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July 28, 2023

Centric Partners LLC
c/o Trent Development
1420 Fifth Avenue, Suite 2200
Seattle, WA 98101

Attention: Mr. Michael Pollard

Subject: 2022-2023 Groundwater and Sub-Slab Vapor Monitoring Summary
12th & Yesler Redevelopment Project
104-124 12th Avenue & 1209 E. Fir Street
Seattle, Washington

Dear Mr. Pollard:
As you have authorized, Whitman Environmental Sciences, (WES) has continued to monitor groundwater at the above referenced property in Seattle, Washington, following excavation and construction. Figure 1 shows the property location and surrounding area. This monitoring was conducted as part of activities under the Compliance Monitoring Plan for documenting site remediation progress.

This report presents the results of five quarterly sampling events, representing the 2nd, 3rd and 4th Quarters of 2022 and 1st and 2nd Quarters of 2023. During each quarter, all accessible monitoring wells were sampled following appropriate environmental sampling procedures. The property and monitoring well locations are shown in Figure 2. Groundwater samples were analyzed for a list of 63 volatile organic compounds and dissolved arsenic.

In addition, sub-slab vapor samples were collected in the 3rd and 4th Quarters 2022, from the three vapor monitoring points under the slab-on-grade portion of the building. Sub-slab vapor monitoring supplements the planned indoor air monitoring that will be conducted in this portion of the building once it has been fully enclosed. The approximate sub-slab vapor monitoring point locations are shown in Figures 3A and 3B.

Project Background
This report summarizes additional monitoring conducted at the 12th & Yesler redevelopment site which the Washington Department of Ecology identifies as TD Auto Body & Repair, Cleanup Site ID 2666. The project is enrolled in the Voluntary Cleanup Program (VCP) and has been assigned VCP ID NW3194.

Prior sampling indicated that the 2020 groundwater treatment injections initially eliminated concentrations of chlorinated volatile organic compounds (CVOC), but rebound occurred over time. In 2nd Quarter 2022 sampling, vinyl chloride was found in wells MW-5R and GEO B-7R, exceeding the Washington State Model Toxics Control Act (MTCA) groundwater cleanup level of 0.2 ug/l. No other organic compounds or petroleum constituents exceeded MTCA cleanup levels in any of the recent samples.

An additional round of groundwater remedial injections was conducted in August 2022 along the northern boundary of the SE Parking Lot area of the property. The 3rd and 4th Quarter 2022 and 1st and 2nd Quarter 2023 sampling events are post-remediation monitoring following that additional round of injections.

For 1st Quarter 2023, three additional monitoring wells were installed around the property perimeter to expand the compliance monitoring network. Monitoring wells MW-17, MW-18 and MW-19 were installed on March 18th, 2023 in City of Seattle rights-of-way adjacent to the property. MW-17 and MW-18 were installed downgradient of the groundwater remediation area, along the right-of-way of Yesler Way. MW-19 was installed north of the property, along the right-of-way of E. Fir Street. Soil boring logs and well construction diagrams are included in Appendix A. The new well locations are shown in Figures 2, 3C and 3D. These wells have been incorporated into an updated site Compliance Monitoring Plan and will be included in future monitoring events.

GROUNDWATER MONITORING

Groundwater Level Measurements

As part of monitoring, WES measured the depth to groundwater in the monitoring wells. However, the top-of-pipe of the replacement wells that make up most of the groundwater monitoring network have been modified several times since installation and have not been surveyed to establish reference elevations. The water level information cannot be used to create detailed isostatic contour diagrams of the inferred groundwater level until the final top of pipe elevations have been surveyed. These wells are currently completed above ground surface and will be cut down to a final elevation as part of construction. Top of pipe elevations will be established for the wells in their final configuration.

Prior sampling both before and during construction de-watering showed a gradient to the southeast across the groundwater remediation area.

Sampling Procedures

In the 2nd Quarter 2022, samples were obtained using peristaltic pumps equipped with dedicated polyethylene tubing in each well. Each well was purged of at least three times the volume of standing water prior to sampling, volumes ranging from one to 20 gallons. Field measurements of dissolved oxygen, pH, temperature, conductivity and oxidation reduction potential (ORP) were used to evaluate when stabilized conditions were reached in the pump discharge water.

After the second round of injections in August 2022, wells in the treatment area produced water that was black with the injected activated carbon. Passive diffusion bag samplers (PDBs) were used to obtain representative samples for volatile organic compounds in the remaining quarterly sampling rounds. The PDBs were filled with laboratory-prepared de-ionized water and allowed to equilibrate in the wells for a period of at least three weeks before removal. After removing each bag from the well, the sampler was opened and the water was transferred to laboratory-prepared 40-ml septum sealed vials. The samples were labeled, chilled and transported to the laboratory under chain-of-custody for analyses.

Samples for dissolved arsenic were taken using a peristaltic pump, sampling directly from the polyethylene pump tubing at a low flow rate, filtered through 0.45 micron single-use filters in the field, before preservation.

All samples were submitted to Friedman & Bruya, Inc., a Washington State accredited laboratory, for testing.

2nd Quarter 2022
During the 2nd Quarter 2022, samples were obtained from all eight remaining site wells. All of the samples were analyzed for a list of 63 individual volatile organic compounds (VOCs) by EPA Method 8260C and dissolved arsenic by EPA Method 6020B. The sampling and laboratory analyses are summarized in Table 1. The well locations and analytical results are summarized in Figure 3.

3rd Quarter 2022
During the 3rd Quarter 2022, samples were obtained from six site wells. One well (MW-13) was inaccessible due to construction. Monitoring well MW-11, which had been damaged and partially filled with soil that could not be completely removed, was decommissioned as likely no longer representative of groundwater conditions. All of the samples were analyzed for VOCs and concentrations of dissolved arsenic. The sampling and laboratory analyses are summarized in Table 1A. The well locations and analytical results are summarized in Figure 3A.

4th Quarter 2022
During the 4th Quarter 2022, samples were obtained from all seven remaining site wells. All of the samples were analyzed for VOCs and concentrations of dissolved arsenic. The sampling and laboratory analyses are summarized in Table 1B. The well locations and analytical results are summarized in Figure 3B.

1st Quarter 2023
During the 1st Quarter 2023, samples were obtained from the seven pre-existing wells and three new wells installed to expand the monitoring network. The sampling and laboratory analyses are summarized in Table 1C. All ten of the samples were analyzed for VOCs and concentrations of dissolved arsenic. The well locations, including the new wells and all quarterly analytical results are summarized in Figure 3C.

2nd Quarter 2023
During the 2nd Quarter 2023, samples were obtained from the seven pre-existing wells and three new wells installed to expand the monitoring network. The sampling and laboratory analyses are summarized in Table 1D. Nine of the samples were analyzed for VOCs and concentrations of dissolved arsenic. The sample from upgradient well MW-19 was analyzed only for dissolved arsenic. The well locations, including the new wells and all quarterly analytical results are summarized in Figure 3D.

SUB-SLAB VAPOR MONITORING

Sampling Procedures
The previously installed sub-slab vapor monitoring points were sampled during the 3rd and 4th Quarters 2022, as a means to evaluate the sampling approach and potential soil vapor conditions, while the building remained under construction. The construction of the vapor monitoring points was documented in our November 5th, 2022 Independent Remedial Action Summary Report. The vapor points are accessed by teflon tubing in conduits that extend to outside the perimeter foundation of the building.

Samples from the three vapor points were obtained by attaching laboratory-prepared 1-liter Summa vacuum canisters and purge pumps to the tubing, first purging approximately four liters of soil vapor then conducting a five to ten-minute shut-in test to evaluate the system for leaks. After that, the canister valve was opened, drawing sub-slab vapors into the sampler. The sample canisters were closed and the start time, starting vacuum, end time and ending vacuum were recorded.

LABORATORY ANALYTICAL PROGRAM

The samples were submitted to Friedman & Bruya, Inc., a Washington-state certified laboratory, for environmental analyses following Washington State approved methods.

Groundwater samples were analyzed for a list of 63 volatile organic compounds by EPA Method 8260, and dissolved arsenic by EPA Method 6020B. The soil vapor samples were analyzed for a list of nine volatile organic compounds by EPA Compendium Method TO-15. The list of analyzed compounds was selected based on the findings of prior site soil gas sampling and the site Compliance Monitoring Plan.

All laboratory testing met the quality assurance/quality control requirements of the project. The sample analyses were completed with reporting limits that allowed direct comparison to Department of Ecology established groundwater cleanup levels and sub-slab soil vapor screening levels.

LABORATORY ANALYTICAL RESULTS

The results of laboratory testing are summarized in the attached Tables 1, 1A, 1B, 1C and 1D. The results are illustrated in Figures 3, 3A, 3B, 3C and 3D. The laboratory reports of the analytical results are included in Appendix B.

A summary table of all site groundwater monitoring results from 2017 to the present is included as Table 2.

Volatile Organic Compounds in Groundwater

In the 2nd Quarter 2022 sampling round conditions were comparable to that of prior sampling from the 1st Quarter 2022, with monitoring wells MW-5R and GEO B-7R showing continued rebound from the original 2020 remedial injections. The reported concentrations of vinyl chloride in these wells were 0.21 and 1.2 ug/l, respectively. The sample from monitoring well MW-15R also contained detectable vinyl chloride, but at a concentration of 0.036 ug/l, less than the MTCA groundwater cleanup level. The reported concentrations supported the decision to conduct a second round of injections along the northern edge of the property. The injections were documented in WES' November 5th, 2022 Independent Remedial Action Summary Report.

Subsequent sampling in 3rd and 4th Quarter 2022 as well as 1st and 2nd Quarter 2023 found no samples exceeding the MTCA groundwater cleanup level for vinyl chloride or any other volatile organic compound. Low but detectable vinyl chloride concentrations were detected in MW-15R and GEO B-7R in the 3rd Quarter 2022; MW-12R in the 4th Quarter 2022; and MW-12R and MW-18 in the 1st and 2nd Quarters of 2023.

MW-18 is one of the three new wells in the surrounding rights-of-way located along Yesler Way East, so it has no sampling history prior to remedial injections. The well is located about 24 feet southeast of former well MW-4, which was decommissioned for construction in 2021. MW-4 had no history of detected volatile organic compounds in 11 rounds of sampling dating from 2017 to 2021.

Arsenic In Groundwater

Throughout all five quarterly monitoring events, dissolved arsenic has been detected in most groundwater samples from all monitoring wells. When detected, the reported concentrations range from 1.19 ug/l in monitoring well MW-10 to 1,220 ug/l in the monitoring well MW-12R.

The samples from monitoring well MW-13 were all below the MTCA Method A groundwater cleanup level of 5 ug/l for arsenic. This is consistent with the history of prior sampling from this well in the Yesler Way right-of-way near the southeastern corner of the property.

All other monitoring wells exceeded the MTCA Method A groundwater cleanup level in at least three of the five monitoring events. Dissolved arsenic in the samples from MW-5R ranged from 3.59 to 14.4 ug/l. In MW-10, reported concentrations ranged from 1.19 to 12.0 ug/l. In MW-12, the reported arsenic concentrations ranged from 468 to 1,220 ug/l. In MW-15R concentrations ranged from 10.6 to 58.2 ug/l. In GEO B-7R, concentrations in the 2nd and 3rd Quarters of 2022 were 92.5 and 163 ug/l, but the three subsequent quarters fell to 9.93, 10.9 and 5.94 ug/l. Samples from monitoring well GEO B-9R also fell over the four quarters, from a high of 56.8 ug/l to concentrations ranging from 21.4 to 44.1 ug/l.

All three of the new monitoring wells evidenced dissolved arsenic at concentrations exceeding the MTCA Method A groundwater cleanup level of 5 ug/l. The 1st and 2nd Quarter 2023 samples from monitoring well MW-17, in a position downgradient of the treatment area, contained 168 and 327 ug/l of dissolved arsenic, respectively. The samples from monitoring well MW-18, located about 72 feet to the west reportedly contained 14.2 and 14.1 ug/l, respectively. The samples from monitoring well MW-19, located north of the property and upgradient of any of the remediated areas of the property contained reported arsenic concentrations of 23.2 and 9.43 ug/l, in 1st and 2nd Quarters 2023. The results of MW-19 indicate upgradient groundwater containing elevated arsenic concentrations is migrating toward and onto the property.

Where available, quarterly data from the adjacent Seattle Housing Authority (SHA) project to the east has been included in the summaries in Figures 3, 3A, 3B and 3C for context. The SHA data shows some elevated arsenic concentrations in SHA monitoring wells MW-3 and MW-5, off-site, but near the southeastern corner of the subject property. Reported concentrations in the 3rd Quarter 2022 samples from SHA's MW-3 and MW-5 were 16.5 and 15.8 ug/l, respectively. In 4th Quarter 2022 these wells were reported at 19.0 and 18.3 ug/l, respectively. The reported concentrations are comparable to the background levels found in upgradient well MW-19 and prior on-site monitoring wells that evidenced no other contamination, but had arsenic concentrations above the MTCA Method A groundwater cleanup level (such as decommissioned wells MW-1D, MW-2, and MW-4). SHA's consultants have shown groundwater migration to be to the southwest across that property, which would preclude the remediation area of the subject site from being a contributing source for the arsenic on the SHA property.

Arsenic Time Trend Plots
Time trend plots for arsenic in monitoring wells MW-5R, MW-10, MW-12R, MW-13, MW-15R, GEO B-7R and GEO B-9R are included in Appendix C. All other wells have been decommissioned, or do not have sufficient data to demonstrate longer-term trends.

Wells MW-5R, GEO B-7R and GEO B-9R appear to show increases in arsenic concentrations in 2nd Quarter 2022, which could be a response to influx of water that occurred once the site construction de-watering was stopped in June 2022. The effect continued through 3rd Quarter 2022, after the second series of remedial injections. The effect appears to have been temporary and these wells showed variable, but decreasing concentrations from 4th Quarter 2022 to 2nd Quarter 2023. In 1st Quarter 2022 the sample from well MW-5R contained 2.50 ug/l. That concentration increased to 14.4 ug/l by 3rd Quarter. But from the 4th Quarter 2022 to 2nd Quarter 2023, the sampling found lower concentrations of 6.70, 3.59 and 4.68 ug/l, respectively. The samples from well GEO B-7R increased from 33.8 ug/l in 1st Quarter 2022 to 163 ug/l in 3rd Quarter. But in the 4th Quarter, the sample contained only 9.93 ug/l, and has remained low through the subsequent 1st and 2nd Quarters 2023. The samples from well GEO B-9R increased from 5.30 ug/l in 1st Quarter 2022 to 56.8 ug/l in 2nd Quarter. Subsequent samples have trended generally lower, ranging from 21.4 to 44.1 ug/l.

Two other wells showed increases in arsenic concentrations beginning in 3rd Quarter 2022 samples (MW-12R, MW-15R) which could reflect the influx of water once construction de-watering was stopped, or be a reaction to the August 2022 additional remedial injections. The additional injections were limited to diluted activated carbon which should have little or no effect on the redox conditions that could allow additional arsenic to dissolve from soil into groundwater. But it could represent water from the northern part of the remediated area being flushed downgradient by the new injections or an influx of water at the end of construction de-watering.

Monitoring well MW-12R continues to evidence highly elevated arsenic concentrations, ranging from 468 ug/l in 2nd Quarter 2022 to 1,220 in 2nd Quarter 2023. Concentrations in this well increased dramatically after the initial remedial injections in June 2020, but had been showing a decreasing trend beginning in the 1st Quarter 2021. The overall trend remains below the highest measurements encountered after the injections, but appear to show a slight rebound from the 3rd Quarter 2022 to 2nd Quarter 2023.

Sub-Slab Vapor Monitoring Results
Sub-slab vapor sample laboratory analyses are summarized in Table 3. The vapor point locations and analytical results are summarized in Figures 3B and 3C. No vinyl chloride, tetrachloroethene or related degradation products were identified in any of the samples. No benzene, naphthalene, 1,2,4-trimethylbenzene or bromodichloromethane was detected in any of the samples.

Chloroform was the only detected compound, found in all three of the 3rd Quarter 2022 samples and in the 4th Quarter sample from VP-1. Chloroform is not commonly encountered as a byproduct of degradation of PCE but may be an indicator of releases of treated drinking water from leaking municipal water supplies. The reported concentrations ranged from 0.36 to 1.7 ug/m3, all below the Department of Ecology Method B sub-slab soil vapor screening level of 3.6 ug/m3.

CONCLUSIONS

Due to wells that showed evidence of breakthrough of vinyl chloride, an additional round of remedial injections was conducted in 3rd Quarter 2022. Since that time, four consecutive quarterly monitoring rounds have been conducted. No volatile organic compounds have been observed in any well at concentrations exceeding MTCA Method A groundwater cleanup levels in the four sampling rounds. Based on these findings, the project can enter a more limited extended monitoring program for VOCs, as outlined in the site Compliance Monitoring Plan Update.

Dissolved arsenic concentrations exceed the MTCA Method A groundwater cleanup level in most samples from the site and the surrounding rights-of-way. New monitoring well MW-19 demonstrates that upgradient groundwater contains dissolved arsenic at concentrations that exceed the MTCA Method A cleanup level. Additional quarterly monitoring for dissolved arsenic will continue.

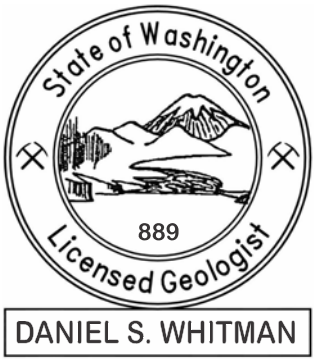
Sub-slab vapor testing found no evidence of soil vapors related to the groundwater remediation of chlorinated solvents in the underlying groundwater treatment area. Chloroform detections may be attributed to past leaking municipal water supplies, but are at concentrations below sub-slab screening levels. Additional sub-slab vapor monitoring will be conducted in the future to supplement the planned indoor air sampling as part of the Compliance Monitoring Plan. Any further vapor testing will occur after the building has been fully enclosed.

Closure

Thank you for the opportunity to be of service to you in this matter. If you have any questions regarding this letter, or if I may be of any further assistance, please feel free to contact me.

Respectfully submitted,
Whitman Environmental Sciences

Daniel S. Whitman
Principal



TABLES

FIGURES

APPENDICES

TABLES

TABLE 1
2nd Quarter 2022 Summary of Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Well ID	Sample Date	PCE	TCE	Cis 1,2 DCE	Vinyl Chloride	Other VOCs	Arsenic (Dissolved)
MW-1	Decommissioned Q4 2021						
MW-1S	Decommissioned Q1 2022						
MW-1D	Decommissioned Q1 2022						
MW-2	Decommissioned Q3 2021						
MW-3	Decommissioned Q1 2021						
MW-4	Decommissioned Q2 2021						
MW-5R	12/23/21	Installed Replacement Well					
	6/30/22	<1	<0.5	<1	***0.21***	ND	***5.44***
MW-6	Decommissioned Q1 2021						
MW-7	Decommissioned Q1 2021						
MW-8	Decommissioned Q1 2021						
MW-9	Decommissioned Q1 2021						
MW-10	6/30/22	<1	<0.5	<1	< 0.02	ND	4.74
MW-11	Q1 2022	Repaired and Partially Cleaned out Well					
	6/30/22	<1	<0.5	<1	< 0.02	ND	***210****
MW-12R	12/23/21	Installed Replacement Well					
	6/30/22	<1	<0.5	<1	< 0.02	ND	***468***
MW-13	6/30/22	<1	<0.5	<1	< 0.02	ND	2.11
MW-14	Decommissioned Q1 2021						
MW-15R	12/23/21	Installed Replacement Well					
	6/30/22	<1	0.59	<1	0.036	ND	***10.6***
MW-16	Q1 2022	Decommissioned Q1 2022					
GEO B-7R	12/23/21	Installed Replacement Well					
	6/30/22	<1	<0.5	1.6	***1.2***	ND	***92.5***
GEO B-8	Decommissioned Q1 2021						
GEO B-9R	12/23/21	Installed Replacement Well					
	6/30/22	<1	<0.5	<1	< 0.02	ND	***56.8***
MTCA Groundwater Cleanup Levels		***5[A]***	***5[A]***	***16[B]***	***0.2[A]***	**--**	***5[A]***

Table Notes:
<XXX - Parameter not detected at concentrations at or above the noted reporting limit.
Volatile organic compounds by EPA Method 8260C. See laboratory report for full list of analyzed parameters.
Dissolved arsenic by EPA Method 6020B on field filtered samples using 0.45 micron single-use filters.
ND - No other volatile organic compounds detected.
* - Indicates high turbidity sample from damaged well. May not be representative of groundwater conditions.

MTCA Groundwater cleanup criteria per Chapter 173-340-720 WAC. Method A criteria presented where available. Method B standard formula values shown where no Method A criteria available. Method B standard formula values from Dept. of Ecology July 2021 Cleanup Levels and Risk Calculation (CLARC) database.

A - Method A listed or State or Federal MCL
B - Method B Direct Contact

Sample results exceeding applicable cleanup criteria are noted in ***Bold Italic***.

TABLE 1A
3rd Quarter 2022 Summary of Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Well ID	Sample Date	PCE	TCE	Cis 1,2 DCE	Vinyl Chloride	Other VOCs	Arsenic (Dissolved)
MW-1	Decommissioned Q4 2021						
MW-1S	Decommissioned Q1 2022						
MW-1D	Decommissioned Q1 2022						
MW-2	Decommissioned Q3 2021						
MW-3	Decommissioned Q1 2021						
MW-4	Decommissioned Q2 2021						
MW-5R	12/23/21	Installed Replacement Well					
	9/23/22	<1	<0.5	<1	<0.02	ND	***14.4****
MW-6	Decommissioned Q1 2021						
MW-7	Decommissioned Q1 2021						
MW-8	Decommissioned Q1 2021						
MW-9	Decommissioned Q1 2021						
MW-10	9/23/22	<1	<0.5	<1	< 0.02	ND	***7.69***
MW-11	Decommissioned Q3 2022						
MW-12R	12/23/21	Installed Replacement Well					
	9/23/22	<1	<0.5	<1	< 0.02	ND	***909****
MW-13	9/23/22	Inaccessible					
MW-14	Decommissioned Q1 2021						
MW-15R	12/23/21	Installed Replacement Well					
	9/23/22	<1	<0.5	<1	0.096	ND	***58.2****
MW-16	Q1 2022	Decommissioned Q1 2022					
GEO B-7R	12/23/21	Installed Replacement Well					
	9/23/22	<1	<0.5	4.0	0.022	ND	***163****
GEO B-8	Decommissioned Q1 2021						
GEO B-9R	12/23/21	Installed Replacement Well					
	9/23/22	<1	<0.5	<1	< 0.02	ND	***25.5****
MTCA Groundwater Cleanup Levels		***5[A]***	***5[A]***	***16[B]***	***0.2[A]***	**--**	***5[A]***

Table Notes:
<XXX - Parameter not detected at concentrations at or above the noted reporting limit.
Volatile organic compounds by EPA Method 8260C. See laboratory report for full list of analyzed parameters.
Dissolved arsenic by EPA Method 6020B on field filtered samples using 0.45 micron single-use filters.
ND - No other volatile organic compounds detected.
* - Indicates high turbidity sample containing high volume of activated carbon. May not be representative of groundwater conditions.

MTCA Groundwater cleanup criteria per Chapter 173-340-720 WAC. Method A criteria presented where available. Method B standard formula values shown where no Method A criteria available. Method B standard formula values from Dept. of Ecology July 2022 Cleanup Levels and Risk Calculation (CLARC) database.

A - Method A listed or State or Federal MCL
B - Method B Direct Contact

Sample results exceeding applicable cleanup criteria are noted in ***Bold Italic***.

TABLE 1B
4th Quarter 2022 Summary of Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Well ID	Sample Date	PCE	TCE	Cis 1,2 DCE	Vinyl Chloride	Other VOCs	Arsenic (Dissolved)
MW-1	Decommissioned Q4 2021						
MW-1S	Decommissioned Q1 2022						
MW-1D	Decommissioned Q1 2022						
MW-2	Decommissioned Q3 2021						
MW-3	Decommissioned Q1 2021						
MW-4	Decommissioned Q2 2021						
MW-5R	12/23/21	Installed Replacement Well					
	12/16/22	<1	<0.5	<10	<0.2	ND	***6.70****
MW-6	Decommissioned Q1 2021						
MW-7	Decommissioned Q1 2021						
MW-8	Decommissioned Q1 2021						
MW-9	Decommissioned Q1 2021						
MW-10	12/16/22	<1	<0.5	<1	< 0.02	ND	1.19
MW-11	Decommissioned Q3 2022						
MW-12R	12/23/21	Installed Replacement Well					
	12/16/22	<1	<0.5	<1	0.031	ND	***1,090****
MW-13	11/4/22	<1	<0.5	<1	< 0.02	ND	2.20
MW-14	Decommissioned Q1 2021						
MW-15R	12/23/21	Installed Replacement Well					
	12/16/22	<1	<0.5	<1	<0.02	ND	***32.7****
MW-16	Q1 2022	Decommissioned Q1 2022					
GEO B-7R	12/23/21	Installed Replacement Well					
	12/16/22	<1	<0.5	<1	<0.02	ND	***9.93****
GEO B-8	Decommissioned Q1 2021						
GEO B-9R	12/23/21	Installed Replacement Well					
	12/16/22	<1	<0.5	<1	< 0.02	ND	***21.4****
MTCA Groundwater Cleanup Levels		***5[A]***	***5[A]***	***16[B]***	***0.2[A]***	**--**	***5[A]***

Table Notes:
<XXX - Parameter not detected at concentrations at or above the noted reporting limit.
Volatile organic compounds by EPA Method 8260C. See laboratory report for full list of analyzed parameters.
Dissolved arsenic by EPA Method 6020B on field filtered samples using 0.45 micron single-use filters.
ND - No other volatile organic compounds detected.
* - Indicates high turbidity sample containing high volume of activated carbon. May not be representative of groundwater conditions.

MTCA Groundwater cleanup criteria per Chapter 173-340-720 WAC. Method A criteria presented where available. Method B standard formula values shown where no Method A criteria available. Method B standard formula values from Dept. of Ecology July 2022 Cleanup Levels and Risk Calculation (CLARC) database.

A - Method A listed or State or Federal MCL
B - Method B Direct Contact

Sample results exceeding applicable cleanup criteria are noted in ***Bold Italic***.

TABLE 1C
1st Quarter 2023 Summary of Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Well ID	Sample Date	PCE	TCE	Cis 1,2 DCE	Vinyl Chloride	Other VOCs	Arsenic (Dissolved)
MW-1	Decommissioned Q4 2021						
MW-1S	Decommissioned Q1 2022						
MW-1D	Decommissioned Q1 2022						
MW-2	Decommissioned Q3 2021						
MW-3	Decommissioned Q1 2021						
MW-4	Decommissioned Q2 2021						
MW-5R	12/23/21	Installed Replacement Well					
	3/21/23	<1	<0.5	<1	<0.2	ND	3.59
MW-6	Decommissioned Q1 2021						
MW-7	Decommissioned Q1 2021						
MW-8	Decommissioned Q1 2021						
MW-9	Decommissioned Q1 2021						
MW-10	3/21/23	<1	<0.5	<1	< 0.02	ND	***12.0***
MW-11	Decommissioned Q3 2022						
MW-12R	12/23/21	Installed Replacement Well					
	3/21/23	<1	<0.5	<1	0.022	ND	***1,100***
MW-13	3/21/23	<1	<0.5	<1	< 0.02	ND	<1
MW-14	Decommissioned Q1 2021						
MW-15R	12/23/21	Installed Replacement Well					
	3/21/23	<1	<0.5	<1	<0.02	ND	***23.7***
MW-16	Q1 2022	Decommissioned Q1 2022					
MW-17	3/18/23	Installed Well					
	3/28/23	<1	<0.5	<1	<0.02	ND	***168***
MW-18	3/18/23	Installed Well					
	3/28/23	<1	<0.5	<1	0.021	ND	***14.2***
MW-19	3/18/23	Installed Well					
	3/30/23	<1	<0.5	<1	<0.02	ND	***23.2***
GEO B-7R	12/23/21	Installed Replacement Well					
	3/21/23	<1	<0.5	<1	<0.02	ND	***10.9***
GEO B-8	Decommissioned Q1 2021						
GEO B-9R	12/23/21	Installed Replacement Well					
	3/21/23	<1	<0.5	<1	< 0.02	ND	***44.1***
MTCA Groundwater Cleanup Levels		***5[A]***	***5[A]***	***16[B]***	***0.2[A]***	***--***	***5[A]***

Table Notes:
<XXX - Parameter not detected at concentrations at or above the noted reporting limit.
Volatile organic compounds by EPA Method 8260C. See laboratory report for full list of analyzed parameters.
Dissolved arsenic by EPA Method 6020B on field filtered samples using 0.45 micron single-use filters.
ND - No other volatile organic compounds detected.

MTCA Groundwater cleanup criteria per Chapter 173-340-720 WAC. Method A criteria presented where available. Method B standard formula values shown where no Method A criteria available. Method B standard formula values from Dept. of Ecology January 2023 Cleanup Levels and Risk Calculation (CLARC) database.

A - Method A listed or State or Federal MCL
B - Method B Direct Contact

Sample results exceeding applicable cleanup criteria are noted in ***Bold Italic***.

TABLE 1D
2nd Quarter 2023 Summary of Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Well ID	Sample Date	PCE	TCE	Cis 1,2 DCE	Vinyl Chloride	Other VOCs	Arsenic (Dissolved)
MW-1	Decommissioned Q4 2021						
MW-1S	Decommissioned Q1 2022						
MW-1D	Decommissioned Q1 2022						
MW-2	Decommissioned Q3 2021						
MW-3	Decommissioned Q1 2021						
MW-4	Decommissioned Q2 2021						
MW-5R	12/23/21	Installed Replacement Well					
	6/16/23	<1	<0.5	<1	<0.02	ND	4.68
MW-6	Decommissioned Q1 2021						
MW-7	Decommissioned Q1 2021						
MW-8	Decommissioned Q1 2021						
MW-9	Decommissioned Q1 2021						
MW-10	6/30/23	<1	<0.5	<1	< 0.02	ND	***9.63***
MW-11	Decommissioned Q3 2022						
MW-12R	12/23/21	Installed Replacement Well					
	6/16/23	<1	<0.5	<1	0.029	ND	***1,220***
MW-13	6/30/23	<1	<0.5	<1	< 0.02	ND	3.20
MW-14	Decommissioned Q1 2021						
MW-15R	12/23/21	Installed Replacement Well					
	6/16/23	<1	<0.5	<1	<0.02	ND	***18.3***
MW-16	Q1 2022	Decommissioned Q1 2022					
MW-17	3/18/23	Installed Well					
	6/30/23	<1	<0.5	<1	<0.02	ND	***327***
MW-18	3/18/23	Installed Well					
	6/30/23	<1	<0.5	<1	<0.02	ND	***14.1***
MW-19	3/18/23	Installed Well					
	4/25/23	NA	NA	NA	NA	NA	***9.43***
GEO B-7R	12/23/21	Installed Replacement Well					
	6/16/23	<1	<0.5	<1	<0.02	ND	***5.94***
GEO B-8	Decommissioned Q1 2021						
GEO B-9R	12/23/21	Installed Replacement Well					
	6/16/23	<1	<0.5	<1	< 0.02	ND	***34.3***
MTCA Groundwater Cleanup Levels		***5[A]***	***5[A]***	***16[B]***	***0.2[A]***	***--***	***5[A]***

Table Notes:
<XXX - Parameter not detected at concentrations at or above the noted reporting limit.
Volatile organic compounds by EPA Method 8260C. See laboratory report for full list of analyzed parameters.
Dissolved arsenic by EPA Method 6020B on field filtered samples using 0.45 micron single-use filters.
ND - No other volatile organic compounds detected.
NA - Not analyzed for the listed compound.

MTCA Groundwater cleanup criteria per Chapter 173-340-720 WAC. Method A criteria presented where available. Method B standard formula values shown where no Method A criteria available. Method B standard formula values from Dept. of Ecology January 2023 Cleanup Levels and Risk Calculation (CLARC) database.

A - Method A listed or State or Federal MCL
B - Method B Direct Contact

Sample results exceeding applicable cleanup criteria are noted in ***Bold Italic***.

TABLE 2
2017-2023 Summary of Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Well ID	Sample Date	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	TCE	Cis 1,2 DCE	Vinyl Chloride	Chloroform	Acetone	Hexane	Cumine	MEK	n-propylbenzene	Naphthalene	p-isopropyltoluene	sec-butylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Other VOCs	Arsenic (Total)	Arsenic (Dissolved)	Lead (Total)	Chromium (Total)
MW-1	6/30/17	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	0.20	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	10/30/17	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	6/14/18	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	***0.27***	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/6/18	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	7/22/19	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	2.1	***0.55***	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/4/19	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	2.3	***0.73***	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	***13***	NA	<1	<1
	3/5/20	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	1.8	***0.47***	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	***9.49***	***10.8***	NA	NA
	9/28/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	31	<1	<1	<1	<1	<1	<1	ND	<1	<1	NA	NA
	12/1/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	29	<1	<1	<1	<1	<1	<1	ND	<1	<1	NA	NA
	3/18/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	30	<1	<1	<1	<1	<1	<1	ND	1.59	<1	NA	NA
	5/24/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	<1	NA	NA
	Q3 2021	Inaccessible due to Construction																										
	11/22/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	1.11	NA	NA
	11/22/21	Well Decommissioned for Construction																										
MW-1S	8/6/19	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	***0.21***	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/5/19	<100	72[x]	340	<0.35	<1	<1	<3	<1	<1	<1	***0.29***	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	***16.5***	NA	<1	1.16
	2/26/20	<100	100[x]	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	51[x]	<250	<0.35	<1	<1	<3	<1	<1	<1	***0.21***	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	***12.5***	***13.3***	NA	NA
	9/28/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	33	<1	<1	<1	<1	<1	<1	ND	***47.4***	***50.8***	NA	NA
	12/1/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	86	<5	<1	46	<1	<1	<1	<1	<1	<1	ND	***39.2***	***41.0***	NA	NA
	3/23/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	20	<1	<1	<1	<1	<1	<1	ND	***24.4***	***21.5***	NA	NA
	5/12/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***14.4***	NA	NA
	9/14/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***23.7***	NA	NA
	12/23/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	2.78	NA	NA
	Q1 2022	Inaccessible Due to Construction																										
	3/16/22	Well Decommissioned for Construction																										

TABLE 2
2017-2023 Summary of Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Well ID	Sample Date	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	TCE	Cis 1,2 DCE	Vinyl Chloride	Chloroform	Acetone	Hexane	Cumine	MEK	n-propylbenzene	Naphthalene	p-isopropyltoluene	sec-butylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Other VOCs	Arsenic (Total)	Arsenic (Dissolved)	Lead (Total)	Chromium (Total)
MW-1D	8/6/19	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/5/19	<100	<50	340	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	***9.14***	NA	<1	<1
	3/3/20	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	***10.3***	NA	<1	NA
	5/19/20	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	***9.65***	***10.1***	NA	NA
	9/28/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***10.1***	***9.68***	NA	NA
	12/1/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***11.1***	***10.3***	NA	NA
	3/23/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***9.41***	***9.56***	NA	NA
	5/12/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***9.34***	NA	NA
	9/14/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***9.94***	NA	NA
	12/23/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***9.04***	NA	NA
	3/9/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***9.64***	NA	NA
	3/16/22	Well Decommissioned for Construction																										
MW-2	4/4/17	NA	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	10/30/17	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	6/14/18	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	7/22/19	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/4/19	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	3/17/20	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<1	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	9/28/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<5	<1	82	<1	<1	<1	<1	<1	<1	ND	2.88	1.21	NA	NA
	12/9/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<5	<1	47	<1	<1	<1	<1	<1	<1	ND	***44.5***	***30.8***	NA	NA
	3/16/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***105***	***90.7***	NA	NA
	6/4/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***20.6***	NA	NA
	7/16/21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.24	NA	NA
	7/16/21	Well Decommissioned for Construction																										

TABLE 2
2017-2023 Summary of Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Well ID	Sample Date	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	TCE	Cis 1,2 DCE	Vinyl Chloride	Chloroform	Acetone	Hexane	Cumine	MEK	n-propylbenzene	Naphthalene	p-isopropyltoluene	sec-butylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Other VOCs	Arsenic (Total)	Arsenic (Dissolved)	Lead (Total)	Chromium (Total)
MW-3	4/3/17	110	400[x]	<250	<0.35	2.5	<1	7.9	<1	<1	<1	***0.34***	<1	11	<1	<1	<10	<1	4.7	<1	<1	4.9	1.1	ND	NA	NA	NA	NA
	10/30/17	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	6/14/18	<100	210[x]	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	2/25/19	<100	400[x]	<300	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	***5.35***	NA	<1	NA
	4/3/19	NA	420[x]	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	7/23/19	<100	170[x]	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	<1	NA
	12/4/19	<100	280[x]	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	3/17/20	<100	210[x]	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	390[x]	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	9/28/20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	***10.2***	***9.15***	NA	NA
	12/23/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	2.11	1.79	NA	NA
	Q1 2021	Inaccessible due to Construction																										
	3/30/21	Well Decommissioned for Construction																										
MW-4	4/5/17	NA	67[x]	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	10/30/17	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	6/14/18	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	7/23/19	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/9/19	<100	180[x]	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	3/17/20	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	9/28/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***66.8***	***64.9***	NA	NA
	12/1/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***78.0***	***53.5***	NA	NA
	3/26/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***64.6***	***64.1***	NA	NA
	4/30/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***18.9***	NA	NA
	Q3 2021	Well Decommissioned for Construction																										

TABLE 2
2017-2023 Summary of Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Well ID	Sample Date	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	TCE	Cis 1,2 DCE	Vinyl Chloride	Chloroform	Acetone	Hexane	Cumine	MEK	n-propylbenzene	Naphthalene	p-isopropyltoluene	sec-butylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Other VOCs	Arsenic (Total)	Arsenic (Dissolved)	Lead (Total)	Chromium (Total)
MW-5	4/5/17	NA	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	12	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	10/30/17	NA	NA	NA	<0.35	<1	<1	<3	1.4	***9.1***	10	***0.29***	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	6/14/18	<100	<50	<250	<0.35	<1	<1	<3	1.3	5.0	8.3	***0.25***	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/6/18	NA	NA	NA	<0.35	<1	<1	<3	2.1	***11***	8.4	***0.37***	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	7/22/19	<100	<50	<250	<0.35	<1	<1	<3	1.1	***6.5***	10	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	<1	NA
	12/4/19	<100	52[X]	<250	<0.35	<1	<1	<3	1.3	2.2	3.5	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	3/5/20	<100	<50	<250	<0.35	<1	<1	<3	<1	2.2	1.4	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	<50	<250	<0.35	<1	<1	<3	<1	2.8	3.6	<0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	9/28/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/1/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***5.85***	4.07	NA	NA
	3/16/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***8.23***	***5.54***	NA	NA
	5/24/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	4.49	NA	NA
	9/30/21	NA	NA	NA	<0.35	<1	<1	<3	<1	1.1	4.3	***0.27***	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***10.8***	NA	NA
	11/15/21	NA	NA	NA	<0.35	<1	<1	<3	<1	1.4	3.8	***0.41***	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***5.04***	NA	NA
	11/22/21	NA	NA	NA	<0.35	<1	<1	<3	<1	1.9	4.6	***0.61***	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	1.49	NA	NA
	11/22/21	Well Decommissioned for Construction - Replaced with Well MW-5R on 12/23/2021																										
MW-5R	2/18/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	***0.60***	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	2.50	NA	NA
	6/30/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	***0.21***	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***5.44***	NA	NA
PDBS	9/23/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***14.4***	NA	NA
PDBS	12/16/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***6.70***	NA	NA
PDBS	3/21/23	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	3.59	NA	NA
PDBS	6/16/23	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	4.68	NA	NA
MW-6	4/5/17	NA	<50	<250	<0.35	1.2	<1	5.5	<1	<1	1.3	< 0.2	<1	<10	<1	<1	<10	<1	<1	<1	<1	3.4	<1	ND	NA	NA	NA	NA
	6/14/18	<100	<50	<250	<0.35	<1	<1	<3	1.2	<1	9.6	< 0.2	1.1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	7/23/19	<100	<50	<250	<0.35	<1	<1	<3	<1	1.7	***17***	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/4/19	<100	78[X]	<250	<0.35	<1	<1	<3	1.3	<1	5.7	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	3/17/20	<100	<50	<250	<0.35	<1	<1	<3	1.1	<1	3.3	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	<50	<250	<0.35	<1	<1	<3	1.1	<1	4.5	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	1.65	1.21	NA	NA

TABLE 2
2017-2023 Summary of Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Well ID	Sample Date	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	TCE	Cis 1,2 DCE	Vinyl Chloride	Chloroform	Acetone	Hexane	Cumine	MEK	n-propylbenzene	Naphthalene	p-isopropyltoluene	sec-butylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Other VOCs	Arsenic (Total)	Arsenic (Dissolved)	Lead (Total)	Chromium (Total)
MW-6	9/28/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	3.5	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
Continued	12/23/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	4.3	<0.2	3.8	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	2.15	2.16	NA	NA
	3/18/21	NA	NA	NA	<0.35	<1	<1	<3	<1	1.2	10	< 0.2	1.6	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	2.44	1.92	NA	NA
	3/30/21	Well Decommissioned for Construction																										
MW-7	6/30/17	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	6/14/18	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	7/23/19	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/4/19	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	3/17/20	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	9/28/20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	***189***	***153***	NA	NA
	12/23/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***109***	***117***	NA	NA
	3/18/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***127***	***127***	NA	NA
	3/30/21	Well Decommissioned for Construction																										
MW-8	8/30/17	***3,200***	***790***[X]	<250	***11***	<1	71	419	<1	<1	<1	< 0.2	<1	<10	<1	12	<10	24	8.9	1.1	1.8	***180***	59	ND	NA	NA	NA	NA
	6/28/18	***2,400***	160[X]	<250	2.9	<1	85	384	<1	<1	<1	< 0.2	<1	<50	<1	14	<10	33	1.6	1.1	1.9	***150***	54	ND	NA	NA	NA	NA
	7/23/19	740	64[X]	<250	<0.35	<1	10	96	<1	<1	<1	< 0.2	<1	<50	<1	3.1	<10	8.1	<1	<1	1.0	67	27	ND	NA	NA	<1	NA
	12/9/19	350	62[X]	<250	<0.35	<1	4.3	49.7	<1	<1	<1	< 0.2	<1	<50	<1	1.3	<10	2.1	<1	<1	<1	34	14	ND	***9.21***	NA	<1	<1
	2/24/20	640	79[X]	<250	0.64	<1	7.5	74	<1	<1	<1	< 0.2	<1	<50	<1	3.2	<10	4.0	<1	<1	<1	57	23	ND	NA	NA	NA	NA
	5/19/20	700	96[X]	<250	0.52	<1	3.2	69	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	26	20	ND	4.93	3.44	NA	NA
	9/28/20	130	NA	NA	0.47	<1	4.7	20	<1	<1	<1	< 0.2	<1	<50	<5	1.1	<20	1.3	<1	<1	<1	7.3	2.8	ND	NA	NA	NA	NA
	12/1/20	100	NA	NA	<1	<1	2.4	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	***9.01***	***8.72***	NA	NA
	3/26/21	220	130[X]	<250	<0.35	<1	6.0	20.9	<1	<1	<1	< 0.2	<1	<50	<5	1.9	<20	2.6	<1	<1	<1	9.6	2.9	ND	***9.51***	***10.6***	NA	NA
	3/30/21	Well Decommissioned for Construction																										
MW-9	8/3/17	500	270[X]	<250	***6.8***	1.3	6.3	4.3	<1	<1	<1	< 0.2	<1	<10	4.3	7.2	<10	17	<1	<1	1.5	1.3	1.4	ND	NA	NA	NA	NA
	7/13/18	470	180[X]	<250	5.0	<1	8.5	3.2	<1	<1	<1	< 0.2	<1	<50	<1	12	<10	23	<1	<1	1.9	1.1	<1	ND	NA	NA	NA	NA
	7/23/19	500	210[X]	<250	2.1	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	1.4	16	<10	48	<1	<1	3.9	<1	<1	ND	NA	NA	<1	NA
	12/5/19	***2,900***	***620***[X]	<250	***9.5***	4.3	31	9.3	<1	<1	<1	< 0.2	<1	<50	10	82	<10	210	1.2	1.4	19	1.7	<1	ND	NA	NA	NA	NA

TABLE 2
2017-2023 Summary of Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Well ID	Sample Date	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	TCE	Cis 1,2 DCE	Vinyl Chloride	Chloroform	Acetone	Hexane	Cumine	MEK	n-propylbenzene	Naphthalene	p-isopropyltoluene	sec-butylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Other VOCs	Arsenic (Total)	Arsenic (Dissolved)	Lead (Total)	Chromium (Total)
MW-9	2/24/20	***3,900***	***1,100[X]***	<250	***9.5***	3.7	43	6.7	<1	<1	<1	< 0.2	<1	<50	7.2	110	<10	310	<1	<1	22	1.7	<1	ND	NA	NA	NA	NA
Continued	5/19/20	***2,100***	***1,200[X]***	290[X]	***5.5***	2.3	17	5.0	<1	<1	<1	< 0.2	<1	<50	14	74	<10	220	<1	1.5	16	<1	<1	ND	NA	NA	NA	NA
	9/28/20	***910***	270[X]	<250	***8.0***	9.3	1.6	6.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/1/20	***3,700***	***1,100[X]***	<250	***11***	37	48	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/26/21	***1,400***	***680[X]***	<250	***6.5***	8.0	7.2	6.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	***15.8***	NA	NA
	3/30/21	Well Decommissioned for Construction																										
MW-10	11/3/17	<100	69[X]	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	6/14/18	<100	66[X]	<250	<0.35	<1	<1	<3	<1	<1	1.2	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	7/22/19	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	<1	NA
	12/5/19	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	***9.3***	NA	<1	<1
	2/26/20	<100	66[X]	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	***5.41***	***5.18***	NA	NA
	9/28/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***16.6***	***15.0***	NA	NA
	12/1/20	NA	NA	NA	<0,35	<1	<1	<3	<1	<1	1.4	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***6.50***	***6.06***	NA	NA
	3/23/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	1.1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***8.69***	***7.00***	NA	NA
	5/12/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	1.0	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***6.58***	NA	NA
	9/14/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	1.17	NA	NA
	12/23/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***5.71***	NA	NA
	3/9/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***9.62***	NA	NA
	6/30/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	4.74	NA	NA
PDBS	9/23/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***7.69***	NA	NA
PDBS	12/16/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	1.19	NA	NA
PDBS	3/21/23	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***12.0***	NA	NA
PDBS	6/30/23	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***9.63***	NA	NA
MW-11	8/15/19	<100	400[X]	370[X]	<0.35	<1	<1	<3	<1	<1	1.9	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/5/19	<100	61[X]	<250	<0.35	<1	<1	<3	<1	<1	2.9	***0.22***	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	***15***	NA	<1	<1
	3/3/20	<100	130[X]	<250	<0.35	<1	<1	<3	<1	<1	2.8	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	99[X]	<250	<0.35	<1	<1	<3	<1	<1	3.1	***0.27***	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	***8.96***	***7.98***	NA	NA

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104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Well ID	Sample Date	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	TCE	Cis 1,2 DCE	Vinyl Chloride	Chloroform	Acetone	Hexane	Cumine	MEK	n-propylbenzene	Naphthalene	p-isopropyltoluene	sec-butylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Other VOCs	Arsenic (Total)	Arsenic (Dissolved)	Lead (Total)	Chromium (Total)
MW-11	9/28/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	69	<5	<1	170	<1	<1	<1	<1	<1	<1	ND	***69.3***	***55.7***	NA	NA
Continued	12/1/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	82	<5	<1	130	<1	<1	<1	<1	<1	<1	ND	***569***	***728***	NA	NA
	3/23/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	61	<5	<1	77	<1	<1	<1	<1	<1	<1	ND	***966***	***776***	NA	NA
	5/14/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	38	<1	<1	<1	<1	<1	<1	ND	NA	***267***	NA	NA
	9/30/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***67.6***	NA	NA
	Q4 2021	Inaccessible Due to Construction - *Well Damaged and Filled with Dirt - Only partially cleared and remains turbid																										
	3/25/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	0.039	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***327****	NA	NA
	6/30/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***210****	NA	NA
	8/4/2022	Well Decommissioned for Construction																										
MW-12	8/19/19	<100	140[X]	270[X]	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/4/19	<100	120[X]	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	4.53	NA	<1	<1
	3/17/20	<100	120[X]	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	130[X]	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	4.40	4.39	NA	NA
	9/28/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	240	<5	<1	130	<1	<1	<1	<1	<1	<1	ND	***1,240***	***506***	NA	NA
	12/1/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	94	<5	<1	59	<1	<1	<1	<1	<1	<1	ND	***1,380***	***1,260***	NA	NA
	3/18/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	33	<1	<1	<1	<1	<1	<1	ND	***1,900***	***2,110***	NA	NA
	6/4/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***1,600***	NA	NA
	Q3 2021	Inaccessible Due to Construction																										
	12/23/21	Well Damaged and Inaccessible - Decommissioned For Construction- Replaced with Well MW-12R on 12/23/2021																										
MW-12R	3/8/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.1	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***845***	NA	NA
	6/30/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***468***	NA	NA
PDBS	9/23/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***909***	NA	NA
PDBS	12/16/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	0.031	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***1,090***	NA	NA
PDBS	3/21/23	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	0.022	<1	<50	<5	<1	24	<1	<1	<1	<1	<1	<1	ND	NA	***1,100***	NA	NA
PDBS	6/16/23	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	0.029	<1	<50	<5	<1	24	<1	<1	<1	<1	<1	<1	ND	NA	***1,220***	NA	NA

TABLE 2
2017-2023 Summary of Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Well ID	Sample Date	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	TCE	Cis 1,2 DCE	Vinyl Chloride	Chloroform	Acetone	Hexane	Cumine	MEK	n-propylbenzene	Naphthalene	p-isopropyltoluene	sec-butylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Other VOCs	Arsenic (Total)	Arsenic (Dissolved)	Lead (Total)	Chromium (Total)
MW-13	10/3/19	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/9/19	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	3/17/20	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	9/28/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<10	<1	<1	<1	<1	<1	<1	ND	***11.5***	***5.75***	NA	NA
	12/23/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	1.91	2.06	NA	NA
	3/26/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	<5	<5	NA	NA
	5/26/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	3.50	NA	NA
	9/29/21	Well Dry due to Nearby Dewatering Wells																										
	12/23/21	Well Dry due to Nearby Dewatering Wells																										
	3/8/22	Well Dry due to Nearby Dewatering Wells																										
	6/30/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	2.11	NA	NA
	Q3/22	Inaccessible due to Construction																										
	11/4/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	2.20	NA	NA
	3/28/23	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	<1	NA	NA
	6/30/23	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	3.20	NA	NA
MW-14	8/15/19	<100	130[X]	<250	1.8	<1	<1	<3	<1	<1	2.3	***0.65***	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/4/19	<100	110[X]	<250	1.3	<1	<1	<3	<1	<1	1.8	***0.25***	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	2/24/20	<100	64[X]	<250	1.8	<1	<1	<3	<1	<1	2.1	***0.66***	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	110[X]	<250	0.89	<1	<1	<3	<1	<1	1.3	***0.28***	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	9/28/20	NA	NA	NA	0.74	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/1/20	NA	NA	NA	0.57	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***60.4***	***45.4***	NA	NA
	3/26/21	Inaccessible due to Construction																										
	3/30/21	Well Decommissioned for Construction																										

TABLE 2
2017-2023 Summary of Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Well ID	Sample Date	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	TCE	Cis 1,2 DCE	Vinyl Chloride	Chloroform	Acetone	Hexane	Cumine	MEK	n-propylbenzene	Naphthalene	p-isopropyltoluene	sec-butylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Other VOCs	Arsenic (Total)	Arsenic (Dissolved)	Lead (Total)	Chromium (Total)
MW-15	4/2/20	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	9/28/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	1.3	***0.23***	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***14.6***	***11.1***	NA	NA
	12/9/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***11.9***	***11.7***	NA	NA
	3/16/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***11.6***	***11.4***	NA	NA
	5/26/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***12.7***	NA	NA
	7/1/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***9.91***	NA	NA
	Q4 2021	Well Damaged - Decommissioned For Construction- Replaced with Well MW-15R on 12/23/2021																										
MW-15R	3/2/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	1.1	0.14	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***13.1***	NA	NA
	6/30/22	NA	NA	NA	<0.35	<1	<1	<3	<1	0.59	<1	0.036	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***10.6***	NA	NA
PDBS	9/23/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	0.096	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***58.2***	NA	NA
PDBS	12/16/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***32.7***	NA	NA
PDBS	3/2123	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***23.7***	NA	NA
PDBS	6/16/23	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***18.3***	NA	NA
MW-16	9/28/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	71	<5	<1	28	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/9/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<1	120	<5	<1	62	<1	<1	<1	<1	<1	<1	ND	***289***	***299***	NA	NA
	3/26/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	24	<1	<1	<1	<1	<1	<1	ND	***218***	***29.4***	NA	NA
	6/4/2021	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***140***	NA	NA
	Q3 2021	Inaccessible due to Construction																										
	Q4 2021	Well Decommissioned For Construction																										
MW-17	3/28/23	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***168***	NA	NA
	6/30/23	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***327***	NA	NA
MW-18	3/28/23	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	0.021	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***14.2***	NA	NA
	6/30/23	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***14.1***	NA	NA
MW-19	3/30/23	<100	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***23.2***	NA	NA
	4/25/23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	***9.43***	NA	NA

TABLE 2
2017-2023 Summary of Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Well ID	Sample Date	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	TCE	Cis 1,2 DCE	Vinyl Chloride	Chloroform	Acetone	Hexane	Cumine	MEK	n-propylbenzene	Naphthalene	p-isopropyltoluene	sec-butylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Other VOCs	Arsenic (Total)	Arsenic (Dissolved)	Lead (Total)	Chromium (Total)
GEO B-7	12/6/18	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	1.1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	7/22/19	<100	<50	<250	<0.35	<1	<1	<3	<1	2.3	3.0	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/4/19	<100	<50	<250	<0.35	<1	<1	<3	<1	1.8	2.7	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	3/5/20	<100	<50	<250	<0.35	<1	<1	<3	<1	2.9	3.2	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	<50	<250	<0.35	<1	<1	<3	<1	1.8	2.5	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	9/28/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/9/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***27.0***	***29.0***	NA	NA
	3/16/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	***20.6***	***16.0***	NA	NA
	5/24/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***24.8***	NA	NA
	6/15/21	Well Decommissioned for Construction - Replaced with Well GEO B-7R on 12/23/2021																										
GEO B-7R	3/2/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	4.0	***1.1***	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***33.8***	NA	NA
	6/30/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	1.6	***1.2***	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***92.5***	NA	NA
PBS	9/23/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	0.022	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***163***	NA	NA
PBS	12/16/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***9.93***	NA	NA
PBS	3/21/23	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***10.9***	NA	NA
PBS	6/16/23	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***5.94***	NA	NA
GEO B-8	12/6/18	<100	210[X]	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	1.1	<10	1.8	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	7/23/19	<100	140[X]	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	<1	NA
	12/5/19	150	410[X]	360[X]	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	4.0	<10	7.1	<1	<1	1.1	<1	<1	ND	NA	NA	NA	NA
	2/28/20	110	180[X]	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	1.4	<10	2.7	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	380[X]	350[X]	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	9/28/20	<100	150[X]	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/1/20	<100	NA	NA	<1	<1	<1	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	***99.6***	***74.1***	NA	NA
	3/26/21	<100	310[X]	320[X]	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	2.5	<20	8.8	<1	<1	<1	<1	<1	ND	NA	***14.7***	NA	NA
	3/30/21	Well Decommissioned for Construction																										

TABLE 2
2017-2023 Summary of Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Well ID	Sample Date	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Xylenes	PCE	TCE	Cis 1,2 DCE	Vinyl Chloride	Chloroform	Acetone	Hexane	Cumine	MEK	n-propylbenzene	Naphthalene	p-isopropyltoluene	sec-butylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Other VOCs	Arsenic (Total)	Arsenic (Dissolved)	Lead (Total)	Chromium (Total)
GEO B-9	12/6/18	<100	76[X]	<250	<0.35	<1	<1	<3	<1	<1	2.4	***0.36***	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	7/23/19	<100	59[X]	<250	<0.35	<1	<1	<3	<1	<1	1.4	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/4/19	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	1.5	***0.22***	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	2/28/20	<100	73[X]	<250	<0.35	<1	<1	<3	<1	<1	1.1	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	63[X]	<250	<0.35	<1	<1	<3	<1	<1	1.0	< 0.2	<1	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	9/28/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	56	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	12/9/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	<1	<1	NA	NA
	3/18/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	1.27	<1	NA	NA
	5/24/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	1.58	NA	NA
	9/30/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.02	<1	<50	<5	<1	33	<1	<1	<1	<1	<1	<1	ND	NA	2.12	NA	NA
	11/22/21	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	1.61	NA	NA
	11/22/21	Well Decommissioned For Construction- Replaced with Well GEO B-9R on 12/23/2021																										
GEO B-9R	3/2/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***5.30***	NA	NA
	6/30/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	< 0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***56.8***	NA	NA
PBS	9/23/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***25.5***	NA	NA
PBS	12/16/22	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***21.4***	NA	NA
PBS	3/21/23	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***44.1***	NA	NA
PBS	6/16/23	NA	NA	NA	<0.35	<1	<1	<3	<1	<0.5	<1	<0.02	<1	<50	<5	<1	<20	<1	<1	<1	<1	<1	<1	ND	NA	***34.3***	NA	NA
MTCA Groundwater Cleanup Levels		***800[A]***	***500[A]***	***500[A]***	***5[A]***	***1,000[A]***	***700[A]***	***1,000[A]***	***5[A]***	***5[A]***	***16[B]***	***0.2[A]***	***80[A]***	***7,200[B]***	***480[B]***	***800[B]***	***4,800[B]***	***800[B]***	***160[B]***	***NV***	***800[B]***	***80[B]***	***80[B]***	***--***	***5[A]***	***5[A]***	***15[A]***	***50[A]***

Table Notes:
<XXX - Parameter not detected at concentrations at or above the noted reporting limit.
NA - Sample not analyzed for the listed parameter.
Gasoline Range Total Petroleum Hydrocarbons by Method NWTPH-G.
Diesel and Motor Oil Range Total Petroleum Hydrocarbons by Method NWTPH-D(x).
[X] - Indicates sample chromatogram does not resemble fuel standard used for analysis. Most likely carry over from gasoline range hydrocarbons, or non-petroleum organic matter.
[PBS] Volatile organic compound samples collected using passive diffusion bag samplers, suspended in the wells for a minimum of three weeks prior to removal.
Volatile Organic Compounds by EPA Method 8260C or 8021B. All detected compounds summarized here. See laboratory report for full list of analyzed parameters.
Total Lead and Chromium on unfiltered samples by EPA Method 6020B.
Dissolved and total arsenic by EPA Method 6020B. Total arsenic on unfiltered samples. Dissolved arsenic on field filtered samples using 0.45 micron single-use filters.

MTCA Groundwater cleanup criteria per Chapter 173-340-720 WAC. Method A criteria presented where available. Method B standard formula values shown where no Method A criteria available. Method B standard formula values from Dept. of Ecology 2022 Cleanup Levels and Risk Calculation (CLARC) database. NV indicates no value available from CLARC.

A - Method A listed or State or Federal MCL
B - Method B Direct Contact
NV - No published value

Sample results exceeding applicable cleanup criteria are noted in ***Bold Italic***.

Table 3 - Sub-Slab Vapor Probe Analytical Summary
12th & Yesler Redevelopment Site
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

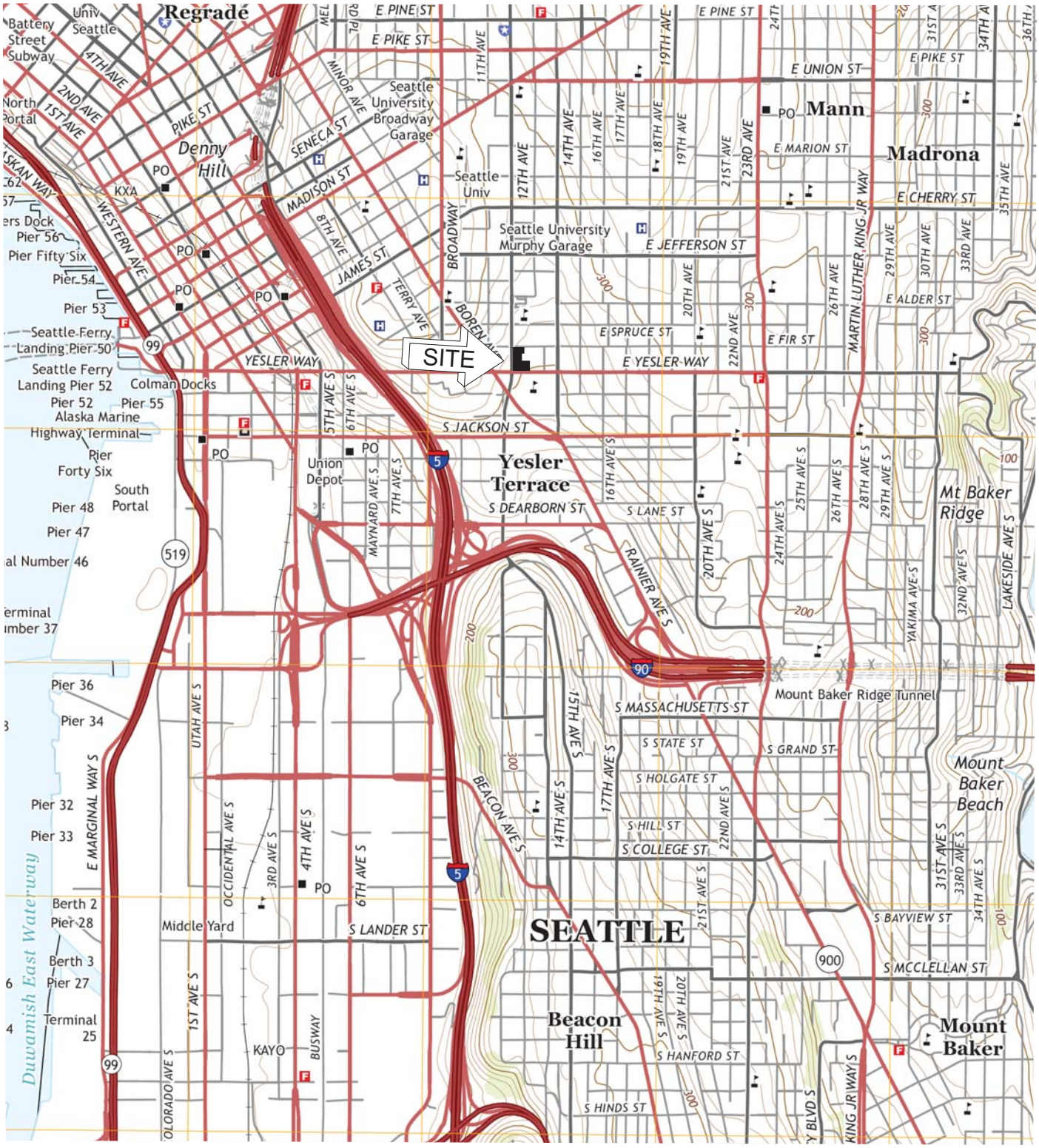
Vapor Probe ID	Sample Date	Vinyl Chloride	cis-1,2-Dichloroethene	Chloroform	Benzene	Bromodichloromethane	Trichloroethene	Tetrachloroethene	1,2,4-Trimethylbenzene	Naphthalene
VP-1	8/4/2022	ND (<1.4)	ND (<2.1)	1.4	ND (<1.7)	ND (<0.36)	ND (<0.58)	ND (<37)	ND (<27)	ND (<1.4)
	12/16/2022	ND (<1.3)	ND (<1.9)	0.36	ND (<1.6)	ND (<82)	ND (<0.53)	ND (<33)	ND (<24)	ND (<1.3)
VP-2	8/4/2022	ND (<1.5)	ND (<2.3)	1.7	ND (<1.8)	ND (<0.38)	ND (<0.61)	ND (<39)	ND (<28)	ND (<1.5)
	12/16/2022	ND (<1.3)	ND (<2)	ND (<0.24)	ND (<1.6)	ND (<84)	ND (<0.54)	ND (<34)	ND (<25)	ND (<1.3)
VP-3	8/4/2022	ND (<2)	ND (<3.1)	0.46	ND (<2.5)	ND (<0.52)	ND (<0.84)	ND (<53)	ND (<38)	ND (<2)
	12/16/2022	ND (<1.8)	ND (<2.8)	ND (<0.34)	ND (<2.2)	ND (<120)	ND (<0.75)	ND (<47)	ND (<34)	ND (<1.8)
MTCA Method B Sub-slab Vapor Screening Level		***9.5***	***6,100***	***3.6***	***11***	***2.3***	***11***	***320***	***910***	***2.5***
MTCA Method B Indoor Air Cleanup Level		***0.284***	***18.3***	***0.109***	***0.321***	***0.068***	***0.334***	***9.62***	***27.4***	***0.0735***

Table Notes:
<XXX - Parameter not detected at concentrations at or above the noted reporting limit.
Volatile Organic Compounds by EPA Compendium Method TO-15. All analyzed compounds summarized here. Analyte list derived from prior site investigation detections and site Compliance Monitoring Plan.

MTCA Method B Sub-slab Screening Levels and Indoor Air Cleanup Levels from Dept. of Ecology 2023 Cleanup Levels and Risk Calculation (CLARC) database.

Sample results exceeding applicable cleanup criteria are noted in ***Bold Italic***.

FIGURES



North

0 2000'

Scale 1 : 24,000

From USGS

Figure 1 - Site Map

104-124 12th Avenue & 1209 E. Fir Street
Seattle, Washington 98122

Project No.	WES - 1591
Date	June 11, 2017
File ID.	1591F1

WHITMAN
Environmental Sciences

Legend

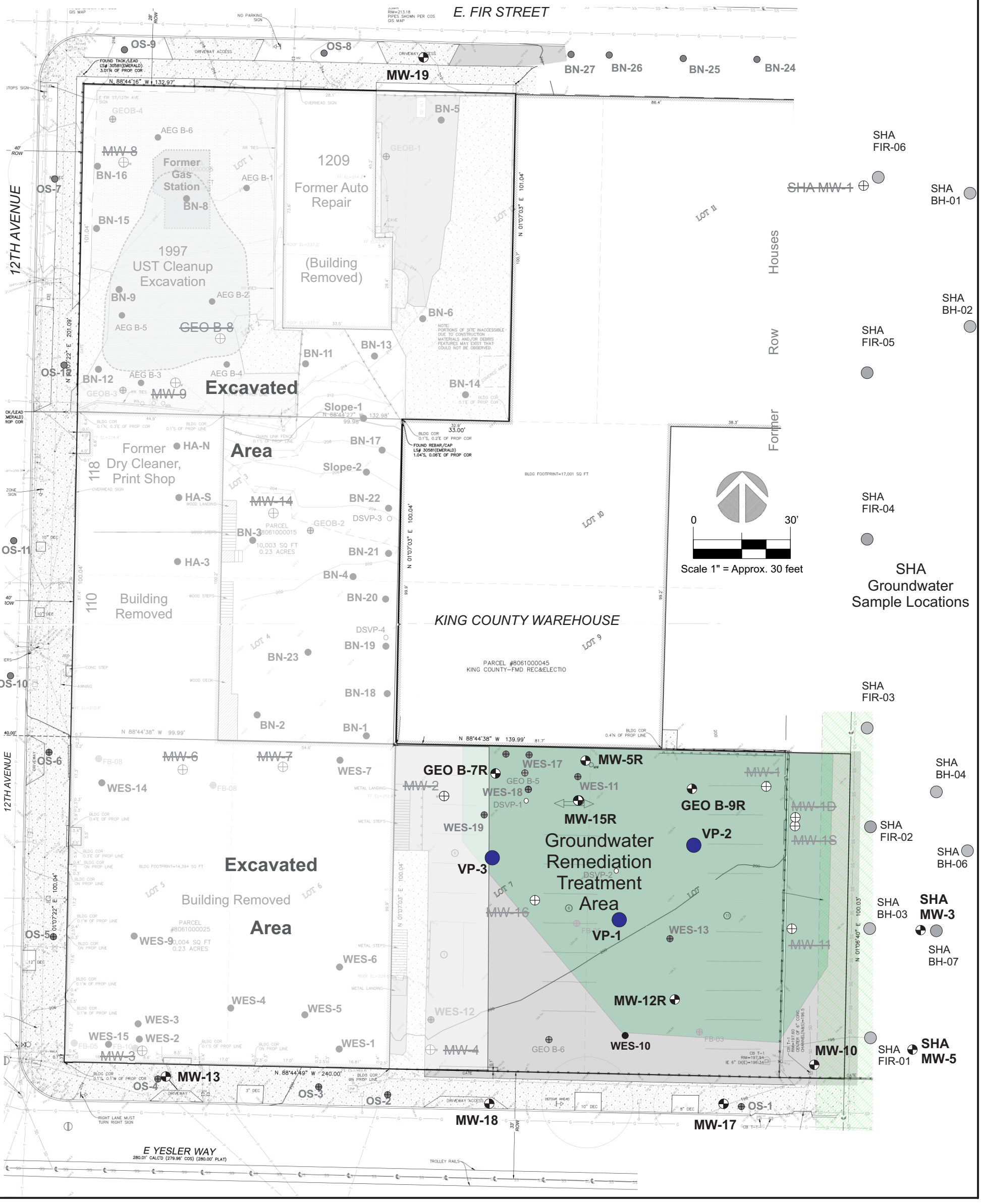
- Approximate Location of Monitoring Well
- Approximate Location of Soil Borings (2016 -2020)
- ~~MW-2~~ Approximate Location and I.D. of Decommissioned Monitoring Well
- Approximate Location of Sub-Slab Vapor Monitoring Point Under New Construction

Figure 2 - Site and Sample Location Plan

12th & Yesler Redevelopment Property
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591A
Date	July 5, 2023
File ID.	1591F2

WHITMAN Environmental Sciences



Legend

- Approximate Location of Monitoring Well
- Approximate Location of Soil Borings (2016 -2020)
- ~~MW-2~~ Approximate Location and I.D. of Decommissioned Monitoring Well

GEO B-7*
TCE- 2.9
C12DCE- 3.2
As (D) - 1.49

Sample Location I.D
* - Where noted, well shows discolored water associated with remedial injections

Analytical Parameter Concentrations (ug/l) (Detected Compounds Only)

As (D) - Dissolved Arsenic (ug/l)

Bold Italic Exceeds CUL

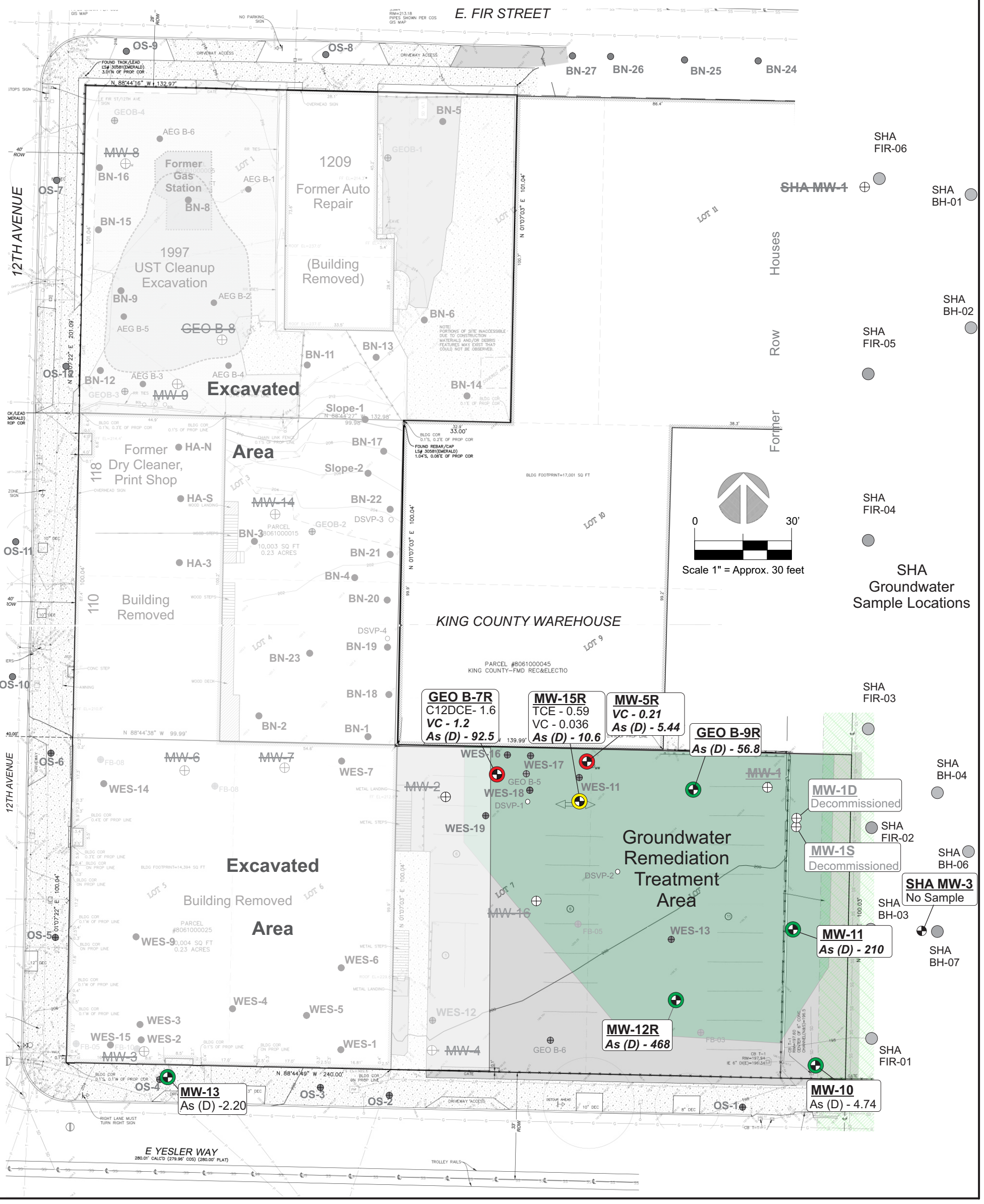
Figure 3 - 2nd Quarter 2022 Groundwater Sampling Analytical Results

Proposed Redevelopment Property
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591A
Date	July 12, 2022
File ID.	1591Q222F3

WHITMAN Environmental Sciences

- Monitoring Well with No Detected CVOCs or Petroleum Compounds in Groundwater in 2nd Quarter 2022 Sampling
- Monitoring Well with Detected CVOCs or Petroleum Compounds in Groundwater in 2nd Quarter 2022 Sampling
- Monitoring Well with CVOCs or Petroleum Compounds above MTCA Method A in Groundwater in 2nd Quarter 2022 Sampling



Legend

- Approximate Location of Monitoring Well
- Approximate Location of Soil Borings (2016 -2020)
- ~~MW-2~~ Approximate Location and I.D. of Decommissioned Monitoring Well
- Approximate Location and I.D. of Sub-Slab Vapor Monitoring Point

GEO B-7
TCE- 2.9
C12DCE- 3.2
As (D) - 1.49

Sample Location I.D
Analytical Parameter Concentrations (ug/l)
(Detected Compounds Only)

VP-1
Chloroform - 0.36

Sub-slab Vapor Sample Location ID
Analytical Parameter Concentrations (ug/m^3)
(Detected Compounds Only)

Bold Italic Exceeds CUL

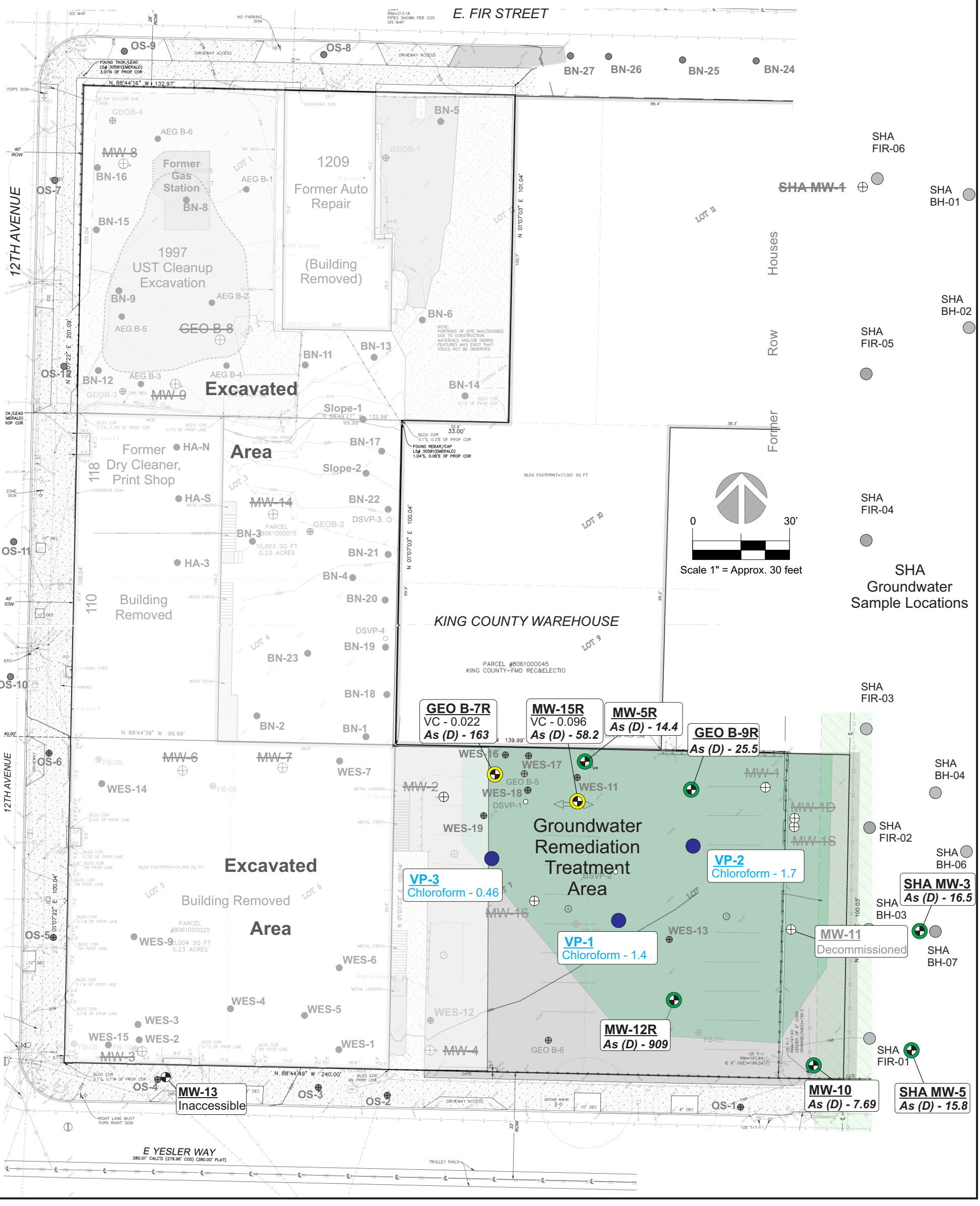
- Monitoring Well with No Detected CVOCs or Petroleum Compounds in Groundwater in 3rd Quarter 2022 Sampling
- Monitoring Well with Detected CVOCs or Petroleum Compounds in Groundwater in 3rd Quarter 2022 Sampling
- Monitoring Well with CVOCs or Petroleum Compounds above MTCA Method A in Groundwater in 3rd Quarter 2022 Sampling

Figure 3A - 3rd Quarter 2022 Groundwater & Soil Vapor Sampling Analytical Results

Proposed Redevelopment Property
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591A
Date	Dec 12, 2022
File ID.	1591Q322F3

WHITMAN Environmental Sciences



Legend

- Approximate Location of Monitoring Well
- Approximate Location of Soil Borings (2016 -2020)
- ~~MW-2~~ Approximate Location and I.D. of Decommissioned Monitoring Well
- Approximate Location of Soil Vapor Probe

GEO B-7
TCE- 2.9
C12DCE- 3.2
As (D) - 1.49

Groundwater Sample Location ID
Analytical Parameter Concentrations (ug/l)
(Detected Compounds Only)
As (D) - Dissolved Arsenic (ug/l)

VP-1
Chloroform - 0.36

Sub-slab Vapor Sample Location ID
Analytical Parameter Concentrations (ug/m^3)
(Detected Compounds Only)

Bold Italic Exceeds CUL

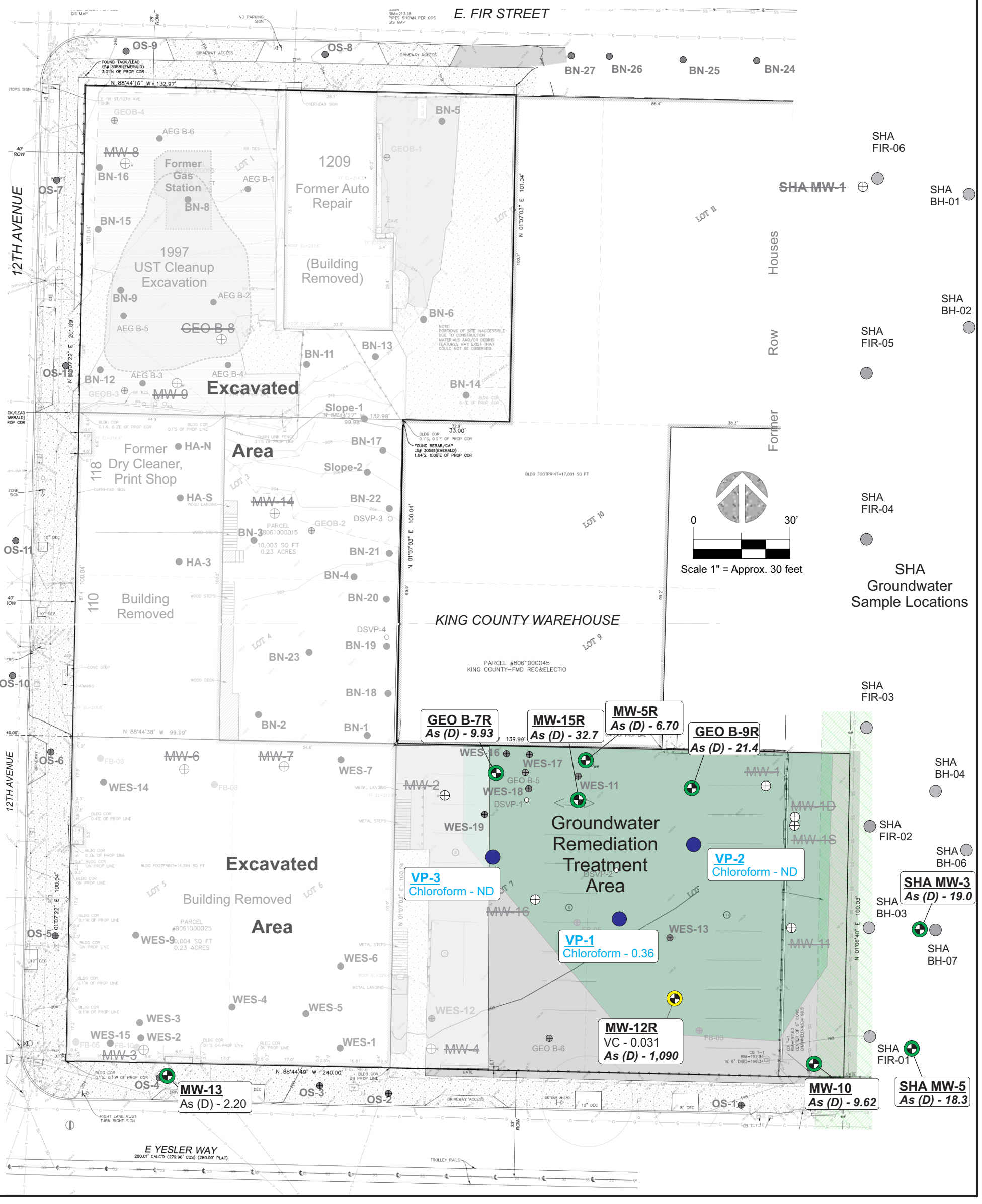
Figure 3B - 4th Quarter 2022 Groundwater & Soil Vapor Sampling Analytical Results

Proposed Redevelopment Property
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591A
Date	Jan 29, 2023
File ID.	1591Q422F3

WHITMAN Environmental Sciences

- Monitoring Well with No Detected CVOCs or Petroleum Compounds in Groundwater in 4th Quarter 2022 Sampling
- Monitoring Well with Detected CVOCs or Petroleum Compounds in Groundwater in 4th Quarter 2022 Sampling
- Monitoring Well with CVOCs or Petroleum Compounds above MTCA Method A in Groundwater in 4th Quarter 2022 Sampling



Legend

- Approximate Location of Monitoring Well
- Approximate Location of Soil Borings (2016 -2020)
- ~~MW-2~~ Approximate Location and I.D. of Decommissioned Monitoring Well

GEO B-7
TCE- 2.9
C12DCE- 3.2
As (D) - 1.49

Sample Location I.D
Analytical Parameter Concentrations (ug/l)
(Detected Compounds Only)
As (D) - Dissolved Arsenic (ug/l)
Bold Italic Exceeds CUL

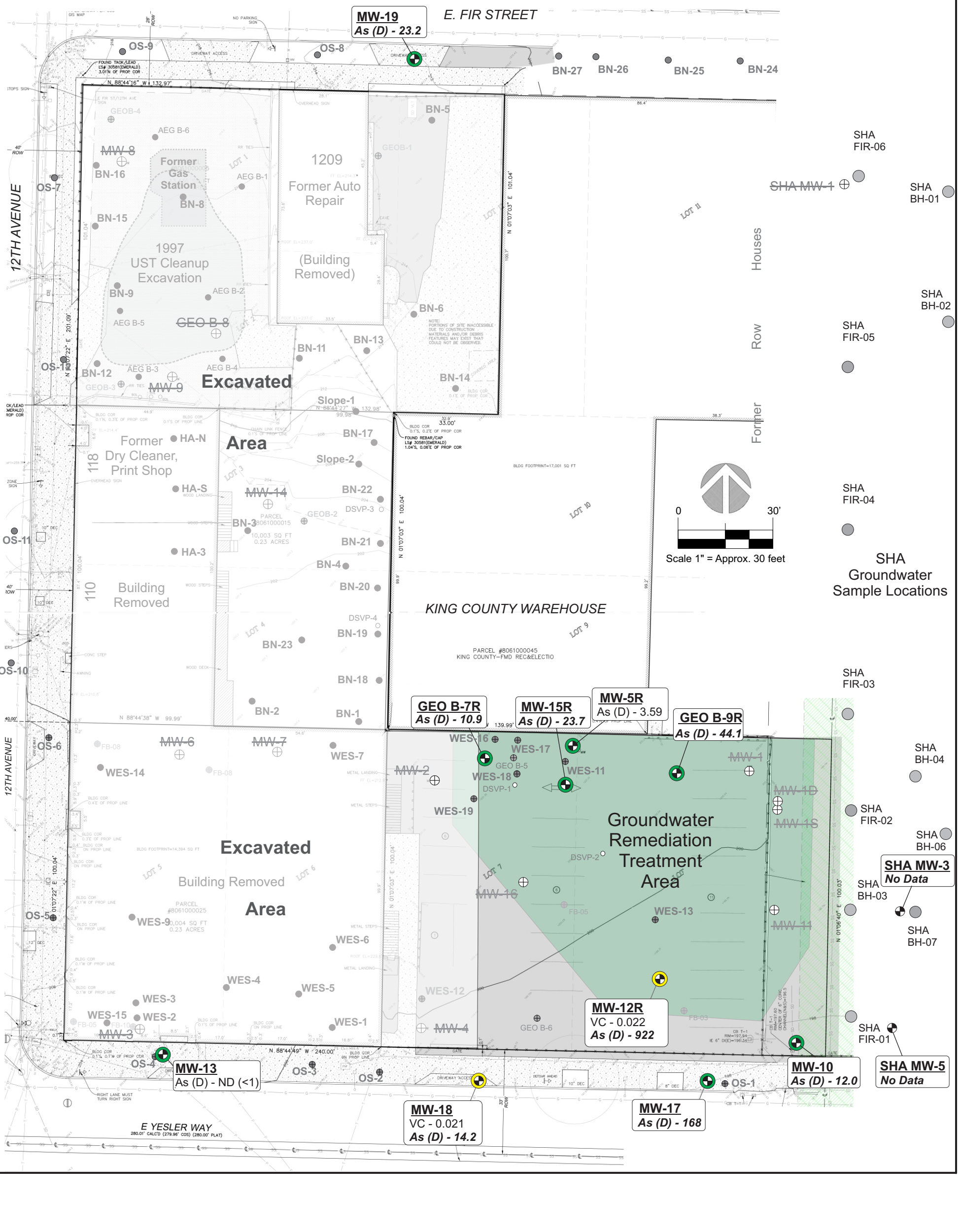
Figure 3C - 1st Quarter 2023 Groundwater Sampling Analytical Results

Proposed Redevelopment Property
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591A
Date	May 9, 2023
File ID.	1591Q123F3

WHITMAN Environmental Sciences

- Monitoring Well with No Detected CVOCs or Petroleum Compounds in Groundwater in 1st Quarter 2023 Sampling
- Monitoring Well with Detected CVOCs or Petroleum Compounds in Groundwater in 1st Quarter 2023 Sampling
- Monitoring Well with CVOCs or Petroleum Compounds above MTCA Method A in Groundwater in 1st Quarter 2023 Sampling



Legend

- Approximate Location of Monitoring Well
- Approximate Location of Soil Borings (2016 -2020)
- ~~MW-2~~ Approximate Location and I.D. of Decommissioned Monitoring Well

GEO B-7
TCE- 2.9
C12DCE- 3.2
As (D) - 1.49

Sample Location I.D
Analytical Parameter Concentrations (ug/l)
(Detected Compounds Only)
As (D) - Dissolved Arsenic (ug/l)
Bold Italic Exceeds CUL

Figure 3D - 2nd Quarter 2023 Groundwater Sampling Analytical Results

Proposed Redevelopment Property
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591A
Date	July 19, 2023
File ID.	1591Q223F3

WHITMAN Environmental Sciences

- Monitoring Well with No Detected CVOCs or Petroleum Compounds in Groundwater in 1st Quarter 2023 Sampling
- Monitoring Well with Detected CVOCs or Petroleum Compounds in Groundwater in 1st Quarter 2023 Sampling
- Monitoring Well with CVOCs or Petroleum Compounds above MTCA Method A in Groundwater in 1st Quarter 2023 Sampling

MW-19
VOCs - NA
As (D) - 9.43

E. FIR STREET

12TH AVENUE

1209 Former Auto Repair

1997 UST Cleanup Excavation

Former Gas Station

(Building Removed)

Former Dry Cleaner, Print Shop

Building Removed

Excavated Area

Groundwater Remediation Treatment Area

KING COUNTY WAREHOUSE

Houses

Former Row

E YESLER WAY

Scale 1" = Approx. 30 feet

SHA Groundwater Sample Locations

SHA FIR-06
SHA FIR-05
SHA FIR-04
SHA FIR-03
SHA FIR-02
SHA FIR-01
SHA BH-01
SHA BH-02
SHA BH-03
SHA BH-04
SHA BH-06
SHA BH-07

SHA MW-3
No Data

SHA MW-5
No Data

MW-5R
As (D) - 4.68

GEO B-7R
As (D) - 5.94

MW-15R
As (D) - 18.3

GEO B-9R
As (D) - 34.3

MW-12R
VC - 0.029
As (D) - 1,220

MW-13
As (D) - 3.2

MW-18
As (D) - 14.1

MW-17
As (D) - 327

MW-10
As (D) - 9.63

APPENDIX A

Soil Boring Logs and Monitoring Well Construction Diagrams
MW-17, MW-18 and MW-19

Project:	Client:	Boring:
12th & Yesler Development 104 12th Avenue Seattle, WA	Centric Partners LLC	MW-17
	Driller: Holocene Drilling / Method: Geoprobe	Project No. WES-1591
	Elevation: Top of Pipe: ' / Reference: –	

Sample Data						Soil Description
No.	Type	Depth	Recovery	N	Lab Sample	
						Concrete sidewalk over gravel base.
1	2" Lined Spoon		4'	--		2' Brown mottled silty and clayey SAND (Fill), zone of organic from 2-2.5', occasional gravels, soft, moist, no odor or discoloration.
		5.0				
2	2" Lined Spoon		5'			Greenish gray zone
		10.0				10' Brown silty and clayey SAND with thin GRAVEL zone, wet in gravel.
3	2" Lined Spoon		0.75'			Dark gray clayey and silty SAND 1-2" zones of fine to medium SAND, soft moist clay, wet in sandy zones.
		15.0				.
4	2" Lined Spoon		5'			2" Sch. 40 PVC well screen installed from depth of 10 to 20 feet below ground surface, surrounded with pre-packed silica sand filter in fine mesh. #10-20 silica sand added to 8'. Bentonite seal and flush-mounted steel monument set in concrete at ground surface.
		20.0				20' Dark grey SILT, laminated with a few fine sand layers dense, drier than overlying layers, no odor or discoloration. End of Boring at 20.0 ft

Date Drilled:	Water Level Data	Depth	Date/Time
3-18-2023	First Encountered:	11'	3/18/2023
	Stabilized:		

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Environmental Sciences

Project:	Client:	Boring:
12th & Yesler Development 104 12th Avenue Seattle, WA	Centric Partners LLC	MW-18
	Driller: Holocene Drilling / Method: Geoprobe	Project No. WES-1591
	Elevation: Top of Pipe: ' / Reference: –	

Sample Data						Soil Description
No.	Type	Depth	Recovery	N	Lab Sample	
						Concrete sidewalk over gravel base.
1	2" Lined Spoon		2.5'	--		2' Dark gray to black clayey and silty SAND (Fill), trace gravel, organic from 2', occasional gravels, soft, moist to wet, no odor or discoloration.
		5.0				
2	2" Lined Spoon		4.5'			Greenish and black mottled clayey SAND with gravels dense, moist. Sandier zone at 7.5', then denser below.
		10.0				10'
3	2" Lined Spoon		5'			
		15.0				Gray silty and clayey SAND, dense, moist.
4	2" Lined Spoon		5'			2" Sch. 40 PVC well screen installed from depth of 10 to 20 feet below ground surface, surrounded with pre-packed silica sand filter in fine mesh. #10-20 silica sand added to 8'. Bentonite seal and flush-mounted steel monument set in concrete at ground surface.
		20.0				20' End of Boring at 20.0 ft

Date Drilled:	Water Level Data	Depth	Date/Time
3-18-2023	First Encountered:	6'	3/18/2023
	Stabilized:		

WHITMAN
Environmental Sciences

Project:	Client:	Boring:
12th & Yesler Development 104 12th Avenue Seattle, WA	Centric Partners LLC	MW-19
	Driller: Holocene Drilling / Method: Geoprobe	Project No. WES-1591
	Elevation: Top of Pipe: ' / Reference: –	

Sample Data						Soil Description
No.	Type	Depth	Recovery	N	Lab Sample	
						Concrete sidewalk over gravel base.
1	2" Lined Spoon		1.5'	--		2' Brown silty and clayey SAND with gravel, moist to wet, no odor or discoloration.
		5.0				
2	2" Lined Spoon		1.5'			Brown to black silty CLAY with sand and occasional gravels, soft, moist.
		10.0				10' 2" Sch. 40 PVC well screen installed from depth of 10 to 20 feet below ground surface, surrounded with pre-packed silica sand filter in fine mesh. #10-20 silica sand added to 8'. Bentonite seal and flush-mounted steel monument set in concrete at ground surface.
3	2" Lined Spoon		4'			Gray silty SAND layer 6" thick, dense, moist.
		15.0				Black silty and clayey SAND, very dense, moist.
						Grout and fragment of PVC - hit former shoring tie-back.
4	2" Lined Spoon		2.5'			Greenish gray silty SAND, dense, moist.
		20.0				20' End of Boring at 20.0 ft

Date Drilled:	Water Level Data	Depth	Date/Time
3-18-2023	First Encountered:	Dry	3/18/2023
	Stabilized:		

WHITMAN
Environmental Sciences

APPENDIX B

Laboratory Analytical Reports
Friedman & Bruya, Inc.

2nd Quarter 2022

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

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(206) 285-8282
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July 8, 2022

Dan Whitman, Project Manager
Whitman Environmental Sciences
6812 16th Ave NE
Seattle, WA 98115

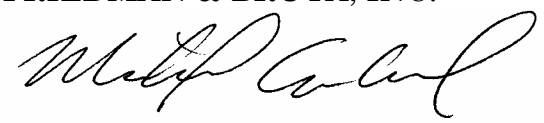
Dear Mr Whitman:

Included are the results from the testing of material submitted on June 30, 2022 from the 12th and Yesler WES-1591, F&BI 206563 project. There are 23 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
WES0708R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 30, 2022 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences 12th and Yesler WES-1591, F&BI 206563 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Whitman Environmental Sciences
206563 -01	MW-5R-GW
206563 -02	MW-10-GW
206563 -03	MW-11-GW
206563 -04	MW-12R-GW
206563 -05	MW-13
206563 -06	MW-15R-GW
206563 -07	GEO B-7R-GW
206563 -08	GEO B-9R-GW

Methylene chloride was detected in the 8260D analysis of the method blank. The data were flagged as due to laboratory contamination.

The 8260D laboratory control sample exceeded the acceptance criteria for 2,2-dichloropropane. The compound was not detected, therefore the data were acceptable.

All other quality control requirements were acceptable.

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-5R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/30/22	Project:	12th and Yesler WES-1591
Date Extracted:	07/01/22	Lab ID:	206563-01
Date Analyzed:	07/01/22	Data File:	206563-01.082
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	WE

Analyte:	Concentration ug/L (ppb)
Arsenic	5.44

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-10-GW	Client:	Whitman Environmental Sciences
Date Received:	06/30/22	Project:	12th and Yesler WES-1591
Date Extracted:	07/01/22	Lab ID:	206563-02
Date Analyzed:	07/01/22	Data File:	206563-02.085
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	WE

Analyte:	Concentration ug/L (ppb)
Arsenic	4.74

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-11-GW	Client:	Whitman Environmental Sciences
Date Received:	06/30/22	Project:	12th and Yesler WES-1591
Date Extracted:	07/01/22	Lab ID:	206563-03 x10
Date Analyzed:	07/05/22	Data File:	206563-03 x10.117
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	WE

Analyte:	Concentration ug/L (ppb)
Arsenic	210

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-12R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/30/22	Project:	12th and Yesler WES-1591
Date Extracted:	07/01/22	Lab ID:	206563-04 x10
Date Analyzed:	07/05/22	Data File:	206563-04 x10.118
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	WE

Analyte:	Concentration ug/L (ppb)
Arsenic	468

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-13 f	Client:	Whitman Environmental Sciences
Date Received:	06/30/22	Project:	12th and Yesler WES-1591
Date Extracted:	07/01/22	Lab ID:	206563-05
Date Analyzed:	07/01/22	Data File:	206563-05.088
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	WE

Analyte:	Concentration ug/L (ppb)
Arsenic	2.11

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-15R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/30/22	Project:	12th and Yesler WES-1591
Date Extracted:	07/01/22	Lab ID:	206563-06
Date Analyzed:	07/01/22	Data File:	206563-06.089
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	WE

Analyte:	Concentration ug/L (ppb)
Arsenic	10.6

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	GEO B-7R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/30/22	Project:	12th and Yesler WES-1591
Date Extracted:	07/01/22	Lab ID:	206563-07
Date Analyzed:	07/01/22	Data File:	206563-07.090
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	WE

Analyte:	Concentration ug/L (ppb)
Arsenic	92.5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	GEO B-9R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/30/22	Project:	12th and Yesler WES-1591
Date Extracted:	07/01/22	Lab ID:	206563-08
Date Analyzed:	07/01/22	Data File:	206563-08.091
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	WE

Analyte:	Concentration ug/L (ppb)
Arsenic	56.8

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank f	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th and Yesler WES-1591
Date Extracted:	07/01/22	Lab ID:	I2-452 mb2
Date Analyzed:	07/01/22	Data File:	I2-452 mb2.081
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	WE

Analyte:	Concentration ug/L (ppb)
Arsenic	<1

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-5R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/30/22	Project:	12th and Yesler WES-1591
Date Extracted:	07/05/22	Lab ID:	206563-01
Date Analyzed:	07/05/22	Data File:	070527.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	WE

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	71	132
Toluene-d8	98	68	139
4-Bromofluorobenzene	100	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	0.21	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-10-GW	Client:	Whitman Environmental Sciences
Date Received:	06/30/22	Project:	12th and Yesler WES-1591
Date Extracted:	07/05/22	Lab ID:	206563-02
Date Analyzed:	07/05/22	Data File:	070528.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	WE

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	110	71	132
Toluene-d8	99	68	139
4-Bromofluorobenzene	103	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-11-GW	Client:	Whitman Environmental Sciences
Date Received:	06/30/22	Project:	12th and Yesler WES-1591
Date Extracted:	07/05/22	Lab ID:	206563-03
Date Analyzed:	07/05/22	Data File:	070529.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	WE

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	71	132
Toluene-d8	88	68	139
4-Bromofluorobenzene	103	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-12R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/30/22	Project:	12th and Yesler WES-1591
Date Extracted:	07/05/22	Lab ID:	206563-04
Date Analyzed:	07/05/22	Data File:	070530.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	WE

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	71	132
Toluene-d8	88	68	139
4-Bromofluorobenzene	101	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-13	Client:	Whitman Environmental Sciences
Date Received:	06/30/22	Project:	12th and Yesler WES-1591
Date Extracted:	07/05/22	Lab ID:	206563-05
Date Analyzed:	07/05/22	Data File:	070531.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	WE

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	108	71	132
Toluene-d8	101	68	139
4-Bromofluorobenzene	101	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-15R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/30/22	Project:	12th and Yesler WES-1591
Date Extracted:	07/05/22	Lab ID:	206563-06
Date Analyzed:	07/05/22	Data File:	070532.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	WE

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	71	132
Toluene-d8	100	68	139
4-Bromofluorobenzene	105	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	0.036	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	0.59	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	GEO B-7R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/30/22	Project:	12th and Yesler WES-1591
Date Extracted:	07/05/22	Lab ID:	206563-07
Date Analyzed:	07/05/22	Data File:	070533.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	WE

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	71	132
Toluene-d8	96	68	139
4-Bromofluorobenzene	104	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	1.2	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	1.6	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	GEO B-9R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/30/22	Project:	12th and Yesler WES-1591
Date Extracted:	07/05/22	Lab ID:	206563-08
Date Analyzed:	07/05/22	Data File:	070534.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	WE

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	71	132
Toluene-d8	92	68	139
4-Bromofluorobenzene	102	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th and Yesler WES-1591
Date Extracted:	07/05/22	Lab ID:	02-1502 mb
Date Analyzed:	07/05/22	Data File:	070513.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	WE

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	71	132
Toluene-d8	98	68	139
4-Bromofluorobenzene	106	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	7.6 ca lc	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Date of Report: 07/08/22
Date Received: 06/30/22
Project: 12th and Yesler WES-1591, F&BI 206563

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 206533-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<1	92	96	75-125	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	88	80-120

Date of Report: 07/08/22
Date Received: 06/30/22
Project: 12th and Yesler WES-1591, F&BI 206563

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 206562-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	10	<1	102	50-150
Chloromethane	ug/L (ppb)	10	<10	104	50-150
Vinyl chloride	ug/L (ppb)	10	<0.02	112	16-176
Bromomethane	ug/L (ppb)	10	<5	106	10-193
Chloroethane	ug/L (ppb)	10	<1	93	50-150
Trichlorofluoromethane	ug/L (ppb)	10	<1	95	50-150
Acetone	ug/L (ppb)	50	<50	105	15-179
1,1-Dichloroethene	ug/L (ppb)	10	<1	97	50-150
Hexane	ug/L (ppb)	10	<5	104	49-161
Methylene chloride	ug/L (ppb)	10	<5	96	40-143
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	<1	99	50-150
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	104	50-150
1,1-Dichloroethane	ug/L (ppb)	10	<1	103	50-150
2,2-Dichloropropane	ug/L (ppb)	10	<1	114	10-335
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	101	50-150
Chloroform	ug/L (ppb)	10	<1	110	50-150
2-Butanone (MEK)	ug/L (ppb)	50	<20	98	34-168
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	<0.2	106	50-150
1,1,1-Trichloroethane	ug/L (ppb)	10	<1	106	50-150
1,1-Dichloropropene	ug/L (ppb)	10	<1	103	50-150
Carbon tetrachloride	ug/L (ppb)	10	<0.5	110	50-150
Benzene	ug/L (ppb)	10	<0.35	102	50-150
Trichloroethene	ug/L (ppb)	10	<0.5	102	43-133
1,2-Dichloropropane	ug/L (ppb)	10	<1	95	50-150
Bromodichloromethane	ug/L (ppb)	10	<0.5	108	50-150
Dibromomethane	ug/L (ppb)	10	<1	100	50-150
4-Methyl-2-pentanone	ug/L (ppb)	50	<10	104	50-150
cis-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	103	48-145
Toluene	ug/L (ppb)	10	<1	101	50-150
trans-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	107	37-152
1,1,2-Trichloroethane	ug/L (ppb)	10	<0.5	104	50-150
2-Hexanone	ug/L (ppb)	50	<10	102	50-150
1,3-Dichloropropane	ug/L (ppb)	10	<1	96	50-150
Tetrachloroethene	ug/L (ppb)	10	<1	109	50-150
Dibromochloromethane	ug/L (ppb)	10	<0.5	99	33-164
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	<1	102	50-150
Chlorobenzene	ug/L (ppb)	10	<1	103	50-150
Ethylbenzene	ug/L (ppb)	10	<1	99	50-150
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	<1	105	50-150
m,p-Xylene	ug/L (ppb)	20	<2	102	50-150
o-Xylene	ug/L (ppb)	10	<1	101	50-150
Styrene	ug/L (ppb)	10	<1	94	50-150
Isopropylbenzene	ug/L (ppb)	10	<1	94	50-150
Bromoform	ug/L (ppb)	10	<5	107	23-161
n-Propylbenzene	ug/L (ppb)	10	<1	93	50-150
Bromobenzene	ug/L (ppb)	10	<1	97	50-150
1,3,5-Trimethylbenzene	ug/L (ppb)	10	<1	89	50-150
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	<0.2	100	10-235
1,2,3-Trichloropropane	ug/L (ppb)	10	<1	93	33-151
2-Chlorotoluene	ug/L (ppb)	10	<1	99	50-150
4-Chlorotoluene	ug/L (ppb)	10	<1	92	50-150
tert-Butylbenzene	ug/L (ppb)	10	<1	92	50-150
1,2,4-Trimethylbenzene	ug/L (ppb)	10	<1	90	50-150
sec-Butylbenzene	ug/L (ppb)	10	<1	96	46-139
p-Isopropyltoluene	ug/L (ppb)	10	<1	93	46-140
1,3-Dichlorobenzene	ug/L (ppb)	10	<1	103	50-150
1,4-Dichlorobenzene	ug/L (ppb)	10	<1	105	50-150
1,2-Dichlorobenzene	ug/L (ppb)	10	<1	103	50-150
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	<10	105	50-150
1,2,4-Trichlorobenzene	ug/L (ppb)	10	<1	97	50-150
Hexachlorobutadiene	ug/L (ppb)	10	<0.5	99	42-150
Naphthalene	ug/L (ppb)	10	<1	80	50-150
1,2,3-Trichlorobenzene	ug/L (ppb)	10	<1	91	44-155

Date of Report: 07/08/22
Date Received: 06/30/22
Project: 12th and Yesler WES-1591, F&BI 206563

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	10	101	107	70-130	6
Chloromethane	ug/L (ppb)	10	103	104	70-130	1
Vinyl chloride	ug/L (ppb)	10	110	109	70-130	1
Bromomethane	ug/L (ppb)	10	104	97	28-182	7
Chloroethane	ug/L (ppb)	10	94	93	70-130	1
Trichlorofluoromethane	ug/L (ppb)	10	101	91	70-130	10
Acetone	ug/L (ppb)	50	105	115	42-155	9
1,1-Dichloroethene	ug/L (ppb)	10	104	103	70-130	1
Hexane	ug/L (ppb)	10	113	105	50-161	7
Methylene chloride	ug/L (ppb)	10	100	96	29-192	4
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	97	97	70-130	0
trans-1,2-Dichloroethene	ug/L (ppb)	10	104	103	70-130	1
1,1-Dichloroethane	ug/L (ppb)	10	101	99	70-130	2
2,2-Dichloropropane	ug/L (ppb)	10	137 vo	138 vo	70-130	1
cis-1,2-Dichloroethene	ug/L (ppb)	10	100	98	70-130	2
Chloroform	ug/L (ppb)	10	100	100	70-130	0
2-Butanone (MEK)	ug/L (ppb)	50	99	98	50-157	1
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	104	102	70-130	2
1,1,1-Trichloroethane	ug/L (ppb)	10	105	104	70-130	1
1,1-Dichloropropene	ug/L (ppb)	10	103	99	70-130	4
Carbon tetrachloride	ug/L (ppb)	10	105	106	70-130	1
Benzene	ug/L (ppb)	10	101	100	70-130	1
Trichloroethene	ug/L (ppb)	10	102	99	70-130	3
1,2-Dichloropropane	ug/L (ppb)	10	99	97	70-130	2
Bromodichloromethane	ug/L (ppb)	10	101	105	70-130	4
Dibromomethane	ug/L (ppb)	10	101	97	70-130	4
4-Methyl-2-pentanone	ug/L (ppb)	50	102	106	70-130	4
cis-1,3-Dichloropropene	ug/L (ppb)	10	109	110	70-130	1
Toluene	ug/L (ppb)	10	109	105	70-130	4
trans-1,3-Dichloropropene	ug/L (ppb)	10	103	111	70-130	7
1,1,2-Trichloroethane	ug/L (ppb)	10	102	101	70-130	1
2-Hexanone	ug/L (ppb)	50	105	108	69-130	3
1,3-Dichloropropane	ug/L (ppb)	10	97	94	70-130	3
Tetrachloroethene	ug/L (ppb)	10	108	107	70-130	1
Dibromochloromethane	ug/L (ppb)	10	93	95	63-142	2
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	103	103	70-130	0
Chlorobenzene	ug/L (ppb)	10	102	97	70-130	5
Ethylbenzene	ug/L (ppb)	10	102	100	70-130	2
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	102	100	70-130	2
m,p-Xylene	ug/L (ppb)	20	106	103	70-130	3
o-Xylene	ug/L (ppb)	10	103	102	70-130	1
Styrene	ug/L (ppb)	10	107	101	70-130	6
Isopropylbenzene	ug/L (ppb)	10	98	97	70-130	1
Bromoform	ug/L (ppb)	10	104	103	50-157	1
n-Propylbenzene	ug/L (ppb)	10	99	99	70-130	0
Bromobenzene	ug/L (ppb)	10	99	101	70-130	2
1,3,5-Trimethylbenzene	ug/L (ppb)	10	97	97	52-150	0
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	97	98	70-130	1
1,2,3-Trichloropropane	ug/L (ppb)	10	94	93	70-130	1
2-Chlorotoluene	ug/L (ppb)	10	102	103	70-130	1
4-Chlorotoluene	ug/L (ppb)	10	97	98	70-130	1
tert-Butylbenzene	ug/L (ppb)	10	92	97	70-130	5
1,2,4-Trimethylbenzene	ug/L (ppb)	10	102	100	70-130	2
sec-Butylbenzene	ug/L (ppb)	10	100	102	70-130	2
p-Isopropyltoluene	ug/L (ppb)	10	100	105	70-130	5
1,3-Dichlorobenzene	ug/L (ppb)	10	105	104	70-130	1
1,4-Dichlorobenzene	ug/L (ppb)	10	102	104	70-130	2
1,2-Dichlorobenzene	ug/L (ppb)	10	100	104	70-130	4
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	100	108	70-130	8
1,2,4-Trichlorobenzene	ug/L (ppb)	10	93	101	70-130	8
Hexachlorobutadiene	ug/L (ppb)	10	98	107	70-130	9
Naphthalene	ug/L (ppb)	10	91	92	70-130	1
1,2,3-Trichlorobenzene	ug/L (ppb)	10	89	94	69-143	5

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. 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 lowest calibration standard. 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.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

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 CHAIN OF CUSTODY

206563

6/30/22

A12/VW2

Page # _____ of _____

Report To Jon Whitman

Company Whitman Env. Services

Address 6816 16th Ave NE

City, State, ZIP Seattle, WA 98115

Phone _____ Email WH.Tenir@yahoo.com

SAMPLERS (*signature*)

PROJECT NAME: 12th + Yesler

PO #: WES-1591

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME

☒ Standard turnaround

☐ RUSH _____

Rush charges authorized by: _____

SAMPLE DISPOSAL

☐ Archive samples

☐ Other _____

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Dissolved Arsenic				Notes
MW-5R-GW	01A-D	6-30-22	1:15	Water	4					X			X				
MW-10-GW	02		2:45							X			X				
MW-11-GW	03		3:40							X			X			TIMS on COC	100
MW-12R-GW	04		10:15							X			X				11:00
MW-13	05		11:00							X			X				
MW-15R-GW	06		3:35							X			X				MW-15S-GW (5)
GEO B-7R-GW	07		12:35							X			X				
GEO B-9R-GW	08		11:30							X			X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		WES	6-30	4:40
Received by: W. Madden	W. Madden	F+BI	6/30/22	16:48
Relinquished by:		Samples received at 11 °C		
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

3rd Quarter 2022
Groundwater and Sub-Slab Vapor Samples

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

October 7, 2022

Dan Whitman, Project Manager
Whitman Environmental Sciences
6812 16th Ave NE
Seattle, WA 98115

Dear Mr Whitman:

Included are the results from the testing of material submitted on September 23, 2022 from the 12th + Yesler WES 1591, F&BI 209393 project. There are 21 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
WES1007R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on September 23, 2022 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences 12th + Yesler WES 1591, F&BI 209393 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Whitman Environmental Sciences
209393 -01	MW-5R-GW
209393 -02	MW-10-GW
209393 -03	MW-12R-GW
209393 -04	MW-15R-GW
209393 -05	GEO-B7R-GW
209393 -06	GEO-B9R-GW

Samples MW-5R-GW and MW-10-GW were filtered at Friedman and Bruya on 09/22/22 for dissolved metals analysis. The data were flagged accordingly.

The 8260D laboratory control sample exceeded the acceptance criteria for chloroethane. The compound was not detected, therefore the data were acceptable.

All other quality control requirements were acceptable.

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-5R-GW f	Client:	Whitman Environmental Sciences
Date Received:	09/23/22	Project:	12th + Yesler WES 1591
Date Extracted:	09/30/22	Lab ID:	209393-01 x5
Date Analyzed:	10/03/22	Data File:	209393-01 x5.061
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	14.4

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-10-GW f	Client:	Whitman Environmental Sciences
Date Received:	09/23/22	Project:	12th + Yesler WES 1591
Date Extracted:	09/30/22	Lab ID:	209393-02
Date Analyzed:	10/03/22	Data File:	209393-02.055
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	7.69

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-12R-GW	Client:	Whitman Environmental Sciences
Date Received:	09/23/22	Project:	12th + Yesler WES 1591
Date Extracted:	09/30/22	Lab ID:	209393-03
Date Analyzed:	10/03/22	Data File:	209393-03.063
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	909

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-15R-GW	Client:	Whitman Environmental Sciences
Date Received:	09/23/22	Project:	12th + Yesler WES 1591
Date Extracted:	09/30/22	Lab ID:	209393-04
Date Analyzed:	10/03/22	Data File:	209393-04.064
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	58.2

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	GEO-B7R-GW	Client:	Whitman Environmental Sciences
Date Received:	09/23/22	Project:	12th + Yesler WES 1591
Date Extracted:	09/30/22	Lab ID:	209393-05
Date Analyzed:	10/03/22	Data File:	209393-05.067
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	163

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	GEO-B9R-GW	Client:	Whitman Environmental Sciences
Date Received:	09/23/22	Project:	12th + Yesler WES 1591
Date Extracted:	09/30/22	Lab ID:	209393-06
Date Analyzed:	10/03/22	Data File:	209393-06.073
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	25.5

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th + Yesler WES 1591
Date Extracted:	09/30/22	Lab ID:	I2-700 mb
Date Analyzed:	09/30/22	Data File:	I2-700 mb.071
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank f	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th + Yesler WES 1591
Date Extracted:	09/30/22	Lab ID:	I2-699 mb
Date Analyzed:	09/30/22	Data File:	I2-699 mb.068
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-5R-GW	Client:	Whitman Environmental Sciences
Date Received:	09/23/22	Project:	12th + Yesler WES 1591
Date Extracted:	09/26/22	Lab ID:	209393-01
Date Analyzed:	09/26/22	Data File:	092632.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	94	71	132
Toluene-d8	94	68	139
4-Bromofluorobenzene	95	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-10-GW	Client:	Whitman Environmental Sciences
Date Received:	09/23/22	Project:	12th + Yesler WES 1591
Date Extracted:	09/26/22	Lab ID:	209393-02
Date Analyzed:	09/26/22	Data File:	092633.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	71	132
Toluene-d8	102	68	139
4-Bromofluorobenzene	96	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-12R-GW	Client:	Whitman Environmental Sciences
Date Received:	09/23/22	Project:	12th + Yesler WES 1591
Date Extracted:	09/26/22	Lab ID:	209393-03
Date Analyzed:	09/26/22	Data File:	092634.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	71	132
Toluene-d8	104	68	139
4-Bromofluorobenzene	91	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-15R-GW	Client:	Whitman Environmental Sciences
Date Received:	09/23/22	Project:	12th + Yesler WES 1591
Date Extracted:	09/26/22	Lab ID:	209393-04
Date Analyzed:	09/26/22	Data File:	092635.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	110	71	132
Toluene-d8	103	68	139
4-Bromofluorobenzene	95	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	0.096	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	GEO-B7R-GW	Client:	Whitman Environmental Sciences
Date Received:	09/23/22	Project:	12th + Yesler WES 1591
Date Extracted:	09/26/22	Lab ID:	209393-05
Date Analyzed:	09/26/22	Data File:	092636.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	71	132
Toluene-d8	101	68	139
4-Bromofluorobenzene	94	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	0.022	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	GEO-B9R-GW	Client:	Whitman Environmental Sciences
Date Received:	09/23/22	Project:	12th + Yesler WES 1591
Date Extracted:	09/26/22	Lab ID:	209393-06
Date Analyzed:	09/26/22	Data File:	092637.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	71	132
Toluene-d8	103	68	139
4-Bromofluorobenzene	97	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th + Yesler WES 1591
Date Extracted:	09/26/22	Lab ID:	02-2182 mb
Date Analyzed:	09/26/22	Data File:	092607.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	71	132
Toluene-d8	102	68	139
4-Bromofluorobenzene	96	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Date of Report: 10/07/22
Date Received: 09/23/22
Project: 12th + Yesler WES 1591, F&BI 209393

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 209393-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	58.2	89	92	75-125	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	96	80-120

Date of Report: 10/07/22
Date Received: 09/23/22
Project: 12th + Yesler WES 1591, F&BI 209393

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 209415-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<1	97	96	75-125	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	96	80-120

Date of Report: 10/07/22
Date Received: 09/23/22
Project: 12th + Yesler WES 1591, F&BI 209393

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 209383-08 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	10	<1	110	50-150
Chloromethane	ug/L (ppb)	10	<10	101	50-150
Vinyl chloride	ug/L (ppb)	10	0.062	111	16-176
Bromomethane	ug/L (ppb)	10	<5	107	10-193
Chloroethane	ug/L (ppb)	10	<1	131	50-150
Trichlorofluoromethane	ug/L (ppb)	10	<1	112	50-150
Acetone	ug/L (ppb)	50	<50	103	15-179
1,1-Dichloroethene	ug/L (ppb)	10	<1	112	50-150
Hexane	ug/L (ppb)	10	<5	124	49-161
Methylene chloride	ug/L (ppb)	10	<5	119	40-143
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	<1	104	50-150
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	106	50-150
1,1-Dichloroethane	ug/L (ppb)	10	<1	106	50-150
2,2-Dichloropropane	ug/L (ppb)	10	<1	117	10-335
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	109	50-150
Chloroform	ug/L (ppb)	10	<1	104	50-150
2-Butanone (MEK)	ug/L (ppb)	50	<20	96	34-168
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	<0.2	104	50-150
1,1,1-Trichloroethane	ug/L (ppb)	10	<1	107	50-150
1,1-Dichloropropene	ug/L (ppb)	10	<1	105	50-150
Carbon tetrachloride	ug/L (ppb)	10	<0.5	108	50-150
Benzene	ug/L (ppb)	10	<0.35	103	50-150
Trichloroethene	ug/L (ppb)	10	<0.5	105	43-133
1,2-Dichloropropane	ug/L (ppb)	10	<1	108	50-150
Bromodichloromethane	ug/L (ppb)	10	<0.5	104	50-150
Dibromomethane	ug/L (ppb)	10	<1	103	50-150
4-Methyl-2-pentanone	ug/L (ppb)	50	<10	119	50-150
cis-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	105	48-145
Toluene	ug/L (ppb)	10	<1	102	50-150
trans-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	92	37-152
1,1,2-Trichloroethane	ug/L (ppb)	10	<0.5	112	50-150
2-Hexanone	ug/L (ppb)	50	<10	105	50-150
1,3-Dichloropropane	ug/L (ppb)	10	<1	105	50-150
Tetrachloroethene	ug/L (ppb)	10	<1	105	50-150
Dibromochloromethane	ug/L (ppb)	10	<0.5	95	33-164
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	<1	98	50-150
Chlorobenzene	ug/L (ppb)	10	<1	99	50-150
Ethylbenzene	ug/L (ppb)	10	<1	98	50-150
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	<1	99	50-150
m,p-Xylene	ug/L (ppb)	20	<2	106	50-150
o-Xylene	ug/L (ppb)	10	<1	98	50-150
Styrene	ug/L (ppb)	10	<1	101	50-150
Isopropylbenzene	ug/L (ppb)	10	<1	102	50-150
Bromoform	ug/L (ppb)	10	<5	93	23-161
n-Propylbenzene	ug/L (ppb)	10	<1	104	50-150
Bromobenzene	ug/L (ppb)	10	<1	105	50-150
1,3,5-Trimethylbenzene	ug/L (ppb)	10	<1	106	50-150
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	<0.2	101	10-235
1,2,3-Trichloropropane	ug/L (ppb)	10	<1	102	33-151
2-Chlorotoluene	ug/L (ppb)	10	<1	103	50-150
4-Chlorotoluene	ug/L (ppb)	10	<1	103	50-150
tert-Butylbenzene	ug/L (ppb)	10	<1	102	50-150
1,2,4-Trimethylbenzene	ug/L (ppb)	10	<1	102	50-150
sec-Butylbenzene	ug/L (ppb)	10	<1	104	46-139
p-Isopropyltoluene	ug/L (ppb)	10	<1	106	46-140
1,3-Dichlorobenzene	ug/L (ppb)	10	<1	104	50-150
1,4-Dichlorobenzene	ug/L (ppb)	10	<1	109	50-150
1,2-Dichlorobenzene	ug/L (ppb)	10	<1	102	50-150
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	<10	87	50-150
1,2,4-Trichlorobenzene	ug/L (ppb)	10	<1	103	50-150
Hexachlorobutadiene	ug/L (ppb)	10	<0.5	101	42-150
Naphthalene	ug/L (ppb)	10	<1	101	50-150
1,2,3-Trichlorobenzene	ug/L (ppb)	10	<1	100	44-155

Date of Report: 10/07/22
Date Received: 09/23/22
Project: 12th + Yesler WES 1591, F&BI 209393

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	10	108	98	70-130	10
Chloromethane	ug/L (ppb)	10	103	95	70-130	8
Vinyl chloride	ug/L (ppb)	10	115	103	70-130	11
Bromomethane	ug/L (ppb)	10	109	107	28-182	2
Chloroethane	ug/L (ppb)	10	142 vo	129	70-130	10
Trichlorofluoromethane	ug/L (ppb)	10	105	105	70-130	0
Acetone	ug/L (ppb)	50	101	88	42-155	14
1,1-Dichloroethene	ug/L (ppb)	10	116	108	70-130	7
Hexane	ug/L (ppb)	10	111	98	50-161	12
Methylene chloride	ug/L (ppb)	10	101	93	29-192	8
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	106	99	70-130	7
trans-1,2-Dichloroethene	ug/L (ppb)	10	108	99	70-130	9
1,1-Dichloroethane	ug/L (ppb)	10	113	100	70-130	12
2,2-Dichloropropane	ug/L (ppb)	10	119	109	70-130	9
cis-1,2-Dichloroethene	ug/L (ppb)	10	111	103	70-130	7
Chloroform	ug/L (ppb)	10	109	99	70-130	10
2-Butanone (MEK)	ug/L (ppb)	50	105	94	50-157	11
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	107	98	70-130	9
1,1,1-Trichloroethane	ug/L (ppb)	10	111	102	70-130	8
1,1-Dichloropropene	ug/L (ppb)	10	109	100	70-130	9
Carbon tetrachloride	ug/L (ppb)	10	112	104	70-130	7
Benzene	ug/L (ppb)	10	104	96	70-130	8
Trichloroethene	ug/L (ppb)	10	108	99	70-130	9
1,2-Dichloropropane	ug/L (ppb)	10	104	97	70-130	7
Bromodichloromethane	ug/L (ppb)	10	102	93	70-130	9
Dibromomethane	ug/L (ppb)	10	106	100	70-130	6
4-Methyl-2-pentanone	ug/L (ppb)	50	105	95	70-130	10
cis-1,3-Dichloropropene	ug/L (ppb)	10	103	96	70-130	7
Toluene	ug/L (ppb)	10	99	99	70-130	0
trans-1,3-Dichloropropene	ug/L (ppb)	10	91	90	70-130	1
1,1,2-Trichloroethane	ug/L (ppb)	10	97	97	70-130	0
2-Hexanone	ug/L (ppb)	50	92	92	69-130	0
1,3-Dichloropropane	ug/L (ppb)	10	103	101	70-130	2
Tetrachloroethene	ug/L (ppb)	10	104	102	70-130	2
Dibromochloromethane	ug/L (ppb)	10	97	97	63-142	0
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	97	94	70-130	3
Chlorobenzene	ug/L (ppb)	10	100	99	70-130	1
Ethylbenzene	ug/L (ppb)	10	95	94	70-130	1
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	98	99	70-130	1
m,p-Xylene	ug/L (ppb)	20	103	102	70-130	1
o-Xylene	ug/L (ppb)	10	97	96	70-130	1
Styrene	ug/L (ppb)	10	97	95	70-130	2
Isopropylbenzene	ug/L (ppb)	10	102	100	70-130	2
Bromoform	ug/L (ppb)	10	92	91	50-157	1
n-Propylbenzene	ug/L (ppb)	10	97	97	70-130	0
Bromobenzene	ug/L (ppb)	10	100	100	70-130	0
1,3,5-Trimethylbenzene	ug/L (ppb)	10	98	99	52-150	1
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	91	95	70-130	4
1,2,3-Trichloropropane	ug/L (ppb)	10	94	92	70-130	2
2-Chlorotoluene	ug/L (ppb)	10	95	98	70-130	3
4-Chlorotoluene	ug/L (ppb)	10	96	96	70-130	0
tert-Butylbenzene	ug/L (ppb)	10	96	97	70-130	1
1,2,4-Trimethylbenzene	ug/L (ppb)	10	95	98	70-130	3
sec-Butylbenzene	ug/L (ppb)	10	96	97	70-130	1
p-Isopropyltoluene	ug/L (ppb)	10	98	98	70-130	0
1,3-Dichlorobenzene	ug/L (ppb)	10	99	100	70-130	1
1,4-Dichlorobenzene	ug/L (ppb)	10	103	104	70-130	1
1,2-Dichlorobenzene	ug/L (ppb)	10	99	100	70-130	1
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	86	86	70-130	0
1,2,4-Trichlorobenzene	ug/L (ppb)	10	97	95	70-130	2
Hexachlorobutadiene	ug/L (ppb)	10	97	94	70-130	3
Naphthalene	ug/L (ppb)	10	91	92	70-130	1
1,2,3-Trichlorobenzene	ug/L (ppb)	10	93	94	69-143	1

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. 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 lowest calibration standard. 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.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

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.

209393

SAMPLE CHAIN OF CUSTODY

09/23/22

AI3/NW3

Page # _____ of _____

Report To Jim Whitman

Company Whitman Env. Services

Address 817 164th Ave NE

City, State, ZIP Seattle, WA 98115

Phone _____ Email whitenwr@

SAMPLERS (*signature*)

PROJECT NAME: IRTH + Yesler

PO #: WES 1591

REMARKS: Harbor Cost

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- ☐ Standard turnaround
- ☐ RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other _____
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Dissolved Arsenic				Notes
MW-5R-GW	01 A-D	9-23	1:30	WATER	4					X			X				NOT FILTERED
MW-10-GW	02		3:00														YET
MW-12R-GW	03		2:25														FIELD
MW-15R-GW	04		1:50														FILTERED
GEO-B7R-GW	05		1:10														"
GEO-B9R-GW	06		2:10														"

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		WES	9-23-22	4:48
Received by:	ANHPHAN	F&B	09/23/22	16:48
Relinquished by:				
Received by:		Samples received at 12°C		

Friedman & Bruya, Inc.
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

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Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

August 22, 2022

Dan Whitman, Project Manager
Whitman Environmental Sciences
6812 16th Ave NE
Seattle, WA 98115

Dear Mr Whitman:

Included are the results from the testing of material submitted on August 5, 2022 from the 12th and Yesler WES 1591, F&BI 208091 project. There are 7 pages included in this report.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
WES0822R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 5, 2022 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences 12th and Yesler WES 1591, F&BI 208091 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Whitman Environmental Sciences
208091 -01	VP-1
208091 -02	VP-2
208091 -03	VP-3

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VP-1	Client:	Whitman Environmental Sciences
Date Received:	08/05/22	Project:	12th and Yesler WES 1591
Date Collected:	08/08/22	Lab ID:	208091-01 1/5.4
Date Analyzed:	08/12/22	Data File:	081129.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	83	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<1.4	<0.54
cis-1,2-Dichloroethene	<2.1	<0.54
Chloroform	1.4	0.28
Benzene	<1.7	<0.54
Bromodichloromethane	<0.36	<0.054
Trichloroethene	<0.58	<0.11
Tetrachloroethene	<37	<5.41
1,2,4-Trimethylbenzene	<27	<5.4
Naphthalene	<1.4	<0.27

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VP-2	Client:	Whitman Environmental Sciences
Date Received:	08/05/22	Project:	12th and Yesler WES 1591
Date Collected:	08/08/22	Lab ID:	208091-02 1/5.7
Date Analyzed:	08/12/22	Data File:	081130.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	83	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<1.5	<0.57
cis-1,2-Dichloroethene	<2.3	<0.57
Chloroform	1.7	0.35
Benzene	<1.8	<0.57
Bromodichloromethane	<0.38	<0.057
Trichloroethene	<0.61	<0.11
Tetrachloroethene	<39	<5.7
1,2,4-Trimethylbenzene	<28	<5.7
Naphthalene	<1.5	<0.28

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VP-3	Client:	Whitman Environmental Sciences
Date Received:	08/05/22	Project:	12th and Yesler WES 1591
Date Collected:	08/08/22	Lab ID:	208091-03 1/7.8
Date Analyzed:	08/12/22	Data File:	081131.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	78	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<2	<0.78
cis-1,2-Dichloroethene	<3.1	<0.78
Chloroform	0.46	0.094
Benzene	<2.5	<0.78
Bromodichloromethane	<0.52	<0.078
Trichloroethene	<0.84	<0.16
Tetrachloroethene	<53	<7.8
1,2,4-Trimethylbenzene	<38	<7.8
Naphthalene	<2	<0.39

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th and Yesler WES 1591
Date Collected:	Not Applicable	Lab ID:	02-1816 MB
Date Analyzed:	08/11/22	Data File:	081118.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	83	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
Chloroform	<0.049	<0.01
Benzene	<0.32	<0.1
Bromodichloromethane	0.067	0.010
Trichloroethene	<0.11	<0.02
Tetrachloroethene	<6.8	<1
1,2,4-Trimethylbenzene	<4.9	<1
Naphthalene	<0.26	<0.05

Date of Report: 08/22/22
Date Received: 08/05/22
Project: 12th and Yesler WES 1591, F&BI 208091

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

Laboratory Code: 208091-01 1/5.4 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Vinyl chloride	ug/m3	<1.4	<1.4	nm
cis-1,2-Dichloroethene	ug/m3	<2.1	<2.1	nm
Chloroform	ug/m3	1.4	1.3	7
Benzene	ug/m3	<1.7	<1.7	nm
Bromodichloromethane	ug/m3	<0.36	<0.36	nm
Trichloroethene	ug/m3	<0.58	<0.58	nm
Tetrachloroethene	ug/m3	<37	<37	nm
1,2,4-Trimethylbenzene	ug/m3	<27	<27	nm
Naphthalene	ug/m3	<1.4	<1.4	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	ug/m3	35	85	70-130
cis-1,2-Dichloroethene	ug/m3	54	91	70-130
Chloroform	ug/m3	66	97	70-130
Benzene	ug/m3	43	84	70-130
Bromodichloromethane	ug/m3	90	111	70-130
Trichloroethene	ug/m3	73	107	70-130
Tetrachloroethene	ug/m3	92	121	70-130
Naphthalene	ug/m3	71	92	70-130

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. 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 lowest calibration standard. 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.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

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.

208091

SAMPLE CHAIN OF CUSTODY

8/5/22

Report To [illegible]
Company [illegible]
Address [illegible]
City, State, ZIP [illegible]
Phone _____ Email _____

SAMPLERS (*signature*)

PROJECT NAME & ADDRESS: RAT / [illegible]

PO # 665 1591

NOTES:

INVOICE TO

Page # _____ of _____

TURNAROUND TIME
☒ Standard
☐ RUSH _____
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Default: Clean after 3 days
☐ Archive (Fee may apply)

SAMPLE INFORMATION										ANALYSIS REQUESTED						
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium		PCE, TCE, VC, per DW 8/22/22 cis-1,2-DCE, benzene MB 1,2,4TMB, naphthalene, chloroform, bromodichloro Notes methane
VP-1	01	5530		IA / (SG)	8-4	30	11:16	-2.5	11:23	X						SEND ME DRAFT FOR REVIEW.
VP-2	02	5801		IA / (SG)	〃	30	10:15	-1	10:52	X						
VP-3	03	5809		IA / (SG)	〃	30	10:00	0	10:17	X						
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282 NP
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]		[illegible]	8-5-22	3:38
Received by: [signature]	NHUT TRUONG	FBI	8/5/22	1540
Relinquished by:				
Received by:		Samples received at 21 °C		

4th Quarter 2022
Groundwater and Sub-Slab Vapor Samples

FRIEDMAN & BRUYA, INC.

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 Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

December 28, 2022

Dan Whitman, Project Manager
Whitman Environmental Sciences
6812 16th Ave NE
Seattle, WA 98115

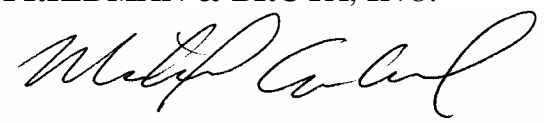
Dear Mr Whitman:

Included are the results from the testing of material submitted on December 16, 2022 from the 12th and Yesler WES-1591, F&BI 212293 project. There are 24 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
WES1228R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 16, 2022 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences 12th and Yesler WES-1591, F&BI 212293 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Whitman Environmental Sciences
212293 -01	MW-5R-GW
212293 -02	MW-10-GW
212293 -03	MW-12R-GW
212293 -04	MW-15R-GW
212293 -05	GEO-B7R-GW
212293 -06	GEO-B9R-GW

The dissolved metals sample MW-5R-GW was filtered at Friedman and Bruya. The data were flagged accordingly.

Several 8260D compounds failed below the acceptance criteria in the matrix spike samples. The laboratory control samples met the acceptance criteria, therefore the data were likely due to sample matrix effect.

An 8260D internal standard failed the acceptance criteria for sample MW-5R-GW. The The affected compounds were flagged accordingly.

1,1,2,2-Tetrachloroethene in the 8260D matrix spike exceeded the acceptance criteria. The compound was not detected, therefore the data were acceptable.

All other quality control requirements were acceptable.

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-5R-GW f	Client:	Whitman Environmental Sciences
Date Received:	12/16/22	Project:	12th and Yesler WES-1591
Date Extracted:	12/21/22	Lab ID:	212293-01 x2
Date Analyzed:	12/21/22	Data File:	212293-01 x2.062
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	6.70

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-10-GW	Client:	Whitman Environmental Sciences
Date Received:	12/16/22	Project:	12th and Yesler WES-1591
Date Extracted:	12/19/22	Lab ID:	212293-02
Date Analyzed:	12/19/22	Data File:	212293-02.089
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.19

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-12R-GW	Client:	Whitman Environmental Sciences
Date Received:	12/16/22	Project:	12th and Yesler WES-1591
Date Extracted:	12/19/22	Lab ID:	212293-03 x100
Date Analyzed:	12/20/22	Data File:	212293-03 x100.107
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1,090

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-15R-GW	Client:	Whitman Environmental Sciences
Date Received:	12/16/22	Project:	12th and Yesler WES-1591
Date Extracted:	12/19/22	Lab ID:	212293-04
Date Analyzed:	12/19/22	Data File:	212293-04.093
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	32.7

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	GEO-B7R-GW	Client:	Whitman Environmental Sciences
Date Received:	12/16/22	Project:	12th and Yesler WES-1591
Date Extracted:	12/19/22	Lab ID:	212293-05
Date Analyzed:	12/19/22	Data File:	212293-05.094
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	9.93

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	GEO-B9R-GW	Client:	Whitman Environmental Sciences
Date Received:	12/16/22	Project:	12th and Yesler WES-1591
Date Extracted:	12/19/22	Lab ID:	212293-06
Date Analyzed:	12/19/22	Data File:	212293-06.095
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	21.4

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank f	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th and Yesler WES-1591
Date Extracted:	12/21/22	Lab ID:	I2-916 mb
Date Analyzed:	12/21/22	Data File:	I2-916 mb.059
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th and Yesler WES-1591
Date Extracted:	12/19/22	Lab ID:	I2-909 mb
Date Analyzed:	12/19/22	Data File:	I2-909 mb.035
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-5R-GW	Client:	Whitman Environmental Sciences
Date Received:	12/16/22	Project:	12th and Yesler WES-1591
Date Extracted:	12/21/22	Lab ID:	212293-01 1/10
Date Analyzed:	12/21/22	Data File:	122107.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	93	71	132
Toluene-d8	91	68	139
4-Bromofluorobenzene	142 ip J	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<10	1,3-Dichloropropane	<10
Chloromethane	<100	Tetrachloroethene	<1 j
Vinyl chloride	<0.2	Dibromochloromethane	<5
Bromomethane	<50	1,2-Dibromoethane (EDB)	<10
Chloroethane	<10	Chlorobenzene	<10
Trichlorofluoromethane	<10	Ethylbenzene	<10
Acetone	<500 ca	1,1,1,2-Tetrachloroethane	<10
1,1-Dichloroethene	<10	m,p-Xylene	<20
Hexane	<50	o-Xylene	<10
Methylene chloride	<50	Styrene	<10
Methyl t-butyl ether (MTBE)	<10	Isopropylbenzene	<10
trans-1,2-Dichloroethene	<10	Bromoform	<50
1,1-Dichloroethane	<10	n-Propylbenzene	<10 J
2,2-Dichloropropane	<10	Bromobenzene	<10 J
cis-1,2-Dichloroethene	<10	1,3,5-Trimethylbenzene	<10 J
Chloroform	<10	1,1,2,2-Tetrachloroethane	<2 J
2-Butanone (MEK)	<200	1,2,3-Trichloropropane	<10 J
1,2-Dichloroethane (EDC)	<2	2-Chlorotoluene	<10 J
1,1,1-Trichloroethane	<10	4-Chlorotoluene	<10 J
1,1-Dichloropropene	<10	tert-Butylbenzene	<10 J
Carbon tetrachloride	<5	1,2,4-Trimethylbenzene	<10 J
Benzene	<0.35 j	sec-Butylbenzene	<10 J
Trichloroethene	<0.5 j	p-Isopropyltoluene	<10 J
1,2-Dichloropropane	<10	1,3-Dichlorobenzene	<10 J
Bromodichloromethane	<5	1,4-Dichlorobenzene	<10 J
Dibromomethane	<10	1,2-Dichlorobenzene	<10 J
4-Methyl-2-pentanone	<100	1,2-Dibromo-3-chloropropane	<100 J
cis-1,3-Dichloropropene	<4	1,2,4-Trichlorobenzene	<10 J
Toluene	<10	Hexachlorobutadiene	<5 J
trans-1,3-Dichloropropene	<4	Naphthalene	<10 J
1,1,2-Trichloroethane	<5	1,2,3-Trichlorobenzene	<10 J
2-Hexanone	<100		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-10-GW	Client:	Whitman Environmental Sciences
Date Received:	12/16/22	Project:	12th and Yesler WES-1591
Date Extracted:	12/21/22	Lab ID:	212293-02
Date Analyzed:	12/19/22	Data File:	121913.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	78	126
Toluene-d8	88	84	115
4-Bromofluorobenzene	92	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-12R-GW	Client:	Whitman Environmental Sciences
Date Received:	12/16/22	Project:	12th and Yesler WES-1591
Date Extracted:	12/21/22	Lab ID:	212293-03
Date Analyzed:	12/19/22	Data File:	121914.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	78	126
Toluene-d8	92	84	115
4-Bromofluorobenzene	96	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	0.031	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-15R-GW	Client:	Whitman Environmental Sciences
Date Received:	12/16/22	Project:	12th and Yesler WES-1591
Date Extracted:	12/21/22	Lab ID:	212293-04
Date Analyzed:	12/19/22	Data File:	121917.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	78	126
Toluene-d8	102	84	115
4-Bromofluorobenzene	100	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	GEO-B7R-GW	Client:	Whitman Environmental Sciences
Date Received:	12/16/22	Project:	12th and Yesler WES-1591
Date Extracted:	12/21/22	Lab ID:	212293-05
Date Analyzed:	12/19/22	Data File:	121918.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	78	126
Toluene-d8	98	84	115
4-Bromofluorobenzene	100	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	GEO-B9R-GW	Client:	Whitman Environmental Sciences
Date Received:	12/16/22	Project:	12th and Yesler WES-1591
Date Extracted:	12/21/22	Lab ID:	212293-06
Date Analyzed:	12/19/22	Data File:	121919.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	93	78	126
Toluene-d8	97	84	115
4-Bromofluorobenzene	102	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	21	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th and Yesler WES-1591
Date Extracted:	12/21/22	Lab ID:	02-2977 mb2
Date Analyzed:	12/21/22	Data File:	122106.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	107	71	132
Toluene-d8	103	68	139
4-Bromofluorobenzene	102	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<0.1 j
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 ca	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.035 j	sec-Butylbenzene	<1
Trichloroethene	<0.05 j	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th and Yesler WES-1591
Date Extracted:	12/19/22	Lab ID:	02-2971 mb
Date Analyzed:	12/19/22	Data File:	121907.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	78	126
Toluene-d8	99	84	115
4-Bromofluorobenzene	93	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Date of Report: 12/28/22
Date Received: 12/16/22
Project: 12th and Yesler WES-1591, F&BI 212293

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	91	92	80-120	1

Date of Report: 12/28/22
Date Received: 12/16/22
Project: 12th and Yesler WES-1591, F&BI 212293

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 212246-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<1	105	108	75-125	3

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	91	80-120

Date of Report: 12/28/22
Date Received: 12/16/22
Project: 12th and Yesler WES-1591, F&BI 212293

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 212286-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	10	<10	116	50-150
Chloromethane	ug/L (ppb)	10	<10	101	50-150
Vinyl chloride	ug/L (ppb)	10	0.89	105	50-150
Bromomethane	ug/L (ppb)	10	<1	117	50-150
Chloroethane	ug/L (ppb)	10	<1	111	50-150
Trichlorofluoromethane	ug/L (ppb)	10	<1	100	50-150
Acetone	ug/L (ppb)	50	<10	76	50-150
1,1-Dichloroethene	ug/L (ppb)	10	<1	114	50-150
Hexane	ug/L (ppb)	10	<1	104	50-150
Methylene chloride	ug/L (ppb)	10	<5	91	50-150
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	<1	102	50-150
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	103	50-150
1,1-Dichloroethane	ug/L (ppb)	10	<1	104	50-150
2,2-Dichloropropane	ug/L (ppb)	10	<1	111	50-150
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	103	50-150
Chloroform	ug/L (ppb)	10	<1	97	50-150
2-Butanone (MEK)	ug/L (ppb)	50	<10	88	50-150
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	<1	99	50-150
1,1,1-Trichloroethane	ug/L (ppb)	10	<1	102	50-150
1,1-Dichloropropene	ug/L (ppb)	10	<1	101	50-150
Carbon tetrachloride	ug/L (ppb)	10	<1	107	50-150
Benzene	ug/L (ppb)	10	<0.35	103	50-150
Trichloroethene	ug/L (ppb)	10	<1	95	50-150
1,2-Dichloropropane	ug/L (ppb)	10	<1	101	50-150
Bromodichloromethane	ug/L (ppb)	10	<1	99	50-150
Dibromomethane	ug/L (ppb)	10	<1	105	50-150
4-Methyl-2-pentanone	ug/L (ppb)	50	<10	100	50-150
cis-1,3-Dichloropropene	ug/L (ppb)	10	<1	95	50-150
Toluene	ug/L (ppb)	10	<1	103	50-150
trans-1,3-Dichloropropene	ug/L (ppb)	10	<1	104	50-150
1,1,2-Trichloroethane	ug/L (ppb)	10	<1	105	50-150
2-Hexanone	ug/L (ppb)	50	<10	94	50-150
1,3-Dichloropropane	ug/L (ppb)	10	<1	105	50-150
Tetrachloroethene	ug/L (ppb)	10	<1	104	50-150
Dibromochloromethane	ug/L (ppb)	10	<1	111	50-150
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	<1	104	50-150
Chlorobenzene	ug/L (ppb)	10	<1	104	50-150
Ethylbenzene	ug/L (ppb)	10	<1	103	50-150
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	<1	109	50-150
m,p-Xylene	ug/L (ppb)	20	<2	102	50-150
o-Xylene	ug/L (ppb)	10	<1	105	50-150
Styrene	ug/L (ppb)	10	<1	92	50-150
Isopropylbenzene	ug/L (ppb)	10	<1	103	50-150
Bromoform	ug/L (ppb)	10	<1	105	50-150
n-Propylbenzene	ug/L (ppb)	10	<1	131	50-150
Bromobenzene	ug/L (ppb)	10	<1	124	50-150
1,3,5-Trimethylbenzene	ug/L (ppb)	10	<1	132	50-150
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	<1	151 vo	50-150
1,2,3-Trichloropropane	ug/L (ppb)	10	<1	124	50-150
2-Chlorotoluene	ug/L (ppb)	10	<1	128	50-150
4-Chlorotoluene	ug/L (ppb)	10	<1	120	50-150
tert-Butylbenzene	ug/L (ppb)	10	<1	137	50-150
1,2,4-Trimethylbenzene	ug/L (ppb)	10	<1	132	50-150
sec-Butylbenzene	ug/L (ppb)	10	<1	132	50-150
p-Isopropyltoluene	ug/L (ppb)	10	<1	134	50-150
1,3-Dichlorobenzene	ug/L (ppb)	10	<1	116	50-150
1,4-Dichlorobenzene	ug/L (ppb)	10	<1	108	50-150
1,2-Dichlorobenzene	ug/L (ppb)	10	<1	119	50-150
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	<10	122	50-150
1,2,4-Trichlorobenzene	ug/L (ppb)	10	<1	102	50-150
Hexachlorobutadiene	ug/L (ppb)	10	<1	138	50-150
Naphthalene	ug/L (ppb)	10	<1	63	50-150
1,2,3-Trichlorobenzene	ug/L (ppb)	10	<1	97	50-150

Date of Report: 12/28/22
Date Received: 12/16/22
Project: 12th and Yesler WES-1591, F&BI 212293

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	10	111	112	46-206	1
Chloromethane	ug/L (ppb)	10	99	99	70-142	0
Vinyl chloride	ug/L (ppb)	10	100	102	70-130	2
Bromomethane	ug/L (ppb)	10	116	119	56-197	3
Chloroethane	ug/L (ppb)	10	108	109	70-130	1
Trichlorofluoromethane	ug/L (ppb)	10	98	98	70-130	0
Acetone	ug/L (ppb)	50	75	77	10-140	3
1,1-Dichloroethene	ug/L (ppb)	10	104	104	70-130	0
Hexane	ug/L (ppb)	10	90	90	54-136	0
Methylene chloride	ug/L (ppb)	10	96	96	43-134	0
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	102	102	70-130	0
trans-1,2-Dichloroethene	ug/L (ppb)	10	101	101	70-130	0
1,1-Dichloroethane	ug/L (ppb)	10	104	104	70-130	0
2,2-Dichloropropane	ug/L (ppb)	10	105	101	70-130	4
cis-1,2-Dichloroethene	ug/L (ppb)	10	110	104	70-130	6
Chloroform	ug/L (ppb)	10	98	100	70-130	2
2-Butanone (MEK)	ug/L (ppb)	50	97	99	17-154	2
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	99	99	70-130	0
1,1,1-Trichloroethane	ug/L (ppb)	10	102	102	70-130	0
1,1-Dichloropropene	ug/L (ppb)	10	99	97	70-130	2
Carbon tetrachloride	ug/L (ppb)	10	107	108	70-130	1
Benzene	ug/L (ppb)	10	102	103	70-130	1
Trichloroethene	ug/L (ppb)	10	95	95	70-130	0
1,2-Dichloropropane	ug/L (ppb)	10	98	100	70-130	2
Bromodichloromethane	ug/L (ppb)	10	100	98	70-130	2
Dibromomethane	ug/L (ppb)	10	103	99	70-130	4
4-Methyl-2-pentanone	ug/L (ppb)	50	102	105	68-130	3
cis-1,3-Dichloropropene	ug/L (ppb)	10	96	99	69-131	3
Toluene	ug/L (ppb)	10	97	99	70-130	2
trans-1,3-Dichloropropene	ug/L (ppb)	10	100	101	70-130	1
1,1,2-Trichloroethane	ug/L (ppb)	10	100	102	70-130	2
2-Hexanone	ug/L (ppb)	50	93	100	45-138	7
1,3-Dichloropropane	ug/L (ppb)	10	99	102	70-130	3
Tetrachloroethene	ug/L (ppb)	10	95	96	70-130	1
Dibromochloromethane	ug/L (ppb)	10	102	106	60-148	4
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	99	101	70-130	2
Chlorobenzene	ug/L (ppb)	10	99	102	70-130	3
Ethylbenzene	ug/L (ppb)	10	98	101	70-130	3
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	104	110	70-130	6
m,p-Xylene	ug/L (ppb)	20	98	101	70-130	3
o-Xylene	ug/L (ppb)	10	101	103	70-130	2
Styrene	ug/L (ppb)	10	93	97	70-130	4
Isopropylbenzene	ug/L (ppb)	10	96	99	70-130	3
Bromoform	ug/L (ppb)	10	101	105	69-138	4
n-Propylbenzene	ug/L (ppb)	10	99	98	70-130	1
Bromobenzene	ug/L (ppb)	10	101	100	70-130	1
1,3,5-Trimethylbenzene	ug/L (ppb)	10	98	97	70-130	1
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	112	114	70-130	2
1,2,3-Trichloropropane	ug/L (ppb)	10	100	100	70-130	0
2-Chlorotoluene	ug/L (ppb)	10	100	99	70-130	1
4-Chlorotoluene	ug/L (ppb)	10	96	97	70-130	1
tert-Butylbenzene	ug/L (ppb)	10	100	99	70-130	1
1,2,4-Trimethylbenzene	ug/L (ppb)	10	102	98	70-130	4
sec-Butylbenzene	ug/L (ppb)	10	101	96	70-130	5
p-Isopropyltoluene	ug/L (ppb)	10	100	97	70-130	3
1,3-Dichlorobenzene	ug/L (ppb)	10	99	99	70-130	0
1,4-Dichlorobenzene	ug/L (ppb)	10	98	95	70-130	3
1,2-Dichlorobenzene	ug/L (ppb)	10	101	101	70-130	0
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	105	100	70-130	5
1,2,4-Trichlorobenzene	ug/L (ppb)	10	100	98	70-130	2
Hexachlorobutadiene	ug/L (ppb)	10	103	95	70-130	8
Naphthalene	ug/L (ppb)	10	90	86	70-130	5
1,2,3-Trichlorobenzene	ug/L (ppb)	10	98	95	70-130	3

Date of Report: 12/28/22
Date Received: 12/16/22
Project: 12th and Yesler WES-1591, F&BI 212293

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 212281-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	10	<10	112	50-150
Chloromethane	ug/L (ppb)	10	<10	99	50-150
Vinyl chloride	ug/L (ppb)	10	<0.2	105	50-150
Bromomethane	ug/L (ppb)	10	<1	128	50-150
Chloroethane	ug/L (ppb)	10	<1	114	50-150
Trichlorofluoromethane	ug/L (ppb)	10	<1	102	50-150
Acetone	ug/L (ppb)	50	<10	77	50-150
1,1-Dichloroethene	ug/L (ppb)	10	<1	108	50-150
Hexane	ug/L (ppb)	10	<1	111	50-150
Methylene chloride	ug/L (ppb)	10	<5	97	50-150
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	<1	103	50-150
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	105	50-150
1,1-Dichloroethane	ug/L (ppb)	10	<1	107	50-150
2,2-Dichloropropane	ug/L (ppb)	10	<1	112	50-150
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	113	50-150
Chloroform	ug/L (ppb)	10	<1	99	50-150
2-Butanone (MEK)	ug/L (ppb)	50	<10	98	50-150
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	<1	100	50-150
1,1,1-Trichloroethane	ug/L (ppb)	10	<1	104	50-150
1,1-Dichloropropene	ug/L (ppb)	10	<1	105	50-150
Carbon tetrachloride	ug/L (ppb)	10	<1	111	50-150
Benzene	ug/L (ppb)	10	<0.35	106	50-150
Trichloroethene	ug/L (ppb)	10	<1	98	50-150
1,2-Dichloropropane	ug/L (ppb)	10	<1	101	50-150
Bromodichloromethane	ug/L (ppb)	10	<1	99	50-150
Dibromomethane	ug/L (ppb)	10	<1	103	50-150
4-Methyl-2-pentanone	ug/L (ppb)	50	<10	102	50-150
cis-1,3-Dichloropropene	ug/L (ppb)	10	<1	100	50-150
Toluene	ug/L (ppb)	10	<1	103	50-150
trans-1,3-Dichloropropene	ug/L (ppb)	10	<1	102	50-150
1,1,2-Trichloroethane	ug/L (ppb)	10	<1	104	50-150
2-Hexanone	ug/L (ppb)	50	<10	99	50-150
1,3-Dichloropropane	ug/L (ppb)	10	<1	107	50-150
Tetrachloroethene	ug/L (ppb)	10	<1	104	50-150
Dibromochloromethane	ug/L (ppb)	10	<1	103	50-150
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	<1	103	50-150
Chlorobenzene	ug/L (ppb)	10	<1	106	50-150
Ethylbenzene	ug/L (ppb)	10	<1	105	50-150
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	<1	108	50-150
m,p-Xylene	ug/L (ppb)	20	<2	105	50-150
o-Xylene	ug/L (ppb)	10	<1	107	50-150
Styrene	ug/L (ppb)	10	<1	101	50-150
Isopropylbenzene	ug/L (ppb)	10	<1	100	50-150
Bromoform	ug/L (ppb)	10	<1	102	50-150
n-Propylbenzene	ug/L (ppb)	10	<1	107	50-150
Bromobenzene	ug/L (ppb)	10	<1	112	50-150
1,3,5-Trimethylbenzene	ug/L (ppb)	10	<1	106	50-150
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	<1	113	50-150
1,2,3-Trichloropropane	ug/L (ppb)	10	<1	100	50-150
2-Chlorotoluene	ug/L (ppb)	10	<1	106	50-150
4-Chlorotoluene	ug/L (ppb)	10	<1	106	50-150
tert-Butylbenzene	ug/L (ppb)	10	<1	108	50-150
1,2,4-Trimethylbenzene	ug/L (ppb)	10	<1	107	50-150
sec-Butylbenzene	ug/L (ppb)	10	<1	107	50-150
p-Isopropyltoluene	ug/L (ppb)	10	<1	109	50-150
1,3-Dichlorobenzene	ug/L (ppb)	10	<1	106	50-150
1,4-Dichlorobenzene	ug/L (ppb)	10	<1	104	50-150
1,2-Dichlorobenzene	ug/L (ppb)	10	<1	107	50-150
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	<10	100	50-150
1,2,4-Trichlorobenzene	ug/L (ppb)	10	<1	107	50-150
Hexachlorobutadiene	ug/L (ppb)	10	<1	110	50-150
Naphthalene	ug/L (ppb)	10	<1	89	50-150
1,2,3-Trichlorobenzene	ug/L (ppb)	10	<1	102	50-150

Date of Report: 12/28/22
Date Received: 12/16/22
Project: 12th and Yesler WES-1591, F&BI 212293

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	10	111	108	46-206	3
Chloromethane	ug/L (ppb)	10	95	99	70-142	4
Vinyl chloride	ug/L (ppb)	10	103	100	70-130	3
Bromomethane	ug/L (ppb)	10	123	128	56-197	4
Chloroethane	ug/L (ppb)	10	110	108	70-130	2
Trichlorofluoromethane	ug/L (ppb)	10	101	99	70-130	2
Acetone	ug/L (ppb)	50	77	78	10-140	1
1,1-Dichloroethene	ug/L (ppb)	10	107	107	70-130	0
Hexane	ug/L (ppb)	10	105	99	54-136	6
Methylene chloride	ug/L (ppb)	10	95	98	43-134	3
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	103	104	70-130	1
trans-1,2-Dichloroethene	ug/L (ppb)	10	104	104	70-130	0
1,1-Dichloroethane	ug/L (ppb)	10	106	107	70-130	1
2,2-Dichloropropane	ug/L (ppb)	10	98	105	70-130	7
cis-1,2-Dichloroethene	ug/L (ppb)	10	106	107	70-130	1
Chloroform	ug/L (ppb)	10	103	101	70-130	2
2-Butanone (MEK)	ug/L (ppb)	50	100	97	17-154	3
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	101	101	70-130	0
1,1,1-Trichloroethane	ug/L (ppb)	10	104	104	70-130	0
1,1-Dichloropropene	ug/L (ppb)	10	105	105	70-130	0
Carbon tetrachloride	ug/L (ppb)	10	111	107	70-130	4
Benzene	ug/L (ppb)	10	104	104	70-130	0
Trichloroethene	ug/L (ppb)	10	97	96	70-130	1
1,2-Dichloropropane	ug/L (ppb)	10	102	99	70-130	3
Bromodichloromethane	ug/L (ppb)	10	100	101	70-130	1
Dibromomethane	ug/L (ppb)	10	102	103	70-130	1
4-Methyl-2-pentanone	ug/L (ppb)	50	103	95	68-130	8
cis-1,3-Dichloropropene	ug/L (ppb)	10	99	97	69-131	2
Toluene	ug/L (ppb)	10	103	100	70-130	3
trans-1,3-Dichloropropene	ug/L (ppb)	10	105	98	70-130	7
1,1,2-Trichloroethane	ug/L (ppb)	10	105	101	70-130	4
2-Hexanone	ug/L (ppb)	50	97	89	45-138	9
1,3-Dichloropropane	ug/L (ppb)	10	106	104	70-130	2
Tetrachloroethene	ug/L (ppb)	10	102	100	70-130	2
Dibromochloromethane	ug/L (ppb)	10	110	106	60-148	4
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	105	100	70-130	5
Chlorobenzene	ug/L (ppb)	10	104	102	70-130	2
Ethylbenzene	ug/L (ppb)	10	104	101	70-130	3
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	110	108	70-130	2
m,p-Xylene	ug/L (ppb)	20	104	100	70-130	4
o-Xylene	ug/L (ppb)	10	107	104	70-130	3
Styrene	ug/L (ppb)	10	102	95	70-130	7
Isopropylbenzene	ug/L (ppb)	10	101	99	70-130	2
Bromoform	ug/L (ppb)	10	109	103	69-138	6
n-Propylbenzene	ug/L (ppb)	10	104	105	70-130	1
Bromobenzene	ug/L (ppb)	10	107	108	70-130	1
1,3,5-Trimethylbenzene	ug/L (ppb)	10	104	107	70-130	3
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	118	117	70-130	1
1,2,3-Trichloropropane	ug/L (ppb)	10	106	108	70-130	2
2-Chlorotoluene	ug/L (ppb)	10	106	106	70-130	0
4-Chlorotoluene	ug/L (ppb)	10	100	102	70-130	2
tert-Butylbenzene	ug/L (ppb)	10	104	108	70-130	4
1,2,4-Trimethylbenzene	ug/L (ppb)	10	104	106	70-130	2
sec-Butylbenzene	ug/L (ppb)	10	104	106	70-130	2
p-Isopropyltoluene	ug/L (ppb)	10	106	106	70-130	0
1,3-Dichlorobenzene	ug/L (ppb)	10	106	102	70-130	4
1,4-Dichlorobenzene	ug/L (ppb)	10	101	100	70-130	1
1,2-Dichlorobenzene	ug/L (ppb)	10	106	107	70-130	1
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	106	102	70-130	4
1,2,4-Trichlorobenzene	ug/L (ppb)	10	106	105	70-130	1
Hexachlorobutadiene	ug/L (ppb)	10	108	109	70-130	1
Naphthalene	ug/L (ppb)	10	89	91	70-130	2
1,2,3-Trichlorobenzene	ug/L (ppb)	10	101	103	70-130	2

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. 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 lowest calibration standard. 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.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

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.

212293

SAMPLE CHAIN OF CUSTODY

12/16/22 [redacted] M3/VW6

Page # 1 of

[redacted] Dan Whitman

Company Whitman Env. Sciences

Address 6812 16th Ave NE

City, State, ZIP Seattle, WA 98115

Phone ________ Email ________

SAMPLERS (signature)	
PROJECT NAME: 12th + Yesler	PO #: WES - 1591
REMARKS	INVOICE TO
Project specific RLs? - Yes / No	

TURNAROUND TIME
- ☐ Standard turnaround
- ☒ RUSH 3 day please
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Dissolved Arsenic				Notes
MW-5R-GW	01 A-D	12-16	3:30	Water	4					X			X				Not filtered or preserved yet
MW-10-GW	02	〃	3:17	〃	〃					X			X				
MW-12R-GW	03	〃	2:36	〃	〃					X			X				Field filtered + preserved
MW-15R-GW	04	〃	3:45	〃	〃					X			X				
GEO-B7R-GW	05	〃	1:20	〃	〃					X			X				
GEO-B9R-GW	06	〃	1:36	〃	〃					X			X				
				〃	〃												

Friedman & Bruya, Inc.
Ph. (206) 285-8282

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[signature]	[signature]	WES	12-16-22	5:03
Received by:	[signature]	ANH PHAN	F&B	12/16/22	~~16:03~~ 17:03 AP
Relinquished by:					
Received by:					

Samples received at 9 °C

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

November 22, 2022

Dan Whitman, Project Manager
Whitman Environmental Sciences
6812 16th Ave NE
Seattle, WA 98115

Dear Mr Whitman:

Included are the results from the testing of material submitted on November 4, 2022 from the 12th & Yesler WES-1591, F&BI 211092 project. There are 8 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
WES1122R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 4, 2022 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences 12th & Yesler WES-1591, F&BI 211092 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Whitman Environmental Sciences
211092 -01	MW-13-GW

All quality control requirements were acceptable.

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-13-GW	Client:	Whitman Environmental Sciences
Date Received:	11/04/22	Project:	12th & Yesler WES-1591, F&BI 211092
Date Extracted:	11/16/22	Lab ID:	211092-01
Date Analyzed:	11/17/22	Data File:	211092-01.268
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	2.20

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th & Yesler WES-1591, F&BI 211092
Date Extracted:	11/16/22	Lab ID:	I2-817 mb
Date Analyzed:	11/16/22	Data File:	I2-817 mb.133
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-13-GW	Client:	Whitman Environmental Sciences
Date Received:	11/04/22	Project:	12th & Yesler WES-1591, F&BI 211092
Date Extracted:	11/15/22	Lab ID:	211092-01
Date Analyzed:	11/15/22	Data File:	111511.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	95	78	126
Toluene-d8	108	84	115
4-Bromofluorobenzene	108	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th & Yesler WES-1591, F&BI 211092
Date Extracted:	11/10/22	Lab ID:	02-2645 mb
Date Analyzed:	11/10/22	Data File:	111009.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	110	78	126
Toluene-d8	104	84	115
4-Bromofluorobenzene	106	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Date of Report: 11/22/22
Date Received: 11/04/22
Project: Yesler, F&BI 211092

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 211176-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<1	98	96	75-125	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	93	80-120

Date of Report: 11/22/22
Date Received: 11/04/22
Project: Yesler, F&BI 211092

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	10	84	80	46-206	5
Chloromethane	ug/L (ppb)	10	81	73	70-142	10
Vinyl chloride	ug/L (ppb)	10	84	79	70-130	6
Bromomethane	ug/L (ppb)	10	94	91	56-197	3
Chloroethane	ug/L (ppb)	10	86	80	70-130	7
Trichlorofluoromethane	ug/L (ppb)	10	92	85	70-130	8
Acetone	ug/L (ppb)	50	59	53	10-140	11
1,1-Dichloroethene	ug/L (ppb)	10	93	89	70-130	4
Hexane	ug/L (ppb)	10	105	97	54-136	8
Methylene chloride	ug/L (ppb)	10	91	84	43-134	8
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	103	96	70-130	7
trans-1,2-Dichloroethene	ug/L (ppb)	10	95	89	70-130	7
1,1-Dichloroethane	ug/L (ppb)	10	96	93	70-130	3
2,2-Dichloropropane	ug/L (ppb)	10	98	88	70-130	11
cis-1,2-Dichloroethene	ug/L (ppb)	10	94	88	70-130	7
Chloroform	ug/L (ppb)	10	92	86	70-130	7
2-Butanone (MEK)	ug/L (ppb)	50	96	88	17-154	9
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	91	92	70-130	1
1,1,1-Trichloroethane	ug/L (ppb)	10	92	93	70-130	1
1,1-Dichloropropene	ug/L (ppb)	10	93	93	70-130	0
Carbon tetrachloride	ug/L (ppb)	10	94	94	70-130	0
Benzene	ug/L (ppb)	10	99	99	70-130	0
Trichloroethene	ug/L (ppb)	10	89	90	70-130	1
1,2-Dichloropropane	ug/L (ppb)	10	100	90	70-130	11
Bromodichloromethane	ug/L (ppb)	10	99	93	70-130	6
Dibromomethane	ug/L (ppb)	10	100	91	70-130	9
4-Methyl-2-pentanone	ug/L (ppb)	50	108	103	68-130	5
cis-1,3-Dichloropropene	ug/L (ppb)	10	108	98	69-131	10
Toluene	ug/L (ppb)	10	91	95	70-130	4
trans-1,3-Dichloropropene	ug/L (ppb)	10	111	110	70-130	1
1,1,2-Trichloroethane	ug/L (ppb)	10	109	109	70-130	0
2-Hexanone	ug/L (ppb)	50	100	99	45-138	1
1,3-Dichloropropane	ug/L (ppb)	10	107	104	70-130	3
Tetrachloroethene	ug/L (ppb)	10	99	99	70-130	0
Dibromochloromethane	ug/L (ppb)	10	102	104	60-148	2
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	102	102	70-130	0
Chlorobenzene	ug/L (ppb)	10	99	101	70-130	2
Ethylbenzene	ug/L (ppb)	10	95	95	70-130	0
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	93	95	70-130	2
m,p-Xylene	ug/L (ppb)	20	95	95	70-130	0
o-Xylene	ug/L (ppb)	10	94	93	70-130	1
Styrene	ug/L (ppb)	10	103	106	70-130	3
Isopropylbenzene	ug/L (ppb)	10	95	104	70-130	9
Bromoform	ug/L (ppb)	10	100	106	69-138	6
n-Propylbenzene	ug/L (ppb)	10	103	101	70-130	2
Bromobenzene	ug/L (ppb)	10	104	103	70-130	1
1,3,5-Trimethylbenzene	ug/L (ppb)	10	101	100	70-130	1
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	111	104	70-130	7
1,2,3-Trichloropropane	ug/L (ppb)	10	102	101	70-130	1
2-Chlorotoluene	ug/L (ppb)	10	100	99	70-130	1
4-Chlorotoluene	ug/L (ppb)	10	104	104	70-130	0
tert-Butylbenzene	ug/L (ppb)	10	103	104	70-130	1
1,2,4-Trimethylbenzene	ug/L (ppb)	10	100	101	70-130	1
sec-Butylbenzene	ug/L (ppb)	10	102	102	70-130	0
p-Isopropyltoluene	ug/L (ppb)	10	100	102	70-130	2
1,3-Dichlorobenzene	ug/L (ppb)	10	100	98	70-130	2
1,4-Dichlorobenzene	ug/L (ppb)	10	100	102	70-130	2
1,2-Dichlorobenzene	ug/L (ppb)	10	99	98	70-130	1
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	99	101	70-130	2
1,2,4-Trichlorobenzene	ug/L (ppb)	10	98	95	70-130	3
Hexachlorobutadiene	ug/L (ppb)	10	93	92	70-130	1
Naphthalene	ug/L (ppb)	10	102	99	70-130	3
1,2,3-Trichlorobenzene	ug/L (ppb)	10	99	99	70-130	0

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. 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 lowest calibration standard. 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.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

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 CHAIN OF CUSTODY

211092

11-04-22

Page # 1 of 1

Report To [illegible]

Company [illegible]

Address [illegible]

City, State, ZIP [illegible]

Phone _____ Email [illegible]

SAMPLERS (*signature*)

PROJECT NAME: [illegible]

PO #: [illegible]

REMARKS

INVOICE TO

Project specific RLs? - Yes / No

TURNAROUND TIME
- ☐ Standard turnaround
- ☐ RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other _____
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Methane RSK				Notes
[illegible] MW-15-6'11	01 A-D	11-4-22	1:45 PM	WATER	4					X			X				
																Samples received at 4 °C	

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [illegible]		[illegible]	11/4	15:16
Received by: [illegible]	James Bruya	F&B	11/4	15:16
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

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 Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

January 4, 2023

Dan Whitman, Project Manager
Whitman Environmental Sciences
6812 16th Ave NE
Seattle, WA 98115

Dear Mr Whitman:

Included are the results from the testing of material submitted on December 16, 2022 from the 12th Yesler WES-1591, F&BI 212292 project. There are 7 pages included in this report.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
WES0104R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on December 16, 2022 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences 12th Yesler WES-1591, F&BI 212292 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Whitman Environmental Sciences
212292 -01	VP-1
212292 -02	VP-2
212292 -03	VP-3

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VP-1	Client:	Whitman Environmental Sciences
Date Received:	12/16/22	Project:	12th Yesler WES-1591
Date Collected:	12/16/22	Lab ID:	212292-01 1/4.9
Date Analyzed:	12/29/22	Data File:	122828.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	83	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<1.3	<0.49
cis-1,2-Dichloroethene	<1.9	<0.49
Chloroform	0.36	0.073
Benzene	<1.6	<0.49
Bromodichloromethane	<82	<12
Trichloroethene	<0.53	<0.098
Tetrachloroethene	<33	<4.9
1,2,4-Trimethylbenzene	<24	<4.9
Naphthalene	<1.3	<0.24

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VP-2	Client:	Whitman Environmental Sciences
Date Received:	12/16/22	Project:	12th Yesler WES-1591
Date Collected:	12/16/22	Lab ID:	212292-02 1/5.0
Date Analyzed:	12/29/22	Data File:	122829.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	84	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<1.3	<0.5
cis-1,2-Dichloroethene	<2	<0.5
Chloroform	<0.24	<0.05
Benzene	<1.6	<0.5
Bromodichloromethane	<84	<13
Trichloroethene	<0.54	<0.1
Tetrachloroethene	<34	<5
1,2,4-Trimethylbenzene	<25	<5
Naphthalene	<1.3	<0.25

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VP-3	Client:	Whitman Environmental Sciences
Date Received:	12/16/22	Project:	12th Yesler WES-1591
Date Collected:	12/16/22	Lab ID:	212292-03 1/7.0
Date Analyzed:	12/29/22	Data File:	122830.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	82	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<1.8	<0.7
cis-1,2-Dichloroethene	<2.8	<0.7
Chloroform	<0.34	<0.07
Benzene	<2.2	<0.7
Bromodichloromethane	<120	<18
Trichloroethene	<0.75	<0.14
Tetrachloroethene	<47	<7
1,2,4-Trimethylbenzene	<34	<7
Naphthalene	<1.8	<0.35

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th Yesler WES-1591
Date Collected:	Not Applicable	Lab ID:	02-2987 MB
Date Analyzed:	12/28/22	Data File:	122812.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	85	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
Chloroform	<0.049	<0.01
Benzene	<0.32	<0.1
Bromodichloromethane	<17	<2.5
Trichloroethene	<0.11	<0.02
Tetrachloroethene	<6.8	<1
1,2,4-Trimethylbenzene	<4.9	<1
Naphthalene	<0.26	<0.05

Date of Report: 01/04/23
Date Received: 12/16/22
Project: 12th Yesler WES-1591, F&BI 212292

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

Laboratory Code: 212316-01 1/7.1 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Vinyl chloride	ug/m3	<1.8	<1.8	nm
cis-1,2-Dichloroethene	ug/m3	<2.8	<2.8	nm
Chloroform	ug/m3	50	52	4
Benzene	ug/m3	<2.3	<2.3	nm
Bromodichloromethane	ug/m3	<18	<18	nm
Trichloroethene	ug/m3	<0.76	<0.76	nm
Tetrachloroethene	ug/m3	<48	<48	nm
1,2,4-Trimethylbenzene	ug/m3	<35	<35	nm
Naphthalene	ug/m3	<1.9	<1.9	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	ug/m3	35	97	70-130
cis-1,2-Dichloroethene	ug/m3	54	94	70-130
Chloroform	ug/m3	66	111	70-130
Benzene	ug/m3	43	98	70-130
Bromodichloromethane	ug/m3	90	124	70-130
Trichloroethene	ug/m3	73	109	70-130
Tetrachloroethene	ug/m3	92	120	70-130
1,2,4-Trimethylbenzene	ug/m3	66	85	70-130
Naphthalene	ug/m3	71	73	70-130

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. 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 lowest calibration standard. 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.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

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.

2122 92

SAMPLE CHAIN OF CUSTODY

12/16/22

Report To [illegible]

Company [illegible] ENV. SERVICES

Address 6512 16TH AVE NE

City, State, ZIP SEATTLE, WA 98115

Phone _____ Email [illegible]@YAHOO.COM

SAMPLERS (*signature*)

PROJECT NAME & ADDRESS: 12TH + YESLER

PO # 005 1591

NOTES:

INVOICE TO

Page # _____ of _____

TURNAROUND TIME
X Standard
RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL
Default: Clean-following final report delivery
Hold (Fee may apply): _____

SAMPLE INFORMATION

Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO15 BTEXN	TO15 cVOCs	APH	Helium		Notes
VP-1	01	2425	07	IA / (SG)	12-16	30	2:04	4	2:45	X		X				[illegible]
VP-2	02	2408	106	IA / (SG)	"	30	1:39	4.5	1:44	X		X				[illegible]
VP-3	03	3256	101	IA / (SG)	"	30	1:17	0	1:25	X		X				
				IA / SG												
				IA / SG												
				IA / SG								NO				
				IA / SG												
				IA / SG												

Friedman & Bruya, Inc.
5500 4th Avenue South
Seattle, WA 98108
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COCTO-15.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		[illegible]	12-16-22	4:53
Received by:	AN H P HAN	FSB	12/16/22	16:53
Relinquished by:				
Received by:		Samples received at 10°C		

1st Quarter 2023

FRIEDMAN & BRUYA, INC.

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 Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

April 5, 2023

Dan Whitman, Project Manager
Whitman Environmental Sciences
6812 16th Ave NE
Seattle, WA 98115

Dear Mr Whitman:

Included are the results from the testing of material submitted on March 29, 2023 from the 12th and Yesler WES-1591, F&BI 303476 project. There are 10 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
WES0405R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 29, 2023 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences 12th and Yesler WES-1591, F&BI 303476 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Whitman Environmental Sciences
303476 -01	MW-5R-GW
303476 -02	MW-10-GW
303476 -03	MW-12R-GW
303476 -04	MW-15R-GW
303476 -05	GEO-B-7R-GW
303476 -06	GEO-B-9R-GW

All quality control requirements were acceptable.

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-5R-GW	Client:	Whitman Environmental Sciences
Date Received:	03/29/23	Project:	12th and Yesler WES-1591
Date Extracted:	03/30/23	Lab ID:	303476-01
Date Analyzed:	03/30/23	Data File:	303476-01.170
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	3.59

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-10-GW	Client:	Whitman Environmental Sciences
Date Received:	03/29/23	Project:	12th and Yesler WES-1591
Date Extracted:	03/30/23	Lab ID:	303476-02
Date Analyzed:	03/30/23	Data File:	303476-02.171
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	12.0

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-12R-GW	Client:	Whitman Environmental Sciences
Date Received:	03/29/23	Project:	12th and Yesler WES-1591
Date Extracted:	03/30/23	Lab ID:	303476-03 x100
Date Analyzed:	03/31/23	Data File:	303476-03 x100.087
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1,100

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-15R-GW	Client:	Whitman Environmental Sciences
Date Received:	03/29/23	Project:	12th and Yesler WES-1591
Date Extracted:	03/30/23	Lab ID:	303476-04
Date Analyzed:	03/30/23	Data File:	303476-04.173
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	23.7

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	GEO-B-7R-GW	Client:	Whitman Environmental Sciences
Date Received:	03/29/23	Project:	12th and Yesler WES-1591
Date Extracted:	03/30/23	Lab ID:	303476-05
Date Analyzed:	03/30/23	Data File:	303476-05.174
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	10.9

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	GEO-B-9R-GW	Client:	Whitman Environmental Sciences
Date Received:	03/29/23	Project:	12th and Yesler WES-1591
Date Extracted:	03/30/23	Lab ID:	303476-06
Date Analyzed:	03/30/23	Data File:	303476-06.175
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	44.1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th and Yesler WES-1591
Date Extracted:	03/30/23	Lab ID:	I3-245 mb
Date Analyzed:	03/30/23	Data File:	I3-245 mb.066
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1

Date of Report: 04/05/23
Date Received: 03/29/23
Project: 12th and Yesler WES-1591, F&BI 303476

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 303478-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	23.6	91 b	104 b	75-125	13 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	93	80-120

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 high; 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.

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.

303476

SAMPLE CHAIN OF CUSTODY

03/29/23 L3

Page # _____ of _____

Report To Dan Whitman

Company Whitman Env. Sciences

Address 6812 16th Ave NE

City, State, ZIP Seattle WA 98115

Phone _____ Email whitenviro@yahoo.com

SAMPLERS (*signature*)

PROJECT NAME 12th + Yesler

PO # WES-1591

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other _____
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Preserved in Absence				Notes
MW-5R-GW	01	3-28	1:05	water	1								X				ALREADY
MW-10R-GW	02	"	3:10	"	"								X				FIELD
MW-12R-GW	03	"	2:40	"	"								X				FILTERED,
MW-15R-GW	04	"	1:45	"	"								X				BUT NOT
GEO-B-7R-GW	05	"	12:50	"	"								X				PRESERVED
GEO-B-9R-GW	06	"	1:30	"	"								X				YET

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		WES	3/29/23	5:11
Received by:	Andre Lagron	FBI	3-29-23	5:11
Relinquished by:	Samples received at 4 °C			
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

2nd Quarter 2023

FRIEDMAN & BRUYA, INC.

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 Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

May 3, 2023

Dan Whitman, Project Manager
Whitman Environmental Sciences
6812 16th Ave NE
Seattle, WA 98115

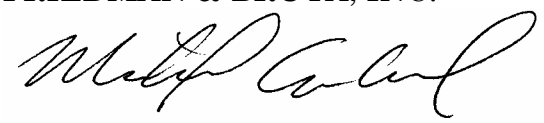
Dear Mr Whitman:

Included are the results from the testing of material submitted on April 25, 2023 from the 12th and Yesler WES-1591, F&BI 304347 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
WES0503R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on April 25, 2023 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences 12th and Yesler WES-1591, F&BI 304347 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Whitman Environmental Sciences
304347 -01	MW-19-GW

All quality control requirements were acceptable.

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-19-GW	Client:	Whitman Environmental Sciences
Date Received:	04/25/23	Project:	12th and Yesler WES-1591
Date Extracted:	04/28/23	Lab ID:	304347-01 x5
Date Analyzed:	05/01/23	Data File:	304347-01 x5.047
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	9.43

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th and Yesler WES-1591
Date Extracted:	04/28/23	Lab ID:	I3-326 mb2
Date Analyzed:	04/28/23	Data File:	I3-326 mb2.085
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1

Date of Report: 05/03/23
Date Received: 04/25/23
Project: 12th and Yesler WES-1591, F&BI 304347

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 304375-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<1	96	100	75-125	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	95	80-120

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 high; 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.

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.

304347

SAMPLE CHAIN OF CUSTODY

04/25/23 J1

Report To Tim Whitman

Company Whitman Env. Sciences

Address 812 16th Ave NE.

City, State, ZIP Seattle, WA 98125

Phone _____ Email twhitman@whitmanes.com

SAMPLERS (*signature*)

PROJECT NAME: Irma Yesler

PO #: WES-191

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

Page # _____ of _____

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH _____

Rush charges authorized by: _____

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other _____

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Dissolved Mercury				Notes
MD-19-GW	01	4/25/23	3:20	WATER	1								X				ALREADY FILTERED & PRESERVED
														Samples received at 15 °C			

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		WES	4/25/23	4:14
Received by:	VINH	FB1	4-25-23	4 14 pm
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

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 Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

June 23, 2023

Dan Whitman, Project Manager
Whitman Environmental Sciences
6812 16th Ave NE
Seattle, WA 98115

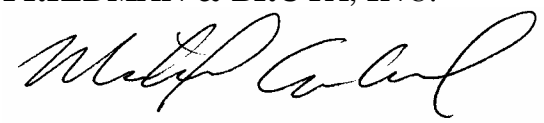
Dear Mr Whitman:

Included are the results from the testing of material submitted on June 16, 2023 from the 12th & Yesler WES-1591, F&BI 306279 project. There are 17 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
WES0623R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on June 16, 2023 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences 12th & Yesler WES-1591, F&BI 306279 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Whitman Environmental Sciences
306279 -01	MW-5R-GW
306279 -02	MW-12R-GW
306279 -03	MW-15R-GW
306279 -04	GEO B-7R-GW
306279 -05	GEO B-9R-GW

The 8260D bromomethane calibration standard exceeded the acceptance criteria. The compound was not detected, therefore the result did no represent an out of control condition.

All quality control requirements were acceptable.

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-5R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/16/23	Project:	12th & Yesler WES-1591
Date Extracted:	06/19/23	Lab ID:	306279-01
Date Analyzed:	06/19/23	Data File:	306279-01.112
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	4.68

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-12R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/16/23	Project:	12th & Yesler WES-1591
Date Extracted:	06/19/23	Lab ID:	306279-02 x10
Date Analyzed:	06/20/23	Data File:	306279-02 x10.059
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1,220

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-15R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/16/23	Project:	12th & Yesler WES-1591
Date Extracted:	06/19/23	Lab ID:	306279-03
Date Analyzed:	06/19/23	Data File:	306279-03.114
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	18.3

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	GEO B-7R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/16/23	Project:	12th & Yesler WES-1591
Date Extracted:	06/19/23	Lab ID:	306279-04
Date Analyzed:	06/19/23	Data File:	306279-04.115
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	5.94

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	GEO B-9R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/16/23	Project:	12th & Yesler WES-1591
Date Extracted:	06/19/23	Lab ID:	306279-05
Date Analyzed:	06/19/23	Data File:	306279-05.116
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	34.3

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th & Yesler WES-1591
Date Extracted:	06/19/23	Lab ID:	I3-494 mb
Date Analyzed:	06/19/23	Data File:	I3-494 mb.090
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-5R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/16/23	Project:	12th & Yesler WES-1591
Date Extracted:	06/20/23	Lab ID:	306279-01
Date Analyzed:	06/20/23	Data File:	062013.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	84	71	132
Toluene-d8	89	68	139
4-Bromofluorobenzene	101	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5 k	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-12R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/16/23	Project:	12th & Yesler WES-1591
Date Extracted:	06/20/23	Lab ID:	306279-02
Date Analyzed:	06/20/23	Data File:	062014.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	71	132
Toluene-d8	99	68	139
4-Bromofluorobenzene	102	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	0.029	Dibromochloromethane	<0.5
Bromomethane	<5 k	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-15R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/16/23	Project:	12th & Yesler WES-1591
Date Extracted:	06/20/23	Lab ID:	306279-03
Date Analyzed:	06/20/23	Data File:	062015.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	71	132
Toluene-d8	100	68	139
4-Bromofluorobenzene	104	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5 k	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	GEO B-7R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/16/23	Project:	12th & Yesler WES-1591
Date Extracted:	06/20/23	Lab ID:	306279-04
Date Analyzed:	06/20/23	Data File:	062016.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	71	132
Toluene-d8	89	68	139
4-Bromofluorobenzene	96	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5 k	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	GEO B-9R-GW	Client:	Whitman Environmental Sciences
Date Received:	06/16/23	Project:	12th & Yesler WES-1591
Date Extracted:	06/20/23	Lab ID:	306279-05
Date Analyzed:	06/20/23	Data File:	062017.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	87	71	132
Toluene-d8	91	68	139
4-Bromofluorobenzene	105	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5 k	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th & Yesler WES-1591
Date Extracted:	06/20/23	Lab ID:	03-1453 mb
Date Analyzed:	06/20/23	Data File:	062007.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	94	71	132
Toluene-d8	96	68	139
4-Bromofluorobenzene	98	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5 k	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Date of Report: 06/23/23
Date Received: 06/16/23
Project: 12th & Yesler WES-1591, F&BI 306279

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 306281-03 x10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<10	91	92	75-125	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	94	80-120

Date of Report: 06/23/23
Date Received: 06/16/23
Project: 12th & Yesler WES-1591, F&BI 306279

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 306243-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	10	<1	88	27-164
Chloromethane	ug/L (ppb)	10	<10	85	34-141
Vinyl chloride	ug/L (ppb)	10	<0.02	90	16-176
Bromomethane	ug/L (ppb)	10	<5	96	10-193
Chloroethane	ug/L (ppb)	10	<1	93	50-150
Trichlorofluoromethane	ug/L (ppb)	10	<1	88	50-150
Acetone	ug/L (ppb)	50	<50	64	15-179
1,1-Dichloroethene	ug/L (ppb)	10	<1	97	50-150
Hexane	ug/L (ppb)	10	<5	101	49-161
Methylene chloride	ug/L (ppb)	10	<5	89	40-143
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	<1	88	50-150
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	94	50-150
1,1-Dichloroethane	ug/L (ppb)	10	<1	91	50-150
2,2-Dichloropropane	ug/L (ppb)	10	<1	103	62-152
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	92	50-150
Chloroform	ug/L (ppb)	10	<1	89	50-150
2-Butanone (MEK)	ug/L (ppb)	50	<20	72	34-168
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	<0.2	92	50-150
1,1,1-Trichloroethane	ug/L (ppb)	10	<1	89	50-150
1,1-Dichloropropene	ug/L (ppb)	10	<1	95	50-150
Carbon tetrachloride	ug/L (ppb)	10	<0.5	92	50-150
Benzene	ug/L (ppb)	10	<0.35	90	50-150
Trichloroethene	ug/L (ppb)	10	<0.5	87	43-133
1,2-Dichloropropane	ug/L (ppb)	10	<1	86	50-150
Bromodichloromethane	ug/L (ppb)	10	<0.5	91	50-150
Dibromomethane	ug/L (ppb)	10	<1	92	50-150
4-Methyl-2-pentanone	ug/L (ppb)	50	<10	88	50-150
cis-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	91	48-145
Toluene	ug/L (ppb)	10	<1	103	50-150
trans-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	102	37-152
1,1,2-Trichloroethane	ug/L (ppb)	10	<0.5	101	50-150
2-Hexanone	ug/L (ppb)	50	<10	94	50-150
1,3-Dichloropropane	ug/L (ppb)	10	<1	100	50-150
Tetrachloroethene	ug/L (ppb)	10	<1	105	50-150
Dibromochloromethane	ug/L (ppb)	10	<0.5	103	33-164
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	<1	102	50-150
Chlorobenzene	ug/L (ppb)	10	<1	100	50-150
Ethylbenzene	ug/L (ppb)	10	<1	101	50-150
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	<1	101	50-150
m,p-Xylene	ug/L (ppb)	20	<2	102	50-150
o-Xylene	ug/L (ppb)	10	<1	101	50-150
Styrene	ug/L (ppb)	10	<1	102	50-150
Isopropylbenzene	ug/L (ppb)	10	<1	104	50-150
Bromoform	ug/L (ppb)	10	<5	96	23-161
n-Propylbenzene	ug/L (ppb)	10	<1	101	50-150
Bromobenzene	ug/L (ppb)	10	<1	97	50-150
1,3,5-Trimethylbenzene	ug/L (ppb)	10	<1	104	50-150
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	<0.2	107	57-162
1,2,3-Trichloropropane	ug/L (ppb)	10	<1	98	33-151
2-Chlorotoluene	ug/L (ppb)	10	<1	102	50-150
4-Chlorotoluene	ug/L (ppb)	10	<1	100	50-150
tert-Butylbenzene	ug/L (ppb)	10	<1	103	50-150
1,2,4-Trimethylbenzene	ug/L (ppb)	10	<1	100	50-150
sec-Butylbenzene	ug/L (ppb)	10	<1	103	46-139
p-Isopropyltoluene	ug/L (ppb)	10	<1	104	46-140
1,3-Dichlorobenzene	ug/L (ppb)	10	<1	101	50-150
1,4-Dichlorobenzene	ug/L (ppb)	10	<1	103	50-150
1,2-Dichlorobenzene	ug/L (ppb)	10	<1	97	50-150
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	<10	92	50-150
1,2,4-Trichlorobenzene	ug/L (ppb)	10	<1	99	50-150
Hexachlorobutadiene	ug/L (ppb)	10	<0.5	103	42-150
Naphthalene	ug/L (ppb)	10	<1	96	50-150
1,2,3-Trichlorobenzene	ug/L (ppb)	10	<1	95	44-155

Date of Report: 06/23/23
Date Received: 06/16/23
Project: 12th & Yesler WES-1591, F&BI 306279

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	10	94	90	49-149	4
Chloromethane	ug/L (ppb)	10	99	87	34-143	13
Vinyl chloride	ug/L (ppb)	10	98	95	43-149	3
Bromomethane	ug/L (ppb)	10	110	104	28-182	6
Chloroethane	ug/L (ppb)	10	105	101	59-157	4
Trichlorofluoromethane	ug/L (ppb)	10	106	93	59-141	13
Acetone	ug/L (ppb)	50	73	70	20-139	4
1,1-Dichloroethene	ug/L (ppb)	10	106	101	67-138	5
Hexane	ug/L (ppb)	10	90	91	50-161	1
Methylene chloride	ug/L (ppb)	10	95	93	29-192	2
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	101	98	70-130	3
trans-1,2-Dichloroethene	ug/L (ppb)	10	102	99	70-130	3
1,1-Dichloroethane	ug/L (ppb)	10	102	98	70-130	4
2,2-Dichloropropane	ug/L (ppb)	10	107	97	71-148	10
cis-1,2-Dichloroethene	ug/L (ppb)	10	104	99	70-130	5
Chloroform	ug/L (ppb)	10	101	95	70-130	6
2-Butanone (MEK)	ug/L (ppb)	50	91	89	50-157	2
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	104	100	70-130	4
1,1,1-Trichloroethane	ug/L (ppb)	10	100	98	70-130	2
1,1-Dichloropropene	ug/L (ppb)	10	105	101	70-130	4
Carbon tetrachloride	ug/L (ppb)	10	101	99	70-130	2
Benzene	ug/L (ppb)	10	101	97	70-130	4
Trichloroethene	ug/L (ppb)	10	101	93	70-130	8
1,2-Dichloropropane	ug/L (ppb)	10	101	97	70-130	4
Bromodichloromethane	ug/L (ppb)	10	99	103	70-130	4
Dibromomethane	ug/L (ppb)	10	102	101	70-130	1
4-Methyl-2-pentanone	ug/L (ppb)	50	100	102	70-130	2
cis-1,3-Dichloropropene	ug/L (ppb)	10	107	102	70-130	5
Toluene	ug/L (ppb)	10	104	100	70-130	4
trans-1,3-Dichloropropene	ug/L (ppb)	10	101	100	70-130	1
1,1,2-Trichloroethane	ug/L (ppb)	10	102	100	70-130	2
2-Hexanone	ug/L (ppb)	50	89	90	66-132	1
1,3-Dichloropropane	ug/L (ppb)	10	102	97	70-130	5
Tetrachloroethene	ug/L (ppb)	10	103	102	70-130	1
Dibromochloromethane	ug/L (ppb)	10	103	105	63-142	2
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	103	102	70-130	1
Chlorobenzene	ug/L (ppb)	10	105	100	70-130	5
Ethylbenzene	ug/L (ppb)	10	101	99	70-130	2
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	103	101	70-130	2
m,p-Xylene	ug/L (ppb)	20	101	99	70-130	2
o-Xylene	ug/L (ppb)	10	101	99	70-130	2
Styrene	ug/L (ppb)	10	102	102	70-130	0
Isopropylbenzene	ug/L (ppb)	10	101	102	70-130	1
Bromoform	ug/L (ppb)	10	101	100	50-157	1
n-Propylbenzene	ug/L (ppb)	10	99	100	70-130	1
Bromobenzene	ug/L (ppb)	10	102	100	70-130	2
1,3,5-Trimethylbenzene	ug/L (ppb)	10	102	101	52-150	1
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	108	109	75-140	1
1,2,3-Trichloropropane	ug/L (ppb)	10	96	96	40-153	0
2-Chlorotoluene	ug/L (ppb)	10	99	100	70-130	1
4-Chlorotoluene	ug/L (ppb)	10	100	98	70-130	2
tert-Butylbenzene	ug/L (ppb)	10	102	101	70-130	1
1,2,4-Trimethylbenzene	ug/L (ppb)	10	102	99	70-130	3
sec-Butylbenzene	ug/L (ppb)	10	100	100	70-130	0
p-Isopropyltoluene	ug/L (ppb)	10	100	99	70-130	1
1,3-Dichlorobenzene	ug/L (ppb)	10	99	100	70-130	1
1,4-Dichlorobenzene	ug/L (ppb)	10	100	99	70-130	1
1,2-Dichlorobenzene	ug/L (ppb)	10	99	99	70-130	0
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	95	95	70-130	0
1,2,4-Trichlorobenzene	ug/L (ppb)	10	99	97	70-130	2
Hexachlorobutadiene	ug/L (ppb)	10	94	94	70-130	0
Naphthalene	ug/L (ppb)	10	100	98	61-133	2
1,2,3-Trichlorobenzene	ug/L (ppb)	10	97	97	69-143	0

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.

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.

306279

SAMPLE CHAIN OF CUSTODY 06/16/23 VW2/L3

Page # _____ of _____

Report To [redacted]

Company GEOTECH ENV. SERVICES

Address 6812 6TH AVE NE

City, State, ZIP SEATTLE, WA 98115

Phone _____ Email [redacted]

SAMPLERS (*signature*) [redacted]

PROJECT NAME: 12TH / YESLER

PO #: GES-1591

REMARKS: Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other _____

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	TOTAL LEAD - DISSOLVED				Notes
MW-5R-GW	01 A-D	6-16-23	1:10	WATER	4					X			X				
MW-12R-GW	02	"	1:35	"	4					X			X				
MW-15R-GW	03	"	1:14	"	4					X			X				
GEO B-7R-GW	04	"	1:40	"	4					X			X				
GEO B-9R-GW	05	"	1:25	"	4					X			X				
												[redacted]					

Samples received at 14 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [redacted]	[redacted]	GES	6/16	1600
Received by: [redacted]	ERIC YOUNG	F&B	6/16	1600
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
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FRIEDMAN & BRUYA, INC.

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www.friedmanandbruya.com

July 10, 2023

Dan Whitman, Project Manager
Whitman Environmental Sciences
6812 16th Ave NE
Seattle, WA 98115

Dear Mr Whitman:

Included are the results from the testing of material submitted on July 3, 2023 from the 12th + Yesler WES-1591, F&BI 307014 project. There are 11 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
WES0710R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on July 3, 2023 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences 12th + Yesler WES-1591, F&BI 307014 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Whitman Environmental Sciences
307014 -01	MW-17-GW
307014 -02	MW-18-GW

The 8260D acetone calibration standard exceeded the acceptance criteria. The compound was not detected, therefore this did not represent an out of control condition.

All other quality control requirements were acceptable.

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-17-GW	Client:	Whitman Environmental Sciences
Date Received:	07/03/23	Project:	12th + Yesler WES-1591, F&BI 307014
Date Extracted:	07/05/23	Lab ID:	307014-01
Date Analyzed:	07/05/23	Data File:	307014-01.060
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	327

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-18-GW	Client:	Whitman Environmental Sciences
Date Received:	07/03/23	Project:	12th + Yesler WES-1591, F&BI 307014
Date Extracted:	07/05/23	Lab ID:	307014-02
Date Analyzed:	07/05/23	Data File:	307014-02.061
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	14.1

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th + Yesler WES-1591, F&BI 307014
Date Extracted:	07/05/23	Lab ID:	I3-526 mb
Date Analyzed:	07/05/23	Data File:	I3-526 mb.105
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-17-GW	Client:	Whitman Environmental Sciences
Date Received:	07/03/23	Project:	12th + Yesler WES-1591, F&BI 307014
Date Extracted:	07/05/23	Lab ID:	307014-01
Date Analyzed:	07/05/23	Data File:	070521.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	93	71	132
Toluene-d8	90	68	139
4-Bromofluorobenzene	101	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 k	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-18-GW	Client:	Whitman Environmental Sciences
Date Received:	07/03/23	Project:	12th + Yesler WES-1591, F&BI 307014
Date Extracted:	07/05/23	Lab ID:	307014-02
Date Analyzed:	07/05/23	Data File:	070522.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	94	71	132
Toluene-d8	95	68	139
4-Bromofluorobenzene	100	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 k	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th + Yesler WES-1591, F&BI 307014
Date Extracted:	07/05/23	Lab ID:	03-1532 mb
Date Analyzed:	07/05/23	Data File:	070507.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	91	71	132
Toluene-d8	94	68	139
4-Bromofluorobenzene	95	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 k	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Date of Report: 07/10/23
Date Received: 07/03/23
Project: 12th + Yesler WES-1591, F&BI 307014

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 306427-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	34.4	80 b	72 b	75-125	11 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	93	80-120

Date of Report: 07/10/23
Date Received: 07/03/23
Project: 12th + Yesler WES-1591, F&BI 307014

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 307013-03 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	10	<1	100	27-164
Chloromethane	ug/L (ppb)	10	<10	95	34-141
Vinyl chloride	ug/L (ppb)	10	<0.02	104	16-176
Bromomethane	ug/L (ppb)	10	<5	124	10-193
Chloroethane	ug/L (ppb)	10	<1	119	50-150
Trichlorofluoromethane	ug/L (ppb)	10	<1	100	50-150
Acetone	ug/L (ppb)	50	<50	84	15-179
1,1-Dichloroethene	ug/L (ppb)	10	<1	107	50-150
Hexane	ug/L (ppb)	10	<5	107	49-161
Methylene chloride	ug/L (ppb)	10	<5	100	40-143
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	<1	102	50-150
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	105	50-150
1,1-Dichloroethane	ug/L (ppb)	10	<1	101	50-150
2,2-Dichloropropane	ug/L (ppb)	10	<1	117	62-152
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	104	50-150
Chloroform	ug/L (ppb)	10	<1	101	50-150
2-Butanone (MEK)	ug/L (ppb)	50	<20	99	34-168
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	<0.2	102	50-150
1,1,1-Trichloroethane	ug/L (ppb)	10	<1	102	50-150
1,1-Dichloropropene	ug/L (ppb)	10	<1	97	50-150
Carbon tetrachloride	ug/L (ppb)	10	<0.5	101	50-150
Benzene	ug/L (ppb)	10	<0.35	105	50-150
Trichloroethene	ug/L (ppb)	10	<0.5	106	43-133
1,2-Dichloropropane	ug/L (ppb)	10	<1	100	50-150
Bromodichloromethane	ug/L (ppb)	10	<0.5	100	50-150
Dibromomethane	ug/L (ppb)	10	<1	103	50-150
4-Methyl-2-pentanone	ug/L (ppb)	50	<10	107	50-150
cis-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	101	48-145
Toluene	ug/L (ppb)	10	<1	105	50-150
trans-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	93	37-152
1,1,2-Trichloroethane	ug/L (ppb)	10	<0.5	99	50-150
2-Hexanone	ug/L (ppb)	50	<10	97	50-150
1,3-Dichloropropane	ug/L (ppb)	10	<1	97	50-150
Tetrachloroethene	ug/L (ppb)	10	11	107 b	50-150
Dibromochloromethane	ug/L (ppb)	10	<0.5	97	33-164
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	<1	99	50-150
Chlorobenzene	ug/L (ppb)	10	<1	101	50-150
Ethylbenzene	ug/L (ppb)	10	<1	108	50-150
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	<1	100	50-150
m,p-Xylene	ug/L (ppb)	20	<2	108	50-150
o-Xylene	ug/L (ppb)	10	<1	105	50-150
Styrene	ug/L (ppb)	10	<1	101	50-150
Isopropylbenzene	ug/L (ppb)	10	<1	101	50-150
Bromoform	ug/L (ppb)	10	<5	93	23-161
n-Propylbenzene	ug/L (ppb)	10	<1	99	50-150
Bromobenzene	ug/L (ppb)	10	<1	99	50-150
1,3,5-Trimethylbenzene	ug/L (ppb)	10	<1	102	50-150
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	<0.2	100	57-162
1,2,3-Trichloropropane	ug/L (ppb)	10	<1	99	33-151
2-Chlorotoluene	ug/L (ppb)	10	<1	98	50-150
4-Chlorotoluene	ug/L (ppb)	10	<1	99	50-150
tert-Butylbenzene	ug/L (ppb)	10	<1	101	50-150
1,2,4-Trimethylbenzene	ug/L (ppb)	10	<1	101	50-150
sec-Butylbenzene	ug/L (ppb)	10	<1	101	46-139
p-Isopropyltoluene	ug/L (ppb)	10	<1	102	46-140
1,3-Dichlorobenzene	ug/L (ppb)	10	<1	100	50-150
1,4-Dichlorobenzene	ug/L (ppb)	10	<1	99	50-150
1,2-Dichlorobenzene	ug/L (ppb)	10	<1	98	50-150
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	<10	86	50-150
1,2,4-Trichlorobenzene	ug/L (ppb)	10	<1	98	50-150
Hexachlorobutadiene	ug/L (ppb)	10	<0.5	100	42-150
Naphthalene	ug/L (ppb)	10	<1	98	50-150
1,2,3-Trichlorobenzene	ug/L (ppb)	10	<1	97	44-155

Date of Report: 07/10/23
Date Received: 07/03/23
Project: 12th + Yesler WES-1591, F&BI 307014

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	10	103	103	49-149	0
Chloromethane	ug/L (ppb)	10	95	97	34-143	2
Vinyl chloride	ug/L (ppb)	10	102	103	43-149	1
Bromomethane	ug/L (ppb)	10	122	122	28-182	0
Chloroethane	ug/L (ppb)	10	118	119	59-157	1
Trichlorofluoromethane	ug/L (ppb)	10	97	107	59-141	10
Acetone	ug/L (ppb)	50	89	90	20-139	1
1,1-Dichloroethene	ug/L (ppb)	10	106	107	67-138	1
Hexane	ug/L (ppb)	10	103	100	50-161	3
Methylene chloride	ug/L (ppb)	10	96	98	29-192	2
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	102	103	70-130	1
trans-1,2-Dichloroethene	ug/L (ppb)	10	103	104	70-130	1
1,1-Dichloroethane	ug/L (ppb)	10	102	102	70-130	0
2,2-Dichloropropane	ug/L (ppb)	10	112	103	71-148	8
cis-1,2-Dichloroethene	ug/L (ppb)	10	104	104	70-130	0
Chloroform	ug/L (ppb)	10	100	101	70-130	1
2-Butanone (MEK)	ug/L (ppb)	50	103	100	50-157	3
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	104	103	70-130	1
1,1,1-Trichloroethane	ug/L (ppb)	10	103	103	70-130	0
1,1-Dichloropropene	ug/L (ppb)	10	98	98	70-130	0
Carbon tetrachloride	ug/L (ppb)	10	105	104	70-130	1
Benzene	ug/L (ppb)	10	106	106	70-130	0
Trichloroethene	ug/L (ppb)	10	106	107	70-130	1
1,2-Dichloropropane	ug/L (ppb)	10	101	100	70-130	1
Bromodichloromethane	ug/L (ppb)	10	98	100	70-130	2
Dibromomethane	ug/L (ppb)	10	100	104	70-130	4
4-Methyl-2-pentanone	ug/L (ppb)	50	111	107	70-130	4
cis-1,3-Dichloropropene	ug/L (ppb)	10	101	102	70-130	1
Toluene	ug/L (ppb)	10	103	106	70-130	3
trans-1,3-Dichloropropene	ug/L (ppb)	10	95	96	70-130	1
1,1,2-Trichloroethane	ug/L (ppb)	10	98	100	70-130	2
2-Hexanone	ug/L (ppb)	50	98	99	66-132	1
1,3-Dichloropropane	ug/L (ppb)	10	97	97	70-130	0
Tetrachloroethene	ug/L (ppb)	10	106	107	70-130	1
Dibromochloromethane	ug/L (ppb)	10	99	100	63-142	1
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	100	102	70-130	2
Chlorobenzene	ug/L (ppb)	10	99	102	70-130	3
Ethylbenzene	ug/L (ppb)	10	106	109	70-130	3
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	99	104	70-130	5
m,p-Xylene	ug/L (ppb)	20	106	108	70-130	2
o-Xylene	ug/L (ppb)	10	104	107	70-130	3
Styrene	ug/L (ppb)	10	99	103	70-130	4
Isopropylbenzene	ug/L (ppb)	10	100	102	70-130	2
Bromoform	ug/L (ppb)	10	97	98	50-157	1
n-Propylbenzene	ug/L (ppb)	10	100	100	70-130	0
Bromobenzene	ug/L (ppb)	10	104	102	70-130	2
1,3,5-Trimethylbenzene	ug/L (ppb)	10	103	103	52-150	0
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	101	103	75-140	2
1,2,3-Trichloropropane	ug/L (ppb)	10	100	98	40-153	2
2-Chlorotoluene	ug/L (ppb)	10	98	98	70-130	0
4-Chlorotoluene	ug/L (ppb)	10	100	100	70-130	0
tert-Butylbenzene	ug/L (ppb)	10	103	103	70-130	0
1,2,4-Trimethylbenzene	ug/L (ppb)	10	102	102	70-130	0
sec-Butylbenzene	ug/L (ppb)	10	100	102	70-130	2
p-Isopropyltoluene	ug/L (ppb)	10	103	101	70-130	2
1,3-Dichlorobenzene	ug/L (ppb)	10	102	101	70-130	1
1,4-Dichlorobenzene	ug/L (ppb)	10	100	100	70-130	0
1,2-Dichlorobenzene	ug/L (ppb)	10	101	101	70-130	0
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	94	93	70-130	1
1,2,4-Trichlorobenzene	ug/L (ppb)	10	98	101	70-130	3
Hexachlorobutadiene	ug/L (ppb)	10	96	102	70-130	6
Naphthalene	ug/L (ppb)	10	102	102	61-133	0
1,2,3-Trichlorobenzene	ug/L (ppb)	10	97	98	69-143	1

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.

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.

307014

SAMPLE CHAIN OF CUSTODY

07/03/23 VW1/JI

Page # _____ of _____

Report To Dan Whitman

Company Whitman Env. Services

Address 812 16th Ave NE

City, State, ZIP Seattle, WA 9815

Phone _____ Email dwhitman@whitmanenv.com

SAMPLERS (*signature*)

PROJECT NAME: Izaak Walton

PO #: WES-1591

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH _____
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other _____
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Dissolved Arsenic				Notes
MW-17-GW	01 A-D	6-30	8:40	WATER	4					X			X				ARSENIC SAMPLE ALREADY FIELD FILTERED
MW-18-GW	02	"	8:50	"	4					X			X				

Samples received at 13 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:			7-3-23	3:05
Received by:	Ann Wong	FXB	7/3/23	1505
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
Ph. (206) 285-8282

FRIEDMAN & BRUYA, INC.

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 Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

July 14, 2023

Dan Whitman, Project Manager
Whitman Environmental Sciences
6812 16th Ave NE
Seattle, WA 98115

Dear Mr Whitman:

Included are the results from the testing of material submitted on July 7, 2023 from the WES-1591, F&BI 307062 project. There are 11 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
WES0714R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on July 7, 2023 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences WES-1591 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Whitman Environmental Sciences
307062 -01	MW-10-GW
307062 -02	MW-13-GW

The 8260D calibration verification exceeded control limits for several compounds. The compounds were not detected. The data were qualified accordingly.

All other quality control requirements were acceptable.

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-10-GW	Client:	Whitman Environmental Sciences
Date Received:	07/07/23	Project:	WES-1591, F&BI 307062
Date Extracted:	07/10/23	Lab ID:	307062-01
Date Analyzed:	07/10/23	Data File:	307062-01.085
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	9.63

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-13-GW	Client:	Whitman Environmental Sciences
Date Received:	07/07/23	Project:	WES-1591, F&BI 307062
Date Extracted:	07/10/23	Lab ID:	307062-02
Date Analyzed:	07/10/23	Data File:	307062-02.088
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	3.20

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	WES-1591, F&BI 307062
Date Extracted:	07/10/23	Lab ID:	I3-536 mb
Date Analyzed:	07/10/23	Data File:	I3-536 mb.083
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-10-GW	Client:	Whitman Environmental Sciences
Date Received:	07/07/23	Project:	WES-1591, F&BI 307062
Date Extracted:	07/10/23	Lab ID:	307062-01
Date Analyzed:	07/10/23	Data File:	071006.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	78	126
Toluene-d8	98	84	115
4-Bromofluorobenzene	96	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 k	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 k	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 k		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-13-GW	Client:	Whitman Environmental Sciences
Date Received:	07/07/23	Project:	WES-1591, F&BI 307062
Date Extracted:	07/10/23	Lab ID:	307062-02
Date Analyzed:	07/10/23	Data File:	071007.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	78	126
Toluene-d8	98	84	115
4-Bromofluorobenzene	96	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 k	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 k	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 k		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	WES-1591, F&BI 307062
Date Extracted:	07/10/23	Lab ID:	03-1543 mb
Date Analyzed:	07/10/23	Data File:	071007.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	MD

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	71	132
Toluene-d8	103	68	139
4-Bromofluorobenzene	100	62	136

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50 k	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20 k	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10 k		

Date of Report: 07/14/23
Date Received: 07/07/23
Project: WES-1591, F&BI 307062

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 6020B

Laboratory Code: 307062-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	9.63	87 b	91 b	75-125	4 b

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	91	80-120

Date of Report: 07/14/23
Date Received: 07/07/23
Project: WES-1591, F&BI 307062

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 307058-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	10	<1	97	27-164
Chloromethane	ug/L (ppb)	10	<10	94	34-141
Vinyl chloride	ug/L (ppb)	10	<0.02	101	16-176
Bromomethane	ug/L (ppb)	10	<5	113	10-193
Chloroethane	ug/L (ppb)	10	<1	114	50-150
Trichlorofluoromethane	ug/L (ppb)	10	<1	98	50-150
Acetone	ug/L (ppb)	50	<50	83	15-179
1,1-Dichloroethene	ug/L (ppb)	10	<1	103	50-150
Hexane	ug/L (ppb)	10	<5	100	49-161
Methylene chloride	ug/L (ppb)	10	<5	90	40-143
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	<1	99	50-150
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	100	50-150
1,1-Dichloroethane	ug/L (ppb)	10	<1	96	50-150
2,2-Dichloropropane	ug/L (ppb)	10	<1	102	62-152
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	99	50-150
Chloroform	ug/L (ppb)	10	<1	97	50-150
2-Butanone (MEK)	ug/L (ppb)	50	<20	82	34-168
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	<0.2	97	50-150
1,1,1-Trichloroethane	ug/L (ppb)	10	<1	97	50-150
1,1-Dichloropropene	ug/L (ppb)	10	<1	93	50-150
Carbon tetrachloride	ug/L (ppb)	10	<0.5	100	50-150
Benzene	ug/L (ppb)	10	<0.35	102	50-150
Trichloroethene	ug/L (ppb)	10	<0.5	102	43-133
1,2-Dichloropropane	ug/L (ppb)	10	<1	95	50-150
Bromodichloromethane	ug/L (ppb)	10	<0.5	96	50-150
Dibromomethane	ug/L (ppb)	10	<1	97	50-150
4-Methyl-2-pentanone	ug/L (ppb)	50	<10	96	50-150
cis-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	100	48-145
Toluene	ug/L (ppb)	10	<1	94	50-150
trans-1,3-Dichloropropene	ug/L (ppb)	10	<0.4	89	37-152
1,1,2-Trichloroethane	ug/L (ppb)	10	<0.5	89	50-150
2-Hexanone	ug/L (ppb)	50	<10	85	50-150
1,3-Dichloropropane	ug/L (ppb)	10	<1	88	50-150
Tetrachloroethene	ug/L (ppb)	10	<1	96	50-150
Dibromochloromethane	ug/L (ppb)	10	<0.5	88	33-164
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	<1	90	50-150
Chlorobenzene	ug/L (ppb)	10	<1	90	50-150
Ethylbenzene	ug/L (ppb)	10	<1	96	50-150
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	<1	90	50-150
m,p-Xylene	ug/L (ppb)	20	<2	97	50-150
o-Xylene	ug/L (ppb)	10	<1	95	50-150
Styrene	ug/L (ppb)	10	<1	91	50-150
Isopropylbenzene	ug/L (ppb)	10	<1	90	50-150
Bromoform	ug/L (ppb)	10	<5	88	23-161
n-Propylbenzene	ug/L (ppb)	10	<1	90	50-150
Bromobenzene	ug/L (ppb)	10	<1	89	50-150
1,3,5-Trimethylbenzene	ug/L (ppb)	10	<1	93	50-150
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	<0.2	90	57-162
1,2,3-Trichloropropane	ug/L (ppb)	10	<1	88	33-151
2-Chlorotoluene	ug/L (ppb)	10	<1	89	50-150
4-Chlorotoluene	ug/L (ppb)	10	<1	91	50-150
tert-Butylbenzene	ug/L (ppb)	10	<1	92	50-150
1,2,4-Trimethylbenzene	ug/L (ppb)	10	<1	92	50-150
sec-Butylbenzene	ug/L (ppb)	10	<1	92	46-139
p-Isopropyltoluene	ug/L (ppb)	10	<1	92	46-140
1,3-Dichlorobenzene	ug/L (ppb)	10	<1	91	50-150
1,4-Dichlorobenzene	ug/L (ppb)	10	<1	91	50-150
1,2-Dichlorobenzene	ug/L (ppb)	10	<1	90	50-150
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	<10	81	50-150
1,2,4-Trichlorobenzene	ug/L (ppb)	10	<1	86	50-150
Hexachlorobutadiene	ug/L (ppb)	10	<0.5	91	42-150
Naphthalene	ug/L (ppb)	10	<1	88	50-150
1,2,3-Trichlorobenzene	ug/L (ppb)	10	<1	87	44-155

Date of Report: 07/14/23
Date Received: 07/07/23
Project: WES-1591, F&BI 307062

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	10	90	83	49-149	8
Chloromethane	ug/L (ppb)	10	88	80	34-143	10
Vinyl chloride	ug/L (ppb)	10	94	87	43-149	8
Bromomethane	ug/L (ppb)	10	119	101	28-182	16
Chloroethane	ug/L (ppb)	10	108	100	59-157	8
Trichlorofluoromethane	ug/L (ppb)	10	95	86	59-141	10
Acetone	ug/L (ppb)	50	77	74	20-139	4
1,1-Dichloroethene	ug/L (ppb)	10	100	91	67-138	9
Hexane	ug/L (ppb)	10	90	80	50-161	12
Methylene chloride	ug/L (ppb)	10	99	83	29-192	18
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	98	89	70-130	10
trans-1,2-Dichloroethene	ug/L (ppb)	10	97	89	70-130	9
1,1-Dichloroethane	ug/L (ppb)	10	94	88	70-130	7
2,2-Dichloropropane	ug/L (ppb)	10	98	90	71-148	9
cis-1,2-Dichloroethene	ug/L (ppb)	10	98	90	70-130	9
Chloroform	ug/L (ppb)	10	94	87	70-130	8
2-Butanone (MEK)	ug/L (ppb)	50	92	85	50-157	8
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	96	89	70-130	8
1,1,1-Trichloroethane	ug/L (ppb)	10	97	89	70-130	9
1,1-Dichloropropene	ug/L (ppb)	10	94	87	70-130	8
Carbon tetrachloride	ug/L (ppb)	10	100	88	70-130	13
Benzene	ug/L (ppb)	10	101	93	70-130	8
Trichloroethene	ug/L (ppb)	10	100	91	70-130	9
1,2-Dichloropropane	ug/L (ppb)	10	94	87	70-130	8
Bromodichloromethane	ug/L (ppb)	10	94	88	70-130	7
Dibromomethane	ug/L (ppb)	10	99	93	70-130	6
4-Methyl-2-pentanone	ug/L (ppb)	50	100	92	70-130	8
cis-1,3-Dichloropropene	ug/L (ppb)	10	96	89	70-130	8
Toluene	ug/L (ppb)	10	97	96	70-130	1
trans-1,3-Dichloropropene	ug/L (ppb)	10	92	89	70-130	3
1,1,2-Trichloroethane	ug/L (ppb)	10	92	92	70-130	0
2-Hexanone	ug/L (ppb)	50	89	87	66-132	2
1,3-Dichloropropane	ug/L (ppb)	10	89	86	70-130	3
Tetrachloroethene	ug/L (ppb)	10	97	96	70-130	1
Dibromochloromethane	ug/L (ppb)	10	94	95	63-142	1
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	93	93	70-130	0
Chlorobenzene	ug/L (ppb)	10	91	91	70-130	0
Ethylbenzene	ug/L (ppb)	10	99	98	70-130	1
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	93	97	70-130	4
m,p-Xylene	ug/L (ppb)	20	99	98	70-130	1
o-Xylene	ug/L (ppb)	10	97	96	70-130	1
Styrene	ug/L (ppb)	10	94	94	70-130	0
Isopropylbenzene	ug/L (ppb)	10	92	92	70-130	0
Bromoform	ug/L (ppb)	10	95	91	50-157	4
n-Propylbenzene	ug/L (ppb)	10	90	88	70-130	2
Bromobenzene	ug/L (ppb)	10	87	87	70-130	0
1,3,5-Trimethylbenzene	ug/L (ppb)	10	89	90	52-150	1
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	91	91	75-140	0
1,2,3-Trichloropropane	ug/L (ppb)	10	86	89	40-153	3
2-Chlorotoluene	ug/L (ppb)	10	88	87	70-130	1
4-Chlorotoluene	ug/L (ppb)	10	90	88	70-130	2
tert-Butylbenzene	ug/L (ppb)	10	90	91	70-130	1
1,2,4-Trimethylbenzene	ug/L (ppb)	10	89	89	70-130	0
sec-Butylbenzene	ug/L (ppb)	10	90	89	70-130	1
p-Isopropyltoluene	ug/L (ppb)	10	88	87	70-130	1
1,3-Dichlorobenzene	ug/L (ppb)	10	89	89	70-130	0
1,4-Dichlorobenzene	ug/L (ppb)	10	88	86	70-130	2
1,2-Dichlorobenzene	ug/L (ppb)	10	90	90	70-130	0
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	81	76	70-130	6
1,2,4-Trichlorobenzene	ug/L (ppb)	10	85	83	70-130	2
Hexachlorobutadiene	ug/L (ppb)	10	82	82	70-130	0
Naphthalene	ug/L (ppb)	10	87	88	61-133	1
1,2,3-Trichlorobenzene	ug/L (ppb)	10	87	85	69-143	2

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.

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.

307062

SAMPLE CHAIN OF CUSTODY 07/07/23

VW1/J2

Report To Dan Whitman
Company Whitman Env. Sciences
Address 6812 16th Ave NE
City, State, ZIP Seattle, WA 98115
Phone ______ Email whitmanroad@yahoo.com

SAMPLERS (*signature*)

PROJECT NAME: 17th + Yesler
PO #: WES 1591
REMARKS
INVOICE TO
Project specific RLs? - Yes / No

Page # ____ of ____

TURNAROUND TIME
☑ Standard turnaround
☐ RUSH ____
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Archive samples
☐ Other ____
Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Dissolved Metals				Notes
MW-10-GW	01 A-D	6-30-23	3:50	Water	4					X			✓				Metals samples already filtered.
MW-13-GW	02 ↓	"	4:20	"	4					X			✓				
																	Note sample date for holding time

V-al 7/13

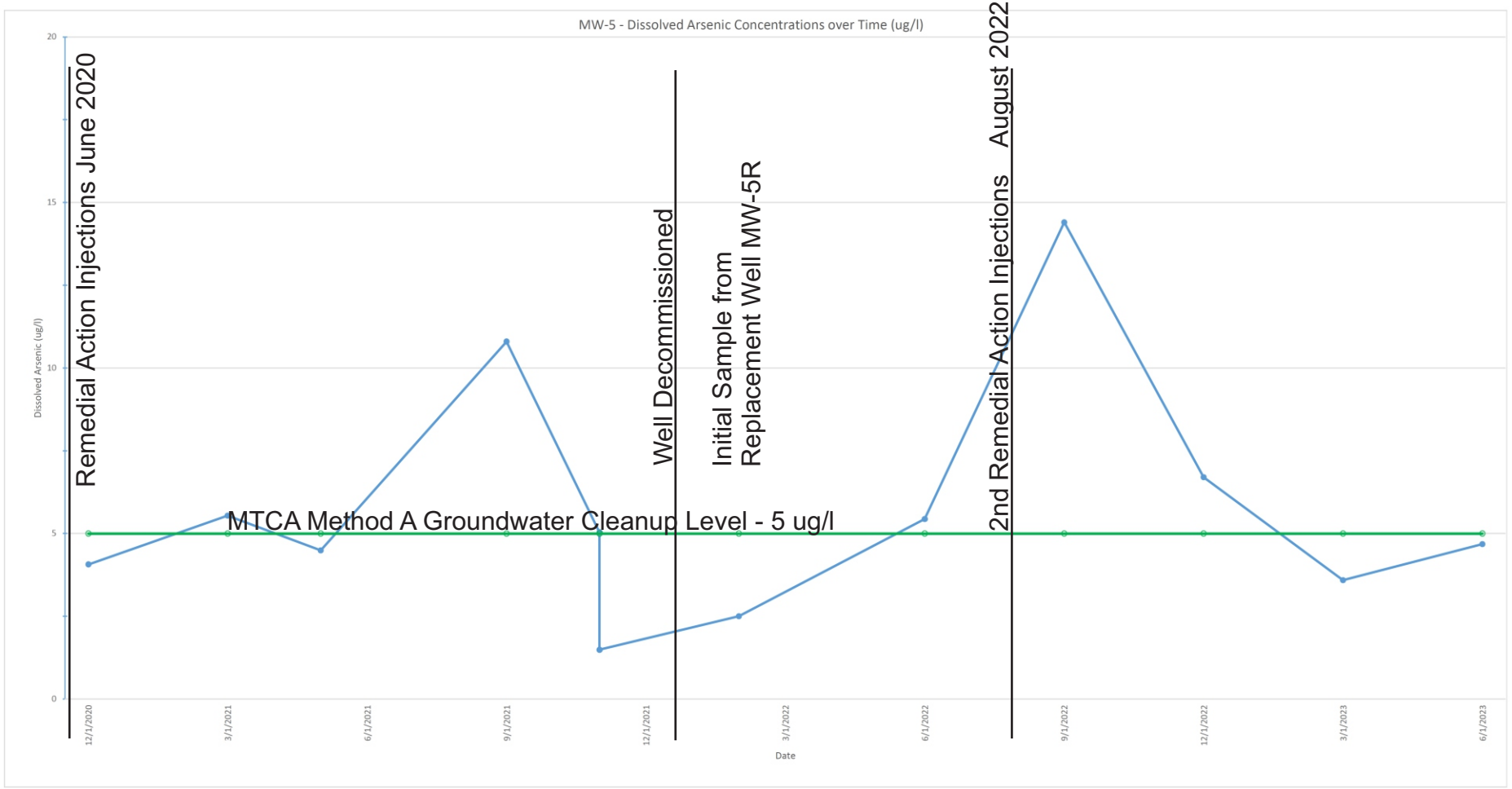
Samples received at 4 °C

Friedman & Bruya, Inc.
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	WES		7-7-23	4:05
Received by: [signature]	Biswat Tavesse	FBI	7/7/23	16 05
Relinquished by:				
Received by:				

APPENDIX C

Dissolved Arsenic Time Series Plots

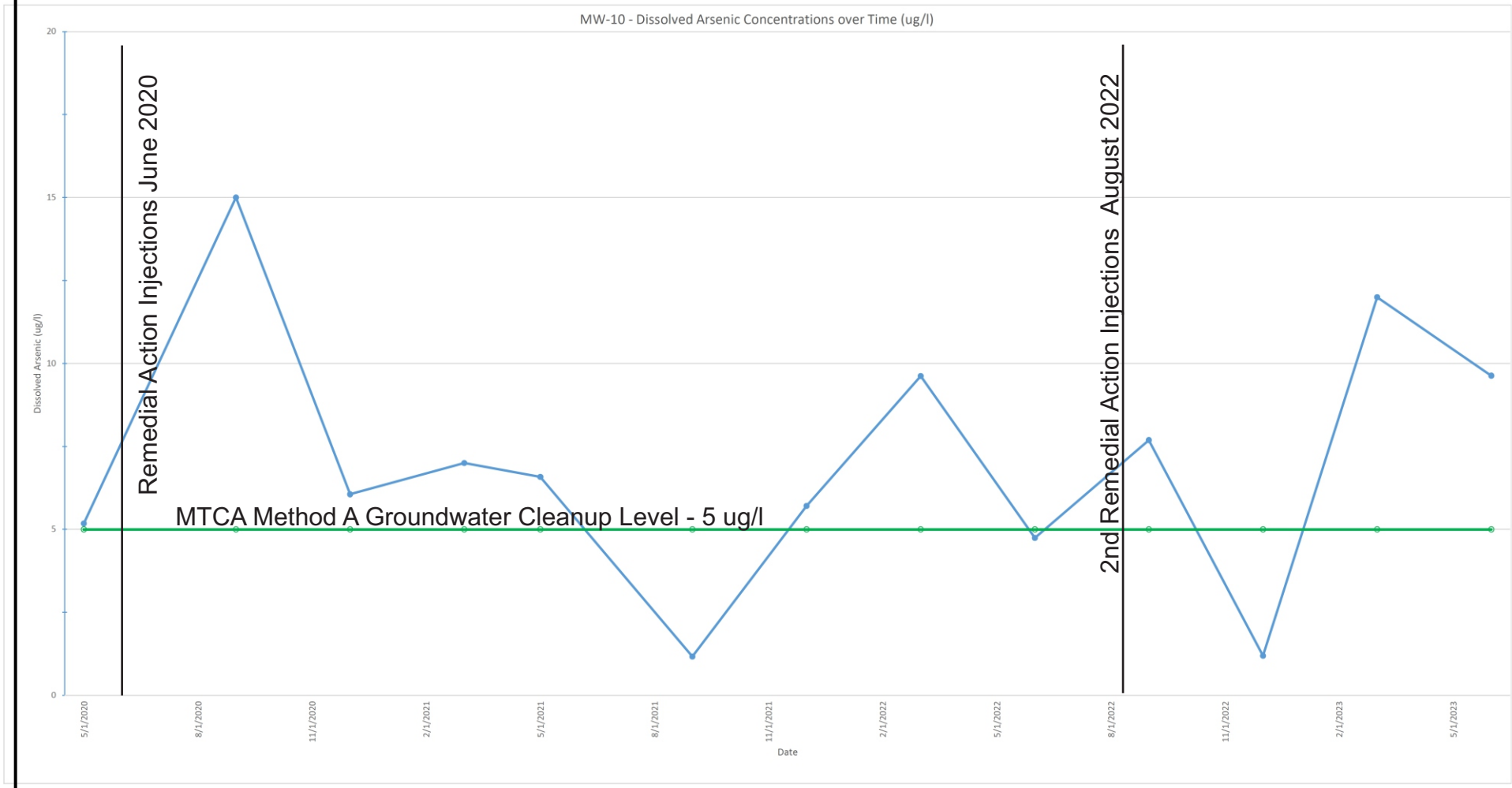


Dissolved Arsenic Over Time - MW-5/5R

Proposed Redevelopment Property
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591A
Date	July 20, 2023
File ID.	1591TSMW5

WHITMAN
Environmental Sciences

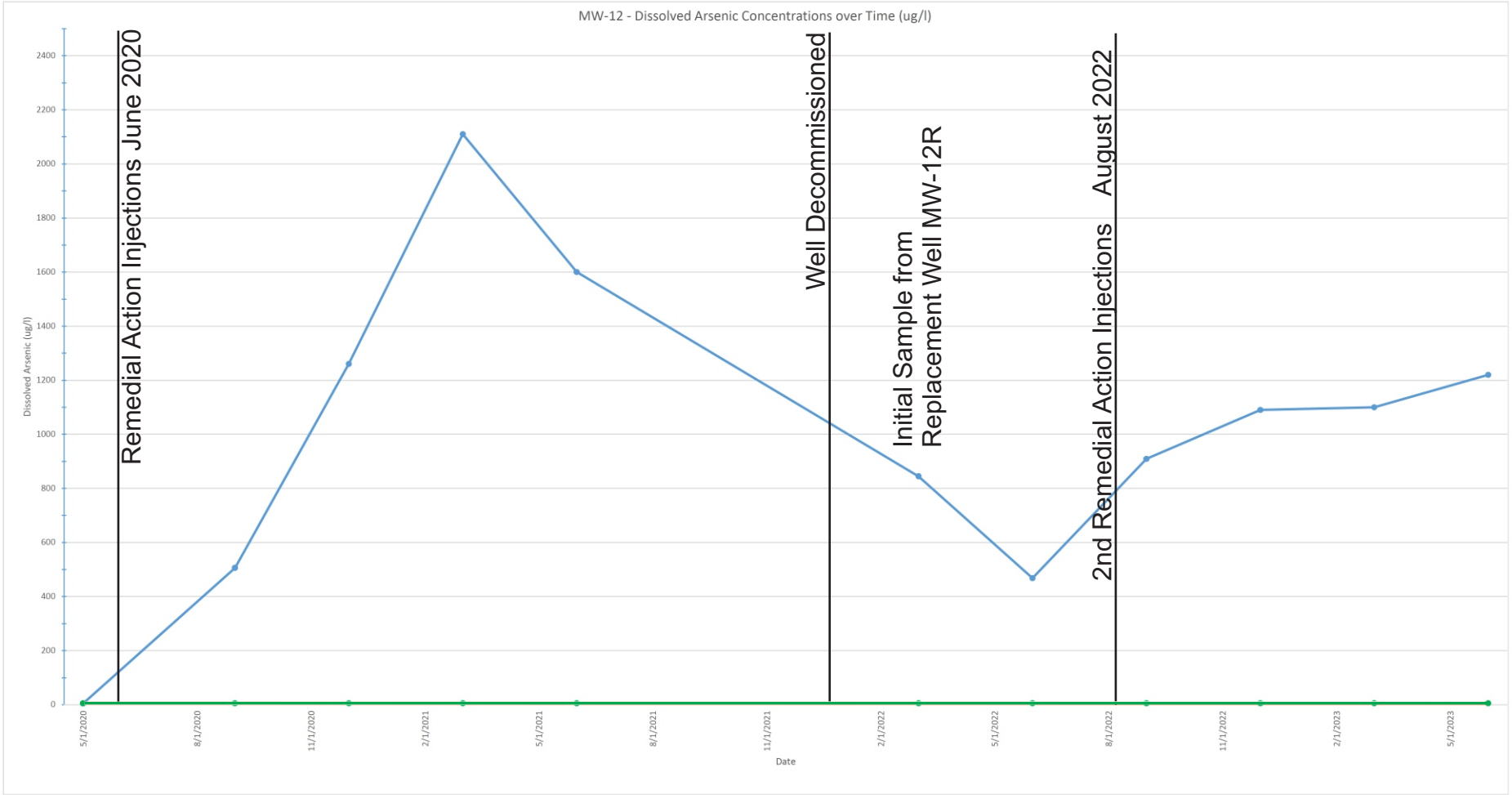


Dissolved Arsenic Over Time - MW-10

Proposed Redevelopment Property
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591A
Date	July 20, 2023
File ID.	1591TSMW10

WHITMAN
Environmental Sciences

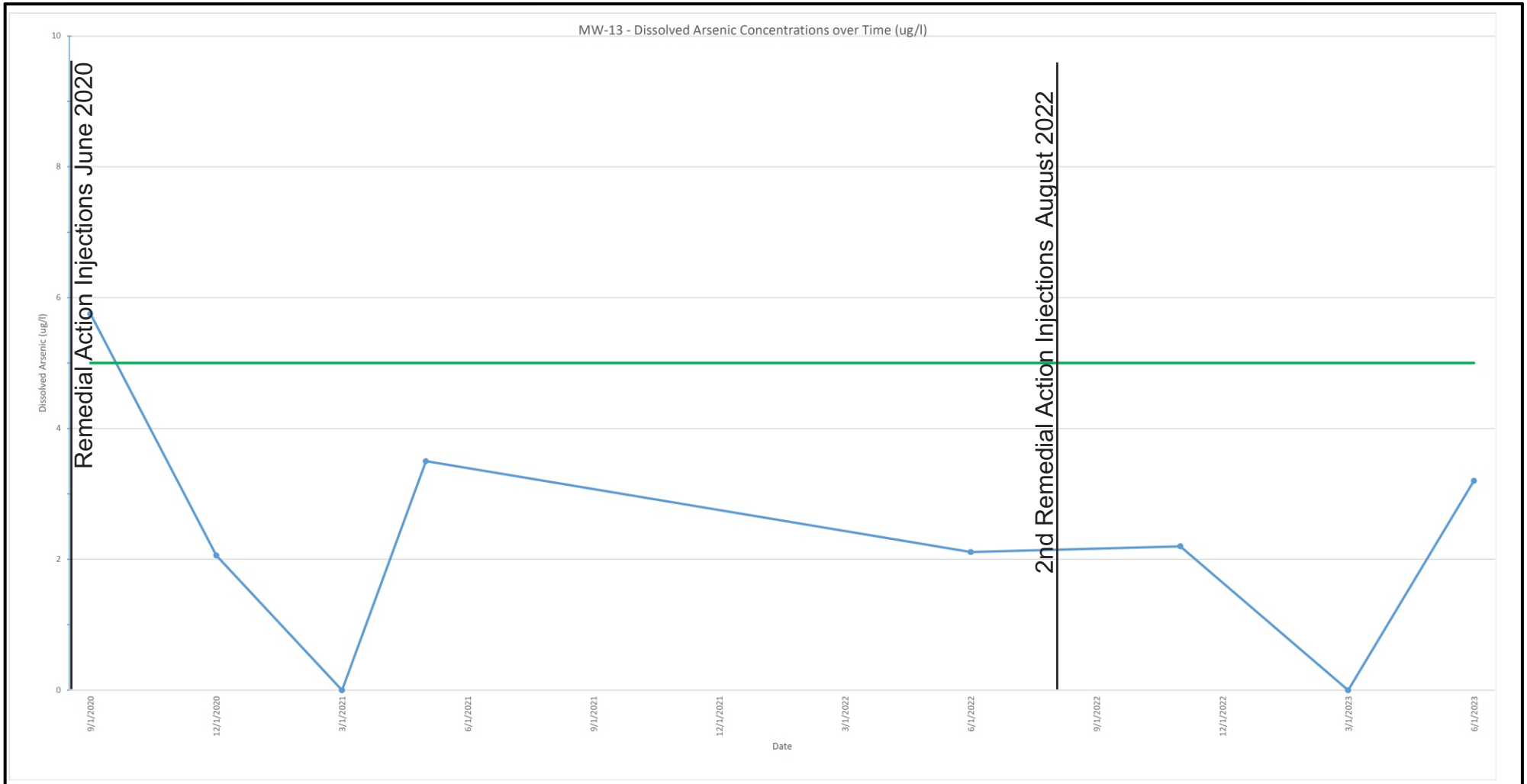


Dissolved Arsenic Over Time - MW-12/12R

Proposed Redevelopment Property
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591A
Date	July 20, 2023
File ID.	1591TSMW12

WHITMAN
Environmental Sciences

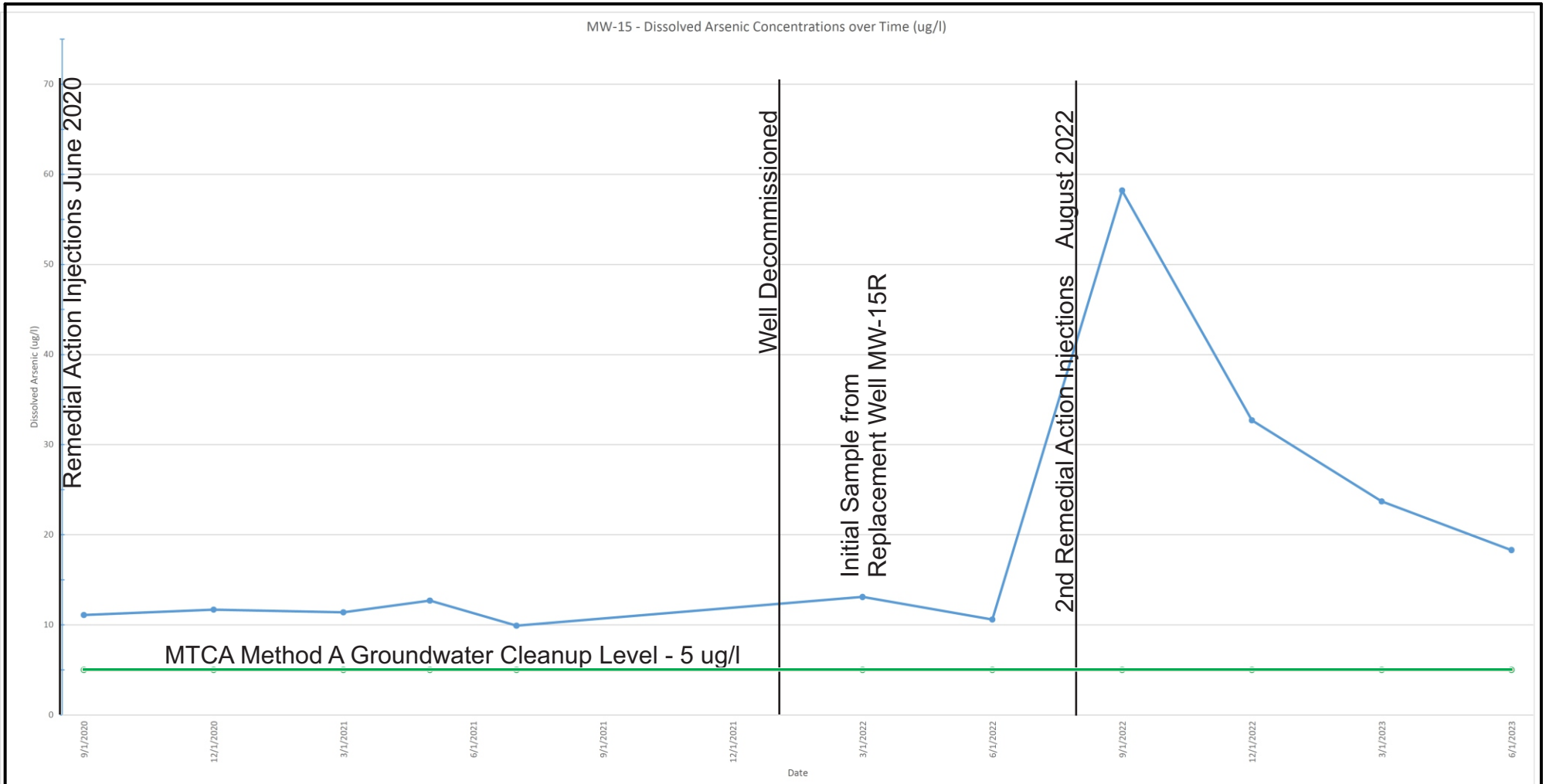


Dissolved Arsenic Over Time - MW-13

Proposed Redevelopment Property
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591A
Date	July 20, 2023
File ID.	1591TSMW13

WHITMAN
Environmental Sciences

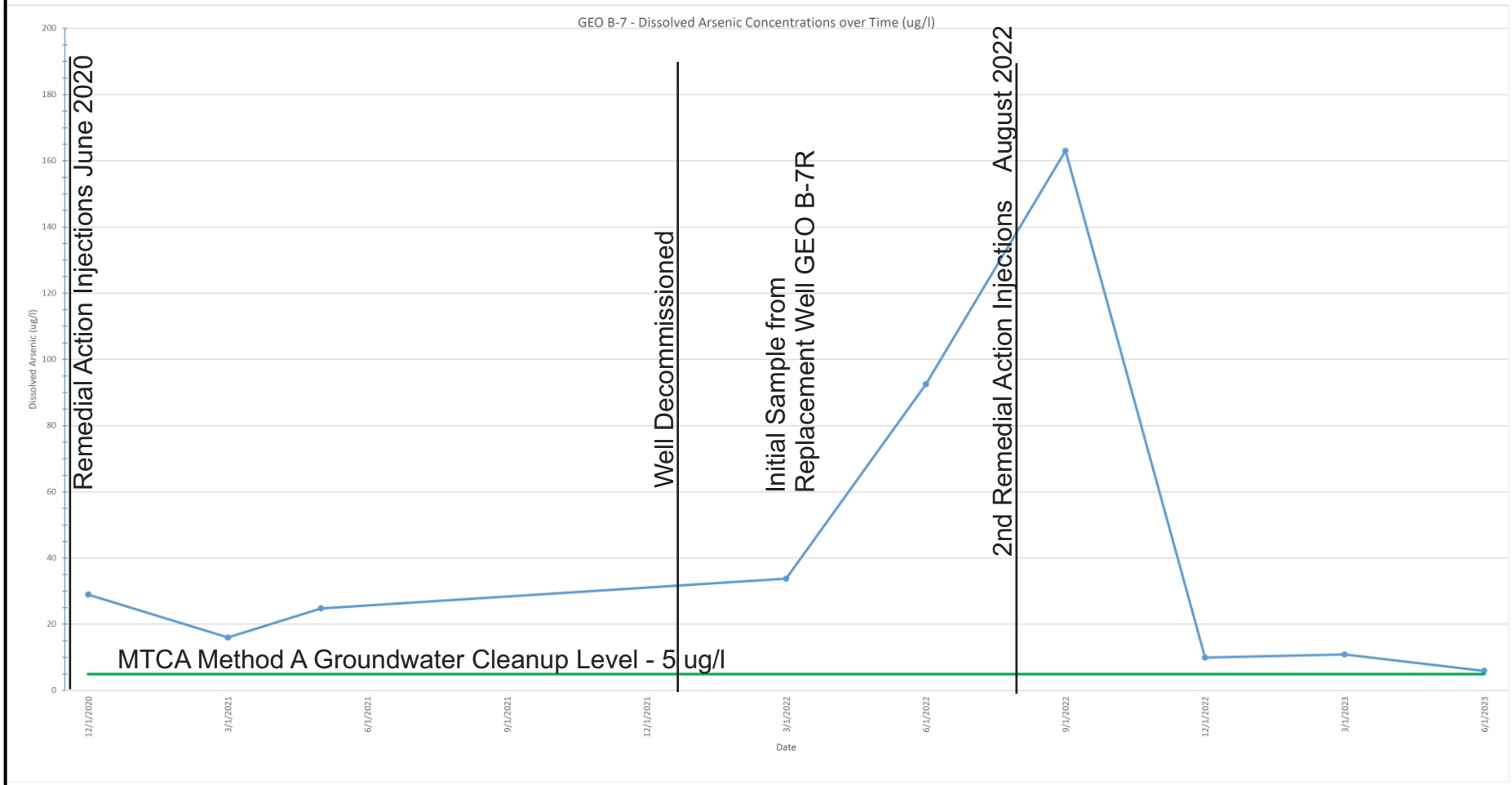


Dissolved Arsenic Over Time - MW-15/15R

Proposed Redevelopment Property
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591A
Date	July 20, 2023
File ID.	1591TSMW15

WHITMAN
Environmental Sciences

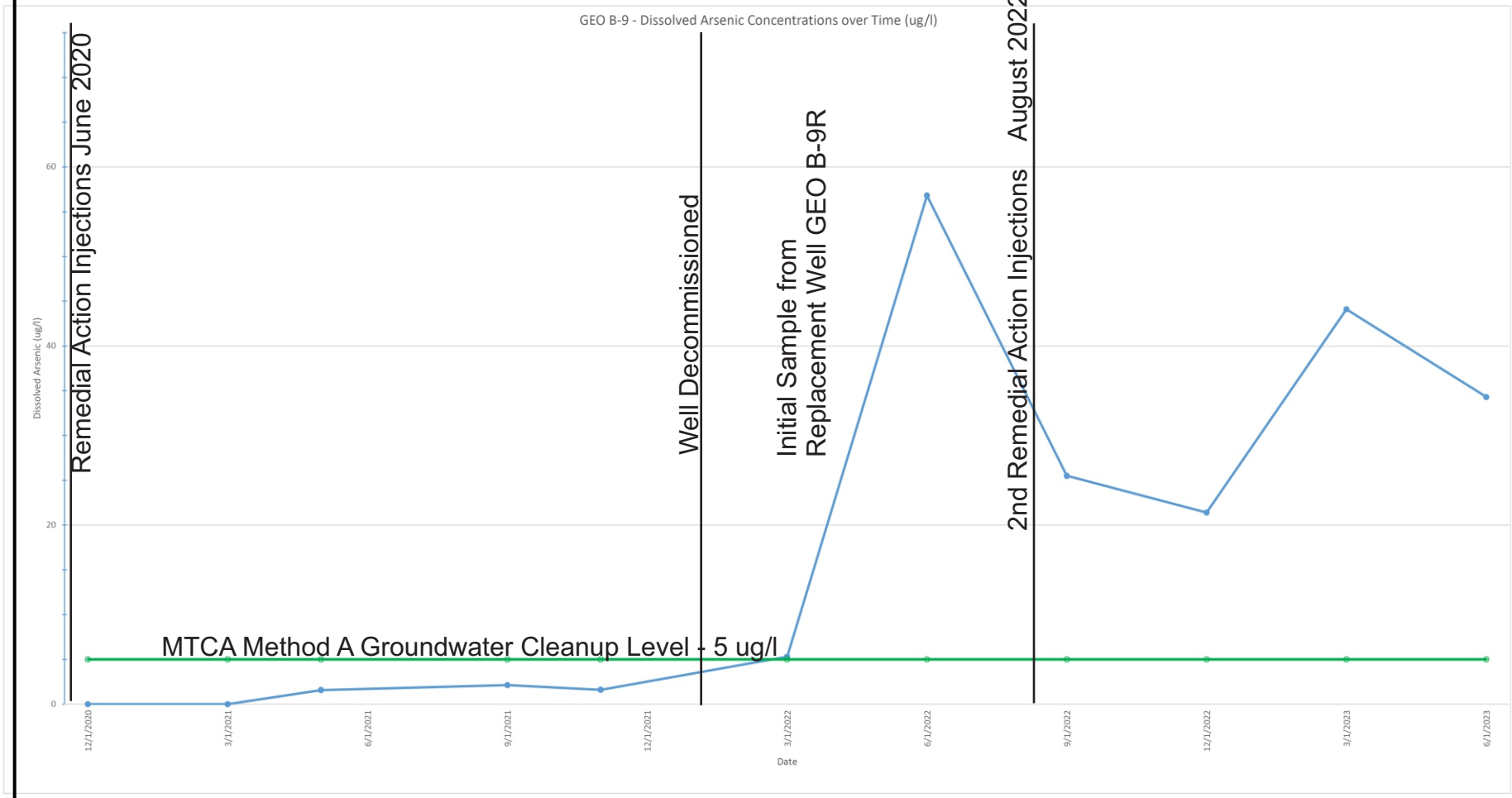


Dissolved Arsenic Over Time - GEO B-7

Proposed Redevelopment Property
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591A
Date	July 20, 2023
File ID.	1591TSGEOB7

WHITMAN
Environmental Sciences



Dissolved Arsenic Over Time - GEO B-9/9R

Proposed Redevelopment Property
104-124 12th Avenue & 1209 E. Fir Street
Seattle, WA

Project No.	WES - 1591A
Date	July 20, 2023
File ID.	1591TSGEOB9

WHITMAN
Environmental Sciences