6.420	144.634
8/2/2023	1030)				28145	2.3	40			12.8	0.754	857	19.97	-	2.4	0.350	1806	42.08		13.4	0.000	489	11.40		13.5	0.000	517	12.05		13.4	0.000	645	15.03			-										
9/29/2023	1021	11.8		0.151	79	29427	2.4	40	80	10.8	13.4	0.726	2608	49.62	12.3	2.9	0.348	1796	34.81	0.4	13.9	0.000	502	11.70	0.2	14.1	0.000	460	10.72	0.1	14.1	0.000	410	9.55	0.1	<2.7	-	0.00135	0.0000	0.00059	2.8405	40000		40	0.2839	17.448	162.081
11/14/2023	1015	16.5		0.091	69	30532	2.4	40	75	4.4	15.6	0.981	248	57.52	4.0	4.0	0.395	2153	37.03	0.0	16.4	0.000	782	18.22	0.0	16.2	0.000	896	20.88	0.0	16.3	0.000	818	19.06	0.0	<2.7	-	0.00135	0.0000	0.00041	2.8409	18000		18	0.1125	9.126	171.207
1/18/2024	9:25	17.3		0.125	83	31881	2.4	40	60	0.7	17.0	0.669	3920	91.35	0.0	4.8	0.375	1512	35.23	0.5	16.9	0.000	629	14.66	0.2	17.1	0.000	655	15.26	0.1	16.9	0.000	647	14.96	0.0	<1.8		0.0009	0.0000	0.00043	2.8413	<1900		0.95	0.0071	3.361	174.568
3/11/2024	12:30	16.8		0.118	81	33155	2.4	40	78	0.0	16.6	0.668	2662	47.40	0.0	4.8	0.322	2172	33.40	0.0	16.6	0.007	430	10.02	0.0	16.6	0.000	455	10.6	0.0	16.9	0.000	408	9.51	0.0	<1.7		0.00085	0.0000	0.00034	2.8416	<1800		0.90	0.0065	0.362	174.930
5/13/2024	13:20	14.8		0.154	89	34668	2.3	40	89	0.0	14.1	0.000	2660	61.99	0.0	2.6	0.387	2005	46.72	0.0	14.5	0.733	354	8.25	0.0	14.8	0.000	338	7.88	0.0	14.8	0.000	327	7.62	0.0	<1.8		0.0009	0.0000	0.00042	2.8421	6800		6.8	0.0546	1.926	176.856
6/13/2024	11:1	5				35022																															-										

NOTES:

¹flow rate not measured, assumed value for performance calculation.

-- denotes not collected

CALCULATIONS:

Benzene concentration (mg/m³) = either μ g/l = mg/m³ or (ppmv)*3.19

 $^2 \ \text{Benzene removal rate (lbs/day)} = (\text{Flow rate scfm})^* (\text{Benzene concentration mg/m}^3)^* (1/35.3 \ \text{m}^3/\text{tt}^3)^* (1,440 \ \text{minutes/day})^* (1/453,592.4 \ \text{lbs/mg})$

³ Benzene removed (lbs) = average (Benzene removal rate lbs/day)*(operating hours between sampling events)(1 day/24 hours)
⁴ Total Amount Removed to Date (lbs) = Previous Total Amount Removed + Amount Removed Between Sampling Events

dp = differential pressure F = degrees Fahrenheit

ft³ = cubic feet Hz = hertz IOW = inches of water

L = liter lbs = pounds

m³ = cubic meters

μg = microgram mg = milligrams mL - milliliter

nL = nanoliter

nl = nanoliter
ppm = parts per million measured by photoionization detector (PID) calibrated using isobutylene span gas
ppm = parts per million volume
psi = pounds per square inch
SCFM = standard cubic feet per minute
SVE = soil vapor extraction
VOC = volatile organic compound

Table 2 AS System and Well Data Cenex Auburn Site Auburn, Washington Farallon PN: 301-004

		υ O	v	2	(F)	(F)		CAS	i-1	CA	S-2	CA	S-3	CA	S-4	CA	\S-5	C.A	\S-7	CAS	S-12	CAS	S-14	CAS	S-15	CAS	S-16	CAS	-17	CAS	S-18	CAS	S-19	CAS	S-20	CAS	S-21	CAS	3-22	
		Run Time	Amps	y (Hz)	ø	ture						- 0,		<u> </u>		0,1				07.0	<u> </u>	0,10		0,10		0710				07.10	, 10	07.0		07.0		07.0				ΣĘ
Date	Time	Compressor Total Run (hrs)	Compressor Running A	Compressor Frequency	Pre-Cooling Temperatur	Post-Cooling Temperature (F)	System Pressure (psi)	Well Pressure (psi)	Flow Rate (SCFM)	TOTAL Flow Rate (SCFM)																														
F/20/2040	1415				152	105	9.2	0.0	2.8	9.9	0.8	8.3	0.9	9.8	0.0	8.9	0.0	3.0	3.1	10.3	0.0	9.1	6.2	8.2	2.9	8.9	3.2	9.9	0.0	9.0	3.7	6.7	3.2	5.9	2.9	6.8	3.1	8.1	3.0	35.8
5/29/2019	1600				-			8.9	0.6	9.1	0.8	7.7	2.8	9.3	0.7	8.0	3.1	3.0	3.0	10.2	0.6	6.0	3	7.0	2.9	7.7	3.3	9.1	0.8	6.2	3.1	5.5	3.2	4.0	3.1	5.5	3.0	7.0	3.4	37.4
6/13/2019	1415	70.0	8.3	60			9.0	9.2	0.0	9.2	0.0	5.3	3.3	9	3	7.5	3	9.5	1.7	0.0	0.0	5.2	2.9	6.8	2.5	7.1	2.9	9.2	1.2	5.9	3.2	5	3	4.3	2.9	5.3	2.4	6.9	3.0	35.0
7/18/2019	1540	496.0	8.3	60	160	120	10.0	8.9	0.0	9.0	0.0	7.1	3.1	9.0	3.3	7.5	2.9	9.1	2.3	0.0	0.0	5.0	2.5	6.8	2.7	7.0	2.9	9.7	1.7	5.0	2.9	4.5	3.0	4.2	3.0	5.0	2.4	7.0	2.5	35.2
7/19/2019	1230	517.8	8.3	60	155	110	10.9	9.8	0.0	9.0	0.0	8.0	3.1	9.0	3.7	8.0	2.9	10.9	2.8	0.0	0.0	5.5	2.6	7.0	2.7	7.2	3.0	9.7	1.7	5.9	3.0	5.0	3.0	5.0	3.1	5.4	2.4	7.0	2.5	36.5
8/23/2019	1130	641.0	8.5	60	155	114	10.2	9.6	0.0	9.0	0.0	7.8	2.9	9.0	2.3	7.9	3.0	10.1	3.4	10.0	0.0	5.1	2.5	7.0	2.8	7.1	2.9	9.1	1.7	5.7	3.0	4.9	3.0	5.0	3.1	5.2	2.4	7.0	2.7	35.7
9/18/2019	1005	766.8	8.3	60	145	105	11.2	10.0	0.0	9.0	0.0	8.1	3.4	9.0	2.6	8.3	3.5	10.1	3.7	10.0	0.0	5.7	2.6	7.1	2.9	7.5	3.1	9.6	2.2	6.1	3.1	5.2	3.1	5.3	2.9	5.8	2.2	7.8	0.0	35.3
9/23/2019	1030	885.1	8.3	60	147	104	11.4	10.0	0.0	9.0	0.0	8.4	3.5	9.1	3.0	8.6	2.9	10.1	3.2	10.0	0.0	5.9	2.7	7.2	2.8	7.7	3.2	9.9	2.3	6.0	3.1	5.2	3.1	5.5	2.9	5.9	2.3	7.4	0.0	35.0
10/22/2019	1205	1583	8.3	60	147	105	12.2	10.5	0.0	9.1	0.0	9.1	3.5	9.8	3.2	9.0	3.4	10.2	3.2	10.0	0.0	6.2	2.6	8.0	2.9	8.2	3.1	10.1	2.4	7.0	3.0	6.0	3.1	6.2	2.8	6.0	2.2	8.0	2.6	38.0
10/22/2019	1355						-	Close	ed	9.1	2.9	9.0	2.9	9.7	2.8	9.0	3.4	10.2	2.4	10.2	1.6	6.2	2.5	8.0	2.9	8.1	3.0	10.0	2.4	7.0	3.0	6.0	3.0	6.1	2.8	6.0	2.2	8.0	2.6	40.4
11/27/2019	1045	2235	8.6	60	95	55	14.7	Close	ed	10.8	3.3	11.0	3.2	11.0	2.7	11.1	3.1	10.8	1.9	10.6	1.9	8.0	2.6	9.7	2.7	9.8	3.0	11.2	1.6	9.0	3.0	8.0	2.8	8.9	2.8	7.5	1.9	9.9	2.7	39.2
12/18/2019	1010	2278	8.3	60	135	92	12.0	Close	ed	9.9	3.5	10.0	3.5	10.5	2.8	10.1	3.1	11.0	1.2	10.6	1.9	7.1	2.7	9.0	2.8	9.0	3.2	11.0	1.9	8.0	3.1	7.0	2.8	7.1	2.8	6.9	1.9	8.9	2.7	39.9
2/4/2020	1030	3430	8.5	60	150	98	14.0	Close	ed	12.4	3.5	12.2	2.9	13.0	2.6	12.3	3.0	13.1	1.2	13.0	1.9	9.4	2.5	11.0	2.6	11.2	3.0	13.0	2.0	9.9	2.9	9.0	2.6	9.2	2.7	9.1	1.8	11.0	2.7	37.9
2/21/2020	1200	3840	8.6	60	160	110	1			1	-	-		-	1	-									-						-	1	1				-			
2/26/2020	930	3840	8.8	60	150	100	15.0	Close	ed	14.5	3.5	14.6	3.2	14.5	2.6	15.0	3.5	13.5	2.4	13.5	1.7	11.0	1.5	13.0	2.1	13.0	3.0	15.0	1.6	12.5	2.7	11.5	2.6	12.2	2.8	10.5	1.7	13.3	2.6	37.5
4/1/2020	910	4679	8.5	60	150	106	14.0	Close	ed	12.2	3.3	12.0	3.2	12.6	2.5	12.0	3.5	12.9	2.3	12.9	1.7	9.0	1.7	10.9	2.2	11.0	3.0	12.9	1.7	9.5	2.9	8.8	2.6	9.0	2.8	8.9	1.7	10.9	2.6	37.7
5/7/2020	910	5448	8.4	60	150	111	13.6	Close		11.9	3.5	11.3		12.1	2.5	11.3	3.5	12.3		12.2	1.7	8.3	1.1	10.1	2.1	10.4	3.0	12.1	1.9	8.8	2.7	8.0	2.6	8.1	2.9	8.1	1.7	10.1	2.6	37.3
6/2/2020	852	6009	8.4	60	155	110	13.2	Close	ed	11.5	3.4	11.1	3.1	11.9	2.5	11.1	3.5	12.0	2.3	11.9	1.9	7.9	1.2	9.7	2.2	10.0	3.0	12.0	2.0	8.4	2.7	7.8	2.5	8.0	2.8	7.8	1.7	9.9	2.6	37.4
7/31/2020	1200	7173	8.4	60	155	113	13.2	Close	ed	10.2	4.6	10.2	3.3	10.9	2.6	10.4	3.5	11.3	1.9	11.1	1.8	6.8	1.2	8.3	2.2	9.1	2.9	11.9	2.0	7.0	2.7	6.2	2.5	7.1	2.8	7.0	1.7	9.0	2.0	37.7
8/5/2020	1100	7177	8.6	60	148	110	13.8	Close	ed	7.3	3.0	11.1	2.9	11.3	2.5	11.4	2.8	11.2	2.6	11.0	2.2	7.2	1.0	9.1	2.2	10.0	2.9	11.5	2.5	8.9	2.7	7.6	2.5	8.8	2.7	7.7	1.7	9.8	2.0	36.2
10/2/2020	1245	8291	8.3	60	155	110	12.2	Close	ed	4.9	2.9	10.2	2.8	10.8	2.5	10.0	3.2	10.8	3.2	10.5	2.7	6.2	1.2	8.7	2.2	9.2	2.9	11.1	2.6	7.9	2.7	6.8	2.5	7.8	2.9	6.4	1.8	8.9	1.9	38.0
11/6/2020	900	9128	8.3	60	145	95	12.5	Close	ed	5.6	3.0	11.4	3.1	11.3	2.5	11.1	3.2	11.0	3.0	10.8	2.7	7.1	1.1	9.7	2.2	10.0	3.0	11.9	2.6	9.0	2.7	8.0	2.4	9.1	3.0	7.2	1.7	9.8	1.8	38.0
12/9/2020	1309	9768	8.4	60	150	100	13.5	Close	ed	Clo	sed	11.7	3.3	11.5	2.3	11.5	3.7	11.6	4.0	11.1	2.7	8.9	1.1	10.0	2.1	10.2	3.0	12.3	3.1	8.9	2.7	7.9	2.4	8.8	3.0	7.9	1.9	9.9	1.8	37.1
1/7/2021	1049	10307	8.6	60	135	81	14.1	Close	ed	Clo	sed	13.8	3.1	13.1	2.4	13.9	3.4	14.0	3.1	14.0	2.7	9.9	2.1	12.0	2.3	12.1	3.0	14.1	3.0	11.5	2.6	10.1	2.4	11.1	3.0	9.5	1.6	11.7	1.7	36.4
2/1/2021	1400				160	105	15.1	12.8	0.6	13.1	0.6	13.2	3.0	13.1	2.4	13.3	3.2	14.0	3.4	14.0	2.8	9.4	1.9	11.4	2.3	12.0	3.0	13.9	3.0	10.3	2.6	9.7	2.3	10.6	2.9	9.6	1.8	11.7	1.7	37.5
3/2/2021	1400	11595	8.6	60	160	107	15.1	12.9	0.6	13.1	0.6	13.2	3.0	13.2	2.4	13.3	3.2	14.2	3.5	14.2	2.8	9.5	1.9	11.5	2.2	12.0	3.0	14.0	3.0	10.2	2.7	9.7	2.3	10.3	2.9	9.6	1.7	11.8	1.7	37.5
4/7/2021	930	12454	8.5	60	155	100	15.0	12.2	0.0	13.0	0.0	12.7	3.3	12.9	2.3	13.1	3.0	14.1	2.2	14.0	2.2	9.0	2.0	11.9	2.4	11.1	3.0	13.4	3.4	9.8	2.7	8.9	2.3	9.9	3.1	8.9	1.9	11.0	1.7	35.5
5/17/2021	930	13386	8.4	60	159	110	14.0	11.1	0.0	11.9	0.8	11.7	3.3	12.0	2.1	12.0	3.0	13.2	2.3	13.0	2.7	8.0	1.9	9.9	2.3	10.2	3.0	12.5	3.3	8.6	2.7	8.9	2.3	8.9	3.1	9.0	1.9	9.9	1.7	36.4

Table 2 AS System and Well Data Cenex Auburn Site Auburn, Washington Farallon PN: 301-004

		ω	"		<u>.</u>	(F)		C A	\S-1	C 4	S-2	CAS-3	CAS-	_1	CAS	2-5	CAS-7	, l	CAS-	12	CAS-	14	CAS	2-15	CAS	2-16	CAS	-17	CAS	2_10	CAS	S-19	CAS	S-20	CAS-21	CAS-2	,
		Time	Amps	, (Hz)	re (F)			CA	13-1	CA	3-2	CAS-3	CAS	-4	CAS)-o	CAS-	'	CAS.	-12	CAS-	14	CAS	9-13	CAS	5-10	CAS)-17	CA	5-10	CAS	5-19	CA	3-20	CA3-21	CA3-2	
Date	Time	Compressor Total Run (hrs)	Compressor Running A	Compressor Frequency	Pre-Cooling Temperatur	Post-Cooling Temperature	System Pressure (psi)	Well Pressure (psi)	Flow Rate (SCFM)	Well Pressure (psi)	Flow Rate (SCFM)	Well Pressure (psi) Flow Rate (SCFM)	Well Pressure (psi)	Flow Rate (SCFM)	Pres	Flow Rate (SCFM)	Press	Flow Rate (SCFM)	Well Pressure (psi)	Rate (SC	Well Pressure (psi)	Flow Rate (SCFM)	Well Pressure (psi) Flow Rate (SCFM)	Press	TOTAL Flow Rate (SCFM)												
6/15/2021	1100	13827	8.4	60	165	120	14.0	11.1	0.0	11.5	0.9	11.5 3.1		2.2		3.1				2.7	7.9	1.9	9.9	2.3	10.4	2.9	12.6	3.0	8.9	2.7	7.9	2.3	8.4	3.0	7.8 1.9	9.6 1	7 36.1
8/17/2021	1402	14181	9.0	60	183	115	18.5	15.8	0.5	10.1	1.0	Closed	Close	ed	Close	ed	Close	d	Clos	ed (6.9	3.2	8.9	4.0	10.0	6.0	11.2	4.0	9.1	7.0	7.0	5.1	7.5	4.7	Closed	Closed	35.5
8/25/2021	1240	14230	8.8	60	190	130	17.8	14.2	0.5	9.5	1.4	Closed	Close	ed	Close	ed	Close	d	Clos	ed :	5.9	3.3	7.9	3.8	9.1	5.9	10.4	3.5	8.0	7.5	6.0	5.0	6.1	4.4	Closed	Closed	35.3
10/13/2021	1205	15261	7.9	60	132	96	18.0	Clo	sed	11.0	1.4	Closed	Close	ed	Close	ed	Close	d	Clos	ed 8	8.0	3.4	10.1	4.0	11.2	5.9	12.3	3.7	12.5	7.0	9.0	5.0	10.2	4.5	Closed	Closed	34.9
1/3/2022	1330	16676	8.9	60	175	105	19.5	15.6	2.3	13.0	1.3	Closed	Close	ed	Close	ed	Close	d	Clos	ed s	9.9	3.1	12.0	3.7	13.0	5.2	14.1	3.3	12.9	7.1	10.6	4.1	10.8	4.1	Closed	Closed	34.2
2/23/2022	1135	17897	9.1	60	170	110	20.0	18.0	1.9	13.9	1.2	Closed	Close	ed	Close	ed	Close	d	Clos	ed 1	0.9	3.1	12.9	3.9	13.5	5.3	14.9	3.6	13.5	7.3	11.1	4.6	11.3	4.2	Closed	Closed	35.1
5/12/2022	915	19740	9.0	60	185	110	20.0	17.5	2.1	13.0	1.3	Closed	Close	ed	Close	ed	Close	d	Clos	ed !	9.5	2.7	11.5	3.9	12.5	5.5	14.0	3.5	12.8	7.2	10.0	4.7	10.6	4.2	Closed	Closed	35.1
5/26/2022	1404	19936	9.1	60	145	86	19.5	16.8	1.0	12.1	2.0	Closed	Close	ed	Close	ed	Close	d	Clos	ed 1	0.0	3.4	12.1	3.8	12.8	5.1	14.1	3.2	13.9	6.4	10.2	4.4	10.1	3.9	Closed	Closed	33.2
8/10/2022	1020	21479	8.8	60	185	124	17.9	15.0	1.0	0.0	3.4	Closed	Close	ed	Close	ed	Close	d	Clos	ed	7.9	3.5	10.0	4.0	10.8	5.3	12.1	3.2	10.2	7.2	8.0	4.5	8.3	4.1	Closed	Closed	36.2
8/10/2022	1200	21491	8.8	60	185	124	-	15.9	1.5	Clo	sed	Closed	Close	ed	Close	ed	Close	d	Clos	ed 7	7.9	3.7	10.0	4.3	11.0	5.7	12.0	3.5	10.1	7.6	8.0	4.8	8.4	4.3	Closed	Closed	35.4
10/10/2022	1420	22861	8.7	60	195	124	18.1	15.3	1.0	Clo	sed	Closed	Close	ed	Close	ed	Close	d	Clos	ed	7.9	3.9	9.8	4.3	10.8	5.9	12.0	3.8	10.5	7.7	7.9	4.8	7.9	4.3	Closed	Closed	35.7
12/16/2022	1200	24179	8.9	60	195	106	19.5	16.9	2.5	Clo	sed	Closed	Close	ed	Close	ed	Close	d	Clos	ed !	9.5	4.0	11.9	4.3	12.1	5.9	13.6	3.8	12.1	7.7	10.1	4.9	8.9	4.3	Closed	Closed	37.4
12/29/2022	1130	24415	9.2	60	-	-	-	-	-		-	-	-		-		-		-		-	-	-	-	-	-	-	-	-	•	-	-	-	-	-	-	-
3/10/2023	903	24546	0.0	0	-	-	-	-	-		-	-	-		-		-		-		-	-	-	-	-	-	-	-	-	•	-	-	-	-	-	-	-
3/17/2023	1345	24547	8.9	60	180	116	20.0	17.2	0.1	12.8	1.0	Closed	Close	ed	Close	ed	Close	d	Clos	ed 1	0.3	3.7	12.9	4.1	13.0	5.7	14.7	3.5	13.1	7.5	11.0	4.6	9.9	3.6	Closed	Closed	33.8
4/10/2023	1439	25061	-	-	-	-	-	-	-	-	-	Closed	Close	ed	Close	ed	Close	d	Clos	ed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Closed	Closed	-
5/11/2023	1315	25801	8.6	50.0	176	112	16.5	13.8	0.5	11.5	0.5	Closed	Close	ed	Close	ed	Close	d	Clos	ed !	9.0	3.1	11.1	3.3	11.2	4.3	13.0	2.4	10.9	6.3	9.1	3.8	7.9	3.0	Closed	Closed	27.2
5/22/2023	1200	25840	-	-	-	-	-	-	-		-	-	-		-		-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/12/2023	1150	26873	8.4	50.0	170	120	15.5	12.5	0.5	10).2	Closed	Close	ed	Close	ed	Close	d	Clos	ed 8	8.0	3.2	10.0	3.4	10.5	4.5	12.0	2.6	9.5	6.3	8.0	3.9	6.1	3.1	Closed	Closed	28.0
8/2/2023	-	-	-	-	-	-	-	-	-		-	-	-		-		-		-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/29/2023	1021	28597	8.4	50.0	115	78	17.2	13.3	0.7	11	1.3	Closed	Close	ed	Close	ed	Close	d	Clos	ed s	9.9	3.4	12.1	3.6	12.0	4.7	13.2	2.7	15.0	6.5	11.2	4.0	12.9	3.2	Closed	Closed	29.4
11/14/2023	1015	29702	8.4	50.0	143	90	15.3	13.5	1.0	11.3	0.6	Closed	Close	ed	Close	ed	Close	d	Clos	ed s	9.3	3.3	11.8	3.6	11.9	4.7	13.1	2.7	13.1	6.6	10.2	4.0	9.7	3.2	Closed	Closed	29.7
1/18/2024	9:25	31051	8.6	50.0	150	80	16.9	15.0	1.5	2.9	8.0	Closed	Close	ed	Close	ed	Close	d	Clos								14.6				11.2		3.1	9.1	Closed	Closed	35.0
3/11/2024	12:30	32326	8.6	50.0	169	99	18.0	15.0	2.0	13.0	0.1	Closed	Close	ed	Close	ed	Close	d	Clos	ed 1	0.3	3.0	13.0	3.2	13.2	4.3	14.9	2.5	12.9	6.2	11.0	3.7	9.8	3.0	Closed	Closed	28.0
5/13/2024	13:20	33838	8.5	50.0	168	107	16.5	13.9	1.5	11.7	0.0	Closed	Close	ed	Close	ed	Close	d	Clos	ed 8	8.8	2.9	11.0	3.4	11.8	4.4	13.0	2.5	10.0	6.2	8.5	3.7	6.8	3.1	Closed	Closed	27.7
6/13/2024	11:15	34193																																			

NOTES:

AS = air sparge dp = differential pressure hrs = hours Hz - hertz F = degrees Fahrenheit
IOW = inches of water
psi = pounds per square inch
SCFM = standard cubic feet per minute

⁻⁻ denotes not collected

Table 3
Air Analytical Data
Cenex Auburn Site
Auburn, Washington
Farallon PN: 301-004

				Ana	llytical Results	(nanoliter per	microliter [ppm	ıv])
Sample Location	Sample Identification	Sample Methodology	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	GRO
	EFFLUENT-052919	EPA 2021B	5/29/2019	< 0.31	< 0.26	< 0.23	< 0.46	< 21
	EFFLUENT-062419	EPA 2021B	6/24/2019	0.72	< 0.26	<0.23	< 0.46	< 21
	EFFLUENT-071819	EPA TO-15	7/18/2019	0.000181	0.000623	0.00171	0.0031	8.030 ^{E*}
	EFFLUENT-082319	EPA TO-15	8/23/2019	0.000116	0.000610	0.00287	0.0126	0.647
	EFFLUENT-092319	EPA TO-15	9/23/2019	< 0.0000895	< 0.0004	0.00294	0.0075	36.9 ^E
	EFFLUENT-102219	EPA TO-15	10/22/2019	< 0.000895	< 0.0040	< 0.0040	< 0.016	27.0 ^E
	EFFLUENT-121819	EPA TO-15	12/18/2019	< 0.0000895	< 0.00040	< 0.00040	< 0.0016	0.205
	EFFLUENT-020420	EPA TO-15	2/4/2020	< 0.0000895	< 0.00040	< 0.00040	< 0.0016	0.026
	EFFLUENT-040120	EPA TO-15	4/1/2020	< 0.0000895	< 0.00040	< 0.00040	< 0.0016	0.011
	EFFLUENT-050720	EPA TO-15	5/7/2020	< 0.0000895	< 0.00040	< 0.00040	< 0.0016	0.007
SVE System	EFFLUENT-060220	EPA TO-15	6/2/2020	< 0.0000895	< 0.00040	< 0.00040	< 0.0016	0.057
	EFFLUENT-110620	EPA TO-15	11/6/2020	< 0.0000895	< 0.00040	< 0.00040	< 0.0016	0.385
	INFLUENT-030221	EPA TO-15	3/2/2021	< 0.000100	< 0.00100	< 0.00400	< 0.0060	< 0.04
	INFLUENT-051721	EPA TO-15	5/17/2021	< 0.0008	< 0.04	< 0.0008	0.00323	14
	EFFLUENT-061521	EPA TO-15	6/15/2021	<0.0018	<0.09	<0.0018	<0.0054	21
	EFFLUENT-082521	EPA TO-15	8/25/2021	<0.00061	<0.03	<0.00061	<0.00181	0.87
	INFLUENT-022322	EPA TO-15	2/23/2022	<0.0006	<0.03	<0.0006	0.00210	1.70
	INFLUENT-051222	EPA TO-15	5/12/2022	<0.00046	<0.023	<0.00046	<0.00138	<0.37
	INFLUENT-081022	EPA TO-15	8/10/2022	<0.0011	<0.055	<0.0011	<0.0033	3.80
	INFLUENT-101022	EPA TO-15	10/10/2022	<0.00087	<0.043	0.0012	0.0093	8.30
	OVERALL-121622	EPA TO-15	12/16/2022	<0.0016	<0.080	<0.0016	<0.0048	4.40

Table 3
Air Analytical Data
Cenex Auburn Site
Auburn, Washington
Farallon PN: 301-004

				Ana	alytical Results	(nanoliter per	microliter [ppm	nv])
Sample Location	Sample Identification	Sample Methodology	Sample Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	GRO
	OVERALL-031023	EPA TO-15	3/10/2023	0.0017	<0.039	<0.00078	<0.00238	0.65
	OVERALL-051123	EPA TO-15	5/11/2023	<0.00078	<0.039	<0.00078	0.00450	2.80
	OVERALL-071223	EPA TO-15	7/12/2023	<0.00082	<0.016	0.0012	0.00770	9.50
SVE System	OVERALL-092923	EPA TO-15	9/29/2023	<0.00086	<0.017	<0.00086	<0.00256	9.90
SVE System	OVERALL-111423	EPA TO-15	11/14/2023	<0.00084	<0.017	<0.00084	<0.00254	3.90
	OVERALL-011824	EPA TO-15	1/18/2024	<0.00057	<0.011	<0.00057	<0.00167	<0.46
	OVERALL-031124	EPA T0-15	3/11/2024	<0.00054	<0.011	<0.00054	0.00185	<0.43
	Overall-051324	EPA T0-16	5/13/2024	<0.00055	<0.011	<0.00055	0.0024	1.70

NOTES:

E denotes estimated analytical value, result exceeds the linear working range of the laboratory equipment

EPA = U.S. Environmental Protection Agency

GRO = total petroleum hydrocarbons as gasoline-range organics

ppmv = parts per million volume

SVE = soil vapor extraction

< denotes analyte not detected at or exceeding the reporting limit listed.

^{*} denotes result not within established laboratory control limits

Table 4
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater – January 2018 through May 2024
CHS Auburn Site
Auburn, Washington

Farallon PN: 301-004

Well			•	al Results		Analytical R	esults (microgr	ams per liter)	
	Sample Identification	Sample Date	(milligram	s per liter)		- Analytical It	(IIIIOI OGI	unio per inter,	_
Identification		-	DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
	CMW-2-011818	1/18/2018	0.93	<0.62 ⁴	<100	<1.0	<1.0	<1.0	<2.0
	CMW-2-073118	7/31/2018	0.63	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	CMW-2-012219	1/22/2019	2.2	1.1 ⁵	<100	<1.0	<1.0	<1.0	<2.0
	CMW-2-082219	8/22/2019	1.0	0.69 ⁵	<100	<1.0	<1.0	<1.0	<2.0
	CMW-2-112619	11/26/2019	5.2	3.3 ⁵	<100	<1.0	<1.0	<1.0	<2.0
	CMW-2-022520	2/25/2020	0.63	1.0	<100	<1.0	<1.0	<1.0	<2.0
	CMW-2-052820	5/28/2020	0.76	0.94	<100	<1.0	<1.0	<1.0	<2.0
CMW-2	CMW-2-111220	11/12/2020	1.9	1.1 ⁵	<100	<1.0	<1.0	<1.0	<2.0
	CMW-2-052521	5/25/2021	0.34	0.63	<100	<1.0	<1.0	<1.0	<2.0
	CMW-2-113021	11/30/2021	1.4	1.2	<100	<1.0	<1.0	<1.0	<2.0
	CMW-2-052622	5/26/2022	0.20	0.25	<100	<1.0	<1.0	<1.0	<2.0
	CMW-2-113022	11/30/2022	0.57	0.59	<100	<1.0	<1.0	<1.0	<2.0
	CMW-2-053123	5/31/2023	0.43	0.64	<100	<1.0	<1.0	<1.0	<2.0
	CMW-2-112823	11/28/2023	1.2	1.5	<100	<1.0	<1.0	<1.0	<2.0
	CMW-2-053024	5/30/2024	0.30	0.32	<100	<1.0	<1.0	<1.0	<2.0
	CMW-8-011818	1/18/2018	0.38	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	CMW-8-080118	8/1/2018	0.31	<0.42	<100	<1.0	<1.0	<1.0	<2.0
	CMW-8-012219	1/22/2019	0.50	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	CMW-8-082119	8/21/2019	0.51	<0.40	<100	<1.0	<1.0	<1.0	<2.0
	CMW-8-112519	11/25/2019	0.53	0.36	<100	<1.0	<1.0	<1.0	<2.0
	CMW-8-022420	2/24/2020	0.60	0.25	<100	<1.0	<1.0	<1.0	<2.0
	CMW-8-052820	5/28/2020	0.97	0.56	<100	<1.0	<1.0	<1.0	<2.0
CMW-8	CMW-8-111120	11/11/2020	0.47	0.22 ⁵	<100	<1.0	<1.0	<1.0	<2.0
	CMW-8-052421	5/24/2021	0.53	0.26	<100	<1.0	<1.0	<1.0	<2.0
	CMW-8-113021	11/30/2021	0.58	0.35	<100	<1.0	<1.0	<1.0	<2.0
	CMW-8-052522	5/25/2022	0.79	0.60	<100	<1.0	<1.0	<1.0	<2.0
	CMW-8-113022	11/30/2022	0.28	0.29	<100	<1.0	<1.0	<1.0	<2.0
	CMW-8-053123	5/31/2023	0.64	0.71	<100	<1.0	<1.0	<1.0	<2.0
	CMW-8-112823	11/28/2023	0.28	0.35	<100	<1.0	<1.0	<1.0	<2.0
	CMW-8-052924	5/29/2024	0.37	0.27	<100	<1.0	<1.0	<1.0	<2.0
MTCA Method A (Cleanup Levels for Groun	dwater ⁶	0.5	0.5	800	5	1,000	700	1,000

Table 4
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater – January 2018 through May 2024
CHS Auburn Site
Auburn, Washington

Farallon PN: 301-004

Well	Sample Identification	Sample Date	_	al Results as per liter)		Analytical R	esults (microgr	ams per liter)	
Identification	,		DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
	CMW-10-011818	1/18/2018	1.4	<0.89 ⁴	<100	<1.0	<1.0	<1.0	<2.0
	CMW-10-080118	8/1/2018	1.5	0.67 ⁵	<100	<1.0	<1.0	<1.0	<2.0
	CMW-10-012319	1/23/2019	2.1	1.4 ⁵	<100	<1.0	<1.0	<1.0	<2.0
	CMW-10-082219	8/22/2019	2.9	0.80 ⁵	<400	<4.0	<4.0	<4.0	<8.0
	CMW-10-112519	11/25/2019	0.73	0.37	<100	<1.0	<1.0	<1.0	<2.0
	CMW-10-022520	2/25/2020	2.3	1.4	<100	<1.0	<1.0	<1.0	<2.0
	CMW-10-052820	5/28/2020	3.4	2.9	<100	<1.0	<1.0	<1.0	<2.0
CMW-10	CMW-10-111220	11/12/2020	1.6	0.70 ⁵	<100	<1.0	<1.0	<1.0	<2.0
	CMW-10-052521	5/25/2021	2.1	3.1	<100	<1.0	<1.0	<1.0	<2.0
	CMW-10-113021	11/30/2021	2.8	2.9	<100	<1.0	<1.0	<1.0	<2.0
	CMW-10-052622	5/26/2022	0.62	0.51	<100	<1.0	<1.0	<1.0	<2.0
	CMW-10-113022	11/30/2022	1.8	0.77	<100	<1.0	<1.0	<1.0	<2.0
	CMW-10-053123	5/31/2023	3.0	4.5	<100	<1.0	<1.0	<1.0	<2.0
	CMW-10-112823	11/28/2023	1.6	0.58	<100	<1.0	<1.0	<1.0	<2.0
	CMW-10-053024	5/30/2024	2.4	1.8	<100	<1.0	<1.0	<1.0	<2.0
MTCA Method A C	Cleanup Levels for Groun	idwater [®]	0.5	0.5	800	5	1,000	700	1,000

Table 4
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater – January 2018 through May 2024
CHS Auburn Site
Auburn, Washington

Well	Sample Identification	Sample Date	_	I Results s per liter)		Analytical R	esults (microgr	ams per liter)	
Identification			DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
	CMW-12-011818	1/18/2018	2.1 ¹¹	<0.55 ⁴	1,300	3.0	<1.0	<1.0	<2.0
	QA/QC-1-011818 ⁹	1/18/2018	2.2 ¹¹	<0.70 ⁴	1,200	2.6	<1.0	<1.0	<2.0
	CMW-12-080118	8/1/2018	1.5 ¹¹	0.77 ⁵	1,500	1.2	<1.0	<1.0	1.6
	QA/QC-1-080118 ⁹	8/1/2018	1.4 ¹¹	0.56 ⁵	1,500	1.1	<1.0	<1.0	1.9
	CMW-12-012319	1/23/2019	1.6 ¹¹	0.43 ⁵	1,500 ⁸	1.7	<1.0	<1.0	<2.0
	QA/QC-1-012319 ⁹	1/23/2019	1.6 ¹¹	< 0.42	1,500 ⁸	1.6	<1.0	<1.0	<2.0
	CMW-12-082219	8/22/2019	2.5 ¹¹	0.51 ⁵	920	<4.0	<4.0	<4.0	<8.0
	QA/QC-1-082219 ⁹	8/22/2019	2.1 ¹¹	<0.41	950	<4.0	<4.0	<4.0	<8.0
	CMW-12-112619	11/26/2019	2.3 ¹¹	0.51 ⁵	620 ⁸	<1.0	<1.0	<1.0	<2.0
	QA/QC-1-112619 ⁹	11/26/2019	2.3 ¹¹	0.46 ⁵	620 ⁸	<1.0	<1.0	<1.0	<2.0
	CMW-12-022520	2/25/2020	4.2	1.4	1,000	2.0	1.8	<1.0	<2.0
	QAQC-1-022520 ⁹	2/25/2020	4.2	1.5	950	2.0	1.8	<1.0	<2.0
	CMW-12-052820	5/28/2020	2.4 ¹¹	1.1	510 ⁸	<1.0	<1.0	<1.0	<2.0
	QA/QC-2-052820 ⁹	5/28/2020	2.3 ¹¹	1.1	490 ⁸	<1.0	<1.0	<1.0	<2.0
CMW-12	CMW-12-111220	11/12/2020	0.85 ¹¹	0.34 ⁵	200 ⁸	<1.0	<1.0	<1.0	<2.0
OIVIVV-12	QA/QC-1-111220 ⁹	11/12/2020	0.90 ¹¹	0.37^{5}	200 ⁸	<1.0	<1.0	<1.0	<2.0
	CMW-12-052521	5/25/2021	1.1	0.95	<130 ⁴	<1.0	<1.0	<1.0	<2.0
	QA/QC-1-052521 ⁹	5/25/2021	1.0	0.98	<120 ⁴	<1.0	<1.0	<1.0	<2.0
	CMW-12-113021	11/30/2021	0.64	0.33	<100	<1.0	<1.0	<1.0	<2.0
	QA/QC-1-113021 ⁹	11/30/2021	0.65	0.32	<100	<1.0	<1.0	<1.0	<2.0
	CMW-12-052622	5/26/2022	0.80	0.44	<100	<1.0	<1.0	<1.0	<2.0
	QA/QC-2-052622 ⁹	5/26/2022	0.84	0.49	<100	<1.0	<1.0	<1.0	<2.0
	CMW-12-113022	11/30/2022	0.43	0.26	<100	<1.0	<1.0	<1.0	<2.0
	QA/QC-1-113022 ⁹	11/30/2022	0.39	0.30	<100	<1.0	<1.0	<1.0	<2.0
	CMW-12-053123	5/31/2023	1.0	1.1	<100	<1.0	<1.0	<1.0	<2.0
	QA/QC-1-053123 ⁹	5/31/2023	0.88	0.89	<100	<1.0	<1.0	<1.0	<2.0
	CMW-12-112723	11/27/2023	0.29	0.29	<100	<1.0	<1.0	<1.0	<2.0
	QA/QC-1-112723 ⁹	11/27/2023	0.32	0.36	<100	<1.0	<1.0	<1.0	<2.0
	CMW-12-053024	5/30/2024	0.33	0.27	<100	<1.0	<1.0	<1.0	<2.0
	QA/QC-1-053024 ⁹	5/30/2024	0.33	0.31	<100	<1.0	<1.0	<1.0	<2.0
MTCA Method A C	CA Method A Cleanup Levels for Groundwater®		0.5	0.5	800	5	1,000	700	1,000

Table 4
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater – January 2018 through May 2024
CHS Auburn Site
Auburn, Washington

Well	Sample Identification	Sample Date	-	al Results as per liter)		Analytical R	esults (microgr	ams per liter)	
Identification	- Campio idonamodaton	Campio Dato	DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
	CMW-13-011818	1/18/2018	0.29	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	CMW-13-073118	7/31/2018	0.62 ¹¹	<0.41	240	1.1	<1.0	<1.0	<2.0
	CMW-13-012319	1/23/2019	0.57	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	CMW-13-082219	8/22/2019	0.38	<0.41	<400	<4.0	<4.0	<4.0	<8.0
	CMW-13-112619	11/26/2019	0.70	0.35 ⁵	<100	<1.0	<1.0	<1.0	<2.0
	CMW-13-022520	2/25/2020	3.3	2.0	<100	<1.0	<1.0	<1.0	<2.0
	CMW-13-052820	5/28/2020	1.7	1.1	<100	<1.0	<1.0	<1.0	<2.0
CMW-13	CMW-13-111220	11/12/2020	0.48	0.25 ⁵	<100	<1.0	<1.0	<1.0	<2.0
	CMW-13-052421	5/24/2021	1.4	0.72	<100	<1.0	<1.0	<1.0	<2.0
	CMW-13-113021	11/30/2021	0.57	0.34	<100	<1.0	<1.0	<1.0	<2.0
	CMW-13-052522	5/25/2022	1.4	0.67	<100	<1.0	<1.0	<1.0	<2.0
	CMW-13-113022	11/30/2022	0.44 ¹¹	0.22	150	1.5	<1.0	<1.0	<2.0
	CMW-13-053123	5/31/2023	1.5	1.2	<100	<1.0	<1.0	<1.0	<2.0
	CMW-13-112723	11/27/2023	0.68	0.37	<100	<1.0	<1.0	<1.0	<2.0
	CMW-13-052924	5/29/2024	1.2	0.38	<100	<1.0	<1.0	<1.0	<2.0
	CMW-25-011818	1/18/2018	<0.26	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	CMW-25-073118	7/31/2018	<0.26	<0.42	<100	<1.0	<1.0	<1.0	<2.0
	CMW-25-012219	1/22/2019	<0.26	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	CMW-25-082119	8/21/2019	<0.25	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	CMW-25-112519	11/25/2019	0.14	0.22	<100	<1.0	<1.0	<1.0	<2.0
	CMW-25-022420	2/24/2020	<0.21	<0.21	<100	<1.0	<1.0	<1.0	<2.0
	CMW-25-052720	5/27/2020	<0.21	<0.21	<100	<1.0	<1.0	<1.0	<2.0
CMW-25	CMW-25-111220	11/12/2020	<0.21	<0.21	<100	<1.0	<1.0	<1.0	<2.0
	CMW-25-052421	5/24/2021	<0.20	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-25-112921	11/29/2021	<0.20	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-25-052522	5/25/2022	<0.11	<0.22	<100	<1.0	<1.0	<1.0	<2.0
	CMW-25-113022	11/30/2022	<0.13	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-25-053023	5/30/2023	<0.21	<0.15	<400	<4.0	<4.0	<4.0	<8.0
	CMW-25-112823	11/28/2023	<0.15	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-25-052924	5/29/2024	<0.22	<0.22	<100	<1.0	<1.0	<1.0	<2.0
MTCA Method A (Cleanup Levels for Groun	dwater°	0.5	0.5	800	5	1,000	700	1,000

Table 4
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater – January 2018 through May 2024
CHS Auburn Site
Auburn, Washington

Well	Sample Identification Sa	Sample Date	_	l Results s per liter)	Analytical Results (micrograms per liter)				
Identification		•	DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
	CMW-26-011818	1/18/2018	<0.26	<0.42	<100	<1.0	<1.0	<1.0	<2.0
	CMW-26-080118	8/1/2018	<0.26	< 0.42	<100	<1.0	<1.0	<1.0	<2.0
	CMW-26-012219	1/22/2019	<0.26	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	CMW-26-082119	8/21/2019	<0.25	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	CMW-26-112619	11/26/2019	<0.21	<0.21	<100	<1.0	<1.0	<1.0	<2.0
	CMW-26-022520	2/25/2020	<0.21	<0.21	<100	<1.0	<1.0	<1.0	<2.0
	CMW-26-052720	5/27/2020	<0.21	<0.21	<100	<1.0	<1.0	<1.0	<2.0
CMW-26	CMW-26-111120	11/11/2020	<0.21	<0.21	<100	<1.0	<1.0	<1.0	<2.0
	CMW-26-052521	5/25/2021	< 0.20	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-26-112921	11/29/2021	<0.20	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-26-052522	5/25/2022	<0.11	<0.21	<100	<1.0	<1.0	<1.0	<2.0
	CMW-26-113022	11/30/2022	<0.13	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-26-053023	5/30/2023	<0.21	<0.15	<400	<4.0	<4.0	<4.0	<8.0
	CMW-26-112723	11/27/2023	<0.15	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-26-052924	5/29/2024	<0.22	<0.22	<100	<1.0	<1.0	<1.0	<2.0
MTCA Method A C	MTCA Method A Cleanup Levels for Groundwater°		0.5	0.5	800	5	1,000	700	1,000

Table 4
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater – January 2018 through May 2024
CHS Auburn Site
Auburn, Washington

Well			•	I Results	Analytical Results (micrograms per liter)					
Identification	Sample Identification	Sample Date		s per liter)		T		1	1	
luentincation			DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³	
	CMW-27-011818	1/18/2018	1.7	<1.0 ⁴	<100	<1.0	<1.0	<1.0	<2.0	
	QA/QC-2-011818 ⁹	1/18/2018	1.6	<0.96 ⁴	<100	<1.0	<1.0	<1.0	<2.0	
	CMW-27-080118	8/1/2018	2.7 ¹¹	1.0 ⁵	1,000	<1.0	1.3	5.9	7.4	
	QA/QC-2-080118 ⁹	8/1/2018	2.6 ¹¹	0.89 ⁵	1,100	<1.0	1.3	5.8	7.8	
	CMW-27-012319	1/23/2019	6.9 ¹¹	1.6 ⁵	900 ⁸	1.5	3.4	19	17	
	QA/QC-2-012319 ⁹	1/23/2019	6.9 ¹¹	1.5 ⁵	940 ⁸	1.3	3.3	20	17	
	CMW-27-082219	8/22/2019	2.7 ¹¹	0.56 ⁵	1,500	1.2	<1.0	5.2	7.9	
	QA/QC-2-082219 ⁹	8/22/2019	3.4 ¹¹	0.82 ⁵	1,300	<4.0	<4.0	4.9	5.9	
	CMW-27-112619	11/26/2019	3.3 ¹¹	0.94 ⁵	860 ⁸	<1.0	1.2	<1.0	2.0	
	QA/QC-2-112619 ⁹	11/26/2019	3.9 ¹¹	1.1 ⁵	940 ⁸	<1.0	1.6	1.3	2.5	
	CMW-27-022520	2/25/2020	1.2	1.2	<100	<1.0	<1.0	<1.0	<2.0	
	QAQC-2-022520 ⁹	2/25/2020	1.0	1.1	<100	<1.0	<1.0	<1.0	<2.0	
	CMW-27-052820	5/28/2020	3.5 ¹¹	2.0	1,300 ⁸	<1.0	3.4	16	4.1	
	QA/QC-1-052820 ⁹	5/28/2020	4.5 ¹¹	2.4	1,000 ⁸	<1.0	2.6	13	3.6	
CMW-27	CMW-27-111220	11/12/2020	2.1 ¹¹	0.70 ⁵	1,700 ⁸	<1.0	<1.0	1.8	3.9	
CIVIVV-21	QA/QC-2-111220 ⁹	11/12/2020	2.4 ¹¹	0.76 ⁵	1,800 ⁸	<1.0	<1.0	1.8	4.0	
	CMW-27-052521	5/25/2021	3.1 ¹¹	1.4	1,100 ⁸	<1.0	<1.0	15	3.5	
	QA/QC-2-052521 ⁹	5/25/2021	3.1 ¹¹	2.3	1,200 ⁸	3.9	<1.0	15	3.4	
	CMW-27-113021	11/30/2021	8.9 ¹¹	4.8	770	<1.0	<1.0	5.0	1.7	
	QA/QC-2-113021 ⁹	11/30/2021	6.7 ¹¹	2.8	960	1.2	<1.0	6.5	2.1	
	CMW-27-052622	5/26/2022	1.6	1.0	<100	<1.0	<1.0	<1.0	<2.0	
	QA/QC-1-052622 ⁹	5/26/2022	1.6	1.1	<100	<1.0	<1.0	<1.0	<2.0	
	CMW-27-113022	11/30/2022	2.1 ¹¹	0.61	1,300	3.8	<1.0	3.2	1.5	
	QA/QC-2-113022 ⁹	11/30/2022	1.7 ¹¹	0.61	1,300	4.0	<1.0	3.3	1.5	
	CMW-27-053123	5/31/2023	2.5	3.0	710	1.2	<1.0	1.7	<2.0	
	QA/QC-2-053123 ⁹	5/31/2023	2.9	4.2	680	1.5	<1.0	2.0	1.1	
	CMW-27-112823	11/28/2023	1.9 ¹¹	0.65	810	3.0	1.3	1.1	1.1	
	QA/QC-2-112823 ⁹	11/28/2023	2.7 ¹¹	0.62	840	3.5	1.3	1.1	1.1	
	CMW-27-053024	5/30/2024	2.1 ¹¹	0.92	1,100	1.7	1.0	4.2	1.3	
	QA/QC-2-053024 ⁹	5/30/2024	2.0 ¹¹	0.98	1,100	1.6	1.0	4.3	1.3	
MTCA Method A C	CA Method A Cleanup Levels for Groundwater®		0.5	0.5	800	5	1,000	700	1,000	

Table 4
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater – January 2018 through May 2024
CHS Auburn Site
Auburn, Washington

Well	Sample Identification	Sample Date	-	al Results as per liter)		Analytical R	esults (microgi	ams per liter)	
Identification	Campio idonimication	Campio Dato	DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
	CMW-28-011818	1/18/2018	<0.26	<0.42	<100	<1.0	<1.0	<1.0	<2.0
	CMW-28-080118	8/1/2018	0.81	0.52 ⁵	<100	<1.0	<1.0	<1.0	<2.0
	CMW-28-012319	1/23/2019	<0.26	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	CMW-28-082119	8/21/2019	0.63	<0.44	<100	<1.0	<1.0	<1.0	<2.0
	CMW-28-112619	11/26/2019	2.8	1.9 ⁵	<100	<1.0	<1.0	<1.0	<2.0
	CMW-28-022420	2/24/2020	0.45	0.32	<100	<1.0	<1.0	<1.0	<2.0
	CMW-28-052720	5/27/2020	<0.21	0.23	<100	<1.0	<1.0	<1.0	<2.0
CMW-28	CMW-28-111220	11/12/2020	0.70	0.42 ⁵	<100	<1.0	<1.0	<1.0	<2.0
	CMW-28-052521	5/25/2021	0.49	0.43	<100	<1.0	<1.0	<1.0	<2.0
	CMW-28-113021	11/30/2021	<0.20	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-28-052522	5/25/2022	1.1	0.68	<100	<1.0	<1.0	<1.0	<2.0
	CMW-28-112922	11/29/2022	0.24	0.31	<100	<1.0	<1.0	<1.0	<2.0
	CMW-28-053023	5/30/2023	1.5	1.1	<100	<1.0	<1.0	<1.0	<2.0
	CMW-28-112723	11/27/2023	0.61	0.90	<100	<1.0	<1.0	<1.0	<2.0
	CMW-28-052924	5/29/2024	1.8	0.53	<100	<1.0	<1.0	<1.0	<2.0
	CMW-29-011718	1/17/2018	0.70	<0.54 ⁴	<100	<1.0	<1.0	<1.0	<2.0
	CMW-29-073118	7/31/2018	0.33	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	CMW-29-012219	1/22/2019	1.0	0.50 ⁵	<100	<1.0	<1.0	<1.0	<2.0
	CMW-29-082219	8/22/2019	<0.25	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	CMW-29-112519	11/25/2019	0.55	0.38	<100	<1.0	<1.0	<1.0	<2.0
	CMW-29-022420	2/24/2020	0.67	0.28	<100	<1.0	<1.0	<1.0	<2.0
	CMW-29-052720	5/27/2020	0.97	0.71	<100	<1.0	<1.0	<1.0	<2.0
CMW-29	CMW-29-111120	11/11/2020	0.25	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-29-052421	5/24/2021	0.71	0.43	<100	<1.0	<1.0	<1.0	<2.0
	CMW-29-112921	11/29/2021	0.74	0.87	<100	<1.0	<1.0	<1.0	<2.0
	CMW-29-052522	5/25/2022	0.74	0.56	<100	<1.0	<1.0	<1.0	<2.0
	CMW-29-113022	11/30/2022	0.17	0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-29-053023	5/30/2023	0.48	0.46	<100	<1.0	<1.0	<1.0	<2.0
	CMW-29-112723	11/27/2023	<0.15	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-29-052924	5/29/2024	0.51	0.26	<100	<1.0	<1.0	<1.0	<2.0
MTCA Method A (Cleanup Levels for Groun	dwater ⁶	0.5	0.5	800	5	1,000	700	1,000

Table 4
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater – January 2018 through May 2024
CHS Auburn Site
Auburn, Washington

Well			Analytica	al Results		Analytical R	esults (microgr	ams ner liter)	
Well	Sample Identification	Sample Date	(milligram	s per liter)		Analytical It		- Inio per inter	
Identification			DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
	CMW-30-012219	1/22/2019	0.26	<0.42	<100	<1.0	<1.0	<1.0	<2.0
	CMW-30-082119	8/21/2019	<0.25	<0.40	<100	<1.0	<1.0	<1.0	<2.0
	CMW-30-112519	11/25/2019	0.19	0.22	<100	<1.0	<1.0	<1.0	<2.0
	CMW-30-022520	2/25/2020	<0.20	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-30-052720	5/27/2020	0.36	0.30	<100	<1.0	<1.0	<1.0	<2.0
	CMW-30-111120	11/11/2020	0.22	<0.20	<100	<1.0	<1.0	<1.0	<2.0
CMW-30	CMW-30-052421	5/24/2021	0.29	<0.21	<100	<1.0	<1.0	<1.0	<2.0
	CMW-30-112921	11/29/2021	0.23	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-30-052522	5/25/2022	0.40	0.29	<100	<1.0	<1.0	<1.0	<2.0
	CMW-30-112922	11/29/2022	0.47	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-30-053023	5/30/2023	0.33	0.21	<100	<1.0	<1.0	<1.0	<2.0
	CMW-30-112723	11/27/2023	0.18	0.26	<100	<1.0	<1.0	<1.0	<2.0
	CMW-30-052924	5/29/2024	<0.23	<0.23	<100	<1.0	<1.0	<1.0	<2.0
	CMW-31-011818	1/18/2018	<0.26	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	CMW-31-073118	7/31/2018	<0.26	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	CMW-31-012219	1/22/2019	< 0.26	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	CMW-31-082219	8/22/2019	0.34	<0.45	<100	<1.0	<1.0	<1.0	<2.0
	CMW-31-112519	11/25/2019	0.22	0.27	<100	<1.0	<1.0	<1.0	<2.0
	CMW-31-022420	2/24/2020	<0.21	<0.21	<100	<1.0	<1.0	<1.0	<2.0
	CMW-31-052820	5/28/2020	<0.21	0.32	<100	<1.0	<1.0	<1.0	<2.0
CMW-31	CMW-31-111120	11/11/2020	0.29	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-31-052421	5/24/2021	<0.20	0.27	<100	<1.0	<1.0	<1.0	<2.0
	CMW-31-112921	11/29/2021	<0.20	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-31-052522	5/25/2022	<0.10	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-31-112922	11/29/2022	0.25	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	CMW-31-053123	5/31/2023	<0.21	0.27	<100	<1.0	<1.0	<1.0	<2.0
	CMW-31-112823	11/28/2023	0.18	0.23	<100	<1.0	<1.0	<1.0	<2.0
	CMW-31-052924	5/29/2024	<0.24	<0.24	<100	<1.0	<1.0	<1.0	<2.0
MTCA Method A C	CA Method A Cleanup Levels for Groundwater ⁶		0.5	0.5	800	5	1,000	700	1,000

Table 4
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater – January 2018 through May 2024
CHS Auburn Site
Auburn, Washington

Well	Sample Identification	Sample Date	•	al Results as per liter)		Analytical R	esults (microgr	ams per liter)	
Identification	Campic lacitaneation	Campie Bate	DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes
	HMW-9-011818	1/18/2018	0.35	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	HMW-9-080118	8/1/2018	0.46	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	HMW-9-012219	1/22/2019	0.26	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	HMW-9-082119	8/21/2019	0.34	<0.44	<100	<1.0	<1.0	<1.0	<2.0
	HMW-9-112519	11/25/2019	0.40	0.42	<100	<1.0	<1.0	<1.0	<2.0
	HMW-9-022520	2/25/2020	0.39	1.2	<100	<1.0	<1.0	<1.0	<2.0
	HMW-9-052820	5/28/2020	0.98	2.1	<100	<1.0	<1.0	<1.0	<2.0
HMW-9	HMW-9-111120	11/11/2020	0.47	0.69	<100	<1.0	<1.0	<1.0	<2.0
	HMW-9-052521	5/25/2021	0.55	1.2	<100	<1.0	<1.0	<1.0	<2.0
	HMW-9-113021	11/30/2021	0.30	0.32	<100	<1.0	<1.0	<1.0	<2.0
	HMW-9-052622	5/26/2022	0.77	0.65	<100	<1.0	<1.0	<1.0	<2.0
	HMW-9-113022	11/30/2022	0.18	0.45	<100	<1.0	<1.0	<1.0	<2.0
	HMW-09-053123	5/31/2023	0.96	1.3	<100	<1.0	<1.0	<1.0	<2.0
	HMW-9-112723	11/27/2023	0.35	0.50	<100	<1.0	<1.0	<1.0	<2.0
	HMW-9-052924	5/29/2024	0.82	0.58	<100	<1.0	<1.0	<1.0	<2.0
	HMW-10-011718	1/17/2018	0.72	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	HMW-10-073118	7/31/2018	0.60 ¹¹	<0.40	<100	<1.0	<1.0	<1.0	<2.0
	HMW-10-012219	1/22/2019	0.38	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	HMW-10-082119	8/21/2019	0.51	<0.41	<400	<4.0	<4.0	<4.0	<8.0
	HMW-10-112519	11/25/2019	5.0	1.7 ⁵	<100	<1.0	<1.0	<1.0	<2.0
	HMW-10-022420	2/24/2020	0.71	0.34	<100	<1.0	<1.0	<1.0	<2.0
	HMW-10-052820	5/28/2020	1.2	0.77	<100	<1.0	<1.0	<1.0	<2.0
HMW-10	HMW-10-111220	11/12/2020	0.50	<0.21	<100	<1.0	<1.0	<1.0	<2.0
	HMW-10-052421	5/24/2021	0.95	0.51	<100	<1.0	<1.0	<1.0	<2.0
	HMW-10-113021	11/30/2021	0.50	0.23	<100	<1.0	<1.0	<1.0	<2.0
	HMW-10-052622	5/26/2022	1.5	0.75	<100	<1.0	<1.0	<1.0	<2.0
	HMW-10-113022	11/30/2022	0.52	0.28	<100	<1.0	<1.0	<1.0	<2.0
	HMW-10-053123	5/31/2023	1.0	0.75	<100	<1.0	<1.0	<1.0	<2.0
	HMW-10-112823	11/28/2023	0.49	0.41	<100	<1.0	<1.0	<1.0	<2.0
	HMW-10-053024	5/30/2024	0.94	0.36	<100	<1.0	<1.0	<1.0	<2.0
TCA Method A	Cleanup Levels for Groun	dwater ⁶	0.5	0.5	800	5	1,000	700	1,000

Table 4
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater – January 2018 through May 2024
CHS Auburn Site
Auburn, Washington

Well	Sample Identification	Sample Date	•	al Results s per liter)	Analytical Results (micrograms per liter)				
Identification		·	DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
	HMW-11-011818	1/18/2018	2.5	<1.3 ⁴	<100	<1.0	<1.0	<1.0	<2.0
	HMW-11-080118	8/1/2018	1.6 ¹¹	0.48 ⁵	1,600	1.0	<1.0	<1.0	<2.0
	HMW-11-012319	1/23/2019	1.9 ¹¹	<0.41	1,900 ⁸	1.4	<1.0	1.2	<2.0
	HMW-11-082219	8/22/2019	3.3 ¹¹	0.49 ⁵	1,400	<4.0	<4.0	<4.0	<8.0
	HMW-11-112619	11/26/2019	3.2 ¹¹	0.63 ⁵	1,200 ⁸	1.0	1.0	<1.0	<2.0
	HMW-11-022520	2/25/2020	4.9	2.1	<100	<1.0	<1.0	<1.0	<2.0
	HMW-11-052820	5/28/2020	4.1 ¹¹	2.1	920 ⁸	<1.0	1.5	<1.0	<2.0
HMW-11	HMW-11-111220	11/12/2020	1.4 ¹¹	0.51 ⁵	410 ⁸	<1.0	<1.0	<1.0	<2.0
	HMW-11-052521	5/25/2021	3.5 ¹¹	1.1	730 ⁸	<1.0	<1.0	<1.0	<2.0
	HMW-11-113021	11/30/2021	0.36	0.38	<100	<1.0	<1.0	<1.0	<2.0
	HMW-11-052622	5/26/2022	2.5	1.4	<100	<1.0	<1.0	<1.0	<2.0
	HMW-11-113022	11/30/2022	1.3 ¹¹	0.51	480	2.1	<1.0	<1.0	<2.0
	HMW-11-053123	5/31/2023	3.5	2.5	770	1.7	<1.0	<1.0	<2.0
	HMW-11-112823	11/28/2023	4.2 ¹¹	1.1	490	1.7	<1.0	<1.0	<2.0
	HMW-11-053024	5/30/2024	3.3 ¹¹	1.3	750	1.7	<1.0	<1.0	<2.0
MTCA Method A C	ITCA Method A Cleanup Levels for Groundwater ⁶		0.5	0.5	800	5	1,000	700	1,000

Table 4 Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater – January 2018 through May 2024 CHS Auburn Site

Auburn, Washington Farallon PN: 301-004

Well	Sample Identification	Sample Date	_	al Results is per liter)	Analytical Results (micrograms per liter)				
Identification		•	DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
	HMW-13-011818	1/18/2018	<0.26	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	HMW-13-080118	8/1/2018	<0.26	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	HMW-13-012319	1/23/2019	<0.26	<0.41	<100	<1.0	<1.0	<1.0	<2.0
	HMW-13-082119	8/21/2019	< 0.30	<0.48	<100	<1.0	<1.0	<1.0	<2.0
	HMW-13-112619	11/26/2019	0.27	<0.21	<100	<1.0	<1.0	<1.0	<2.0
	HMW-13-022420	2/24/2020	<0.21	0.22	<100	<1.0	<1.0	<1.0	<2.0
	HMW-13-052720	5/27/2020	<0.21	0.24	<100	<1.0	<1.0	<1.0	<2.0
HMW-13	HMW-13-111120	11/11/2020	<0.20	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	HMW-13-052521	5/25/2021	<0.20	0.24	<100	<1.0	<1.0	<1.0	<2.0
	HMW-13-113021	11/30/2021	<0.20	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	HMW-13-052622	5/26/2022	<0.11	<0.22	<100	<1.0	<1.0	<1.0	<2.0
	HMW-13-113022	11/30/2022	<0.13	<0.20	<100	<1.0	<1.0	<1.0	<2.0
	HMW-13-053023	5/30/2023	<0.22	<0.17	<100	<1.0	<1.0	<1.0	<2.0
	HMW-13-112723	11/27/2023	0.42	0.21	<100	<1.0	<1.0	<1.0	<2.0
	HMW-13-053024	5/30/2024	<0.23	<0.23	<100	<1.0	<1.0	<1.0	<2.0
MTCA Method A C	TCA Method A Cleanup Levels for Groundwater ⁶		0.5	0.5	800	5	1,000	700	1,000

NOTES:

<denotes analyte not detected at or exceeding the laboratory reporting limit listed.

Results in **bold** denote sample result or reporting limit exceeds applicable MTCA Method A cleanup levels for groundwater.

November 2016 were analyzed using acid silica gel cleanup procedure.

BTEX = benzene, toluene, ethylbenzene, and xylenes

DRO = TPH as diesel-range organics

GRO = TPH as gasoline-range organics

MTCA = Washington State Model Toxics Control Act Cleanup Regulation

ORO = TPH as oil-range organics

TPH = total petroleum hydrocarbons

¹Analyzed by Northwest Method NWTPH-Dx. Samples analyzed by OnSite Environmental Inc. between June 2008 and

²Analyzed by Northwest Method NWTPH-Gx.

³Analyzed by U.S. Environmental Protection Agency Method 8021B.

⁴The practical quantitation limit is elevated due to interferences in the sample.

⁵Hydrocarbons in the diesel range are impacting the oil-range result.

⁶MTCA Method A Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013.

⁷Sample collected using a disposable bailer.

⁸Hydrocarbons indicative of heavier fuels present in the sample are impacting the gasoline result.

⁹Quality assurance/quality control field duplicate sample.

¹⁰Duplicate sample analyzed at TestAmerica Laboratories Inc.

¹¹Hydrocarbons in the gasoline-range are impacting the diesel-range result.

Well	Well Casing	Measurement	Depth to Water	Elevation
Identification	(feet) ¹	Date	(feet) ²	(feet) ¹
	(/	1/17/2018	18.52	70.38
		7/31/2018	23.24	65.66
		1/22/2019	20.92	67.98
		8/21/2019	24.51	64.39
		11/25/2019	23.92	64.98
		2/25/2020	16.80	72.10
		5/27/2020	20.77	68.13
CMW-2	88.9	11/11/2020	23.52	65.38
		5/24/2021	21.05	67.85
		11/29/2021	20.07	68.83
		5/26/2022	19.17	69.73
		11/30/2022	23.31	65.59
		5/30/2023	21.01	67.89
		11/27/2023	24.10	64.80
		5/29/2024	21.44	67.46
		1/17/2018	20.08	70.60
CMW-4	90.68	7/31/2018	25.60	65.08
21.11.1		1/17/2018	20.94	69.72
CMW-6	90.66	7/31/2018	dry	dry
		1/17/2018	20.55	69.39
		7/31/2018	25.31	64.63
		1/22/2019	22.95	66.99
		8/21/2019	26.52	63.42
		11/25/2019	25.90	64.04
		2/24/2020	18.88	71.06
		5/27/2020	22.86	67.08
CMW-8	89.94	11/11/2020	25.45	64.49
		5/24/2021	23.12	66.82
		11/29/2021	22.23	67.71
		5/25/2022	21.25	68.69
		11/29/2022	25.55	64.39
		5/30/2023	23.05	66.89
		11/27/2023	26.02	63.92
		5/29/2024	23.56	66.38
		1/17/2018	18.80	NS
		7/31/2018	23.71	NS
		1/22/2019	21.32	NS
		8/21/2019	24.96	NS
		11/25/2019	24.40	NS
		2/25/2020	17.20	NS
		5/27/2020	21.23	NS
CMW-10	NS	11/11/2020	24.00	NS
		5/24/2021	21.48	NS
		11/29/2021	20.61	NS
		5/25/2022	19.57	NS
		11/29/2022	24.00	NS
		5/30/2023	21.45	NS
	<u> </u>	11/27/2023	24.55	NS
		5/29/2024	21.88	NS

	3	
Farallon	PN: 301-004	

Well	Well Casing	Measurement	Depth to Water	Elevation
Identification	(feet) ¹	Date	(feet) ²	(feet) ¹
		1/17/2018	20.12	69.90
		7/31/2018	25.84	64.18
		1/22/2019	22.45	67.57
		8/21/2019	26.07	63.95
		11/25/2019	25.47	64.55
		2/25/2020	18.43	71.59
		5/27/2020	22.35	67.67
CMW-12	90.02	11/11/2020	25.04	64.98
		5/24/2021	22.60	67.42
		11/29/2021	21.77	68.25
		5/25/2022	20.68	69.34
		11/29/2022	25.08	64.94
		5/30/2023	22.55	67.47
		11/27/2023	25.57 ³	64.45
		5/29/2024	23.00	67.02
		1/17/2018	19.63	70.04
		7/31/2018	22.48 ⁴	67.19 ⁴
		1/22/2019	22.03	67.64
		8/21/2019	25.71	63.96
		11/25/2019	25.06	64.61
		2/25/2020	17.89	71.78
		5/27/2020	21.91	67.76
CMW-13	89.67	11/11/2020	24.65	65.02
		5/24/2021	22.16	67.51
		11/29/2021	21.32	68.35
		5/25/2022	20.33	69.34
		11/29/2022	24.68	64.99
		5/30/2023	22.15	67.52
		11/27/2023	25.22	64.45
		5/29/2024	22.51	67.16
CMW-15	87.22	1/17/2018	17.78	69.44
CIVIVV-13	07.22	7/31/2018	22.53	64.69
		1/17/2018	18.96	NS
		7/31/2018	23.64	NS
		1/22/2019	21.35	NS
		8/21/2019	24.91	NS
		11/25/2019	24.40	NS
		2/24/2020	17.25	NS
		5/27/2020	21.16	NS
CMW-25	NS	11/11/2020	23.98	NS
-		5/24/2021	21.44	NS
		11/29/2021	20.63	NS
		5/25/2022	19.57	NS
		11/29/2022	23.96	NS
		5/30/2023	21.45	NS
		11/27/2023	24.58	NS
		5/29/2024	21.85	NS

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Farallon	PN:	301-004

Well	Well Casing	Measurement	Depth to Water	Elevation
Identification	(feet) ¹	Date	(feet) ²	(feet) ¹
		1/17/2018	17.31	70.49
		7/31/2018	21.97	65.83
		1/22/2019	19.64	68.16
		8/21/2019	23.24	64.56
		11/25/2019	22.67	65.13
		2/25/2020	15.56	72.24
		5/27/2020	19.50	68.30
CMW-26	87.80	11/11/2020	22.30	65.50
		5/24/2021	19.74	68.06
		11/29/2021	18.93	68.87
		5/25/2022	17.90	69.90
		11/29/2022	22.30	65.50
		5/30/2023	19.77	68.03
		11/27/2023	22.90	64.90
		5/29/2024	20.04	67.76
		1/17/2018	18.79	70.31
		7/31/2018	23.70	65.40
		1/22/2019	21.35	67.75
		8/21/2019	24.96	64.14
		11/25/2019	24.37	64.73
		2/25/2020	17.17	71.93
01.014.07	00.40	5/27/2020	21.22	67.88
CMW-27	89.10	11/11/2020	23.97	65.13
		5/24/2021	21.47	67.63
		11/29/2021	20.68	68.42
		5/25/2022	19.56	69.54
		11/29/2022	24.03	65.07
		5/30/2023	21.46	67.64
		11/27/2023 5/29/2024	24.54 21.90	64.56 67.20
		1/17/2018	19.13	70.35
		7/31/2018	23.89	65.59
		1/22/2019	21.55	67.93
		8/21/2019	25.14	64.34
		11/25/2019	24.56	64.92
		2/24/2020	17.39	72.09
		5/27/2020	21.39	68.09
CMW-28	89.48	11/11/2020	24.15	65.33
20	55.15	5/24/2021	21.64	67.84
		11/29/2021	20.80	68.68
		5/25/2022	19.77	69.71
		11/29/2022	24.16	65.32
		5/30/2023	21.70	67.78
		11/27/2023	24.76	64.72
		5/29/2024	22.06	67.42

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Farallon	PN:	301-004	

Well	Well Casing	Measurement	Depth to Water	Elevation
Identification	(feet) ¹	Date	(feet) ²	(feet) ¹
		1/17/2018	17.48	70.55
		7/31/2018	22.19	65.84
		1/22/2019	19.85	68.18
		8/21/2019	23.47	64.56
		11/25/2019	22.91	65.12
		2/24/2020	15.76	72.27
		5/27/2020	19.66	68.37
CMW-29	88.03	11/11/2020	22.51	65.52
		5/24/2021	19.93	68.10
		11/29/2021	19.13	68.90
		5/25/2022	18.10	69.93
		11/29/2022	22.52	65.51
		5/30/2023	19.96	68.07
		11/27/2023	23.13	64.90
		5/29/2024	20.29	67.74
		1/17/2018	16.82	70.76
		7/31/2018	21.52	66.06
		1/22/2019	19.19	68.39
		8/21/2019	22.84	64.74
		11/25/2019	22.28	65.30
		2/25/2020	15.16	72.42
CMW-30	87.58	5/27/2020	19.02	68.56
CIVIVV-30	07.50	11/11/2020	21.88	65.70
		5/24/2021 11/29/2021	19.28 18.53	68.30 69.05
		5/25/2022	17.45	70.13
		11/29/2022	21.81	65.77
		5/30/2023	19.31	68.27
		11/27/2023	22.50	65.08
		5/29/2024	19.58	68.00
		1/17/2018	19.49	69.53
		7/31/2018	24.32	64.70
		1/22/2019	21.90	67.12
		8/21/2019	25.54	63.48
		11/25/2019	24.91	64.11
		2/24/2020	17.80	71.22
		5/27/2020	21.81	67.21
CMW-31	89.02	11/11/2020	24.43	64.59
		5/24/2021	22.06	66.96
		11/29/2021	21.18	67.84
		5/25/2022	20.22	68.80
		11/29/2022	24.56	64.46
		5/30/2023	22.04	66.98
		11/27/2023	25.00	64.02
		5/29/2024	22.53	66.49

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Farall	on	PN: 3	01-004

Well	Well Casing	Measurement	Depth to Water	Elevation
Identification	(feet) ¹	Date	(feet) ²	(feet) ¹
		1/17/2018	19.47	69.60
		7/31/2018	24.25	64.82
		1/22/2019	21.85	67.22
		8/21/2019	25.45	63.62
		11/25/2019	24.84	64.23
		2/25/2020	17.84	71.23
		5/27/2020	21.76	67.31
HMW-9	89.07	11/11/2020	24.40	64.67
		5/24/2021	22.00	67.07
		11/29/2021	21.18	67.89
		5/25/2022	20.18	68.89
		11/29/2022	24.50	64.57
		5/30/2023	21.97	67.10
		11/27/2023	24.96	64.11
		5/29/2024	22.44	66.63
		1/17/2018	19.40	69.78
		7/31/2018	24.13	65.05
		1/22/2019	21.77	67.41
		8/21/2019	23.35	65.83
		11/25/2019 2/24/2020	24.78 17.70	64.40 71.48
		5/27/2020	21.66	67.52
HMW-10	89.18	11/11/2020	24.34	64.84
111111111111	00.10	5/24/2021	21.91	67.27
		11/29/2021	21.08	68.10
		5/25/2022	20.04	69.14
		11/29/2022	24.39	64.79
		5/30/2023	21.86	67.32
		11/27/2023	24.92	64.26
		5/29/2024	22.31	66.87
		1/17/2018	17.51	NS
		7/31/2018	22.27	NS
		1/22/2019	19.89	NS
		8/21/2019	23.30	NS
		11/25/2019	22.87	NS
		2/25/2020	15.82	NS
		5/27/2020	19.76	NS
HMW-11	NS	11/11/2020	22.46	NS
		5/24/2021	20.03	NS
		11/29/2021	19.25	NS NS
		5/25/2022	18.21	NS NO
		11/29/2022	22.52	NS NG
		5/30/2023	20.02	NS NS
		11/27/2023	23.03	NS NS
		5/29/2024	20.43	NS

Farallon PN: 301-004

Well	Well Casing	Measurement	Depth to Water	Elevation
Identification	(feet) ¹	Date	(feet) ²	(feet) ¹
		1/17/2018	17.82	70.50
		7/31/2018	22.51	65.81
		1/22/2019	20.21	68.11
		8/21/2019	23.80	64.52
		11/25/2019	23.24	65.08
		2/24/2020	16.13	72.19
		5/27/2020	20.02	68.30
HMW-13	88.32	11/11/2020	22.85	65.47
		5/24/2021	16.00	72.32
		11/29/2021	19.50	68.82
		5/25/2022	16.32	72.00
		11/29/2022	16.20	72.12
		5/30/2023	20.29	68.03
		11/27/2023	23.47	64.85
		5/29/2024	20.65	67.67

NOTES:

depth to water measured during sampling on July 31, 2018 was 24.45 feet below the top of the well casing.

¹Elevation in feet above mean sea level, adjusted to a common datum. NS = well not surveyed; groundwater elevation ²Depth to water in feet below the top of the well casing. could not be determined

³Depth to water measured during sampling on November 27, 2023.

⁴Depth to water measurement appears to be erroneous;

Sample	- . 1	Temperature ²	2	ORP ²	Specific Conductivity ²	Dissolved Oxygen ¹
Location	Date ¹	(°Celsius)	pH ²	(millivolts)	(mS/cm)	(milligrams per liter)
	1/18/2018	13.5	6.03	252.3		1.15 0.47
	7/31/2018	15.5	6.14	164.0		
	1/22/2019	12.9	5.99	214.1		1.20
	8/22/2019	14.7	6.16	175.1		2.09
	11/26/2019	13.8	6.20	44.5		3.29
	2/25/2020	12.2	6.60	143.6		6.76
	5/28/2020	14.8	7.32	201.4		8.58
CMW-2	11/12/2020	13.4	6.23	17.5		0.95
	5/25/2021	13.7	6.49	354.9		7.03
	11/30/2021	14.6	6.48	238.3		4.52
	5/26/2022	14.9	6.12	505.8		3.76
	11/30/2022	12.5	6.72	292.7		2.00
	5/31/2023	14.5	6.23	210.6		3.96
	11/28/2023	11.9	6.32	348.2	0.556	6.18
	5/30/2024	14.3	6.74	40.2	0.312	8.72
CMW-4	1/17/2018					4.52
CMW-6	1/17/2018					4.09
	1/18/2018	12.0	6.66	-14.3		0.29
	8/1/2018	14.5	6.33	-32.3		0.52
	1/22/2019	12.2	6.29	8.8		0.64
	8/21/2019	13.9	6.21	8.4		1.71
	11/25/2019	12.6	6.37	21.8		1.05
	2/25/2020	12.5	6.27	-1.3		0.99
	5/28/2020	13.3	6.52	-9.9		0.60
CMW-8	11/11/2020	12.3	6.31	-31.9		6.67
0	5/24/2021	13.3	6.08	41.2		0.75
	11/30/2021	12.9	6.51	-12.5		1.17
	5/25/2022	15.7	6.09	328.8		0.93
	11/30/2022	11.5	6.47	127.3		0.76
	5/31/2023	15.1	6.45	15.8		1.48
	11/28/2023	10.9	6.48	106.5	0.175	0.78
	5/29/2024	14.1	6.31	23.1	0.263	0.55
	1/18/2018	13.4	6.12	194.4	0.200	0.70
	8/1/2018	14.9	6.12	-40.1		0.76
	1/23/2019	13.0	5.76	176.7		0.75
	8/22/2019	14.3	6.00	-37.4		0.76
	11/25/2019	14.6	4.87	87.3		1.18
	2/25/2020	13.3	6.08	158		5.58
	5/28/2020	15.2	6.52	120.8		2.27
CNAVA 40	11/12/2020	15.2	5.75	36.6		1.20
CMW-10				30.6		
	5/25/2021	14.1	6.13			1.36
	11/30/2021	15.1	6.25	174.8		1.56
	5/26/2022	15.1	6.12	463.7		1.58
	11/30/2022	12.9	6.55	42.5		0.95
	5/31/2023	15.7	5.84	163.2		1.51
	11/28/2023	11.9	6.40	-10.6	0.271	0.83
	5/30/2024	14.5	5.88	105.7	0.191	0.40

Sample Location	Date ¹	Temperature ² (°Celsius)	pH ²	ORP ² (millivolts)	Specific Conductivity ² (mS/cm)	Dissolved Oxygen ¹ (milligrams per liter)
	1/18/2018	12.8	6.46	-47.0		0.18
Ī	8/1/2018	15.8	6.19	-22.5		0.41
Ī	1/23/2019	12.5	6.36	-25.7		0.60
ļ	8/22/2019	15.1	6.25	-61.5		1.71
Ī	11/26/2019	12.4	6.36	-6.5		0.97
Ī	2/25/2020	12.8	6.12	-13.9		1.01
Ī	5/28/2020	18.3	6.50	-35.5		0.59
CMW-12	11/12/2020	13.6	6.29	-93.6		0.73
Ī	5/25/2021	14.6	6.13	86.8		0.86
Ī	11/30/2021	13.9	6.38	93.4		2.17
Ī	5/26/2022	15.8	6.21	-121.8		0.84
ļ	11/30/2022	12.6	6.14	189.4		0.73
Ī	5/31/2023	15.7	6.27	14.3		1.63
ļ	11/27/2023	12.5	6.16	54.3	0.201	0.84
ļ	5/30/2024	14.0	6.22	115.4	0.218	0.51
	1/18/2018	13.1	6.30	107.2		1.25
F	7/31/2018	15.9	6.18	-40.3		0.26
F	1/23/2019	12.5	5.91	78.6		1.28
F	8/22/2019	14.5	6.34	-31.7		1.85
-	11/26/2019	13.1	6.41	-0.9		1.51
=	2/25/2020	12.8	6.13	155.9		1.54
-	5/28/2020	16.5	6.17	77.5		0.71
CMW-13	11/12/2020	13.3	6.44	-80.0		2.30
-	5/24/2021	14.5	5.79	116.3		1.15
-	11/30/2021	14.3	6.27	60.3		4.52
-	5/25/2022	16.4	6.08	526.1		0.66
	11/30/2022	11.8	6.67	31.9		1.27
F	5/31/2023	13.9	6.21	48.5		1.46
F	11/27/2023	12.3	6.14	24.6	0.238	2.54
=	5/29/2024	15.4	6.16	137.4	0.141	0.59
CMW-15	1/17/2018					0.37
	1/18/2018	12.7	6.14	269.4		4.68
F	7/31/2018	16.3	6.03	88.5		0.75
	1/22/2019	12.4	6.03	315.1		4.59
-	8/21/2019	15.6	6.03	117.8		1.03
	11/25/2019	12.8	6.13	63.5		1.74
 	2/24/2020	12.1	6.00	114.2		8.05
ŀ	5/27/2020	15.1	6.18	251.5		4.24
CMW-25	11/12/2020	12.5	5.97	12.4		1.32
-	5/24/2021	13.2	5.77	345.6		4.00
ŀ	11/29/2021	15.0	6.19	279.6		6.85
ţ	5/25/2022	14.9	6.02	519.7		6.48
ŀ	11/30/2022	12.3	6.10	224.8		1.12
ŀ	5/30/2023	16.0	6.11	305.0		5.21
ŀ	11/28/2023	11.0	6.20	254.7	0.167	5.53
ŀ	5/29/2024	14.6	5.99	214.7	0.125	0.43

					Specific	
Sample		Temperature ²		ORP ²	Conductivity ²	Dissolved Oxygen ¹
Location	Date ¹	(°Celsius)	pΗ²	(millivolts)	(mS/cm)	(milligrams per liter)
	1/18/2018	10.7	6.44	233.6		4.04
	8/1/2018	16.0	6.22	160.6		4.32
	1/22/2019	11.9	6.07	98.6		4.08
	8/21/2019	16.0	6.05	206.1		4.18
	11/26/2019	11.6	6.27	218.2		2.98
	2/25/2020	11.4	6.33	155.2		4.61
	5/27/2020	16.4	6.35	266.0		4.21
CMW-26	11/11/2020	12.5	6.05	49.6		0.77
	5/25/2021	13.0	6.05	338.3		4.53
	11/29/2021	14.0	6.36	273.5		4.61
	5/25/2022	16.2	6.24	503.0		4.40
	11/30/2022	11.3	7.99	228.0		4.55
	5/30/2023	14.1	6.16	184.1		4.52
	11/27/2023	11.0	6.27	360.0	0.211	5.00
	5/29/2024	13.4	6.19	198.7	0.153	4.82
	1/18/2018	14.0	6.12	155.5		0.44
	8/1/2018	16.0	6.05	-26.7		0.21
	1/23/2019	12.7	6.27	-106.1		0.73
	8/22/2019	16.7	6.45	-53.7		0.69
	11/26/2019	14.6	6.29	-156.8		0.47
	2/25/2020	13.9	6.14	276.2		1.95
	5/28/2020	16.1	6.49	-31.0		0.76
CMW-27	11/12/2020	14.5	6.28	-73.2		0.90
	5/25/2021	14.5	6.11	29.2		0.63
	11/30/2021	15.2	6.18	50.9		0.99
	5/26/2022	14.7	6.37	87.2		0.77
	11/30/2022	11.2	6.66	16.7		0.91
	5/31/2023	15.7	5.78	85.5		1.07
	11/28/2023	12.3	6.41	-16.9	0.436	1.36
	5/30/2024	14.6	6.22	19.5	0.191	2.54
	1/18/2018	9.3	6.17	204.4		2.04
	8/1/2018	15.2	5.98	44.9		0.52
	1/23/2019	12.0	5.56	184.9		1.87
	8/21/2019	15.2	5.65	161.3		1.55
	11/26/2019	14.8	5.66	245.0		1.93
	2/24/2020	11.1	5.54	146.7		7.51
	5/27/2020	15.5	6.03	292.3		7.44
CMW-28	11/12/2020	14.2	5.90	52.1		3.91
	5/25/2021	13.6	5.63	296.5		3.08
	11/30/2021	14.1	6.04	286.6		1.15
	5/25/2022	15.8	5.86	520.4		3.54
	11/29/2022	12.3	6.10	201.9		6.26
	5/30/2023	15.4	5.93	242.0		6.04
	11/27/2023	11.3	5.80	367.1	0.071	3.83
	5/29/2024	15.7	5.88	263.6	0.071	3.04

					Specific	
Sample		Temperature ²		ORP ²	Conductivity ²	Dissolved Oxygen ¹
Location	Date ¹	(°Celsius)	pH ²	(millivolts)	(mS/cm)	(milligrams per liter)
	1/17/2018	11.9	6.15	109.6		0.55
	7/31/2018	16.7	6.07	43.2		0.41
	1/22/2019	13.1	5.90	180.3		1.28
	8/22/2019	14.1	5.59	103.4		0.87
	11/25/2019	13.6	5.94	112.3		0.85
	2/24/2020	13.1	6.03	90.0		1.49
	5/27/2020	17.4	6.05	243.7		1.66
CMW-29	11/11/2020	13.1	5.72	24.2		5.06
	5/24/2021	14.0	5.60	267.0		7.19
	11/29/2021	15.3	5.96	294.7		1.53
	5/25/2022	15.2	5.98	492.8		0.88
	11/30/2022	11.9	6.17	281.8		2.07
	5/30/2023	14.5	5.87	158.8		2.37
	11/27/2023	10.9	5.91	316.5	0.251	1.26
	5/29/2024	15.9	5.95	204.5	0.139	1.98
	1/17/2018					1.11
	1/22/2019	13.4	6.19	179.1		0.91
	8/21/2019	15.1	5.90	163.9		0.90
	11/25/2019	14.5	6.09	124.4		0.56
	2/25/2020	12.0	6.20	148.2		2.26
	5/27/2020	15.6	6.29	193.3		0.71
CMW-30	11/11/2020	14.3	6.03	15.0		0.89
011111 00	5/24/2021	13.9	5.80	241.9		0.40
	11/29/2021	15.1	6.24	210.2		0.93
	5/25/2022	13.9	6.08	505.5		1.08
	11/29/2022	12.2	6.16	202.6		0.89
	5/30/2023	14.3	5.96	114.8		1.42
	11/27/2023	12.0	6.03	297.1	0.228	0.45
	5/29/2024	13.7	6.13	224.8	0.145	0.34
	1/18/2018	12.0	6.34	153.3		2.90
	7/31/2018	14.6	6.03	97.6		0.71
	1/22/2019	12.7	5.95	161.2		3.34
	8/22/2019	13.5	6.11	143.8		2.07
	11/25/2019	12.3	6.20	109.3		1.60
	2/24/2020	12.5	5.88	277.9		3.91
ONAVA OA	5/28/2020	13.9	6.21	163.2		1.17
CMW-31	11/11/2020	12.6	6.08	53.4		1.11
	5/24/2021	13.7	6.15	270.8		1.09
	11/29/2021	14.1	6.15	297.5		1.28
	5/25/2022	15.5	6.13	321.7		1.87
	11/29/2022	11.6	6.42	200.6 162.7		1.13
	5/31/2023 11/28/2023	14.4	6.12	268.6	0.179	1.99 1.14
		10.6	6.34			
	5/29/2024	14.0	6.04	116.6	0.289	1.09

Sample		Temperature ²		ORP ²	Specific Conductivity ²	Dissolved Oxygen ¹
Location	Date ¹	(°Celsius)	pH ²	(millivolts)	(mS/cm)	(milligrams per liter)
	1/18/2018	12.6	6.51	-13.0		0.51
	8/1/2018	14.8	6.23	-20.0		0.25
	1/22/2019	13.3	6.16	28.8		0.59
	8/21/2019	16.7	6.23	-5.1		1.89
	11/25/2019	14.0	6.25	25.3		0.33
	2/25/2020	13.0	6.18	35.7		2.84
	5/28/2020	14.0	6.38	-18.7		0.88
HMW-9	11/11/2020	13.9	6.23	-67.3		3.82
	5/25/2021	14.9	5.99	36.6		2.66
	11/30/2021	14.1	6.44	13		1.1
	5/26/2022	14.6	6.00	-202.6		0.62
	11/30/2022	9.2	5.35	217.5		4.76
<u> </u>	5/31/2023	14.4	6.34	-53.8		1.38
<u> </u>	11/27/2023	11.3	6.16	39.5	0.190	0.87
	5/29/2024	18.0	6.25	3.0	0.26	0.51
	1/17/2018	12.3	6.49	-38.1		0.47
	7/31/2018	14.8	6.22	-43.1		0.26
	1/22/2019	13.0	6.14	30.5		0.53
	8/21/2019	14.6	6.25	-26.0		2.02
	11/25/2019	13.3	6.18	27.3		2.76
	2/24/2020	13.5	6.07	7.8		7.1
	5/28/2020	14.1	6.43	-9.0		0.59
HMW-10	11/12/2020	13.1	6.26	-57.4		2.70
	5/24/2021	14.6	5.85	26.7		0.80
	11/30/2021	13.5	6.48	-7.8		0.85
-	5/26/2022	15.0	6.32	-162.1		0.64
-	11/30/2022	11.5	7.96	184.0		0.89
	5/31/2023	14.1	6.21	4.6		1.35
-	11/28/2023	11.2	6.41	28.0	0.228	0.68
	5/30/2024	14.0	6.32	24.0	0.244	0.46
-	1/18/2018	13.7	6.07	176.6		0.46
	8/1/2018	15.3	6.20	-27.6		0.29
=	1/23/2019	12.9	6.30	-30.4		0.96
	8/22/2019	14.6	6.20	-40.1		1.70
	11/26/2019	13.3	6.35	-3.9		0.78
	2/25/2020	14.1	6.00	188.7		0.63
	5/28/2020	16.2	6.38	-16.6		0.70
HMW-11	11/12/2020	13.8	6.37	-108.8		0.67
ļ	5/25/2021	14.6	6.22	1.6		1.10
ļ	11/30/2021	15.3	6.23	255.3		4.12
ļ	5/26/2022	15.3	6.07	-62.7		0.98
<u> </u>	11/30/2022	6.7	6.57	54.1		1.60
<u> </u>	5/31/2023	14.1	6.03	11.7		1.64
<u> </u>	11/28/2023	11.9	6.23	7.6	0.510	0.74
}	5/30/2024	14.2	6.21	12.6	0.224	0.74
	5/30/2024	14.2	0.21	12.0	0.224	0.20

Auburn, Washington Farallon PN: 301-004

Sample		Temperature ²		ORP ²	Specific Conductivity ²	Dissolved Oxygen ¹
Location	Date ¹	(°Celsius)	pH ²	(millivolts)	(mS/cm)	(milligrams per liter)
	1/18/2018	12.2	6.18	233.4		0.55
	8/1/2018	14.7	5.95	157.5		0.85
	1/23/2019	12.5	5.64	196.8		1.23
	8/21/2019	15.9	5.97	211.9		2.72
	11/26/2019	12.1	6.06	235.3		1.51
	2/24/2020	11.7	5.89	140.1		2.92
	5/27/2020	16.8	6.16	233.0		1.10
HMW-13	11/11/2020	12.6	5.77	59.2		2.70
	5/25/2021	14.7	5.96	250.9		1.93
	11/30/2021	13.6	6.19	281.1		1.86
	5/26/2022	16.1	6.10	-36.1		1.89
	11/30/2022	12.5	6.05	233.7		3.22
	5/30/2023	14.8	5.96	208.1		3.01
	11/27/2023	11.9	6.00	341.6	0.199	3
	5/30/2024	13.9	6.05	116.4	0.225	1.72

NOTES:

mS/cm = milliSiemens per centimeter ORP = oxidation-reduction potential

^{--- =} not measured or data unavailable

¹Date shown represents date of groundwater sample collection. Dissolved-oxygen measurements typically were collected 1 to 2 days prior using a dissolved-oxygen analyzer with a down-hole probe.

²Temperature, pH, specific conductivity, and ORP were measured using a YSI or Horiba multiparameter water quality analyzer.

³Dissolved-oxygen reading erroneous.

			Analytical Results (milligrams per liter)				
Well			NWTPH-Dx without Sulfuric Acid Silica Gel or Silica Gel ¹		NWTPH-Dx with Sulfuric Acid Silica Gel or Silica Gel		
Identification	Sample Identification	Sample Date	DRO	ORO	DRO	ORO	
	CMW-2-113021	11/30/2021	1.4	1.2	<0.20 ²	<0.20 ²	
	CMW-2-052622	5/26/2022	0.20	0.25	<0.24 ³	<0.24 ³	
CMW-2	CMW-2-113022	11/30/2022	0.57	0.59	<0.12 ³	< 0.20 ³	
CIVIVV-Z	CMW-2-053123	5/31/2023	0.43	0.64	<0.22 ³	<0.22 ³	
	CMW-2-112823	11/28/2023	1.2	1.5	< 0.20 ³	< 0.20 ³	
	CMW-2-053024	5/30/2024	0.30	0.32	<0.22 ³	< 0.22 ³	
	CMW-8-113021	11/30/2021	0.58	0.35	<0.20 ²	<0.20 ²	
	CMW-8-052522	5/25/2022	0.79	0.60	< 0.20 ³	< 0.20 ³	
CMW-8	CMW-8-113022	11/30/2022	0.28	0.29	<0.11 ³	< 0.20 ³	
CIVIVV-0	CMW-8-053123	5/31/2023	0.64	0.71	< 0.20 ³	< 0.20 ³	
	CMW-8-112823	11/28/2023	0.28	0.35	<0.20 ³	< 0.20 ³	
	CMW-8-052924	5/29/2024	0.37	0.27	<0.22 ³	<0.22 ³	
	CMW-10-113021	11/30/2021	2.8	2.9	<0.20 ²	<0.20 ²	
	CMW-10-052622	5/26/2022	0.62	0.51	<0.23 ³	<0.23 ³	
CMW-10	CMW-10-113022	11/30/2022	1.8	0.77	<0.12 ³	< 0.20 ³	
CIVIVV-10	CMW-10-053123	5/31/2023	3.0	4.5	0.28 ³	<0.22 ³	
	CMW-10-112823	11/28/2023	1.6	0.58	0.27^{3}	< 0.20 ³	
	CMW-10-053024	5/30/2024	2.4	1.8	<0.23 ³	< 0.23 ³	
	CMW-12-113021	11/30/2021	0.64	0.33	<0.20 ²	< 0.20 ²	
	QA/QC-1-113021 ⁴	11/30/2021	0.65	0.32	<0.21 ²	<0.21 ²	
CMW-12	CMW-12-052622	5/26/2022	0.80	0.44	<0.22 ³	<0.22 ³	
	QA/QC-2-052622 ⁴	5/26/2022	0.84	0.49	<0.20 ³	< 0.20 ³	
	CMW-12-113022	11/30/2022	0.43	0.26	<0.12 ³	< 0.20 ³	
	QA/QC-1-113022 ⁴	11/30/2022	0.39	0.30	<0.12 ³	< 0.20 ³	
CIVIVV-12	CMW-12-053123	5/31/2023	1.0	1.1	<0.20 ³	< 0.20 ³	
	QA/QC-1-053123 ⁴	5/31/2023	0.88	0.89	<0.21 ³	<0.21 ³	
	CMW-12-112723	11/27/2023	0.29	0.29	<0.21 ³	<0.21 ³	
	QA/QC-1-112723 ⁴	11/27/2023	0.32	0.36	< 0.20 ³	< 0.20 ³	
	CMW-12-053024	5/30/2024	0.33	0.27	<0.23 ³	< 0.23 ³	
	QA/QC-1-053024 ⁴	5/30/2024	0.33	0.31	<0.23 ³	< 0.23 ³	
ITCA Method A	Cleanup Levels for Groui	ndwater ⁶	0.5	0.5	0.5	0.5	

			Analytical Results (milligrams per liter)			
Well			NWTPH-Dx without Sulfuric Acid Silica Gel or Silica Gel ¹		NWTPH-Dx with Sulfuric Acid Silica Gel or Silica Gel	
Identification	Sample Identification	Sample Date	DRO	ORO	DRO	ORO
	CMW-13-113021	11/30/2021	0.57	0.34	<0.21 ²	<0.21 ²
	CMW-13-052522	5/25/2022	1.4	0.67	<0.22 ³	< 0.22 ³
CMW-13	CMW-13-113022	11/30/2022	0.44 ⁵	0.22	<0.16 ³	< 0.20 ³
CIVIVV-13	CMW-13-053123	5/31/2023	1.5	1.2	< 0.20 ³	< 0.20 ³
	CMW-13-112723	11/27/2023	0.68	0.37	< 0.20 ³	< 0.20 ³
	CMW-13-052924	5/29/2024	1.2	0.38	< 0.23 ³	< 0.23 ³
	CMW-25-112921	11/29/2021	<0.20	<0.20	<0.20 ²	< 0.20 ²
	CMW-25-052522	5/25/2022	<0.11	<0.22	<0.22 ³	<0.22 ³
CMW-25	CMW-25-113022	11/30/2022	<0.13	<0.20	<0.12 ³	< 0.20 ³
CIVIVV-25	CMW-25-053023	5/30/2023	<0.21	<0.15	<0.21 ³	<0.21 ³
	CMW-25-112823	11/28/2023	<0.15	<0.20	< 0.20 ³	< 0.20 ³
	CMW-25-052924	5/29/2024	<0.22	<0.22	<0.22 ³	<0.22 ³
	CMW-26-112921	11/29/2021	<0.20	<0.20	<0.20 ²	< 0.20 ²
	CMW-26-052522	5/25/2022	<0.11	<0.21	<0.21 ³	<0.21 ³
CMW-26	CMW-26-113022	11/30/2022	<0.13	<0.20	<0.12 ³	< 0.20 ³
CIVIVV-20	CMW-26-053023	5/30/2023	<0.21	<0.15	<0.21 ³	<0.21 ³
	CMW-26-112723	11/27/2023	<0.15	<0.20	<0.20 ³	< 0.20 ³
	CMW-26-052924	5/29/2024	<0.22	<0.22	< 0.22 ³	< 0.22 ³
	CMW-27-113021	11/30/2021	8.9 ⁵	4.8	0.88 ^{5,2}	<0.21 ²
	QA/QC-2-113021 ⁴	11/30/2021	6.7 ⁵	2.8	0.93 ^{5,2}	<0.21 ²
	CMW-27-052622	5/26/2022	1.6	1.0	0.28 ³	< 0.22 ³
	QA/QC-1-052622 ⁴	5/26/2022	1.6	1.1	0.32^{3}	< 0.23 ³
	CMW-27-113022	11/30/2022	2.1 ⁵	0.61	0.75 ^{3,5}	< 0.20 ³
CMW-27	QA/QC-2-113022 ⁴	11/30/2022	1.7 ⁵	0.61	0.64 ^{3,5}	< 0.20 ³
CIVIVV-27	CMW-27-053123	5/31/2023	2.5	3.0	0.23^{3}	< 0.20 ³
	QA/QC-2-053123 ⁴	5/31/2023	2.9	4.2	0.24 ³	<0.21 ³
	CMW-27-112823	11/28/2023	1.9 ⁵	0.65	0.51 ^{3,5}	< 0.20 ³
	QA/QC-2-112823 ⁴	11/28/2023	2.7 ⁵	0.62	0.75 ^{3,5}	< 0.20 ³
	CMW-27-053024	5/30/2024	2.1 ⁵	0.92	0.43 ^{3,5}	< 0.083 ³
	QA/QC-2-053024 ⁴	5/30/2024	2.0 ⁵	0.98	0.51 ^{3,5}	< 0.22 ³
MTCA Method A	Cleanup Levels for Groui	ndwater ⁶	0.5	0.5	0.5	0.5

			Analytical Results (milligrams per liter)				
Well			NWTPH-Dx without Sulfuric Acid Silica Gel or Silica Gel ¹		NWTPH-Dx with Sulfuric Acid Silica Gel or Silica Gel		
Identification	Sample Identification	Sample Date	DRO	ORO	DRO	ORO	
	CMW-28-113021	11/30/2021	<0.20	<0.20	<0.20 ²	< 0.20 ²	
	CMW-28-052522	5/25/2022	1.1	0.68	<0.23 ³	<0.23 ³	
CNAVA CO	CMW-28-112922	11/29/2022	0.24	0.31	<0.12 ³	< 0.20 ³	
CMW-28	CMW-28-053023	5/30/2023	1.5	1.1	<0.20 ³	< 0.20 ³	
	CMW-28-112723	11/27/2023	0.61	0.90	<0.20 ³	<0.20 ³	
	CMW-28-052924	5/29/2024	1.8	0.53	<0.21 ³	<0.21 ³	
	CMW-29-112921	11/29/2021	0.74	0.87	<0.20 ²	<0.20 ²	
	CMW-29-052522	5/25/2022	0.74	0.56	<0.23 ³	< 0.23 ³	
CMW-29	CMW-29-113022	11/30/2022	0.17	0.20	<0.12 ³	< 0.20 ³	
CIVIVV-29	CMW-29-053023	5/30/2023	0.48	0.46	<0.22 ³	< 0.22 ³	
	CMW-29-112723	11/27/2023	<0.15	<0.20	<0.20 ³	< 0.20 ³	
	CMW-29-052924	5/29/2024	0.51	0.26	<0.22 ³	< 0.22 ³	
	CMW-30-112921	11/29/2021	0.23	<0.20	<0.20 ²	<0.20 ²	
	CMW-30-052522	5/25/2022	0.40	0.29	<0.21 ³	<0.21 ³	
CMW-30	CMW-30-112922	11/29/2022	0.47	<0.20	<0.12 ³	< 0.20 ³	
CIVIVV-30	CMW-30-053023	5/30/2023	0.33	0.21	<0.22 ³	< 0.22 ³	
	CMW-30-112723	11/27/2023	0.18	0.26	< 0.20 ³	< 0.20 ³	
	CMW-30-052924	5/29/2024	<0.23	<0.23	<0.23 ³	<0.23 ³	
	CMW-31-112921	11/29/2021	<0.20	<0.20	<0.20 ²	<0.20 ²	
	CMW-31-052522	5/25/2022	<0.10	<0.20	<0.20 ³	< 0.20 ³	
CMW-31	CMW-31-112922	11/29/2022	0.25	<0.20	<0.12 ³	< 0.20 ³	
CIVIVV-3 I	CMW-31-053123	5/31/2023	<0.21	0.27	<0.21 ³	<0.21 ³	
	CMW-31-112823	11/28/2023	0.18	0.23	<0.21 ³	<0.21 ³	
	CMW-31-052924	5/29/2024	<0.24	<0.24	<0.24 ³	< 0.24 ³	
	HMW-9-113021	11/30/2021	0.30	0.32	<0.21 ²	<0.21 ²	
	HMW-9-052622	5/26/2022	0.77	0.65	<0.21 ³	<0.21 ³	
HMW-9	HMW-9-113022	11/30/2022	0.18	0.45	<0.12 ³	0.35 ³	
HIVIVV-9	HMW-09-053123	5/31/2023	0.96	1.3	<0.20 ³	0.22^{3}	
	HMW-9-112723	11/27/2023	0.35	0.50	<0.20 ³	< 0.20 ³	
	HMW-9-052924	5/29/2024	0.82	0.58	<0.22 ³	<0.22 ³	
ITCA Method A	Cleanup Levels for Groui	ndwater ⁶	0.5	0.5	0.5	0.5	

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Farallon	PN: 301-004

			Analytical Results (milligrams per liter)				
Well			NWTPH-Dx without Sulfuric Acid Silica Gel or Silica Gel ¹		NWTPH-Dx with Sulfuric Acid Silica Gel or Silica Gel		
Identification	Sample Identification	Sample Date	DRO	ORO	DRO	ORO	
	HMW-10-113021	11/30/2021	0.50	0.23	<0.20 ²	<0.20 ²	
	HMW-10-052622	5/26/2022	1.5	0.75	< 0.20 ³	<0.20 ³	
HMW-10	HMW-10-113022	11/30/2022	0.52	0.28	<0.12 ³	< 0.20 ³	
HIVIVV-10	HMW-10-053123	5/31/2023	1.0	0.75	<0.22 ³	<0.22 ³	
	HMW-10-112823	11/28/2023	0.49	0.41	< 0.20 ³	< 0.20 ³	
	HMW-10-053024	5/30/2024	0.94	0.36	<0.23 ³	<0.23 ³	
	HMW-11-113021	11/30/2021	0.36	0.38	<0.20 ²	<0.20 ²	
	HMW-11-052622	5/26/2022	2.5	1.4	<0.20 ³	<0.20 ³	
HMW-11	HMW-11-113022	11/30/2022	1.3 ⁵	0.51	$0.36^{3,5}$	< 0.20 ³	
1 110100 - 1 1	HMW-11-053123	5/31/2023	3.5	2.5	0.42 ³	<0.22 ³	
	HMW-11-112823	11/28/2023	4.2 ⁵	1.1	$0.50^{3,5}$	< 0.20 ³	
	HMW-11-053024	5/30/2024	3.3 ⁵	1.3	0.63 ^{3,5}	< 0.23 ³	
	HMW-13-113021	11/30/2021	<0.20	<0.20	<0.20 ²	<0.20 ²	
	HMW-13-052622	5/26/2022	<0.11	<0.22	<0.22 ³	<0.22 ³	
HMW-13	HMW-13-113022	11/30/2022	<0.13	<0.20	<0.12 ³	< 0.20 ³	
1 110100 - 13	HMW-13-053023	5/30/2023	<0.22	<0.17	<0.22 ³	<0.22 ³	
	HMW-13-112723	11/27/2023	0.42	0.21	<0.20 ³	<0.20 ³	
	HMW-13-053024	5/30/2024	<0.23	<0.23	<0.23 ³	< 0.23 ³	
MTCA Method A	ITCA Method A Cleanup Levels for Groundwater ⁶			0.5	0.5	0.5	

NOTES:

<denotes analyte not detected at or exceeding the laboratory reporting limit listed.</p>

Results in **bold** denote sample result or reporting limit exceeds applicable MTCA Method A cleanup levels for groundwater.

DRO = TPH as diesel-range organics

MTCA = Washington State Model Toxics Control

Act Cleanup Regulation

ORO = TPH as oil-range organics

TPH = total petroleum hydrocarbons

¹Analyzed by Northwest Method NWTPH-Dx without a sulfuric acid/silica gel or silica gel cleanup procedure.

²Analyzed by Northwest Method NWTPH-Dx with a sulfuric acid/silica gel cleanup procedure.

³Analyzed by Northwest Method NWTPH-Dx with a silica gel cleanup procedure.

⁴Quality assurance/quality control field duplicate sample.

⁵Hydrocarbons in the gasoline-range are impacting the diesel-range result.

⁶MTCA Method A Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013.

CHARTS

FIRST AND SECOND QUARTER 2024
GROUNDWATER MONITORING AND TREATMENT SYSTEM
OPERATION AND MAINTENANCE REPORT
CHS Auburn Site
Auburn, Washington

Chart 1
DRO and ORO Concentration Data Trends for Monitoring Well CMW-2
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

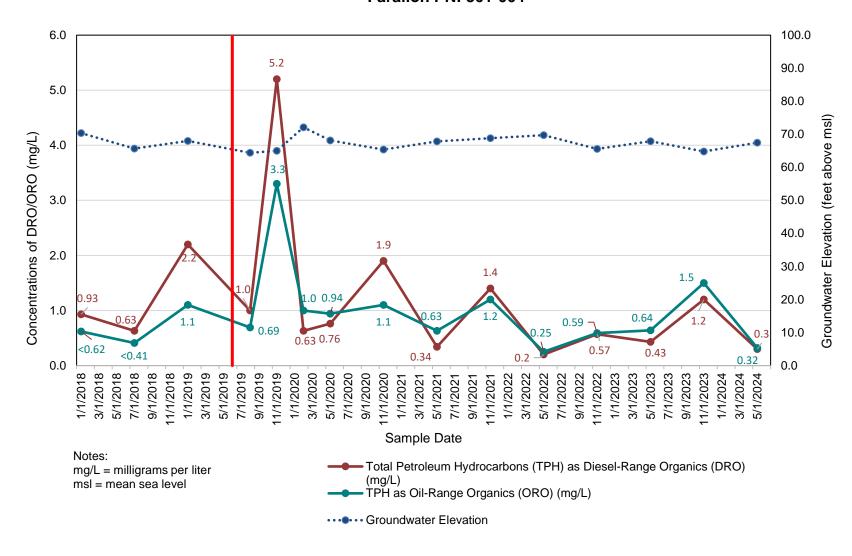


Chart 2
DRO and ORO Concentration Data Trends for Monitoring Well CMW-10
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

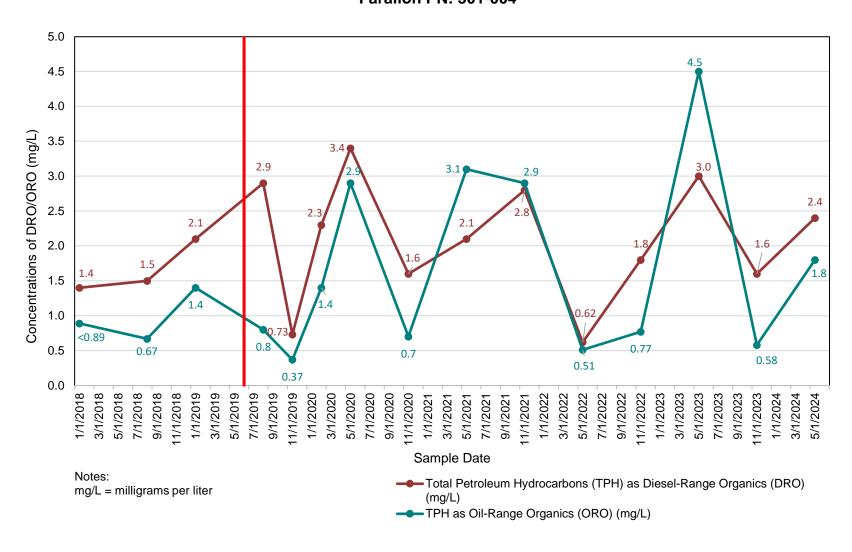


Chart 3
DRO, ORO, and GRO Concentration Data Trends for Monitoring Well CMW-12
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

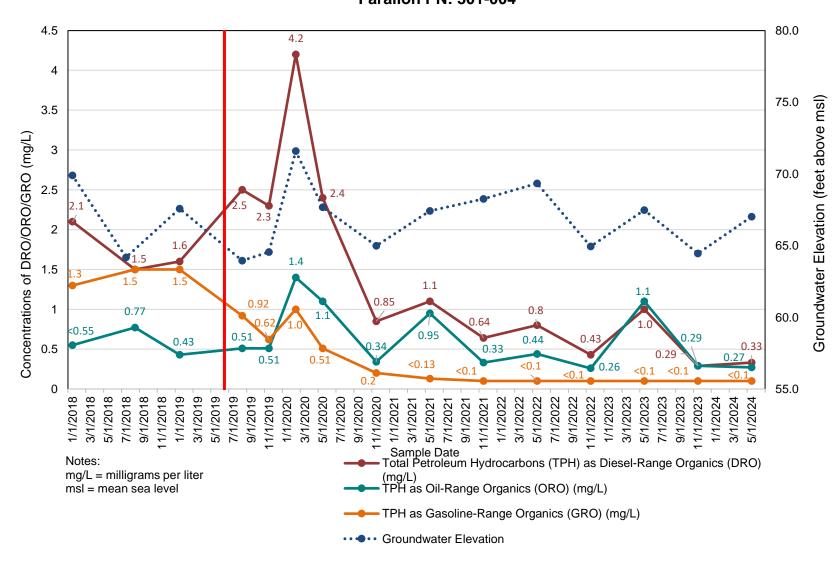


Chart 4
DRO Concentration Data Trend for Monitoring Well CMW-13
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

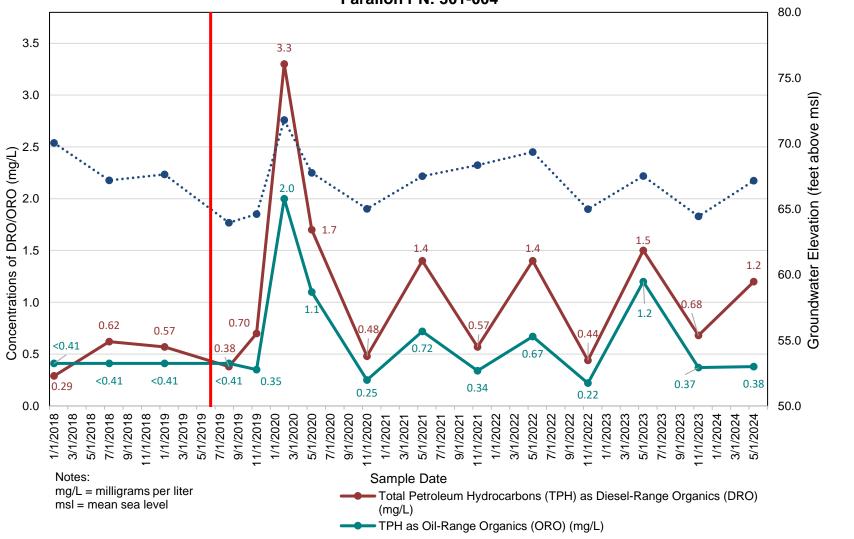


Chart 5
DRO, ORO, and GRO Concentration Data Trends for Monitoring Well CMW-27
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

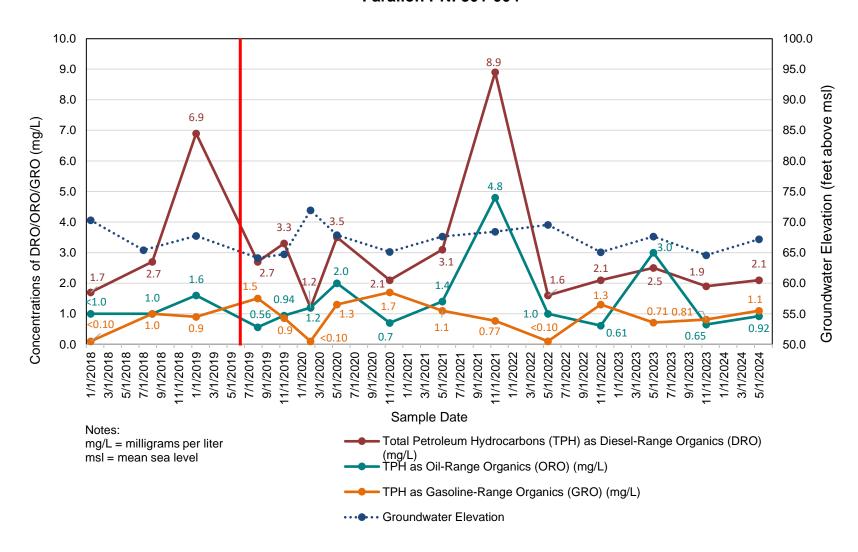


Chart 6
DRO and ORO Concentration Data Trends for Monitoring Well CMW-28
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

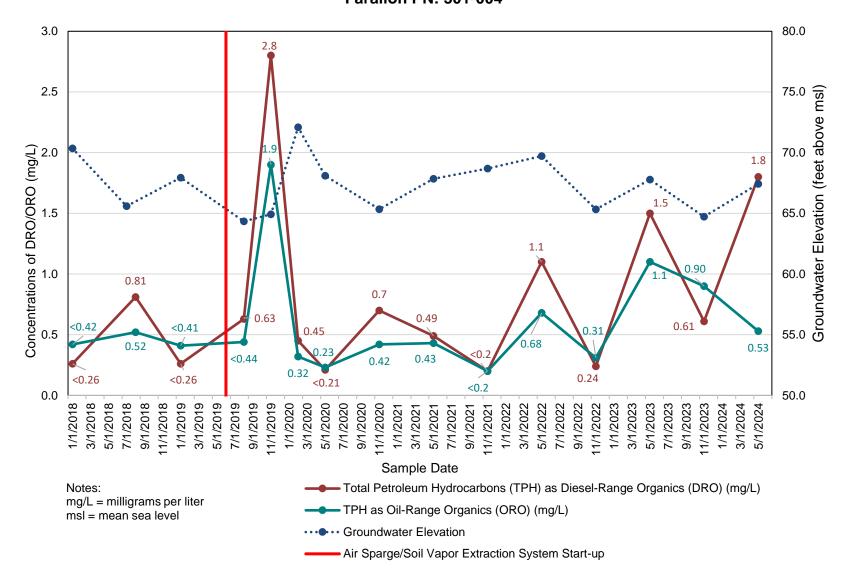


Chart 7
DRO Concentration Data Trend for Monitoring Well HMW-10
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

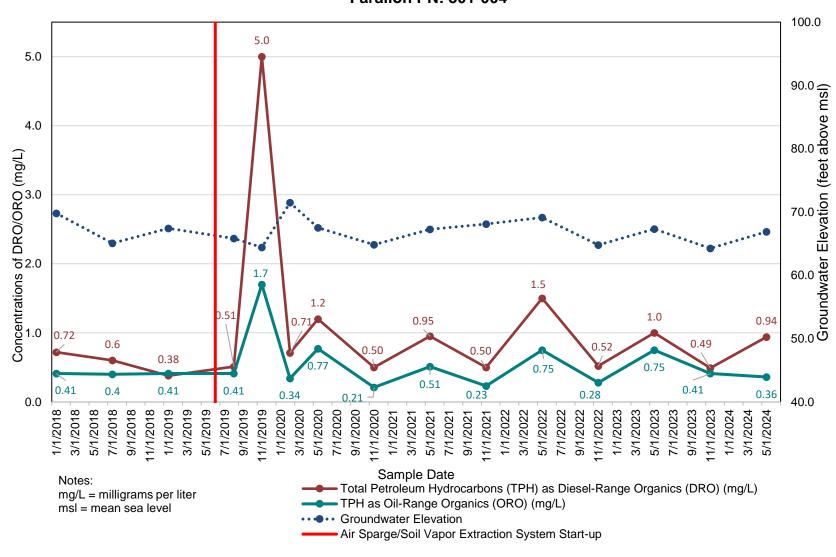


Chart 8
DRO, ORO, and GRO Concentration Data Trends for Monitoring Well HMW-11
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

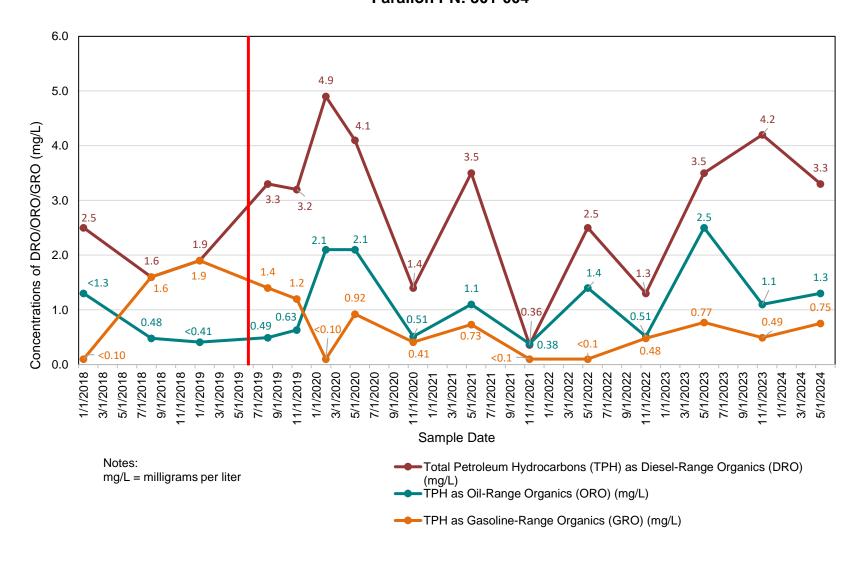


Chart 9
Cumulative Pounds of Benzene and GRO Removed
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

2.9 2.8 2.7 Cumulative Benzene and GRO Removed (pounds) 2.5 2.7 3.8 ---- Cumulative Benzene 2.2 Removed Cumulative GRO Removed 2.1 2.0 Days of Operation

APPENDIX A LABORATORY ANALYTICAL REPORTS

FIRST AND SECOND QUARTER 2024
GROUNDWATER MONITORING AND TREATMENT SYSTEM
OPERATION AND MAINTENANCE REPORT
CHS Auburn Site
Auburn, Washington

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Vineta Mills, M.S. Eric Young, B.S. 5500 4th Ave South Seattle, WA 98108-2419 (206) 285-8282 office@friedmanandbruya.com www.friedmanandbruya.com

January 31, 2024

Tracey Mulhern, Project Manager Farallon Consulting, LLC 975 5th Avenue Northwest Issaquah, WA 98027

Dear Ms Mulhern:

Included are the results from the testing of material submitted on January 18, 2024 from the Cenex Auburn 301-004, F&BI 401218 project. There are 5 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures

c: Farallon Data, Lisa Thompson

FLN0131R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 18, 2024 by Friedman & Bruya, Inc. from the Farallon Consulting, LLC Cenex Auburn 301-004, F&BI 401218 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u> Farallon Consulting, LLC

401218 -01 Overall-011824

The TO-15 gasoline range concentrations were quantified using a single point calibration at 80 ppbv.

All quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Overall-011824	Client:	Farallon Consulting, LLC
Date Received:	01/18/24	Project:	Cenex Auburn 301-004
Date Collected:	01/18/24	Lab ID:	401218-01 1/5.7
Date Analyzed:	01/25/24	Data File:	012516.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	Upper
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	95	70	130
	Conce	ntration	
Compounds:	ug/m3	ppbv	

Benzene <1.8 < 0.57 Toluene <43 <11 Ethylbenzene < 2.5 < 0.57 m,p-Xylene <5 <1.1 o-Xylene < 2.5 < 0.57 Gasoline Range Organics <1,900 <460

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Farallon Consulting, LLC
Date Received:	Not Applicable	Project:	Cenex Auburn 301-004
Date Collected:	Not Applicable	Lab ID:	04-0123 MB
Date Analyzed:	01/25/24	Data File:	012512.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	$_{ m Upper}$
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	94	70	130
	Concer	ntration	
Compounds:	ug/m3	ppbv	

ENVIRONMENTAL CHEMISTS

Date of Report: 01/31/24 Date Received: 01/18/24

Project: Cenex Auburn 301-004, F&BI 401218

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 401299-01 1/5.7 (Duplicate)

	Reporting	Sample	Duplicate	RPD
Analyte	Units	Result	Result	(Limit 30)
Benzene	ug/m3	<1.8	<1.8	nm
Toluene	ug/m3	<43	<43	nm
Ethylbenzene	ug/m3	< 2.5	< 2.5	nm
m,p-Xylene	ug/m3	<5	<5	nm
o-Xylene	ug/m3	< 2.5	< 2.5	nm

Laboratory Code: Laboratory Control Sample

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Benzene	ug/m3	43	107	70-130
Toluene	ug/m3	51	111	70-130
Ethylbenzene	ug/m3	59	114	70-130
m,p-Xylene	ug/m3	120	117	70-130
o-Xylene	ug/m3	59	118	70-130

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.
- c The presence of the analyte may be due to carryover from previous sample injections.
- cf The sample was centrifuged prior to analysis.
- d The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv Insufficient sample volume was available to achieve normal reporting limits.
- f The sample was laboratory filtered prior to analysis.
- fb The analyte was detected in the method blank.
- fc The analyte is a common laboratory and field contaminant.
- hr The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs Headspace was present in the container used for analysis.
- ht The analysis was performed outside the method or client-specified holding time requirement.
- ip Recovery fell outside of control limits due to sample matrix effects.
- j The analyte concentration is reported below the standard reporting limit. The value reported is an estimate
- J The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- k The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.
- lc The presence of the analyte is likely due to laboratory contamination.
- L The reported concentration was generated from a library search.
- $\ensuremath{\mathsf{nm}}$ The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo The value reported fell outside the control limits established for this analyte.
- x The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

SAMPLE INFORMATION Company_ Address Report To Transay Mulhern City, State, ZIP SUDRALI-ONBUR 5500 4th Avenue South Friedman & Bruya, Inc. Fax (206) 283-5044 Ph. (206) 285-8282 Seattle, WA 98108 Sample Name tish thompson Email (Farcallog Laggaithy 40) 0 Lab ID Relinquisher by: Received by: Relinquished by: Received by CTYDINGSON, TIMUNION Canister ID SIGNATURE Cont. Flow IA=Indoor Air SG=Soil Gas (Circle One) IA / SG Reporting IA / IA / IA IA IA / SG IA / SG IA / SG SAMPLE CHAIN OF CUSTODY Level: PROJECT NAME & ADDRESS SAMPLERS (signature) NOTES: SG SG Cerex Duburn SG SG * GRO+BIEX 02 128111 Sampled Date ("Hg) Initial Vac. PRINT NAME ANHPHAN 825 Field Initial Final ("Hg) Vac. Time 5001 Final Field INVOICE TO 301-004 76 (81)10 ANALYSIS REQUESTED PO# SOUTHWAY. TO15 Full Scan Car. TO15 BTEXN COMPANY F86 ples received

TO15 cVOCs APH

Helium

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Rush charges authorized by:

Hold (Fee may apply):

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SAMPLE DISPOSAL

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ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Vineta Mills, M.S. Eric Young, B.S. 5500 4th Ave South Seattle, WA 98108-2419 (206) 285-8282 office@friedmanandbruya.com www.friedmanandbruya.com

March 20, 2024

Lisa Thompson, Project Manager Farallon Consulting, LLC 975 5th Avenue Northwest Issaquah, WA 98027

Dear Ms Thompson:

Included are the results from the testing of material submitted on March 11, 2024 from the Cenex Auburn 301-004, F&BI 403154 project. There are 5 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures

c: Farallon Data, Tracey Mulhern

FLN0320R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on March 11, 2024 by Friedman & Bruya, Inc. from the Farallon Consulting, LLC Cenex Auburn 301-004 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u> <u>Farallon Consulting, LLC</u>

403154 -01 OVERALL-031124

The TO-15 gasoline range concentrations were quantified using a single point calibration at $80~\mathrm{ppbv}$.

All quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	OVERALL-031124	Client:	Farallon Consulting, LLC
Date Received:	03/11/24	Project:	Cenex Auburn 301-004
Date Collected:	03/11/24	Lab ID:	403154-01 1/5.4
Date Analyzed:	03/14/24	Data File:	031321.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates: 4-Bromofluorobenzene	% Recovery: 94	Lower Limit: 70	Upper Limit: 130
Compounds:	Concer ug/m3	ntration ppbv	

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Farallon Consulting, LLC
Date Received:	Not Applicable	Project:	Cenex Auburn 301-004
Date Collected:	Not Applicable	Lab ID:	04-0512 mb
Date Analyzed:	03/13/24	Data File:	031312.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Units:	ug/m3		Opera	ator:	bat
		%	Lower	Upper	
Surrogates:		Recovery:	Limit:	Limit:	
4-Bromofluorob	enzene	96	70	130	
		Conce	ntration		
Compounds:		ug/m3	ppbv		
Benzene		< 0.32	< 0.1		
Toluene		< 7.5	<2		
Ethylbenzene		< 0.43	< 0.1		
m,p-Xylene		< 0.87	< 0.2		
o-Xylene		< 0.43	< 0.1		
Gasoline Range	Organics	<330	<80		

ENVIRONMENTAL CHEMISTS

Date of Report: 03/20/24 Date Received: 03/11/24

Project: Cenex Auburn 301-004, F&BI 403154

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 403135-01 1/5.2 (Duplicate)

	Reporting	Sample	Duplicate	RPD
Analyte	Units	Result	Result	(Limit 30)
Benzene	ug/m3	<1.7	<1.7	nm
Toluene	ug/m3	<39	<39	nm
Ethylbenzene	ug/m3	< 2.3	< 2.3	nm
m,p-Xylene	ug/m3	<4.5	< 4.5	nm
o-Xylene	ug/m3	< 2.3	< 2.3	nm

Laboratory Code: Laboratory Control Sample

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Benzene	ug/m3	43	108	70-130
Toluene	ug/m3	51	108	70-130
Ethylbenzene	ug/m3	59	106	70-130
m,p-Xylene	ug/m3	120	106	70-130
o-Xylene	ug/m3	59	110	70-130

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.
- c The presence of the analyte may be due to carryover from previous sample injections.
- cf The sample was centrifuged prior to analysis.
- d The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv Insufficient sample volume was available to achieve normal reporting limits.
- f The sample was laboratory filtered prior to analysis.
- fb The analyte was detected in the method blank.
- fc The analyte is a common laboratory and field contaminant.
- hr The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs Headspace was present in the container used for analysis.
- ht The analysis was performed outside the method or client-specified holding time requirement.
- ip Recovery fell outside of control limits due to sample matrix effects.
- j The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.
- J The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- k The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.
- lc The presence of the analyte is likely due to laboratory contamination.
- L The reported concentration was generated from a library search.
- $\ensuremath{\mathsf{nm}}$ The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo The value reported fell outside the control limits established for this analyte.
- x The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

Report To Mil Company_ City, State, ZIP_ Address Phone_ H3180H ASA Jumbon Email (2 Favallon Lossy ling Lom LITHOMSON, TONINAM SAMPLE CHAIN OF CUSTODY 0.5/11/34

	NOTES: & CARO JOTEX	Cernex Yours	PROJECT NAME & ABDRESS	SAMPLERS (signature)
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							OLERAL-USILAY	Sample Name		SAMPLE INFORMATION
							0	Lab ID		
							01 9560	Canister ID		
								Cont.	Flow	
IA / SG	IA / SG	IA / SG	IA / SG ·	IA / SG	IA / SG	IA / SG	14 / 20 3/11/24 3/4 13/5 5	SG=Soil Gas (Circle One)	Reporting Level: IA=Indoor Air	
							3/11/2	Date Vac. Sampled ("Hg)		
							3	Vac. ("Hg)	Initial	
							13/5	Initial Time	Field	
							5	Vac. ("Hg)	Final	
							1330	Final Time	Field	
								_	015 Full Scan	ANALYSIS REQUESTED
	_	Sam	_	_		_	19		O15 BTEXN	YSIS
-	+	Samples received	-	+	+	+	X		rois cvocs	REG
-	+	rece	+	+	+	+	+	+-	Helium P	SHOES
-	+	ivec	+-	+	+	+		+-	os 2	0
		at 40 °C						Notes		

Friedman & Bruya, Inc Seattle, WA 98108 5500 4th Avenue South

Ph. (206) 285-8282

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		ANHPHAN	Madelin Lu	PRINT NAME
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		14:87	1427	TIME

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Vineta Mills, M.S. Eric Young, B.S. 5500 4th Ave South Seattle, WA 98108-2419 (206) 285-8282 office@friedmanandbruya.com www.friedmanandbruya.com

June 3, 2024

Lisa Thompson, Project Manager Farallon Consulting, LLC 975 5th Avenue Northwest Issaquah, WA 98027

Dear Ms Thompson:

Included are the results from the testing of material submitted on May 17, 2024 from the Cenex Auburn 301-004, F&BI 405324 project. There are 5 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl Project Manager

Enclosures

c: Farallon Data

FLN0603R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on May 17, 2024 by Friedman & Bruya, Inc. from the Farallon Consulting, LLC Cenex Auburn 301-004, F&BI 405324 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u> <u>Farallon Consulting, LLC</u>

405324 -01 Overall-051324

The TO-15 gasoline range concentrations were quantified using a single point calibration at 80 ppbv.

All quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Overall-051324	Client:	Farallon Consulting, LLC
Date Received:	05/17/24	Project:	Cenex Auburn 301-004
Date Collected:	05/13/24	Lab ID:	405324-01 1/5.5
Date Analyzed:	05/28/24	Data File:	052815.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

	%	Lower	$_{ m Upper}$
Surrogates:	Recovery:	Limit:	Limit:
4-Bromofluorobenzene	90	70	130
	Concer	ntration	
Compounds:	ug/m3	ppbv	

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Farallon Consulting, LLC
Date Received:	Not Applicable	Project:	Cenex Auburn 301-004
Date Collected:	Not Applicable	Lab ID:	04-1222 MB
Date Analyzed:	05/28/24	Data File:	052812.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Units: ug/m3 Operator:	bat
% Lower	Upper
Surrogates: Recovery: Limit:	Limit:
4-Bromofluorobenzene 91 70	130
Concentration	
Compounds: ug/m3 ppbv	
Benzene <0.32 <0.1	
Toluene <7.5 <2	
Ethylbenzene <0.43 <0.1	
m,p-Xylene <0.87 <0.2	
o-Xylene <0.43 <0.1	
Gasoline Range Organics <200 <50	

ENVIRONMENTAL CHEMISTS

Date of Report: 06/03/24 Date Received: 05/17/24

Project: Cenex Auburn 301-004, F&BI 405324

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 405323-02 1/5.7 (Duplicate)

	Reporting	Sample	Duplicate	RPD
Analyte	Units	Result	Result	(Limit 30)
Benzene	ug/m3	<1.8	<1.8	nm
Toluene	ug/m3	<43	<43	nm
Ethylbenzene	ug/m3	< 2.5	< 2.5	nm
m,p-Xylene	ug/m3	8.5	8.7	2
o-Xylene	ug/m3	< 2.5	2.5	nm

Laboratory Code: Laboratory Control Sample

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Benzene	ug/m3	43	98	70-130
Toluene	ug/m3	51	105	70-130
Ethylbenzene	ug/m3	59	99	70-130
m,p-Xylene	ug/m3	120	98	70-130
o-Xylene	ug/m3	59	103	70-130

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

- a The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.
- b The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.
- ca The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.
- c The presence of the analyte may be due to carryover from previous sample injections.
- cf The sample was centrifuged prior to analysis.
- d The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.
- dv Insufficient sample volume was available to achieve normal reporting limits.
- f The sample was laboratory filtered prior to analysis.
- fb The analyte was detected in the method blank.
- fc The analyte is a common laboratory and field contaminant.
- hr The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.
- hs Headspace was present in the container used for analysis.
- ht The analysis was performed outside the method or client-specified holding time requirement.
- ip Recovery fell outside of control limits due to sample matrix effects.
- j The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.
- J The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.
- jl The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.
- js The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.
- k The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.
- lc The presence of the analyte is likely due to laboratory contamination.
- L The reported concentration was generated from a library search.
- $\ensuremath{\mathsf{nm}}$ The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.
- pc The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.
- ve The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.
- vo The value reported fell outside the control limits established for this analyte.
- x The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

Company_ City, State, ZIP Address_ Report To_ h8650H SAMPLE CHAIN OF CUSTODY

FORDA LIEX	NOTES:	COMPA MANNEYO	PROJECT NAME & ADDRESS	SAMPIJERS (signature)
E E	INVOICE TO	30/- in-4	P0#	

Rush charges authorized by:

SAMPLE DISPOSAL Default:Clean following

Standard RUSH____

Page#_

TURNAROUND TIME

SAMPLE INFORMATION Sample Name Lab Canister Cont. SG-Soil Gas Date Vac. Initial Field Vac. Initial Vac. Final Field Sample Vac. Initial Vac. Final Field Vac. Initial Vac. Final Field Vac. Initial Vac. Final Vac. F
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FORMS\COC\COCTO-15.DOC Fax (206) 283-5044 Friedman & Bruya, Ph. (206) 285-8282 Seattle, WA 98108 5500 4th Avenue So

			uth	, Inc.
Received by:	Relinquished by:	Received by:	Relinquished by Con A Do	SIGNATURE
	-	ANHPHAN	- Maddin Luc	PRINT NAME
		F8B	Favallon	COMPANY
		05/17/24 14:18	5117121	DATE
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PROJECT # 4053.	24 CLIENT_	FLN		INITIALS DATE:	,	7/24
If custody seals ar	e present on co	poler, are they intac	et?	Í NA	□ YES	□ N(
Cooler/Sample ten	nperature					21 °C
Were samples rece	ived on ice/col	d packs?		Thermo	ometer ID: Fl	_
How did samples a		Parotto			□ YES	Ø NO
	the Counter	☐ Picked up by F&I	BI 🗆	FedEx/	UPS/GSO)
Is there a Chain-of *or other representative of	C-Custody* (CO	C)? and/or shipping memos			✓ YES	□ N(
Number of days sar	mples have bee	n sitting prior to re	eceipt at la	borator	y 4	 _ days
Are the samples cle	early identified	? (explain "no" answer be	low)		Z YES	
Were all sample con leaking etc.)? (explain	ntainers receiv n "no" answer below	ed intact (i.e. not b	roken,		YES	□ NO
Were appropriate s	ample contain	ers used?	/ YES	□ NO		nknown
If custody seals are	present on sar	nples, are they inta	ct? Ø	NA [□ YES	□ NO
Are samples requir	ing no headspa	ce, headspace free?	· 1	NA [□ YES	□ NO
Is the following info (explain "no" answer below	ormation provi	ded on the COC, an	d does it m	natch th	e sample	e label?
Sample ID's	Yes No					
Date Sampled	☑ Yes □ No _			D N	ot on CO	C/label
Time Sampled				D N	ot on CO	C/label
# of Containers				N	ot on CO	C/label
Relinquished	☐ Yes ☐ No _					
Requested analysis	Ď Yes □ On H	old				
Other comments (us						
Air Samples: Were a Number of unused T	ny additional c	eanisters/tubes rece	ived? □	NA 🗆	YĘS	Ø NO



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

June 11, 2024

Tracey Mulhern Farallon Consulting 1201 Cornwall Avenue, Suite 105 Bellingham, WA 98225

Re: Analytical Data for Project 301-004 Laboratory Reference No. 2405-446

Dear Tracey:

Enclosed are the analytical results and associated quality control data for samples submitted on May 31, 2024.

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

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

Sincerely,

David Baumeister Project Manager

Enclosures



Project: 301-004

Case Narrative

Samples were collected on May 29 and 30, 2024 and received by the laboratory on May 31, 2024. They were maintained at the laboratory at a temperature of 2° C to 6° C.

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

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

Project: 301-004

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

3 (11)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	CMW-26-052924					
Laboratory ID:	05-446-01					
Benzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	ND	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	96	61-122				
Client ID:	CMW-30-052924					
Laboratory ID:	05-446-02					
Benzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	ND	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	90	61-122				
Client ID:	CMW-13-052924					
Laboratory ID:	05-446-03					
Benzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	ND	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	89	61-122				

Project: 301-004

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

5 (11 /				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	CMW-29-052924					
Laboratory ID:	05-446-04					
Benzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	ND	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	90	61-122				
Client ID:	CMW-28-052924					
Laboratory ID:	05-446-05					
Benzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	ND	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	88	61-122				
Client ID:	CMW-25-052924					
Laboratory ID:	05-446-06					
Benzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	ND	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	91	61-122				

Project: 301-004

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	CMW-8-052924					
Laboratory ID:	05-446-07					
Benzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	ND	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	88	61-122				
Client ID:	CMW-31-052924					
Laboratory ID:	05-446-08					
Benzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	ND	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	90	61-122				
Client ID:	HMW-9-052924					
Laboratory ID:	05-446-09					
Benzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	ND	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	92	61-122				

Project: 301-004

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	CMW-12-053024					
Laboratory ID:	05-446-10					
Benzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	ND	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	90	61-122				
Client ID:	QA/QC-1-053024					
Laboratory ID:	05-446-11					
Benzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	ND	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	92	61-122				
Client ID:	HMW-10-053024					
Laboratory ID:	05-446-12					
Benzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	ND	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	89	61-122				

Project: 301-004

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	HMW-11-053024					
Laboratory ID:	05-446-13					
Benzene	1.7	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	750	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	92	61-122				
Client ID:	CMW-27-053024					
Laboratory ID:	05-446-14					
Benzene	1.7	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	1.0	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	4.2	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	1.3	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	1100	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	94	61-122				
Client ID:	QA/QC-2-053024					
Laboratory ID:	05-446-15					
Benzene	1.6	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	1.0	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	4.3	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	1.3	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	1100	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	94	61-122				

Project: 301-004

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B

· (1.1.)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	CMW-2-053024					
Laboratory ID:	05-446-16					
Benzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	ND	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	93	61-122				
Client ID:	CMW-10-053024					
Laboratory ID:	05-446-17					
Benzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	ND	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	92	61-122				
Client ID:	HMW-13-053024					
Laboratory ID:	05-446-18					
Benzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	ND	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	90	61-122				

Project: 301-004

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B QUALITY CONTROL

Analyte	Result	PQL	Method	Date Propaged	Date Analyzed	Elage
METHOD BLANK	Nesuit	FQL	Metriou	Prepared	Allalyzeu	Flags
_						
Laboratory ID:	MB0604W1					
Benzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	ND	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	90	61-122				
Laboratory ID:	MB0604W2					
Benzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Toluene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Ethylbenzene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
m,p-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
o-Xylene	ND	1.0	EPA 8021B	6-4-24	6-4-24	
Gasoline	ND	100	NWTPH-Gx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	92	61-122				

Project: 301-004

GASOLINE RANGE ORGANICS/BTEX NWTPH-Gx/EPA 8021B QUALITY CONTROL

3 (11)					Source	Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	05-44	16-01									
	ORIG	DUP									_
Benzene	ND	ND	NA	NA		Ν	IΑ	NA	NA	30	
Toluene	ND	ND	NA	NA		Ν	lΑ	NA	NA	30	
Ethylbenzene	ND	ND	NA	NA		Ν	lΑ	NA	NA	30	
m,p-Xylene	ND	ND	NA	NA		Ν	lΑ	NA	NA	30	
o-Xylene	ND	ND	NA	NA		Ν	lΑ	NA	NA	30	
Gasoline	ND	ND	NA	NA		Ν	lΑ	NA	NA	30	
Surrogate:											
Fluorobenzene						96	80	61-122			
Laboratory ID:	05-44	16-02									
	ORIG	DUP									
Benzene	ND	ND	NA	NA		N	IΑ	NA	NA	30	
Toluene	ND	ND	NA	NA		N	IΑ	NA	NA	30	
Ethylbenzene	ND	ND	NA	NA		N	IΑ	NA	NA	30	
m,p-Xylene	ND	ND	NA	NA		N	IΑ	NA	NA	30	
o-Xylene	ND	ND	NA	NA		N	IΑ	NA	NA	30	
Gasoline	ND	ND	NA	NA		١	IA	NA	NA	30	
Surrogate:											
Fluorobenzene						90	85	61-122			
SPIKE BLANKS											
Laboratory ID:	SB06	04W1									
	SB	SBD	SB	SBD		SB	SBD				
Benzene	53.3	48.6	50.0	50.0		107	97	81-117	9	12	
Toluene	52.6	47.7	50.0	50.0		105	95	85-116	10	12	
Ethylbenzene	53.7	48.5	50.0	50.0		107	97	84-116	10	12	
m,p-Xylene	53.4	48.1	50.0	50.0		107	96	85-115	10	12	
o-Xylene	53.5	48.4	50.0	50.0		107	97	86-116	10	11	
Surrogate:											
Fluorobenzene						100	91	61-122			

Project: 301-004

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

5 ,				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	CMW-26-052924					
Laboratory ID:	05-446-01					
Diesel Range Organics	ND	0.22	NWTPH-Dx	6-3-24	6-4-24	
Lube Oil Range Organics	ND -	0.22	NWTPH-Dx	6-3-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	89	50-150				
Client ID:	CMW-26-052924					
Laboratory ID:	05-446-01					
Diesel Range Organics	ND	0.22	NWTPH-Dx	6-3-24	6-4-24	X2
Lube Oil Range Organics	ND	0.22	NWTPH-Dx	6-3-24	6-4-24	X2 X2
Surrogate:	Percent Recovery	Control Limits	INVVII II-DX	0-3-2 4	0-4-24	ΛZ
o-Terphenyl	91	50-150				
0-Telphenyl	31	30-130				
Client ID:	CMW-30-052924					
Laboratory ID:	05-446-02					
Diesel Range Organics	ND	0.23	NWTPH-Dx	6-3-24	6-4-24	
Lube Oil Range Organics	ND	0.23	NWTPH-Dx	6-3-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	85	50-150				
Oli - mt ID-	01414/00/050004					
Client ID:	CMW-30-052924					
Laboratory ID:	05-446-02	0.00	NW/TDLL Dec	0.0.04	6-4-24	V0
Diesel Range Organics	ND ND	0.23 0.23	NWTPH-Dx NWTPH-Dx	6-3-24 6-3-24	6-4-24 6-4-24	X2 X2
Lube Oil Range Organics			NW I PH-DX	0-3-24	0-4-24	λ2
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	91	50-150				
Client ID:	CMW-13-052924					
Laboratory ID:	05-446-03					
Diesel Range Organics	1.2	0.23	NWTPH-Dx	6-4-24	6-4-24	
Lube Oil Range Organics	0.38	0.23	NWTPH-Dx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	88	50-150				
, ,						
Client ID:	CMW-13-052924					
Laboratory ID:	05-446-03					
Diesel Range Organics	ND	0.23	NWTPH-Dx	6-4-24	6-4-24	X2
Lube Oil Range Organics	ND -	0.23	NWTPH-Dx	6-4-24	6-4-24	X2
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	90	50-150				

Project: 301-004

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

S ,				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	CMW-29-052924					
Laboratory ID:	05-446-04					
Diesel Range Organics	0.51	0.22	NWTPH-Dx	6-3-24	6-4-24	
Lube Oil Range Organics	0.26	0.22	NWTPH-Dx	6-3-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	96	50-150				
Client ID:	CMW-29-052924					
Laboratory ID:	05-446-04					
Diesel Range Organics	ND	0.22	NWTPH-Dx	6-3-24	6-4-24	X2
Lube Oil Range Organics	ND	0.22	NWTPH-Dx	6-3-24	6-4-24	X2 X2
Surrogate:	Percent Recovery	Control Limits	IVVII II-DX	0-0-2-	0-1-2-1	ΛZ
o-Terphenyl	101	50-150				
o roipilonyi	101	00 100				
Client ID:	CMW-28-052924					
Laboratory ID:	05-446-05					
Diesel Range Organics	1.8	0.21	NWTPH-Dx	6-3-24	6-5-24	
Lube Oil Range Organics	0.53	0.21	NWTPH-Dx	6-3-24	6-5-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	85	50-150				
Client ID:	CMW-28-052924					
Laboratory ID:	05-446-05					
Diesel Range Organics	ND	0.21	NWTPH-Dx	6-3-24	6-5-24	X2
Lube Oil Range Organics	ND -	0.21	NWTPH-Dx	6-3-24	6-5-24	X2
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	87	50-150				
Client ID:	CMW-25-052924					
Laboratory ID:	05-446-06					
Diesel Range Organics	ND	0.22	NWTPH-Dx	6-3-24	6-4-24	
Lube Oil Range Organics	ND	0.22	NWTPH-DX	6-3-24 6-3-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits	TANALL LI-DV	0-0-2 -1	U-T-2T	
o-Terphenyl	82	50-150				
o respilosiyi	OZ.	00 100				
Client ID:	CMW-25-052924					
Laboratory ID:	05-446-06					
Diesel Range Organics	ND	0.22	NWTPH-Dx	6-3-24	6-4-24	X2
Lube Oil Range Organics	ND	0.22	NWTPH-Dx	6-3-24	6-4-24	X2
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	89	50-150				

Project: 301-004

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	CMW-8-052924					
Laboratory ID:	05-446-07					
Diesel Range Organics	0.37	0.15	NWTPH-Dx	6-3-24	6-10-24	
Lube Oil Range Organics	0.27	0.15	NWTPH-Dx	6-3-24	6-10-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	93	50-150				
Client ID:	CMW-8-052924					
Laboratory ID:	05-446-07					
Diesel Range Organics	ND	0.22	NWTPH-Dx	6-3-24	6-4-24	X2
Lube Oil Range Organics	ND	0.22	NWTPH-Dx	6-3-24	6-4-24	X2
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	89	50-150				
Client ID:	CMW-31-052924					
Laboratory ID:	05-446-08					
Diesel Range Organics	ND	0.24	NWTPH-Dx	6-3-24	6-4-24	
Lube Oil Range Organics	ND	0.24	NWTPH-Dx	6-3-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	101	50-150				
Oll and ID	01114 04 050004					
Client ID:	CMW-31-052924					
Laboratory ID:	05-446-08	2.24	AUA/TOLL D	0.0.04	0.4.04	
Diesel Range Organics	ND	0.24	NWTPH-Dx	6-3-24	6-4-24	X2
Lube Oil Range Organics	ND ND	0.24	NWTPH-Dx	6-3-24	6-4-24	X2
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	102	50-150				
Client ID:	11M/M/ 0 050004					
Client ID:	HMW-9-052924					
Laboratory ID:	05-446-09	0.00	NW/TDLL Dec	0.0.04	0.5.04	
Diesel Range Organics	0.82 0.58	0.22 0.22	NWTPH-Dx NWTPH-Dx	6-3-24 6-3-24	6-5-24 6-5-24	
Lube Oil Range Organics			INVV I PH-DX	0-3-24	0-0-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	83	50-150				
Client ID:	HMW-9-052924					
Laboratory ID:	05-446-09					
Diesel Range Organics	ND	0.22	NWTPH-Dx	6-3-24	6-5-24	X2
Lube Oil Range Organics	ND ND	0.22	NWTPH-Dx	6-3-2 4 6-3-24	6-5-24 6-5-24	X2 X2
Surrogate:	Percent Recovery	Control Limits	INVVII II-DA	0-0-24	U-U-Z4	<u> </u>
o-Terphenyl	84	50-150				
o- i erprieriyi	04	30-130				



Project: 301-004

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

5 ,				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	CMW-12-053024					
Laboratory ID:	05-446-10					
Diesel Range Organics	0.33	0.23	NWTPH-Dx	6-3-24	6-4-24	
Lube Oil Range Organics	0.27	0.23	NWTPH-Dx	6-3-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	95	50-150				
Client ID:	CMW-12-053024					
Laboratory ID:	05-446-10					
Diesel Range Organics	ND	0.23	NWTPH-Dx	6-3-24	6-4-24	X2
Lube Oil Range Organics	ND	0.23	NWTPH-Dx	6-3-24	6-4-24	X2
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	102	50-150				
· · · -						
Client ID:	QA/QC-1-053024					
Laboratory ID:	05-446-11					
Diesel Range Organics	0.33	0.23	NWTPH-Dx	6-3-24	6-5-24	
Lube Oil Range Organics	0.31	0.23	NWTPH-Dx	6-3-24	6-5-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	92	50-150				
Client ID:	QA/QC-1-053024					
Laboratory ID:	05-446-11					
Diesel Range Organics	ND	0.23	NWTPH-Dx	6-3-24	6-5-24	X2
Lube Oil Range Organics	ND ND	0.23	NWTPH-Dx NWTPH-Dx	6-3-24 6-3-24	6-5-24 6-5-24	X2 X2
Surrogate:	Percent Recovery	Control Limits	INVVII II-DX	0-3-24	0-3-24	ΛZ
o-Terphenyl	97	50-150				
0-Terprierryi	91	30-130				
Client ID:	HMW-10-053024					
Laboratory ID:	05-446-12					
Diesel Range Organics	0.94	0.23	NWTPH-Dx	6-3-24	6-5-24	
Lube Oil Range Organics	0.36	0.23	NWTPH-Dx	6-3-24	6-5-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	93	50-150				
, ,						
Client ID:	HMW-10-053024					
Laboratory ID:	05-446-12					
Diesel Range Organics	ND	0.23	NWTPH-Dx	6-3-24	6-5-24	X2
Lube Oil Range Organics	ND	0.23	NWTPH-Dx	6-3-24	6-5-24	X2
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	102	50-150				

Project: 301-004

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

S ,				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	HMW-11-053024					
Laboratory ID:	05-446-13					
Diesel Range Organics	3.3	0.23	NWTPH-Dx	6-3-24	6-5-24	M
Lube Oil Range Organics	1.3	0.23	NWTPH-Dx	6-3-24	6-5-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	95	50-150				
Client ID:	HMW-11-053024					
Laboratory ID:	05-446-13					
Diesel Range Organics	0.63	0.23	NWTPH-Dx	6-3-24	6-5-24	M,X2
Lube Oil Range Organics	ND	0.23	NWTPH-Dx	6-3-24	6-5-24	X2
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	99	50-150				
•						
011 115	01111 07 050004					
Client ID:	CMW-27-053024					
Laboratory ID:	05-446-14					
Diesel Range Organics	2.1	0.23	NWTPH-Dx	6-3-24	6-5-24	M
Lube Oil Range Organics	0.92	0.23	NWTPH-Dx	6-3-24	6-5-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	91	50-150				
Client ID:	CMW-27-053024					
Laboratory ID:	05-446-14					
Diesel Range Organics	0.43	0.083	NWTPH-Dx	6-3-24	6-10-24	M,X2
Lube Oil Range Organics	ND	0.083	NWTPH-Dx	6-3-24	6-10-24	X2
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	90	50-150				
Client ID:	QA/QC-2-053024					
Laboratory ID:	05-446-15					
Diesel Range Organics	2.0	0.22	NWTPH-Dx	6-3-24	6-5-24	M
Lube Oil Range Organics	0.98	0.22	NWTPH-Dx	6-3-24	6-5-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	93	50-150				
Client ID:	04/00 2 052024					
Client ID:	QA/QC-2-053024					
Laboratory ID:	05-446-15	0.00	ADA/TELL D	0.0.04	0.5.04	14370
Diesel Range Organics	0.51	0.22	NWTPH-Dx	6-3-24	6-5-24	M,X2
Lube Oil Range Organics	ND ND	0.22	NWTPH-Dx	6-3-24	6-5-24	X2
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	95	50-150				

Project: 301-004

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

J ,				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	CMW-2-053024					
Laboratory ID:	05-446-16					
Diesel Range Organics	0.30	0.22	NWTPH-Dx	6-3-24	6-4-24	
Lube Oil Range Organics	0.32	0.22	NWTPH-Dx	6-3-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	92	50-150				
Client ID:	CMW-2-053024					
Laboratory ID:	05-446-16					
Diesel Range Organics	ND	0.22	NWTPH-Dx	6-3-24	6-4-24	X2
Lube Oil Range Organics	ND	0.22	NWTPH-Dx	6-3-24	6-4-24	X2
Surrogate:	Percent Recovery	Control Limits	THE TEXT	0021	0 1 2 1	,,,_
o-Terphenyl	93	50-150				
o respiration.	00	00 700				
Client ID:	CMW-10-053024					
Laboratory ID:	05-446-17					
Diesel Range Organics	2.4	0.23	NWTPH-Dx	6-3-24	6-5-24	
Lube Oil Range Organics	1.8	0.23	NWTPH-Dx	6-3-24	6-5-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	88	50-150				
Client ID:	CMW-10-053024					
Laboratory ID:	05-446-17					
Diesel Range Organics	ND	0.23	NWTPH-Dx	6-3-24	6-5-24	X2
Lube Oil Range Organics	ND	0.23	NWTPH-Dx	6-3-24	6-5-24	X2
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	92	50-150				
Client ID:	HMW-13-053024					
Laboratory ID:	05-446-18					
Diesel Range Organics	ND	0.23	NWTPH-Dx	6-3-24	6-4-24	
Lube Oil Range Organics	ND	0.23	NWTPH-Dx	6-3-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits	INVITITEDX	0-0-2-	0-4-24	
o-Terphenyl	91	50-150				
о тырнынун	91	JU-130				
Client ID:	HMW-13-053024					
Laboratory ID:	05-446-18					
Diesel Range Organics	ND	0.23	NWTPH-Dx	6-3-24	6-4-24	X2
Lube Oil Range Organics	ND	0.23	NWTPH-Dx	6-3-24	6-4-24	X2
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	95	50-150				

Project: 301-004

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

Office. Hig/L (ppin)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0603W1					
Diesel Range Organics	ND	0.073	NWTPH-Dx	6-3-24	6-10-24	
Lube Oil Range Organics	ND	0.073	NWTPH-Dx	6-3-24	6-10-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	92	50-150				
Laboratory ID:	MB0603W1					
Diesel Range Organics	ND	0.073	NWTPH-Dx	6-3-24	6-10-24	X2
Lube Oil Range Organics	ND	0.073	NWTPH-Dx	6-3-24	6-10-24	X2
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	99	50-150				
Laboratory ID:	MB0604W1					
Diesel Range Organics	ND	0.16	NWTPH-Dx	6-4-24	6-4-24	
Lube Oil Range Organics	ND	0.16	NWTPH-Dx	6-4-24	6-4-24	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	82	50-150				
Laboratory ID:	MB0604W1					
Diesel Range Organics	ND	0.16	NWTPH-Dx	6-4-24	6-4-24	X2
Lube Oil Range Organics	ND	0.16	NWTPH-Dx	6-4-24	6-4-24	X2
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	85	50-150				

Project: 301-004

DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

5 (11 /					Source	Perc	ent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Reco	very	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	05-44	46-01									
	ORIG	DUP									
Diesel Range	ND	ND	NA	NA		NA		NA	NA	40	
Lube Oil Range	ND	ND	NA	NA		N.	Α	NA	NA	40	
Surrogate:											
o-Terphenyl						89	85	50-150			
Laboratory ID:	05-44	46-01									
	ORIG	DUP									
Diesel Range	ND	ND	NA	NA		N	Α	NA	NA	40	X2
Lube Oil Range	ND	ND	NA	NA		N.	Α	NA	NA	40	X2
Surrogate:											
o-Terphenyl						91	86	50-150			
Laboratory ID:		03W1									
	ORIG	DUP									
Diesel Fuel #2	0.394	0.308	NA	NA		NA		NA	25	40	
Surrogate:											
o-Terphenyl						87	77	50-150			
Laboratory ID:	SB06	03W1									
	ORIG	DUP									
Diesel Fuel #2	0.363	0.358	NA	NA		N	A	NA	1	40	X2
Surrogate:											
o-Terphenyl						82	90	50-150			
Laboratory ID:	SB06	04W1									
	ORIG	DUP									
Diesel Fuel #2	0.315	0.288	NA	NA		N.	Α	NA	9	40	
Surrogate:											
o-Terphenyl						80	79	50-150			
Laboratory ID:	SB06	04W1									
	ORIG	DUP									
Diesel Fuel #2	0.323	0.292	NA	NA		NA		NA	10	40	X2
Surrogate:											
o-Terphenyl						83	84	50-150			



Data Qualifiers and Abbreviations

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

Z -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





Chain of Custody

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