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Centric Partners LLC
2921 Eastlake Avenue E.
Seattle, WA 98109

Attention: Mr. Michael Pollard

Subject: 3rd Quarter 2020 Groundwater Monitoring Results
104-124 12th Avenue & 1209 E. Fir Street
Seattle, Washington

Dear Mr. Pollard:

As you have authorized, **Whitman Environmental Sciences, (WES)** has conducted additional groundwater sampling at the above referenced site in Seattle, Washington. Figure 1 shows the site location and surrounding area. This letter summarizes the sampling and results of laboratory testing on the groundwater samples taken on September 28th, 2020. This is the first round of sampling conducted following the injections for groundwater remediation and are part of the Compliance Monitoring Plan for documenting site remediation progress.

The findings indicate that samples from one of the twenty one sampled wells contain the chlorinated volatile organic compound (CVOC) vinyl chloride and one well contained benzene and gasoline-range total petroleum hydrocarbons at concentrations that exceed current Washington State cleanup criteria under the Model Toxics Control Act (MTCA), Chapter 173-340 WAC. No other organic compounds or petroleum constituents exceeded MTCA cleanup levels in any of the samples.

Some monitoring wells in the treatment area still produced discolored black water, indicating that the injected activated carbon has not yet completely adsorbed to the soil. This round of sampling may not represent conditions that will be found once the adsorption is complete.

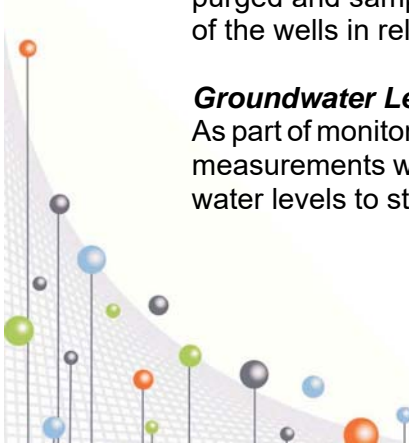
Twelve monitoring wells were sampled and analyzed for concentrations of dissolved and total arsenic. The findings indicate show elevated arsenic in the groundwater treatment zone in the SE Parking Lot, as well as at other locations on the site that were not within the area of influence from groundwater treatment. A discussion of area-wide arsenic conditions is included in this report.

Groundwater Monitoring

All monitoring wells on and adjacent to the subject property (a total of twenty one wells) were purged and sampled as part of this monitoring event. Figure 2 shows the approximate locations of the wells in relation to the features of the property.

Groundwater Level Measurements

As part of monitoring, WES measured the depth to groundwater in the on-site monitoring wells. The measurements were obtained after the wells caps had been removed for a period of time to allow water levels to stabilize and before any of the wells were purged of standing groundwater. Table



1 summarizes the top-of-pipe elevation for each well, the depth to groundwater and the relative elevation of groundwater at each well during this and all prior monitoring events from October 2017 to the present. Top of pipe elevations were determined by a licensed surveyor, with the exception of MW-13, MW-15 and MW-16. These well elevations were surveyed by WES relative to multiple nearby monitoring wells with known elevations.

The current measurements show that groundwater was at a depth of 0.25 to 15.40 feet below the top of pipe of the monitoring wells. The depths represent groundwater elevations within a range of 186.88 to 201.11 feet. Most measured water levels are within the range of prior measurements at the site. The water levels in monitoring wells MW-2, MW-6, MW-7 and GEO B-7 are slightly higher while monitoring well MW-11 measured slightly lower than any prior measurements, which likely reflects seasonal variations.

There is a significant difference in water elevation from the highest elevations in the northwest to lowest levels in the southeast, indicating a relatively strong overall gradient of 0.04 foot/foot to the southeast across most of the site. Between nested wells MW-1D and MW-1S, there is an upward vertical gradient of 0.064 ft/ft.

Figure 2 shows the inferred contour of the groundwater surface from the measured water level elevations, and the anticipated direction of migration for the current measurements. The inferred gradient of groundwater migration are consistent with that interpreted from prior measurements from 2017 to the present. On the northern parcels of the property, the direction of migration is more easterly than in most prior measurement sets.

Groundwater Sampling

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 12 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.

Wells MW-3, MW-5, MW-11, MW-12, MW-14 and MW-15 pumped dry after a limited volume and had relatively low recharge rates. Each of these wells were pumped repeatedly to obtain representative samples of fresh recharge water and the total volume removed ranged from one to four gallons from each well.

Wells within the groundwater treatment area show discolored black water that indicates the injected activated carbon has not completely adsorbed to soil. This process may take several months and due to this, contaminants adhering to the fine carbon particles are included in water samples.

Samples were taken following proper environmental sampling techniques and protocols. Samples were taken directly from the polyethylene pump tubing at a low flow rate and were placed in laboratory prepared bottles, sealed, chilled and held under chain of custody until delivered to the laboratory. The samples were submitted to Friedman & Bruya, Inc., a Washington State accredited laboratory, for testing. Samples for dissolved arsenic were filtered through 0.45 micron single-use filters in the field, before preservation.

Samples from fourteen wells listed in Table 4 of the compliance monitoring program were analyzed for a list of 62 individual volatile organic compounds by EPA Method 8260C. A new monitoring well

identified as MW-16 was also developed and sampled as part of the compliance monitoring program. The tested compounds are common solvents and/or organic compounds associated with petroleum. Three additional wells (MW-6, MW-8 and GEO B-8) were also analyzed for the full suite of volatile organic compounds based on prior sampling, although they are not included in the compliance monitoring plan.

The sample from well MW-8 was also analyzed for total petroleum hydrocarbons in the gasoline range by Washington accepted Method NWTPH-G. Samples from MW-9 and GEO B-8 were analyzed for total petroleum hydrocarbons in the gasoline, diesel and motor oil ranges by Washington accepted Methods NWTPH-G and NWTPH-D(extended), respectively. The sample from monitoring well MW-9 was also analyzed for benzene, toluene, ethylbenzene and xylenes by EPA Method 8021B. These analyses were selected based on the prior detections in previous sampling events from these wells.

Samples from monitoring wells MW-1, MW-1D, MW-1S, MW-2, MW-3, MW-4, MW-7, MW-10, MW-11, MW-12, MW-13 and MW-15 were analyzed for total and dissolved arsenic. These wells were selected to represent wells in or near the groundwater treatment zone (MW-1, MW-1S, MW-2, MW-4, MW-11, MW-12 and MW-15) or areas of the site which have been shown to not be within impacted areas (MW-1D, MW-3, MW-7, MW-10, and MW-13). Wells MW-1, MW-1D, MW-1S, MW-10, MW-11 and MW-12 have been analyzed for arsenic in prior rounds of testing.

All laboratory testing was conducted with reporting limits suitable for comparison with regulatory criteria. All laboratory quality assurance/quality control data is included and meets the analytical requirements of this assessment.

Laboratory Analytical Results

The results of laboratory testing and Washington State cleanup criteria are summarized in Table 2 and illustrated in Figure 3. The laboratory reports of the analytical results are included in Appendix A.

The groundwater samples from monitoring wells MW-1D, MW-4, MW-5, MW-10 and GEO B-8 contained no detectable concentrations of any volatile organic compounds. Samples from monitoring wells MW-1, MW-1S, MW-2, MW-11, MW-12, MW-16 and GEO B-9 found no detectable concentrations of CVOCs, but the analyses identified methyl-ethyl ketone (MEK) that has not been reported in prior sampling. All of these wells are within the groundwater remediation in-situ treatment area. Acetone was also reported in monitoring wells MW-11, MW-12 and MW-16. The reported concentrations of MEK ranged from 28 to 170 ug/l and acetone ranged from 69 to 240 ug/l. The reported detections are below MTCA Method B standard formula value cleanup levels of 7,200 ug/l and 4,800 ug/l for acetone and MEK, respectively. Both acetone and MEK are simple organic ketones that are most likely produced as breakdown products of organic materials under the reducing conditions created by the in-situ groundwater treatment.

The sample from monitoring well MW-15 contained low but detectable concentrations of cis-1,2-dichloroethene (1.3 ug/l) and vinyl chloride (0.23 ug/l). This well contained black discolored water, so treatment injectate is in the surrounding formation, and likely included in the sample. The detected concentration of vinyl chloride exceeds the MTCA Method A groundwater cleanup level of 0.2 ug/l, but the sample does not yet represent formation groundwater. Future monitoring will be needed to demonstrate compliance.

The sample from monitoring well MW-6 is the only other sample that contained any detectable CVOC; cis-1,2-dichloroethene was detected at 3.5 ug/l. This is consistent with prior measurements in that well and below applicable cleanup levels. MW-14, which has previously contained vinyl chloride and cis-1,2-dichloroethene found no detectable CVOCs. The well contained a low but detectable concentration of benzene (0.74 ug/l). These wells are not within the groundwater treatment area.

Samples from monitoring wells MW-8, MW-9 and GEO B-8, in the northwestern part of the property where a former gas station had operated, found gasoline related compounds. The sample from MW-8 contained 130 ug/l of gasoline-range organics (GRO) as well as low but detectable concentrations of benzene (0.47 ug/l), ethylbenzene (4.7 ug/l), xylenes (20 ug/l), isopropylbenzene (1.1 ug/l), n-propylbenzene (1.3 ug/l), 1,2,4-trimethylbenzene (7.3 ug/l) and 1,3,5-trimethylbenzene (2.8 ug/l). All of the reported concentrations are below their respective MTCA Method A or Method B cleanup levels. The sample from monitoring well MW-9 contained a reported concentration of 910 ug/l of GRO, and 270 ug/l of DRO. The GRO concentrations exceed the MTCA Method A cleanup level of 800 ug/l. That sample also contained concentrations of benzene (8.0 ug/l), toluene (9.3 ug/l), ethylbenzene (1.6 ug/l) and xylenes (6.4 ug/l). The reported benzene exceeds the MTCA Method A groundwater cleanup level of 5 ug/l. None of the other detections exceed MTCA Method A groundwater cleanup levels. The sample from GEO B-8 found 130 ug/l of DRO and no other detected compounds.

Both of the reported DRO concentrations were flagged by the laboratory as not matching their laboratory standards for diesel or oil. This typically indicates the detected hydrocarbons represent degraded petroleum from another analytical range or non-petroleum organic material that may be naturally occurring.

Comparison to Prior Sampling

The laboratory analytical results show that remediation is progressing within the groundwater treatment zone, but some wells show that the injected carbon has not yet fully adsorbed to soils. This round of analyses included one well out of 14 that exceeded the site cleanup level for vinyl chloride, so the site is not yet in compliance. Additional sampling will be conducted quarterly.

The presence of acetone and MEK in wells in the treatment area are a byproduct of the remedial action and is likely to remain at relatively low levels in future monitoring. The reported concentrations are well below MTCA cleanup levels.

Outside the treatment area the reported detections are similar to previous groundwater sampling conducted during our prior site investigations and periodic monitoring. Table 3 summarizes the groundwater sample analytical results from our prior monitoring events along with the current data.

ARSENIC IN GROUNDWATER

On-site-Sample Analytical Results

Samples from twelve monitoring wells were analyzed for total and dissolved arsenic. The results are included in Tables 2 and 3. Where detected, the samples contained total arsenic concentrations ranging from 2.88 ug/l to 1,240 ug/l. Where detected, dissolved concentrations ranged from 1.21 ug/l to 506 ug/l. Only the sample from monitoring well MW-1 did not contain

detectable total or dissolved arsenic. In previous sampling MW-1 has contained detectable arsenic, so this may be an indication that the well is still representing injectate rather than formation water.

The sample from monitoring well MW-12 demonstrated the most elevated concentrations of both total (1,240 ug/l) and dissolved arsenic (506 ug/l). This well contained black discolored water during sampling and during the injection process saw injectate surfacing through and around the well. Prior to the remedial action, total and dissolved arsenic was reported at 4.40 ug/l and 4.39 ug/l respectively in samples taken in May 2020. These current elevated results are clearly a byproduct of the treatment.

Other wells in the treatment area that show arsenic elevated above previous measurements include MW-1S and MW-11. In both these wells, the current reported results are three to seven times the prior measurements. However, there is more limited arsenic sampling data for any of the site wells than other parameters and some variability in the prior findings, so additional sampling will be needed to determine long-term trends.

Several wells not influenced by the groundwater treatment were sampled for arsenic for the first time. Monitoring wells MW-3, MW-4, MW-7 and MW-13 are to the west or southwest of the treatment area and have not previously been analyzed for arsenic. The samples from these wells contained total arsenic ranging from 10.2 ug/l (MW-3) to 189 ug/l (MW-7). Dissolved arsenic concentrations ranged from 5.75 ug/l (MW-13) to 153 ug/l in MW-7. Wells MW-4, MW-7 and MW-13 have never found detectable concentrations of any analyzed VOCs in any prior testing. MW-3 has not shown any detectable concentrations of any analyzed parameter except low levels of DRO in the last nine rounds of sampling dating to October 2017. DRO throughout the site has consistently been flagged by the laboratory as not resembling the laboratory standard for diesel, suggesting it is non-petroleum organic material. These wells are selected for inclusion in the calculation of natural background arsenic concentrations discussed below.

Calculation of Natural Background Arsenic Concentrations

Based on Ecology's September 15, 2020 opinion letter, WES has researched surrounding area arsenic data to allow calculation of a site specific natural background concentration of arsenic. The data review included a wide-ranging set of sampling information from Ecology's Environmental Information Management System (EIM), available environmental assessment or sampling data from nearby sites and a data set provided by Ecology, used in a draft publication titled "*Natural Background Groundwater Arsenic Concentrations in Washington State*" (Ecology, 2018, Review Draft). The review draft may not be used for any regulatory purpose, but the data set is considered valid as an accumulation of vetted data representing statewide arsenic conditions.

The data set was reviewed to find groundwater arsenic data from the area surrounding the site under similar geologic conditions that have not been impacted by contamination. To isolate similar geologic conditions WES limited the selection of sites to those on or around Capitol Hill of Seattle, where groundwater would be found in relatively limited perched seepage zones overlying glacial sediments. Once sites were identified, additional review was conducted to select data from one or more monitoring wells on the sites that represented undisturbed conditions, while censoring other information that may have shown human caused influences or contamination. This information was compiled along with on-site data from wells outside any areas of contamination. Two separate data sets were prepared for total arsenic and dissolved arsenic in groundwater. Ecology's statewide data set did not include any sampling from wells within the City of Seattle, so no information from that data was included in this calculation.

Off-site groundwater data was selected from the adjacent environmental assessment of the King County east warehouse by the Seattle Housing Authority (AMEC, 2017, PBS, 2019); a 2014 groundwater monitoring report from the Star Laundry site at 160 12th Avenue (CRA, 2014); a Qwest Communications site at 1313 E. Columbia Street; and the Modera Jackson development site at 1803 S. Jackson Street (SES, 2018). A review of soil boring logs indicates each of these sites are relatively similar in nature, with silty and clayey sand characterized as weathered glacial sediments and limited perched seepage zones at relatively shallow depth. Each of these sites is discussed briefly, below. The off-site data was combined with the recent on-site data from wells MW-1D, MW-3, MW-4, MW-8 and MW-13 representing areas outside zones of contamination on the subject property. In the case of MW-1D, the sample represents a deep groundwater zone that has been shown to not be impacted and to have an upward vertical gradient, which precludes downward migration of contaminants. Although MW-7 has never shown concentrations of any analyzed parameter, the reported arsenic values appear to be outliers, so this well was not included in the calculation. The selected sample data is summarized in Table 4.

King County East Warehouse 1215 E. Fir Street

WES reviewed two reports summarizing investigations on adjoining property to the east, prepared for the Seattle Housing Authority as due diligence for purchase of the eastern King County warehouse. Copies of these reports are included in WES' 2020 Source Investigation report, previously submitted. Both of these reports identified arsenic in groundwater samples taken from the areas to the east of the subject property. Three reconnaissance groundwater samples taken by AMEC in 2017 were analyzed for total arsenic and other metals. Arsenic was identified at concentrations ranging from 11.8 to 126 ug/l. Two of the samples, FIR-03 and FIR-06, were taken near the mid-section and north end of the warehouse building, respectively, so they would be considered cross-gradient and upgradient from the subject site. Neither of these samples contained any concentrations of volatile organic compounds. Sample FIR-06 contained a low concentration of diesel range organics flagged by the laboratory as not resembling the laboratory standard for diesel. This is similar to the conditions widely encountered across the subject property. These samples were selected for inclusion in the total arsenic data set.

PBS' study in 2019 included six reconnaissance groundwater samples analyzed for arsenic and other metals. All six samples contained arsenic concentrations ranging from 11.6 to 63.4 ug/l, exceeding the MTCA Method A groundwater cleanup level. Two of the samples, BH-01 and BH-02 were taken from below the north end of the warehouse and contained 14.8 and 17.7 ug/l of total arsenic, respectively. These samples were selected for inclusion in the total arsenic data set.

Star Laundry, 160 12th Avenue

The Star Laundry site is located on the block to the north of the subject property. Of five monitoring wells on that property, three would be considered to be within contaminated areas that would exclude them from consideration. Monitoring wells MW-2 and MW-3, at the western end of the building are away from the identified source area of contamination near the southeastern corner of the building. These wells were sampled in 2004 and 2014. Samples in 2004 were analyzed for total arsenic. 2014 samples were analyzed for both total and dissolved arsenic and other metals. The mean of the 2004 and 2014 samples were selected for inclusion in the total arsenic data set. The 2014 dissolved data was selected for the dissolved arsenic data set.

Qwest Communications, 1313 E. Columbia Street

The Qwest site is about 2,000 feet north of the subject property, on the western slope of Capitol Hill. Arsenic was originally investigated in a small area of the Qwest site that was used to stockpile treated telephone poles. Three monitoring wells were installed and monitored from about 2008 to 2013. Monitoring MW-1 (and MW-1R, a replacement well) were installed in the former stockpile area, so would be excluded from consideration as potentially within a contaminated zone. A cross gradient well MW-2 was sampled for dissolved arsenic in November 2007 and six additional times in 2008 and 2009 for both total and dissolved arsenic. An upgradient well MW-3 was sampled in October 2009 for both total and dissolved arsenic, then seven additional times for total arsenic from 2009 to 2013. The mean dissolved concentration of MW-2 and the October 2009 dissolved sample from MW-3 were selected for inclusion in the dissolved arsenic data set. The mean of the total arsenic samples for each well was selected for inclusion in the total arsenic data set.

Modera Jackson, 1803 S. Jackson Street

The Modera Jackson site was a redevelopment project that underwent cleanup in 2018, located about 2,000 feet to the southeast of the subject site. It is on the southern slope of Capitol Hill, with similar soil conditions to the subject site, although groundwater was deeper, at a depth of about 35 feet. Groundwater was sampled from two soil borings conducted in 2016 (DB04 and DB05), both drilled in the southwestern part of the site where no petroleum contamination was encountered. Samples were analyzed for both total and dissolved arsenic. These samples were selected for inclusion in the total and dissolved data sets, respectively.

Statistical Analysis of Data Sets

The individual data sets were entered into Ecology's MTCASat97 spreadsheet background module, to determine the distribution of the data and 90th percentile value for total and dissolved arsenic. Both total and dissolved arsenic data sets are lognormal distributions. Table 4 shows the collected data and the calculated 90th percentile value for each. Copies of the MTCASat reports are included in Appendix B. For dissolved arsenic data, four times the 50th percentile is lower than the 90th percentile, so that would be the accepted background dissolved arsenic concentration.

Table 4
Arsenic Data Sets for Natural Background Calculation

Site ID	Sample ID	Sample Date	Total Arsenic (ug/L)		Dissolved Arsenic (ug/l)
King County E. Warehouse	AMEC FIR03	6/14/17	11.8		NA
	AMEC FIR06	6/14/17	126		NA
	PBS BH-01	7/23/19	14.8		NA
	PBS BH-02	7/23/19	17.7		NA
Star Laundry	CRA MW-2	1/29/04	19	Mean: 12.4	NA
		10/21/14	5.8		3.2
	CRA MW-3	1/29/04	55	Mean: 28.9	NA
		10/21/14	2.7		1.6

Site ID	Sample ID	Sample Date	Total Arsenic (ug/L)	Dissolved Arsenic (ug/l)
Qwest Communications	EA MW-2	11/5/07	NA	1.24
		10/14/08	<1	<1
		1/14/09	<1	<1
		4/17/09	<1	<1
		7/22/09	<1	1.28
		10/27/09	<1	<1
		Mean of ½ RL: 0.5		Mean using ½ RL: 0.75
	EA MW-3	10/27/09	11.4	11
		5/4/10	8.65	NA
		10/28/10	19.6	NA
		5/26/11	9.36	NA
		11/1/11	18	NA
		7/2/12	15.7	NA
		10/26/12	21.9	NA
		5/15/13	10.9	NA
		Mean: 14.4		
Modera Jackson	SES DB04	9/2/16	10.7	3.03
	SES DB05	9/2/16	23.2	2.84
Subject Property	WES MW-1D	9/28/20	10.1	9.68
	WES MW-3	9/28/20	10.2	9.35
	WES MW-4	9/28/20	66.8	64.9
	WES MW-8	5/12/90	4.93	3.44
	WES MW-13	9/28/20	11.5	5.75
MTCASat Calculated 90th Percentile			80.91	25.93
MTCASat Calculated 4 x 50th Percentile			54.28	19.74

Natural Background Concentration of Arsenic

Based on this review, the natural background concentration of arsenic in groundwater at and around the subject site is calculated as 54.3 ug/l for total arsenic, 19.7 ug/l for dissolved. Both are based on 4 X the 50th percentile as the lowest calculated concentration.

The current samples from monitoring wells MW-1S, MW-4, MW-7, MW-11 and MW-12 exceed these natural background concentrations. MW-1S, MW-4, MW-11 and MW-12 are in or near the groundwater treatment area, which could be influencing these results. MW-7 is to the west, in the portion of the site that will be excavated to a depth that completely removes these shallow water-bearing units.

CONCLUSIONS

Groundwater sampling and analysis are important parts of compliance monitoring for this site. Additional quarterly monitoring will be conducted to evaluate areas of the site that have groundwater that have in the past or currently exceeded MTCA cleanup criteria.

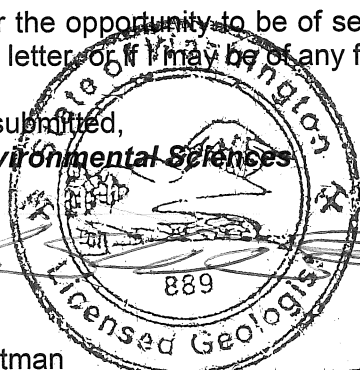
Some wells have now demonstrated four or more consecutive quarters of results with no violations of MTCA groundwater cleanup criteria, or in some cases, no detections of the monitored parameters. Future monitoring will be limited to a sub-set of wells and analytical parameters as outlined in WES' April 6, 2020 Compliance Monitoring Plan (CMP). Analyses for total and dissolved arsenic will be included in a select number of wells during future monitoring events to evaluate the response to in-situ groundwater remedial actions. Natural background concentrations will be used as the cleanup level for arsenic in groundwater.

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

- Table 1 - Summary of Groundwater Level Measurements
- Table 2 - Summary of 3rd Quarter 2020 Groundwater Sample Analytical Results
- Table 3 - Summary of 2017-2020 Groundwater Sample Analytical Results

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- Figure 2 - Monitoring Well Location Plan and Inferred Groundwater Contours
- Figure 3 - Groundwater Analytical Results
- Figure 4 - Locations of Area Background Data Sites

APPENDICES

- APPENDIX A - Laboratory Analytical Report - Friedman & Bruya, Inc.
- APPENDIX B - Background Arsenic Data Calculation Reports (MTCASat)

REFERENCES

- AEC, 2017 AEC Foster Wheeler, Phase II Environmental Site Assessment, 1215 East Fir Street, Seattle, Washington, Project No. PS1718052G, July 2017
- PBS, 2019 PBS Engineering & Environmental, Inc., Subsurface Investigation Report 1215 E Fir Street, Seattle, Washington, King County Assessor's Parcel 8061000045, Project No. 41593.000, September 24, 2019
- CRA, 2014 Conestoga Rovers & Associates, Groundwater Monitoring Report, Fourth Quarter 2014, Former Star Laundry Site, 160 12th Avenue, Seattle, Washington, January 2015
- EA, 2013 EA Engineering, Science, and Technology, Inc., May 2013 Groundwater Sampling Report, Former Qwest Facility at 1313 East Columbia Street, Seattle, Washington VCP Site Name: Qwest Corporation W00291, VCP ID: NW1835, June 4, 2013
- SES, 2018 Remedial Investigation and Cleanup Action Report, Modera Jackson Site 1803–1905 South Jackson Street, Seattle, Washington 98144, Project No. 0811-005, January 29, 2018
- Ecology, 2018 Washington Department of Ecology "*Natural Background Groundwater Arsenic Concentrations in Washington State*", Ecology Publication 14-09-44 (May 2018 Review Draft),

TABLES

TABLE 1
Summary of Groundwater Level Measurements
104 - 124 12th Avenue and 1209 E. Fir Street, Seattle, Washington

Monitoring Well	Date	Top of Pipe Elevation	Water Level Below T.O.P.	Water Elevation	Comments
MW-1	10/30/2017	200.26	-6.68	193.58	2" Well, 29' deep
	11/7/2017		-6.37	193.89	
	6/14/2018		-6.28	193.98	
	9/7/2018		-7.55	192.71	
	12/6/2018		-8.15	192.11	
	2/25/2018		-5.34	194.92	
	7/22/2019		-6.90	193.36	
	9/3/2019		-7.54	192.72	
	10/3/2019		-6.77	193.49	
	12/4/2019		-6.47	193.79	
	3/17/2020		-5.72	194.54	
	5/19/2020		-6.08	194.18	
	9/28/2020		-6.70	193.56	
MW-1S	10/30/2017	198.99	Not installed yet		
	11/7/2017		Not installed yet		
	6/14/2018		Not installed yet		
	9/7/2018		Not installed yet		
	12/6/2018		Not installed yet		
	2/25/2019		Not installed yet		
	7/22/2019		Not installed yet		
	9/3/2019		-6.72	192.27	2" Well, 15' deep, 10' screen
	10/3/2019		-6.10	192.89	
	12/4/2019		-6.30	192.69	
	3/17/2020		-6.08	192.91	
	5/19/2020		-5.49	193.50	
	9/28/2020		-6.47	192.52	

TABLE 1
Summary of Groundwater Level Measurements
104 - 124 12th Avenue and 1209 E. Fir Street, Seattle, Washington

Monitoring Well	Date	Top of Pipe Elevation	Water Level Below T.O.P.	Water Elevation	Comments
MW-1D	10/30/2017	199.02	Not installed yet		
	11/7/2017		Not installed yet		
	6/14/2018		Not installed yet		
	9/7/2018		Not installed yet		
	12/6/2018		Not installed yet		
	2/25/2019		Not installed yet		
	7/22/2019		Not installed yet		
	9/3/2019		-5.58	193.44	2" Well, 40' deep, 5 ft screen
	10/3/2019		-5.14	193.88	
	12/4/2019		-5.96	193.06	
	3/17/2020		-4.32	194.70	
	5/19/2020		-4.64	194.38	
	9/28/2020		-4.89	194.13	
MW-2	10/30/2017	201.08	-5.94	195.14	2" Well, 29' deep
	11/7/2017		-5.78	195.30	
	6/14/2018		-5.83	195.25	
	9/7/2018		-7.29	193.79	
	12/6/2018		-6.42	194.66	
	2/25/2018		-6.71	194.37	
	7/22/2019		-6.11	194.97	
	9/3/2019		-6.62	194.46	
	10/3/2019		-6.16	194.92	
	12/4/2019		-5.85	195.23	
	3/17/2020		-5.29	195.79	
	5/19/2020		-5.48	195.60	
	9/28/2020		-4.91	196.17	

TABLE 1
Summary of Groundwater Level Measurements
104 - 124 12th Avenue and 1209 E. Fir Street, Seattle, Washington

Monitoring Well	Date	Top of Pipe Elevation	Water Level Below T.O.P.	Water Elevation	Comments
MW-3	10/30/2017	199.98	-4.81	195.17	3/4" Well, 10.6' deep
	11/7/2017		-5.09	194.89	
	6/14/2018		-4.80	195.18	
	9/7/2018		-5.86	194.12	
	12/6/2018		-4.15	195.83	
	2/25/2019		-3.71	196.27	
	7/22/2019		-5.15	194.83	
	9/3/2019		-5.64	194.34	
	10/3/2019		-5.43	194.55	
	12/4/2019		-5.13	194.85	
	3/17/2020		-4.52	195.46	
	5/19/2020		-4.71	195.27	
	9/28/2020		-4.95	195.03	
MW-4	10/30/2017	199.36	-8.65	190.71	2" Well, 29' deep
	11/7/2017		-8.45	190.91	
	6/14/2018		-8.32	191.04	
	9/7/2018		-10.02	189.34	
	12/6/2018		-7.98	191.38	
	2/25/2019		-7.03	192.33	
	7/22/2019		-8.68	190.68	
	9/3/2019		-9.18	190.18	
	10/3/2019		-8.72	190.64	
	12/4/2019		-8.54	190.82	
	3/17/2020		-7.93	191.43	
	5/19/2020		-8.23	191.13	
	9/28/2020		-8.36	191.00	

TABLE 1
Summary of Groundwater Level Measurements
104 - 124 12th Avenue and 1209 E. Fir Street, Seattle, Washington

Monitoring Well	Date	Top of Pipe Elevation	Water Level Below T.O.P.	Water Elevation	Comments
MW-5	10/30/2017	200.99	-6.53	194.46	3/4" Well, 12' deep
	11/7/2017		-6.22	194.77	
	6/14/2018		-6.10	194.89	
	9/7/2018		-7.47	193.52	
	12/6/2018		-5.69	195.30	
	2/25/2019		-4.95	196.04	
	7/22/2019		-6.76	194.23	
	9/3/2019		-7.13	193.86	
	10/3/2019		-6.50	194.49	
	12/4/2019		-6.11	194.88	
	3/17/2020		-5.32	195.67	
	5/19/2020		-5.76	195.23	
	9/28/2020		-5.76	195.23	
MW-6	10/30/2017	200.27	-2.75	197.52	3/4" Well, 12' deep
	11/7/2017		-2.10	198.17	
	6/14/2018		-2.82	197.45	
	9/7/2018		-4.85	195.42	
	12/6/2018		-2.07	198.20	
	2/25/2019		-1.70	198.57	
	7/22/2019		-3.23	197.04	
	9/3/2019		-4.58	195.69	
	10/3/2019		-3.15	197.12	
	12/4/2019		-2.64	197.63	
	3/17/2020		-2.02	198.25	
	5/19/2020		-2.84	197.45	
	9/28/2020		-0.88	199.39	

TABLE 1
Summary of Groundwater Level Measurements
104 - 124 12th Avenue and 1209 E. Fir Street, Seattle, Washington

Monitoring Well	Date	Top of Pipe Elevation	Water Level Below T.O.P.	Water Elevation	Comments
MW-7	10/30/2017	199.56	-2.41	197.15	1" Well, 11.5' deep
	11/7/2017		-1.70	197.86	
	6/14/2018		-2.66	196.90	
	9/7/2018		-4.34	195.22	
	12/6/2018		-1.69	197.87	
	2/25/2019		-2.32	197.24	
	7/22/2019		-3.18	196.38	
	9/3/2019		-4.07	195.49	
	10/3/2019		-2.97	196.59	
	12/4/2019		-2.27	197.29	
	3/17/2020		-1.65	197.91	
	5/19/2020		-2.18	197.38	
	9/28/2020		-0.25	199.31	
MW-8 (Drilled as BN-7)	10/30/2017	216.51	NM	--	2" Well, 22' deep
	11/7/2017		-15.16	201.35	
	6/28/2018		-15.27	201.24	
	9/7/2018		-15.76	200.75	
	12/6/2018		-14.92	201.59	
	2/25/2019		-14.13	202.38	
	7/22/2019		-15.41	201.10	
	9/3/2019		-15.62	200.89	
	10/3/2019		-15.41	201.10	
	12/4/2019		-15.23	201.28	
	3/17/2020		-14.62	201.89	
	5/19/2020		-15.05	201.46	
	9/28/2020		-15.40	201.11	

TABLE 1
Summary of Groundwater Level Measurements
104 - 124 12th Avenue and 1209 E. Fir Street, Seattle, Washington

Monitoring Well	Date	Top of Pipe Elevation	Water Level Below T.O.P.	Water Elevation	Comments
MW-9 (Drilled as BN-10)	10/30/2017	214.25	NM	--	2" Well, 25' deep
	11/7/2017		-13.14	201.11	
	7/13/2018		-13.99	200.26	
	9/7/2018		-14.71	199.54	
	12/6/2018		NM	--	
	2/25/2019		-12.07	202.18	
	7/22/2019		-14.04	200.21	
	9/3/2019		-14.46	199.79	
	10/3/2019		-13.79	200.46	
	12/4/2019		-13.91	200.34	
	3/17/2020		-12.73	201.52	
	5/19/2020		-13.21	201.04	
	9/28/2020		-13.63	200.62	
MW-10 (Drilled as SMW-01)	10/30/2017	196.88	Not installed yet		
	11/7/2017		-10.21	186.67	2" Well, 15' deep
	6/14/2018		-9.88	187.00	
	9/7/2018		-10.35	186.53	
	12/6/2018		NM	--	
	2/25/2019		NM	--	
	7/22/2019		-10.04	186.84	
	9/3/2019		-9.95	186.93	
	10/3/2019		-9.99	186.89	
	12/4/2019		-9.91	186.97	
	3/17/2020		-9.68	187.20	
	5/19/2020		-9.67	187.21	
	9/28/2020		-10.00	186.88	

TABLE 1
Summary of Groundwater Level Measurements
104 - 124 12th Avenue and 1209 E. Fir Street, Seattle, Washington

Monitoring Well	Date	Top of Pipe Elevation	Water Level Below T.O.P.	Water Elevation	Comments
MW-11	10/30/2017	198.20	Not installed yet		
	11/7/2017		Not installed yet		
	6/14/2018		Not installed yet		
	9/7/2018		Not installed yet		
	12/6/2018		Not installed yet		
	2/25/2019		Not installed yet		
	7/22/2019		Not installed yet		
	9/3/2019		-6.54	191.66	2" Well, 15' deep
	10/3/2019		-5.74	192.46	
	12/4/2019		-5.57	192.63	
	3/17/2020		-5.73	192.47	
	5/19/2020		-5.26	192.94	
	9/28/2020		-6.67	191.53	
MW-12	10/30/2017	198.89	Not installed yet		
	11/7/2017		Not installed yet		
	6/14/2018		Not installed yet		
	9/7/2018		Not installed yet		
	12/6/2018		Not installed yet		
	2/25/2019		Not installed yet		
	7/22/2019		Not installed yet		
	9/3/2019		-7.69	191.20	2" Well, 15' deep
	10/3/2019		-6.25	192.64	
	12/4/2019		-5.72	193.17	
	3/17/2020		-4.57	194.32	
	5/19/2020		-5.20	193.69	
	9/28/2020		-6.67	192.22	

TABLE 1
Summary of Groundwater Level Measurements
104 - 124 12th Avenue and 1209 E. Fir Street, Seattle, Washington

Monitoring Well	Date	Top of Pipe Elevation	Water Level Below T.O.P.	Water Elevation	Comments
MW-13	10/30/2017	201.80*	Not installed yet		
	11/7/2017		Not installed yet		
	6/14/2018		Not installed yet		
	9/7/2018		Not installed yet		
	12/6/2018		Not installed yet		
	2/25/2019		Not installed yet		
	7/22/2019		Not installed yet		
	9/3/2019		Not installed yet		2" Well, 20' deep
	10/3/2019		-7.55*	194.25*	* Prior to development
	12/4/2019		-7.58	194.22	
	3/17/2020		-6.96	194.84	
	5/19/2020		-7.08	194.72	
	9/28/2020		-7.29	194.51	
MW-14	10/30/2017	203.09	Not installed yet		
	11/7/2017		Not installed yet		
	6/14/2018		Not installed yet		
	9/7/2018		Not installed yet		
	12/6/2018		Not installed yet		
	2/25/2019		Not installed yet		
	7/22/2019		Not installed yet		
	9/3/2019		-5.64	197.45	2" Well, 15' deep
	10/3/2019		-4.42	198.67	
	12/4/2019		-3.85	199.24	
	3/17/2020		-4.86	198.23	
	5/19/2020		-4.40	198.69	
	9/28/2020		-4.35	198.74	

TABLE 1
Summary of Groundwater Level Measurements
104 - 124 12th Avenue and 1209 E. Fir Street, Seattle, Washington

Monitoring Well	Date	Top of Pipe Elevation	Water Level Below T.O.P.	Water Elevation	Comments
MW-15	10/30/2017	200.85*	Not installed yet		
	11/7/2017		Not installed yet		
	6/14/2018		Not installed yet		
	9/7/2018		Not installed yet		
	12/6/2018		Not installed yet		
	2/25/2019		Not installed yet		
	7/22/2019		Not installed yet		
	9/3/2019		Not installed yet		
	10/3/2019		Not installed yet		
	12/4/2019		Not installed yet		
	4/2/2020		-7.12	193.73	
	5/19/2020		-5.67	195.18	
	9/28/2020		-5.93	194.92	
MW-16	9/28/2020	200.40*	NM	--	New Well - Not Developed
GEO B-7	10/30/2017	201.12	Not installed yet		
	11/7/2017		Not installed yet		
	6/14/2018		Not installed yet		
	9/7/2018		Not installed yet		
	12/6/2018		-5.70	195.42	2" Well, 20' deep
	2/25/2019		-5.85	195.27	
	7/22/2019		-5.91	195.21	
	9/3/2019		NM	--	
	10/3/2019		-6.42	194.70	
	12/4/2019		-6.10	195.02	
	3/17/2020		-5.81	195.31	
	5/19/2020		-5.67	195.45	
	9/28/2020		-5.58	195.54	

TABLE 1
Summary of Groundwater Level Measurements
104 - 124 12th Avenue and 1209 E. Fir Street, Seattle, Washington

Monitoring Well	Date	Top of Pipe Elevation	Water Level Below T.O.P.	Water Elevation	Comments
GEO B-8	10/30/2017	214.79	Not installed yet		
	11/7/2017		Not installed yet		
	6/14/2018		Not installed yet		
	9/7/2018		Not installed yet		
	12/6/2018		-13.83	200.96	2" Well, 35' deep
	2/25/2019		NM	--	
	7/22/2019		-14.13	200.66	
	9/3/2019		-15.25	199.54	
	10/3/2019		-14.65	200.14	
	12/4/2019		-14.22	200.57	
	3/17/2020		-13.50	201.29	
	5/19/2020		-14.01	200.78	
	9/28/2020		-13.99	200.80	
GEO B-9	10/30/2017	200.69	Not installed yet		
	11/7/2017		Not installed yet		
	6/14/2018		Not installed yet		
	9/7/2018		Not installed yet		
	12/6/2018		-6.33	194.36	2" Well, 15' deep
	2/25/2019		-5.37	195.32	
	7/22/2019		-6.67	194.02	
	9/3/2019		-7.57	193.12	
	10/3/2019		-7.11	193.58	
	12/4/2019		-6.60	194.09	
	3/17/2020		-5.78	194.91	
	5/19/2020		-6.17	194.52	
	9/28/2020		-6.62	194.07	

Table Notes:

NM - Not measured due to obstruction over well.

Top of Pipe elevations determined by site surveys, Terrane, Inc., November 2017 and August 2019.

*MW-13, MW-15 and MW-16 top of pipe elevations by WES, back-sighted to previously surveyed monitoring wells.

TABLE 2
3rd Quarter 2020 Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Boring/ Sample I.D.	Sample Location	Sample Date	Laboratory Analytical Results (ug/l)			
			Total Petroleum Hydrocarbons <i>(by Methods NWTPH-G & NWTPH-D(X))</i>	Benzene Toluene Ethyl benzene Xylenes <i>(by EPA Method 8260C)</i>	Other Volatile Organic Compounds <i>(by EPA Method 8260C)</i> <i>List of 58 Additional Compounds Detectable by the Laboratory Method.</i>	Arsenic <i>Dissolved and Total</i>
MW-1-GW*	Pre-existing well in NE corner of 104 12 th parking lot	9/28/2020	NA	Benzene: ND (<0.35) Toluene: ND (<1) Ethylbenzene: ND (<1) Xylenes: ND (<3)	2-Butanone (MEK): 31* ND (all other)	Arsenic: Dissolved: ND (<1)* Total: ND (<1)*
MW-1S-GW*	Shallow monitoring well in NE corner of 104 12 th parking lot property. Outside fence accessed through King County parking area. Cluster with MW-1D	9/28/2020	NA	Benzene: ND (<0.35) Toluene: ND (<1) Ethylbenzene: ND (<1) Xylenes: ND (<3)	2-Butanone (MEK): 33* ND (all other)	Arsenic: Dissolved: 50.8* Total: 47.4*
MW-1D-GW	Deep monitoring well in NE corner of 104 12 th parking lot property. Outside fence accessed through King County parking area. Cluster with MW-1S	9/28/2020	NA	Benzene: ND (<0.35) Toluene: ND (<1) Ethylbenzene: ND (<1) Xylenes: ND (<3)	ND (all)	Arsenic: Dissolved: 9.68 Total: 10.1
MW-2-GW	Pre-existing well in NW corner of 104 12 th parking lot	9/28/2020	NA	Benzene: ND (<0.35) Toluene: ND (<1) Ethylbenzene: ND (<1) Xylenes: ND (<3)	2-Butanone (MEK): 82 ND (all other)	Arsenic: Dissolved: 1.21 Total: 2.88
MW-3-GW	Pre-existing well adjacent to floor sump in SW corner of 104 12 th basement	9/28/2020	NA	NA	NA	Arsenic: Dissolved: 9.15 Total: 10.2
MW-4-GW	Pre-existing well in SW corner of 104 12 th parking lot	9/28/2020	NA	Benzene: ND (<0.35) Toluene: ND (<1) Ethylbenzene: ND (<1) Xylenes: ND (<3)	ND (all)	Arsenic: Dissolved: 64.9 Total: 66.8
MW-5-GW	Pre-existing well along N side of 104 12 th parking lot	9/28/2020	NA	Benzene: ND (<0.35) Toluene: ND (<1) Ethylbenzene: ND (<1) Xylenes: ND (<3)	ND (all)	NA
MW-6-GW	Pre-existing well near NW corner of 104 12 th basement	9/28/2020	NA	Benzene: ND (<0.35) Toluene: ND (<1) Ethylbenzene: ND (<1) Xylenes: ND (<3)	cis-1,2-Dichloroethene: 3.5 ND (all other)	NA

TABLE 2
3rd Quarter 2020 Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Boring/ Sample I.D.	Sample Location	Sample Date	Laboratory Analytical Results (ug/l)			
			Total Petroleum Hydrocarbons <i>(by Methods NWTPH-G & NWTPH-D(X))</i>	Benzene Toluene Ethyl benzene Xylenes <i>(by EPA Method 8260C)</i>	Other Volatile Organic Compounds <i>(by EPA Method 8260C)</i> <i>List of 58 Additional Compounds Detectable by the Laboratory Method.</i>	Arsenic Dissolved and Total
MW-7-GW (Drilled as WES-8)	In N corridor of 104 12 th basement, 25' W of WES-7	9/28/2020	NA	NA	NA	Arsenic: Dissolved: 153 Total: 189
MW-8-GW (Drilled as BN-7)	Near NW corner of 124 12 th property - former location of gas station pump island	9/28/2020	Gasoline Range: 130 Diesel: NA Motor Oil: NA	Benzene: 0.47 Toluene: ND (<1) Ethylbenzene: 4.7 Xylenes: 20	Isopropylbenzene: 1.1 n-Propylbenzene: 1.3 1,2,4-Trimethylbenzene: 7.3 1,3,5-Trimethylbenzene: 2.8 ND (all other)	NA
MW-9-GW (Drilled as BN-10)	NW gravel parking lot, S end of parking lot - likely S of former UST location	9/28/2020	Gasoline Range: 910 Diesel: 270 ^x Motor Oil: ND (<250)	Benzene: 8.0 Toluene: 9.3 Ethylbenzene: 1.6 Xylenes: 6.4	NA	NA
MW-10 (Drilled as SES-1)	In SE corner of 104 12 th parking lot property. Outside fence accessed through King County parking area.	9/28/2020	NA	Benzene: ND (<0.35) Toluene: ND (<1) Ethylbenzene: ND (<1) Xylenes: ND (<3)	ND (all)	Arsenic: Dissolved: 15.0 Total: 16.6
MW-11*	On E edge of 104 12 th parking lot property. Outside fence accessed through King County parking area.	9/28/2020	NA	Benzene: ND (<0.35) Toluene: ND (<1) Ethylbenzene: ND (<1) Xylenes: ND (<3)	Acetone: 69* 2-Butanone (MEK): 170* ND (all other)	Arsenic: Dissolved: 55.7* Total: 69.3*
MW-12*	In SE central part of 104 12 th parking lot property.	9/28/2020	NA	Benzene: ND (<0.35) Toluene: ND (<1) Ethylbenzene: ND (<1) Xylenes: ND (<3)	Acetone: 240* 2-Butanone (MEK): 130* ND (all other)	Arsenic: Dissolved: 506* Total: 1,240*
MW-13	Sidewalk of Yesler Way, in front of garage door entry, adjacent to OS-4.	9/28/2020	NA	NA	NA	Arsenic: Dissolved: 5.75 Total: 11.5
MW-14	At base of slope in open Center part of property, outside tenant access to former dry cleaner space in 118 12 th bldg.	9/28/2020	NA	Benzene: 0.74 Toluene: ND (<1) Ethylbenzene: ND (<1) Xylenes: ND (<3)	ND (all)	NA

TABLE 2
3rd Quarter 2020 Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

Boring/ Sample I.D.	Sample Location	Sample Date	Laboratory Analytical Results (ug/l)			
			Total Petroleum Hydrocarbons <i>(by Methods NWTPH-G & NWTPH-D(X))</i>	Benzene Toluene Ethyl benzene Xylenes <i>(by EPA Method 8260C)</i>	Other Volatile Organic Compounds <i>(by EPA Method 8260C)</i> <i>List of 58 Additional Compounds Detectable by the Laboratory Method.</i>	Arsenic Dissolved and Total
MW-15*	In N central part of SE parking lot	9/28/2020	NA	Benzene: ND (<0.35) Toluene: ND (<1) Ethylbenzene: ND (<1) Xylenes: ND (<3)	cis-1,2-Dichloroethene: 1.3* Vinyl Chloride: 0.23* ND (all other)	Arsenic: Dissolved: 11.1* Total: 14.6*
MW-16*	In W central part of SE parking lot	9/28/2020	NA	Benzene: ND (<0.35) Toluene: ND (<1) Ethylbenzene: ND (<1) Xylenes: ND (<3)	Acetone: 71* 2-Butanone (MEK): 28* ND (all other)	NA
Geotech B-7 (GEO B-7)*	In NW part of parking lot E of 104 12 th , between previous borings MW-2 and MW-5	9/28/2020	NA	Benzene: ND (<0.35) Toluene: ND (<1) Ethylbenzene: ND (<1) Xylenes: ND (<3)	ND (all)*	NA
Geotech B-8 (GEO B-8)	In S central area of NW gravel parking lot, between borings BN-10, AEG-B-2 and AEG-B-4	9/28/2020	Gasoline Range: ND (<100) Diesel: 150 ^x Motor Oil: ND (<250)	Benzene: ND (<0.35) Toluene: ND (<1) Ethylbenzene: ND (<1) Xylenes: ND (<3)	ND (all)	NA
Geotech B-9 (GEO B-9)*	In NE part of parking lot E of 104 12 th , between previous borings MW-5 and MW-1	9/28/2020	NA	Benzene: ND (<0.35) Toluene: ND (<1) Ethylbenzene: ND (<1) Xylenes: ND (<3)	2-Butanone (MEK): 56* ND (all other)	NA
Washington State Model Toxics Control Act (MTCA) Groundwater Cleanup Criteria (ug/l)			Gasoline: 800^A (Benzene is present) Diesel or Motor Oil: 500^A (combined)	Benzene: 5^A Toluene: 1,000^A Ethylbenzene: 700^A Xylenes: 1,000^A	Acetone: 7,200^B cis-1,2-Dichloroethene: 16^B Hexane: 480^B Isopropylbenzene: 800^B n-Propylbenzene: 800^B p-Isopropyltoluene: NV sec-Butylbenzene: 800^B Tetrachloroethene: 5^A Trichloroethene: 5^A Vinyl chloride: 0.2^A 1,2,4-Trimethylbenzene: 80^B 1,3,5-Trimethylbenzene: 80^B 2-Butanone (MEK): 4,800^B	Arsenic: 5^A Cleanup Level Based on Natural Background Conditions: Dissolved: 19.7 Total: 50

Table Notes:

* - Flagged monitoring wells show discolored water from remediation injections. These results may not be representative of groundwater conditions until all injected carbon and iron have adsorbed to soil in the treatment zone.

Table Notes (Continued)

TABLE 2
3rd Quarter 2020 Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

ND (<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.

BTEX compounds and other volatile organic compounds by EPA Method 8260C. All detected compounds summarized here. See laboratory report for full list of analyzed parameters.

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 2020 Cleanup Levels and Risk Calculation (CLARC) database. NV indicates no value available from CLARC.

A - Method A listed

B - Method B Direct Contact

NV - No published value

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

TABLE 3
2017-2020 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	Acetone	Hexane	Cumene	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	<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	<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	<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	<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	<50	<1	<10	<10	<1	<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	<50	<1	<10	<10	<1	<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	<50	<1	<10	<10	<1	<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	<50	<1	<10	<10	<1	<1	<1	<1	<1	<1	<1	ND	9.49	10.8	NA	NA
9/28/20	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<50	<5	<10	31	<1	<1	<1	<1	<1	<1	<1	ND	<1	<1	NA	NA	
MW-1S	8/6/19	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	0.21	<50	<1	<10	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA	
	12/4/19	<100	72 ^x	340	<0.35	<1	<1	<3	<1	<1	<1	0.29	<50	<1	<10	<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	<50	<1	<10	<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	0.47	<50	<1	<10	<10	<1	<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	<50	<5	<10	33	<1	<1	<1	<1	<1	<1	<1	ND	47.4	50.8	NA	NA
MW-1D	8/6/19	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<50	<1	<10	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA	
	12/4/19	<100	<50	340	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<50	<1	<10	<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	<50	<1	<10	<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	<50	<1	<10	<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	<50	<5	<10	<10	<1	<1	<1	<1	<1	<1	<1	ND	10.1	9.65	NA	NA
MW-2	4/4/17	NA	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<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	<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	<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	<50	<1	<10	<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	<50	<1	<10	<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	<50	<1	<10	<10	<1	<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	<50	<1	<10	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA	
	9/28/20	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<50	<5	<10	82	<1	<1	<1	<1	<1	<1	ND	2.88	1.21	NA	NA	

TABLE 3
2017-2020 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	Acetone	Hexane	Cumene	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*	<250	<0.35	2.5	<1	7.9	<1	<1	<1	0.34	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	<10	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA	
	6/14/18	<100	210*	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA	
	2/25/19	<100	400*	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	<1	NA	
	4/3/19	<100	420*	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA	
	7/23/19	<100	170*	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<50	<1	<10	<10	<1	<1	<1	<1	<1	<1	<1	ND	NA	NA	<1	NA
	12/4/19	<100	280*	340	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<50	<1	<10	<10	<1	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	3/17/20	<100	210*	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<50	<1	<10	<10	<1	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	390*	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<50	<1	<10	<10	<1	<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	
MW-4	4/5/17	NA	67*	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<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	<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	<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	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA	
	12/9/19	<100	180*	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	<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	<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	<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	<50	<5	<1	<10	<1	<1	<1	<1	<1	<1	<1	ND	66.8	64.9	NA	NA	
MW-5	4/5/17	NA	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	<0.2	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	<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	<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	<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	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	<1	NA	
	12/4/19	<100	52*	<250	<0.35	<1	<1	<3	1.3	2.2	3.5	<0.2	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA	
	3/5/19	<100	<50	<250	<0.35	<1	<1	<3	<1	2.2	1.4	<0.2	<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	<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	<50	<5	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA		

TABLE 3
2017-2020 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	Acetone	Hexane	Cumene	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-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	ND	NA	NA	NA	NA
	6/14/18	<100	66 ^x	<250	<0.35	<1	<1	<3	<1	<1	1.2	< 0.2	<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	<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	<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	<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	<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	<50	<5	<1	<10	<1	<1	<1	<1	<1	<1	ND	16.6	15.0	NA	NA
MW-11	7/22/19	<100	400 ^x	370 ^x	<0.35	<1	<1	<3	<1	<1	1.9	< 0.2	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	<1	NA
	12/5/19	<100	61 ^x	<250	<0.35	<1	<1	<3	<1	<1	2.9	0.22	<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	<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	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	8.96	7.98	NA	NA
	9/28/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	69	<5	<1	170	<1	<1	<1	<1	<1	<1	ND	69.3	55.7	NA	NA
MW-12	7/22/19	<100	140 ^x	270 ^x	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	<1	NA
	12/4/19	<100	120 ^x	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<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	<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	<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	240	<5	<1	130	<1	<1	<1	<1	<1	<1	ND	506	1,240	NA	NA
MW-13	10/3/19	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<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	<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	<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	<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	<50	<5	<1	<10	<1	<1	<1	<1	<1	<1	ND	11.5	5.75	NA	NA
MW-14	7/22/19	<100	130 ^x	<250	1.8	<1	<1	<3	<1	<1	2.3	0.65	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	<1	NA
	12/4/19	<100	110 ^x	<250	1.3	<1	<1	<3	<1	<1	1.8	0.25	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	2/28/20	<100	64 ^x	<250	1.8	<1	<1	<3	<1	<1	2.1	0.66	<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	<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	<50	<5	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA

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2017-2020 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	Acetone	Hexane	Cumene	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	<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	<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	<50	<5	<1	<10	<1	<1	<1	<1	<1	<1	ND	14.6	11.1	NA	NA
MW-16	9/28/20	NA	NA	NA	<0.35	<1	<1	<3	<1	<1	1.3	<0.2	71	<5	<1	28	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
GEO B-7	12/6/18	<100	<50	<250	<0.35	<1	<1	<3	<1	<1	1.1	< 0.2	<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	<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	<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	<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	<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	<50	<5	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
GEO B-8	12/6/18	<100	210 ^x	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<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	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	<1	NA
	12/4/19	150	410 ^x	360 ^x	1.3	<1	<1	<3	<1	<1	<1	< 0.2	<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	<50	<1	1.4	<10	2.7	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	5/19/20	<100	380 ^x	<250	<0.35	<1	<1	<3	<1	<1	<1	< 0.2	<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	<50	<5	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
GEO B-9	12/6/18	<100	76 ^x	<250	<0.35	<1	<1	<3	<1	<1	2.4	0.36	<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	<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	<50	<1	<1	<10	<1	<1	<1	<1	<1	<1	ND	NA	NA	NA	NA
	3/5/20	<100	73 ^x	<250	<0.35	<1	<1	<3	<1	<1	1.1	< 0.2	<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	<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	<50	<5	<1	56	<1	<1	<1	<1	<1	<1	ND	NA	NA	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	7,200^B	480^B	800^B	4,800^B	800^B	160^B	NV	800^B	80^B	80^B	--	5^A 54.3^{NB}	5^A 19.7^{NB}	15^A	50^A

TABLE 3
2017-2020 Summary of Groundwater Sample Analytical Results
104 - 124 12th Avenue & 1209 E. Fir Street, Seattle, Washington

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.

BTEX compounds and other 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 2020 Cleanup Levels and Risk Calculation (CLARC) database. NV indicates no value available from CLARC.

A - Method A listed

B - Method B Direct Contact

NV - No published value

NB - Calculated Natural Background Concentration

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

FIGURES



North



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)
- Approximate Location of Soil Vapor Probe
- ⊕ Approximate Location of Geotechnical Soil Borings (Soil Descriptions Only)
- Approximate Location of 2016 Farallon Soil Borings (No Data or Soil Descriptions, Locations Estimated)

MW-X Well I.D. and Groundwater Elevation

--- Interpolated Groundwater Contours Based on Water Level Measurements on 9/28/202

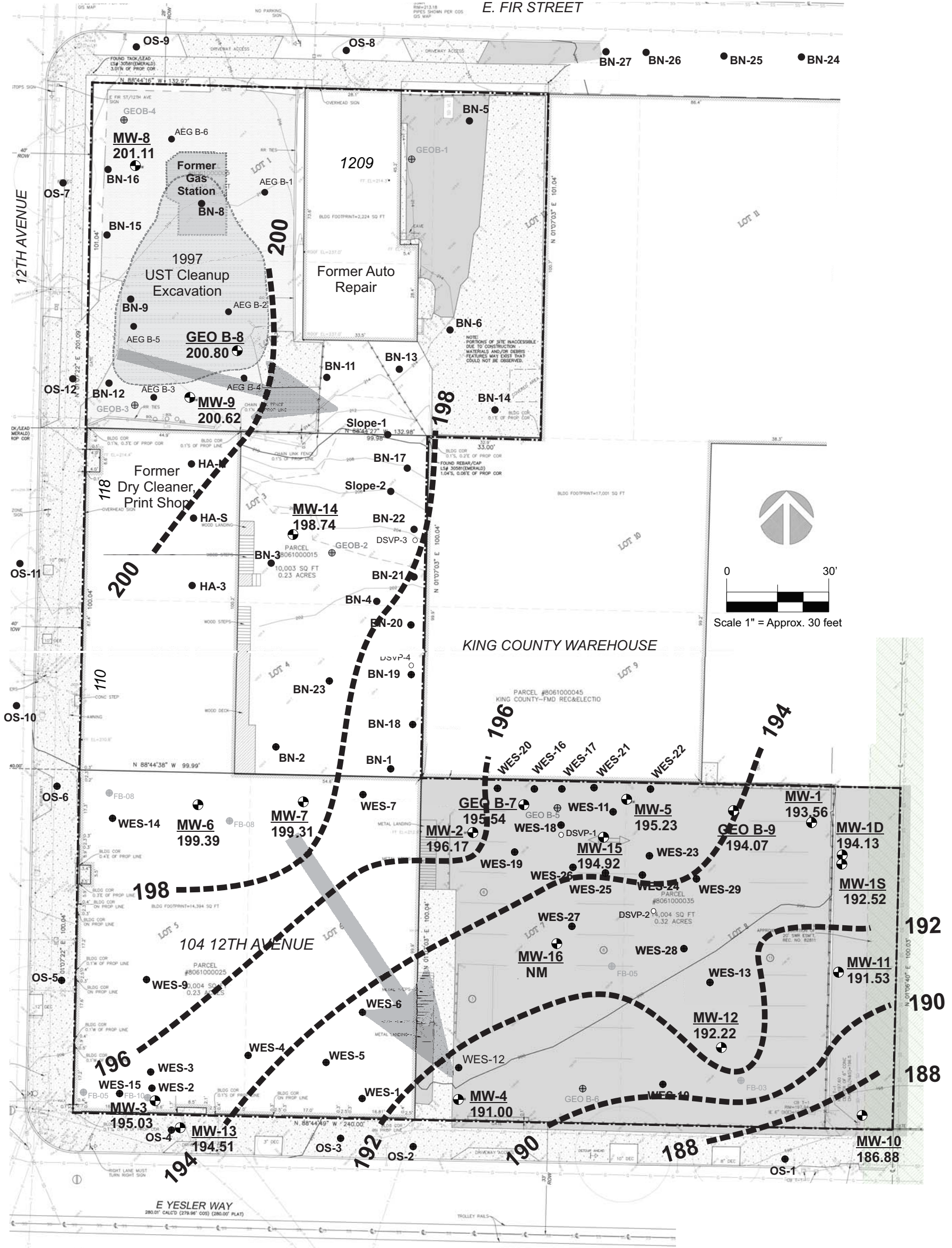
General Direction of Groundwater Migration

Figure 2 - Monitoring Well Location Plan and Interpolated Groundwater Contours - 9/28/2020

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

Project No.	WES - 1591A
Date	Oct 18, 2020
File ID.	1591Q3F2

WHITMAN
Environmental Sciences



Legend

- ⊕ Approximate Location of Monitoring Well
- Approximate Location of Soil Borings (2016 -2020)
- Approximate Location of Soil Vapor Probe
- ⊕ Approximate Location of Geotechnical Soil Borings (Soil Descriptions Only)
- Approximate Location of 2016 Farallon Soil Borings (No Data or Soil Descriptions, Locations Estimated)

GEO B-7
TCE - 2.9
C12DCE - 3.2

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

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

Bold Italic Exceeds CUL

Figure 3 - 3rd Quarter 2020 Groundwater Sampling Analytical Results

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

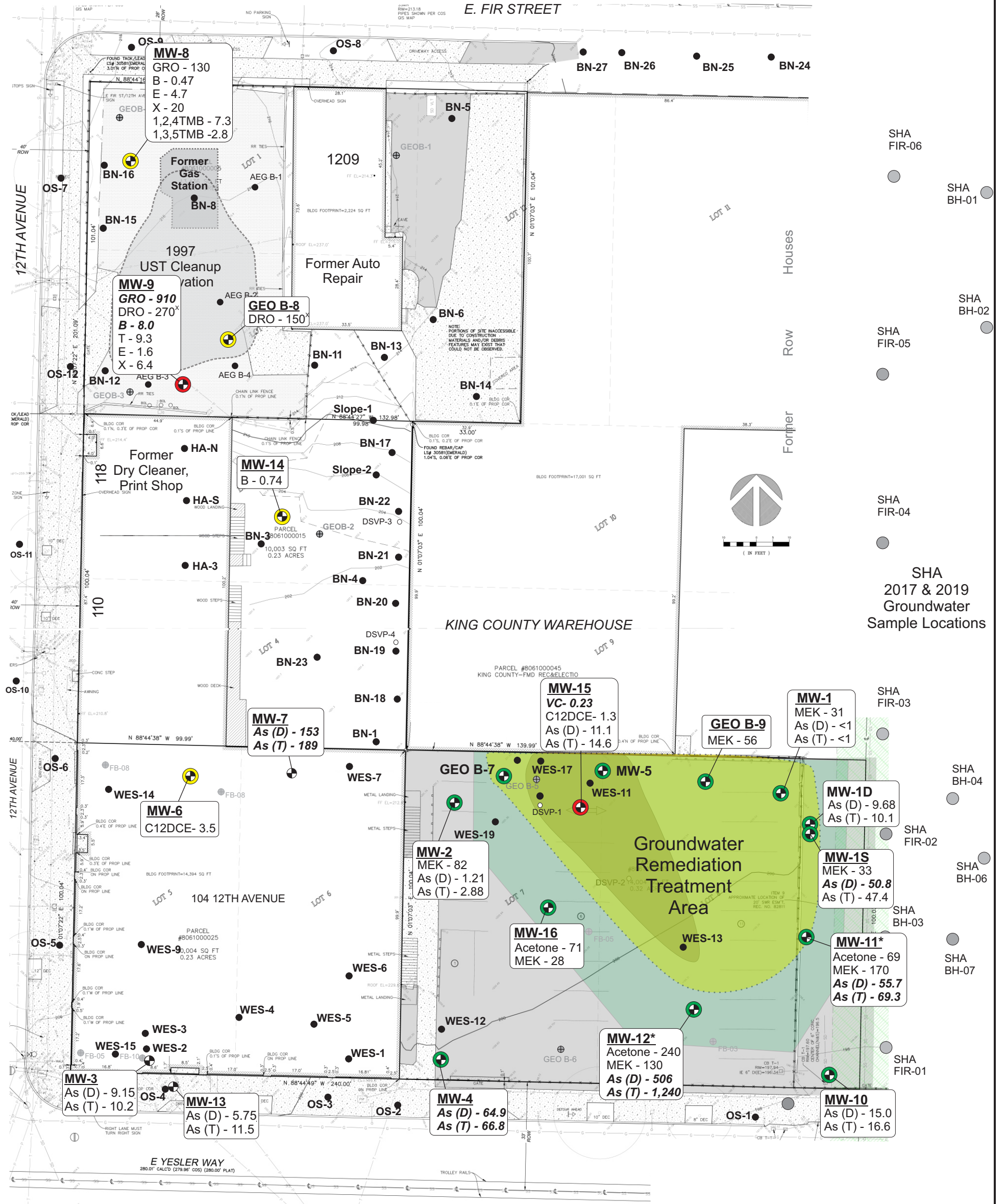
Project No.	WES - 1591A
Date	Nov 9, 2020
File ID.	1591Q3F3

WHITMAN
Environmental Sciences

⊕ Monitoring Well with No Detected CVOCs or Petroleum Compounds in Groundwater in 3rd Quarter 2020 Sampling

⊕ Monitoring Well with Detected CVOCs or Petroleum Compounds in Groundwater in 3rd Quarter 2020 Sampling

⊕ Monitoring Well with CVOCs or Petroleum Compounds above MTCA Method A in Groundwater in 3rd Quarter 2020 Sampling



APPENDIX A

***Laboratory Analytical Report
Friedman & Bruya, Inc.***

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

November 11, 2020

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

Dear Mr Whitman:

Included is the amended report from the testing of material submitted on September 29, 2020 from the 12th + Yesler PO WES-1591, F&BI 009527 project. The field filtered containers were analyzed for dissolved metals and inserted into the 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
WES1007R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

November 11, 2020

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 29, 2020 from the 12th + Yesler PO WES-1591, F&BI 009527 project. There are 57 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 29, 2020 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences 12th + Yesler PO WES-1591, F&BI 009527 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Whitman Environmental Sciences</u>
009527 -01	MW-1-GW
009527 -02	MW-IS-GW
009527 -03	MW-ID-GW
009527 -04	MW-2-GW
009527 -05	MW-3-GW
009527 -06	MW-4-GW
009527 -07	MW-5-GW
009527 -08	MW-6-GW
009527 -09	MW-7-GW
009527 -10	MW-8-GW
009527 -11	MW-9-GW
009527 -12	MW-10-GW
009527 -13	MW-11-GW
009527 -14	MW-12-GW
009527 -15	MW-13-GW
009527 -16	MW-14-GW
009527 -17	MW-15-GW
009527 -18	MW-16-GW
009527 -19	GEO-B7-GW
009527 -20	GEO-B8-GW
009527 -21	GEO-B9-GW

Dibromochloromethane failed the acceptance criteria in the 8260D laboratory control sample, laboratory control sample duplicate, and continuing calibration verification standard. The data were flagged accordingly.

All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/11/20

Date Received: 09/29/20

Project: 12th + Yesler PO WES-1591, F&BI 009527

Date Extracted: 10/02/20

Date Analyzed: 10/02/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
USING METHOD NWTPH-Gx**
Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 51-134)
MW-8-GW 009527-10	130	87
GEO-B8-GW 009527-20	<100	80
Method Blank 00-2160 MB	<100	83

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/11/20

Date Received: 09/29/20

Project: 12th + Yesler PO WES-1591, F&BI 009527

Date Extracted: 10/02/20

Date Analyzed: 10/02/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES AND TPH AS GASOLINE
USING METHODS 8021B AND NWTPH-Gx**

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 52-124)
MW-9-GW 009527-11	8.0	9.3	1.6	6.4	910	69
Method Blank 00-2160 MB	<1	<1	<1	<3	<100	73

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/11/20

Date Received: 09/29/20

Project: 12th + Yesler PO WES-1591, F&BI 009527

Date Extracted: 09/30/20

Date Analyzed: 09/30/20

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-D_x**

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> (% Recovery) (Limit 41-152)
MW-9-GW 009527-11	270 x	<250	131
GEO-B8-GW 009527-20	150 x	<250	142
Method Blank 00-2220 MB	<50	<250	136

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-1-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/15/20	Lab ID:	009527-01
Date Analyzed:	10/15/20 13:28:57	Data File:	009527-01.087
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	<1
---------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-IS-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/15/20	Lab ID:	009527-02
Date Analyzed:	10/15/20 13:33:38	Data File:	009527-02.088
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	50.8
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-ID-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/15/20	Lab ID:	009527-03
Date Analyzed:	10/15/20 13:38:19	Data File:	009527-03.089
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	9.68
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-2-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/15/20	Lab ID:	009527-04
Date Analyzed:	10/15/20 13:43:01	Data File:	009527-04.090
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	1.21
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-3-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/15/20	Lab ID:	009527-05
Date Analyzed:	10/15/20 13:47:42	Data File:	009527-05.091
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	9.15
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-4-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/15/20	Lab ID:	009527-06
Date Analyzed:	10/15/20 13:52:24	Data File:	009527-06.092
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	64.9
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-7-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/15/20	Lab ID:	009527-09
Date Analyzed:	10/15/20 13:57:06	Data File:	009527-09.093
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	153
---------	-----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-10-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/15/20	Lab ID:	009527-12
Date Analyzed:	10/15/20 14:01:47	Data File:	009527-12.094
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	15.0
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-11-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/15/20	Lab ID:	009527-13
Date Analyzed:	10/15/20 14:06:29	Data File:	009527-13.095
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	55.7
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-12-GW f	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/05/20	Lab ID:	009527-14 x100
Date Analyzed:	10/06/20	Data File:	009527-14 x100.036
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	506
---------	-----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-13-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/15/20	Lab ID:	009527-15
Date Analyzed:	10/15/20 14:11:11	Data File:	009527-15.096
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	5.75
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-15-GW f	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/05/20	Lab ID:	009527-17 x5
Date Analyzed:	10/06/20	Data File:	009527-17 x5.038
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	11.1
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank f	Client:	Whitman Environmental Sciences
Date Received:	NA	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/05/20	Lab ID:	I0-602 mb
Date Analyzed:	10/05/20	Data File:	I0-602 mb.115
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	<1
---------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	NA	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/15/20	Lab ID:	I0-630 mb
Date Analyzed:	10/15/20 11:33:13	Data File:	I0-630 mb.060
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	<1
---------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-1-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/01/20	Lab ID:	009527-01
Date Analyzed:	10/02/20	Data File:	009527-01.119
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	<1
---------	----

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-IS-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/01/20	Lab ID:	009527-02 x10
Date Analyzed:	10/01/20	Data File:	009527-02 x10.146
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	47.4
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-ID-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/01/20	Lab ID:	009527-03 x10
Date Analyzed:	10/01/20	Data File:	009527-03 x10.147
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	10.1
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-2-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/01/20	Lab ID:	009527-04
Date Analyzed:	10/02/20	Data File:	009527-04.120
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	2.88
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-3-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/01/20	Lab ID:	009527-05 x10
Date Analyzed:	10/01/20	Data File:	009527-05 x10.149
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
----------	-----------------------------

Arsenic	10.2
---------	------

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-4-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/01/20	Lab ID:	009527-06 x10
Date Analyzed:	10/01/20	Data File:	009527-06 x10.150
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	66.8
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-7-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/01/20	Lab ID:	009527-09 x10
Date Analyzed:	10/01/20	Data File:	009527-09 x10.151
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	189
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-10-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/01/20	Lab ID:	009527-12 x10
Date Analyzed:	10/01/20	Data File:	009527-12 x10.157
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	16.6
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-11-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/01/20	Lab ID:	009527-13 x10
Date Analyzed:	10/01/20	Data File:	009527-13 x10.158
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	69.3
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-12-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/01/20	Lab ID:	009527-14 x10
Date Analyzed:	10/01/20	Data File:	009527-14 x10.159
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1,240

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-13-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/01/20	Lab ID:	009527-15 x10
Date Analyzed:	10/01/20	Data File:	009527-15 x10.160
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	11.5
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-15-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/01/20	Lab ID:	009527-17 x10
Date Analyzed:	10/01/20	Data File:	009527-17 x10.161
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	14.6
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	NA	Project:	12th + Yesler PO WES-1591
Date Extracted:	10/01/20	Lab ID:	I0-594 mb
Date Analyzed:	10/01/20	Data File:	I0-594 mb.102
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Arsenic	<1
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-1-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	09/30/20	Lab ID:	009527-01
Date Analyzed:	09/30/20	Data File:	093024.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	106	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1 jl ca
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	<1
2-Butanone (MEK)	31	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-IS-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	09/30/20	Lab ID:	009527-02
Date Analyzed:	09/30/20	Data File:	093025.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	105	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1 jl ca
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	<1
2-Butanone (MEK)	33	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-ID-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	09/30/20	Lab ID:	009527-03
Date Analyzed:	09/30/20	Data File:	093026.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	105	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1 jl ca
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	<1
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-2-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	09/30/20	Lab ID:	009527-04
Date Analyzed:	09/30/20	Data File:	093027.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	104	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1 jl ca
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	<1
2-Butanone (MEK)	82	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-4-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	09/30/20	Lab ID:	009527-06
Date Analyzed:	09/30/20	Data File:	093028.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	106	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1 jl ca
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	<1
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-5-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	09/30/20	Lab ID:	009527-07
Date Analyzed:	09/30/20	Data File:	093029.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	105	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1 jl ca
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	<1
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-6-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	09/30/20	Lab ID:	009527-08
Date Analyzed:	09/30/20	Data File:	093030.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	106	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1 jl ca
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	3.5	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<1
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-8-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	09/30/20	Lab ID:	009527-10
Date Analyzed:	09/30/20	Data File:	093031.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	106	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1 jl ca
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	4.7
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	17
Hexane	<5	o-Xylene	3.0
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	1.1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	1.3
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	2.8
Chloroform	<1	1,1,2,2-Tetrachloroethane	<1
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	7.3
Benzene	0.47	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID: MW-10-GW	Client: Whitman Environmental Sciences
Date Received: 09/29/20	Project: 12th + Yesler PO WES-1591
Date Extracted: 09/30/20	Lab ID: 009527-12
Date Analyzed: 09/30/20	Data File: 093032.D
Matrix: Water	Instrument: GCMS4
Units: ug/L (ppb)	Operator: JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	106	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1 jl ca
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	<1
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-11-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	09/30/20	Lab ID:	009527-13
Date Analyzed:	09/30/20	Data File:	093033.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	111	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1 jl ca
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	69	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	<1
2-Butanone (MEK)	170	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-12-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	09/30/20	Lab ID:	009527-14
Date Analyzed:	09/30/20	Data File:	093034.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	57	121
Toluene-d8	96	63	127
4-Bromofluorobenzene	120	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1 jl ca
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	240	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	<1
2-Butanone (MEK)	130	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-14-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	09/30/20	Lab ID:	009527-16
Date Analyzed:	09/30/20	Data File:	093035.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	107	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1 jl ca
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	<1
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	0.74	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-15-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	09/30/20	Lab ID:	009527-17
Date Analyzed:	09/30/20	Data File:	093036.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	106	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	0.23	Dibromochloromethane	<1 jl ca
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	1.3	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<1
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	MW-16-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	09/30/20	Lab ID:	009527-18
Date Analyzed:	09/30/20	Data File:	093037.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	112	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1 jl ca
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	71	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	<1
2-Butanone (MEK)	28	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	GEO-B7-GW	Client:	Whitman Environmental Sciences
Date Received:	09/29/20	Project:	12th + Yesler PO WES-1591
Date Extracted:	09/30/20	Lab ID:	009527-19
Date Analyzed:	09/30/20	Data File:	093038.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	98	63	127
4-Bromofluorobenzene	113	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1 jl ca
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	<1
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID: GEO-B8-GW	Client: Whitman Environmental Sciences
Date Received: 09/29/20	Project: 12th + Yesler PO WES-1591
Date Extracted: 09/30/20	Lab ID: 009527-20
Date Analyzed: 09/30/20	Data File: 093039.D
Matrix: Water	Instrument: GCMS4
Units: ug/L (ppb)	Operator: JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	107	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1 jl ca
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	<1
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID: GEO-B9-GW	Client: Whitman Environmental Sciences
Date Received: 09/29/20	Project: 12th + Yesler PO WES-1591
Date Extracted: 09/30/20	Lab ID: 009527-21
Date Analyzed: 09/30/20	Data File: 093040.D
Matrix: Water	Instrument: GCMS4
Units: ug/L (ppb)	Operator: JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	57	121
Toluene-d8	99	63	127
4-Bromofluorobenzene	106	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1 jl ca
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	<1
2-Butanone (MEK)	56	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	12th + Yesler PO WES-1591
Date Extracted:	09/30/20	Lab ID:	00-2193 mb
Date Analyzed:	09/30/20	Data File:	093009.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	JCM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	98	57	121
Toluene-d8	100	63	127
4-Bromofluorobenzene	104	60	133

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.2	Dibromochloromethane	<1 jl ca
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	<1
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<1	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<1	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<1	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<1	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	<1	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<1
trans-1,3-Dichloropropene	<1	Naphthalene	<1
1,1,2-Trichloroethane	<1	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/11/20

Date Received: 09/29/20

Project: 12th + Yesler PO WES-1591, F&BI 009527

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER
SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE,
XYLENES, AND TPH AS GASOLINE
USING EPA METHOD 8021B AND NWTPH-Gx**

Laboratory Code: 009490-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	107	65-118
Toluene	ug/L (ppb)	50	92	72-122
Ethylbenzene	ug/L (ppb)	50	95	73-126
Xylenes	ug/L (ppb)	150	93	74-118
Gasoline	ug/L (ppb)	1,000	107	69-134

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/11/20

Date Received: 09/29/20

Project: 12th + Yesler PO WES-1591, F&BI 009527

**QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER
SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL EXTENDED USING METHOD NWTPH-D_x**

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	112	100	63-142	11

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/11/20

Date Received: 09/29/20

Project: 12th + Yesler PO WES-1591, F&BI 009527

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

Laboratory Code: 010156-07 (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	8.21	93	95	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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 10/07/20

Date Received: 09/29/20

Project: 12th + Yesler PO WES-1591, F&BI 009527

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

Laboratory Code: 009527-01 (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	101	102	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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/11/20

Date Received: 09/29/20

Project: 12th + Yesler PO WES-1591, F&BI 009527

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

Laboratory Code: 009551-01 (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	3.28	103	96	75-125	7

Laboratory Code: Laboratory Control Sample

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/11/20

Date Received: 09/29/20

Project: 12th + Yesler PO WES-1591, F&BI 009527

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

Laboratory Code: 009527-21 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	
				Recovery MS	Acceptance Criteria
Dichlorodifluoromethane	ug/L (ppb)	10	<1	83	10-172
Chloromethane	ug/L (ppb)	10	<10	96	25-166
Vinyl chloride	ug/L (ppb)	10	<0.2	85	36-166
Bromomethane	ug/L (ppb)	10	<5	91	47-169
Chloroethane	ug/L (ppb)	10	<1	99	46-160
Trichlorofluoromethane	ug/L (ppb)	10	<1	87	44-165
Acetone	ug/L (ppb)	50	<50	117	10-182
1,1-Dichloroethene	ug/L (ppb)	10	<1	93	60-136
Hexane	ug/L (ppb)	10	<5	75	52-150
Methylene chloride	ug/L (ppb)	10	<5	75	67-132
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	<1	106	74-127
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	94	72-129
1,1-Dichloroethane	ug/L (ppb)	10	<1	102	70-128
2,2-Dichloropropane	ug/L (ppb)	10	<1	43	36-154
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	97	71-127
Chloroform	ug/L (ppb)	10	<1	100	65-132
2-Butanone (MEK)	ug/L (ppb)	50	56	103 b	10-129
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	<1	107	48-149
1,1,1-Trichloroethane	ug/L (ppb)	10	<1	92	60-146
1,1-Dichloropropene	ug/L (ppb)	10	<1	99	69-133
Carbon tetrachloride	ug/L (ppb)	10	<1	89	56-152
Benzene	ug/L (ppb)	10	<0.35	101	76-125
Trichloroethene	ug/L (ppb)	10	<1	86	66-135
1,2-Dichloropropane	ug/L (ppb)	10	<1	97	78-125
Bromodichloromethane	ug/L (ppb)	10	<1	87	61-150
Dibromomethane	ug/L (ppb)	10	<1	91	66-141
4-Methyl-2-pentanone	ug/L (ppb)	50	<10	105	10-185
cis-1,3-Dichloropropene	ug/L (ppb)	10	<1	76	72-132
Toluene	ug/L (ppb)	10	<1	98	76-122
trans-1,3-Dichloropropene	ug/L (ppb)	10	<1	80	76-130
1,1,2-Trichloroethane	ug/L (ppb)	10	<1	89	68-131
2-Hexanone	ug/L (ppb)	50	<10	143	10-185
1,3-Dichloropropane	ug/L (ppb)	10	<1	107	71-128
Tetrachloroethene	ug/L (ppb)	10	<1	89	10-226
Dibromochloromethane	ug/L (ppb)	10	<1	81	70-139
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	<1	95	69-134
Chlorobenzene	ug/L (ppb)	10	<1	96	77-122
Ethylbenzene	ug/L (ppb)	10	<1	97	69-135
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	<1	87	73-137
m,p-Xylene	ug/L (ppb)	20	<2	92	69-135
o-Xylene	ug/L (ppb)	10	<1	92	60-140
Styrene	ug/L (ppb)	10	<1	87	71-133
Isopropylbenzene	ug/L (ppb)	10	<1	91	65-142
Bromoform	ug/L (ppb)	10	<5	80	65-142
n-Propylbenzene	ug/L (ppb)	10	<1	82	58-144
Bromobenzene	ug/L (ppb)	10	<1	91	75-124
1,3,5-Trimethylbenzene	ug/L (ppb)	10	<1	81	66-137
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	<1	108	51-154
1,2,3-Trichloropropane	ug/L (ppb)	10	<1	107	53-150
2-Chlorotoluene	ug/L (ppb)	10	<1	92	66-127
4-Chlorotoluene	ug/L (ppb)	10	<1	88	65-130
tert-Butylbenzene	ug/L (ppb)	10	<1	86	65-137
1,2,4-Trimethylbenzene	ug/L (ppb)	10	<1	77	59-146
sec-Butylbenzene	ug/L (ppb)	10	<1	74	64-140
p-Isopropyltoluene	ug/L (ppb)	10	<1	71	65-141
1,3-Dichlorobenzene	ug/L (ppb)	10	<1	81	72-123
1,4-Dichlorobenzene	ug/L (ppb)	10	<1	82	69-126
1,2-Dichlorobenzene	ug/L (ppb)	10	<1	83	69-128
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	<10	86	32-164
1,2,4-Trichlorobenzene	ug/L (ppb)	10	<1	44 vo	66-136
Hexachlorobutadiene	ug/L (ppb)	10	<1	62	60-143
Naphthalene	ug/L (ppb)	10	<1	50	44-164
1,2,3-Trichlorobenzene	ug/L (ppb)	10	<1	46 vo	69-148

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 11/11/20

Date Received: 09/29/20

Project: 12th + Yesler PO WES-1591, F&BI 009527

**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 LCS/D	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	10	89	92	25-158	3
Chloromethane	ug/L (ppb)	10	93	93	45-156	0
Vinyl chloride	ug/L (ppb)	10	91	89	50-154	2
Bromomethane	ug/L (ppb)	10	101	100	55-143	1
Chloroethane	ug/L (ppb)	10	94	97	58-146	3
Trichlorofluoromethane	ug/L (ppb)	10	88	86	50-150	2
Acetone	ug/L (ppb)	50	98	98	22-155	0
1,1-Dichloroethene	ug/L (ppb)	10	92	90	67-136	2
Hexane	ug/L (ppb)	10	94	89	57-137	5
Methylene chloride	ug/L (ppb)	10	84	74	39-148	13
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	106	103	64-147	3
trans-1,2-Dichloroethene	ug/L (ppb)	10	90	90	68-128	0
1,1-Dichloroethane	ug/L (ppb)	10	101	99	74-135	2
2,2-Dichloropropane	ug/L (ppb)	10	127	121	55-143	5
cis-1,2-Dichloroethene	ug/L (ppb)	10	95	96	74-136	1
Chloroform	ug/L (ppb)	10	99	97	74-134	2
2-Butanone (MEK)	ug/L (ppb)	50	102	101	37-150	1
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	106	104	66-129	2
1,1,1-Trichloroethane	ug/L (ppb)	10	95	91	74-142	4
1,1-Dichloropropene	ug/L (ppb)	10	99	98	77-129	1
Carbon tetrachloride	ug/L (ppb)	10	90	87	75-158	3
Benzene	ug/L (ppb)	10	98	96	69-134	2
Trichloroethene	ug/L (ppb)	10	85	85	67-133	0
1,2-Dichloropropane	ug/L (ppb)	10	97	92	71-134	5
Bromodichloromethane	ug/L (ppb)	10	87	84	76-132	4
Dibromomethane	ug/L (ppb)	10	88	86	68-132	2
4-Methyl-2-pentanone	ug/L (ppb)	50	105	103	65-138	2
cis-1,3-Dichloropropene	ug/L (ppb)	10	92	92	74-140	0
Toluene	ug/L (ppb)	10	98	98	72-122	0
trans-1,3-Dichloropropene	ug/L (ppb)	10	100	99	80-136	1
1,1,2-Trichloroethane	ug/L (ppb)	10	88	86	75-124	2
2-Hexanone	ug/L (ppb)	50	117	117	60-136	0
1,3-Dichloropropane	ug/L (ppb)	10	104	105	76-126	1
Tetrachloroethene	ug/L (ppb)	10	93	92	76-121	1
Dibromochloromethane	ug/L (ppb)	10	79 vo	81 vo	84-133	2
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	94	94	82-115	0
Chlorobenzene	ug/L (ppb)	10	95	97	83-114	2
Ethylbenzene	ug/L (ppb)	10	100	100	77-124	0
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	88	86	84-127	2
m,p-Xylene	ug/L (ppb)	20	98	97	81-112	1
o-Xylene	ug/L (ppb)	10	98	97	81-121	1
Styrene	ug/L (ppb)	10	93	94	84-119	1
Isopropylbenzene	ug/L (ppb)	10	98	99	80-117	1
Bromoform	ug/L (ppb)	10	85	85	74-136	0
n-Propylbenzene	ug/L (ppb)	10	98	97	74-126	1
Bromobenzene	ug/L (ppb)	10	93	93	80-121	0
1,3,5-Trimethylbenzene	ug/L (ppb)	10	98	95	78-123	3
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	108	107	66-126	1
1,2,3-Trichloropropane	ug/L (ppb)	10	107	105	67-124	2
2-Chlorotoluene	ug/L (ppb)	10	102	101	77-127	1
4-Chlorotoluene	ug/L (ppb)	10	99	99	78-128	0
tert-Butylbenzene	ug/L (ppb)	10	96	94	80-123	2
1,2,4-Trimethylbenzene	ug/L (ppb)	10	98	98	79-122	0
sec-Butylbenzene	ug/L (ppb)	10	97	95	80-116	2
p-Isopropyltoluene	ug/L (ppb)	10	95	93	81-123	2
1,3-Dichlorobenzene	ug/L (ppb)	10	94	94	83-113	0
1,4-Dichlorobenzene	ug/L (ppb)	10	95	95	81-112	0
1,2-Dichlorobenzene	ug/L (ppb)	10	96	93	84-112	3
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	93	94	57-141	1
1,2,4-Trichlorobenzene	ug/L (ppb)	10	92	89	72-130	3
Hexachlorobutadiene	ug/L (ppb)	10	94	95	53-141	1
Naphthalene	ug/L (ppb)	10	87	87	64-133	0
1,2,3-Trichlorobenzene	ug/L (ppb)	10	95	92	65-136	3

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. 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.

009527

SAMPLE CHAIN OF CUSTODY

ME 09/29/20

Page # 155 of 160

Report To: [Signature]
 Company: Friedman & Bruya, Inc.
 Address: 512 15th Ave SE
 City, State, ZIP: SEATTLE, WA 98145
 Phone: [Signature] Email: [Signature]

SAMPLERS (signature) _____

PROJECT NAME: 17th + 15th

PO #: 005-1591

REMARKS: _____

INVOICE TO: _____

Project specific PLS? - 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	ANALYSES REQUESTED							Notes		
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082			
MD-1-610	01 A-E	9-28-20		Control	5					X					
MD-15-610	02				5					X					
MD-17-610	03				5					X					
MD-2-610	04				5					X					
MD-3-610	05 A-B				2					X					
MD-4-610	06 A-E				3					X					
MD-5-610	07 A-C				4					X					
MD-6-610	08 A-D				2					X					
MD-7-610	09 A-B				4					X					
MD-8-610	10 A-D				4					X					

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

Received by: [Signature] Received by: [Signature]

Relinquished by: [Signature] Relinquished by: [Signature]

PRINT NAME: [Signature] PRINT NAME: [Signature]

COMPANY: FBIS COMPANY: FBIS

DATE: 9/29/20 DATE: 10/13

TIME: _____ TIME: _____

Samples received at 4 °C

009527

SAMPLE CHAIN OF CUSTODY

ME 09/29/20

Page # 2 of 6

Report To 1068

Company _____

Address _____

City, State, ZIP _____

Phone _____ Email _____

PROJECT NAME <i>17th + 46th St</i>		PO # <i>0265</i>
REMARKS <i>Project specific RI's? - Yes / No</i>		INVOICE TO <i>1591</i>
ANALYSES REQUESTED <input checked="" type="checkbox"/> NWTPH-Dx <input checked="" type="checkbox"/> NWTPH-Gx <input checked="" type="checkbox"/> BTEX EPA 8021 <input checked="" type="checkbox"/> NWTPH-HCID <input checked="" type="checkbox"/> VOCs EPA 8260 <input checked="" type="checkbox"/> PAHs EPA 8270 <input checked="" type="checkbox"/> PCBs EPA 8082 <i>TOTAL + 2 DISPOSALS</i>		
TURNOURND TIME <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH Rush charges authorized by: _____ SAMPLE DISPOSAL <input type="checkbox"/> Archive samples <input type="checkbox"/> Other _____ Default: Dispose after 30 days		

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED							Notes			
						NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082				
<i>MD-9-61D</i>	<i>11 A-D</i>	<i>9-28</i>		<i>COARSE</i>	<i>4</i>	<i>XX</i>	<i>X</i>									
<i>MD-10-61D</i>	<i>D.A.E</i>				<i>5</i>	<i>XX</i>										
<i>MD-11-61D</i>	<i>13</i>				<i>5</i>											<i>NO PRESSURED BOTTLES</i>
<i>MD-12-61D</i>	<i>14</i>				<i>5</i>											<i>NO PRESSURED BOTTLES</i>
<i>MD-13-61D</i>	<i>15 A/B</i>				<i>2 (B/D)</i>											
<i>MD-14-61D</i>	<i>16 A-D</i>				<i>4</i>											
<i>MD-15-61D</i>	<i>17</i>				<i>4</i>											<i>ONLY ONE UNPRESSED BOTTLE FOR METALS</i>
<i>MD-16-61D</i>	<i>18</i>				<i>4</i>											
<i>GED-57-61D</i>	<i>14 A-C</i>				<i>3</i>											
<i>GED-58-61D</i>	<i>15 A-D</i>				<i>4</i>											

SIGNATURE		PRINT NAME		COMPANY		DATE	TIME
<i>[Signature]</i>		<i>[Name]</i>		<i>[Company]</i>		<i>9/29/20</i>	<i>1413</i>
Relinquished by:		PRINT NAME		COMPANY		DATE	TIME
<i>[Signature]</i>		<i>[Name]</i>		<i>[Company]</i>		<i>9/29/20</i>	<i>1413</i>
Received by:		PRINT NAME		COMPANY		DATE	TIME
<i>[Signature]</i>		<i>[Name]</i>		<i>[Company]</i>		<i>9/29/20</i>	<i>1413</i>
Relinquished by:		PRINT NAME		COMPANY		DATE	TIME
<i>[Signature]</i>		<i>[Name]</i>		<i>[Company]</i>		<i>9/29/20</i>	<i>1413</i>
Received by:		PRINT NAME		COMPANY		DATE	TIME
<i>[Signature]</i>		<i>[Name]</i>		<i>[Company]</i>		<i>9/29/20</i>	<i>1413</i>

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 Seattle, WA 98119-2029
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APPENDIX B

***Natural Background Arsenic Concentrations in Groundwater
MTCASat Reports***

Background calculations

0.5
4.93
10.1
10.2
10.7
11.5
11.8
12.4
14.4
14.8
17.7
23.2
28.9
66.8
126

TD AUTO TOTAL ARSENIC NATURAL BACKGROUND CALCULATION

MTCASat 3.0			
Number of samples		Uncensored values	
Uncensored	15	Mean	24.26
Censored	0	Lognormal mean	28.37
TOTAL	15	Std. devn.	32.06
		Median	12.4
		Min.	0.5
		Max.	126
Lognormal distribution?		Normal distribution?	
r-squared is: 0.83		r-squared is: 0.58	
Recommendations:			
Use nonparametric method.			
Distribution selection		Enter percentile	Value corresponding to that percentile is:
1		90	80.91
1 = Lognormal		50th	13.57
2 = Normal		4 X 50th	54.28
3 = Nonparametric method		Coefficient of Variation = 2.44	

Background calculations

0.75
1.6
2.84
3.03
3.2
3.44
5.75
9.35
9.68
11
64.9

TD AUTO NATURAL BACKGROUND DISSOLVED ARSENIC CONCENTRATION

MTCASat 3.0			
Number of samples		Uncensored values	
Uncensored	11	Mean	10.50
Censored	0	Lognormal mean	9.86
TOTAL	11	Std. devn.	18.37
		Median	3.44
		Min.	0.75
		Max.	64.9
Lognormal distribution?		Normal distribution?	
r-squared is: 0.93		r-squared is: 0.48	
Recommendations:			
Use lognormal distribution.			
Distribution selection		Value corresponding to that percentile is:	
1	Enter percentile	90	25.93
1 = Lognormal		50th	4.93
2 = Normal		4 X 50th	19.74
3 = Nonparametric method		Coefficient of Variation = 2.08	