

April 17, 2023

Greg Wright
2912 Cedar Street
Everett, Washington 98201

**Subject: Groundwater and Soil Sampling Report
Fifth Wheel Truck Repair Site
307 and 309 Arlington Street
Yakima, Washington 98901-3564**

Dear Mr. Wright:

In accordance with your request, Puget Environmental, PLLC (Puget) has prepared this report presenting results of soil and groundwater sampling activities conducted by Puget at the site referenced above. The investigation was conducted to evaluate the current condition of soil and groundwater beneath the site and provide data necessary to support a no further action (NFA) determination from the Washington State Department of Ecology (Ecology).

BACKGROUND

Historical records indicate the site was initially developed in 1948 and has been used as a truck repair and auto body repair facility until at least 2018. The subject site lies within the area affected by contaminant releases from the nearby Yakima Railroad Area (YRRA) site. Results of various environmental investigation and cleanup activities conducted between 1989 and 2020 indicate soil and groundwater beneath the subject site have been impacted with tetrachloroethylene (PCE), metals and/or petroleum hydrocarbons at concentrations exceeding Model Toxics Control Act (MTCA) Method A and/or B cleanup levels. The site location and select site features are shown on Figures 1 and 2.

In 1995, Ecology issued an enforcement order requiring the property owner to perform a Remedial Investigation and Feasibility Study to document conditions and evaluate whether releases at the site have contributed to the YRRA groundwater impacts. In 2020 the site was entered into Ecology's Voluntary Cleanup Program.

Following review of historical site data, Ecology issued an opinion letter on July 30, 2020, indicating the current characterization is not sufficient to establish cleanup standards and select a cleanup action, and that further remedial action is necessary to cleanup contamination at the site.

Based on a review of prior investigation results and Ecology opinion letters, Puget prepared a *Proposal for Additional Characterization and Site Closure Evaluation* dated December 23, 2022, outlining the additional tasks necessary to support establishment of cleanup standards and selection of an appropriate cleanup action.

RECENT INVESTIGATION

Soil Sampling

On February 16, 2023, Puget visited the site and advanced one boring (P-1) to evaluate the condition of soil near existing Drywell 3 and the Former Drywell 1 excavation location. The boring was advanced to a total depth of approximately 13.5 feet below ground surface (bgs) using truck-mounted direct-push sampling equipment. The boring location is shown on Figure 2.

Soil from the boring was examined for indications of impacts using a combination of visual observation, sheen testing and photoionization detector readings. Soil encountered generally consisted of imported gravel fill material underlain by damp, light gray, medium-grained sand with few fines to the maximum depth explored of approximately 13.5 feet bgs. Drilling was halted when refusal was encountered at approximately 13.5 feet bgs. Saturated conditions were not encountered. Additional boring information is outlined in the attached Boring Log.

Soil samples from the boring were collected in laboratory-supplied containers and placed into an iced cooler pending transport to the analytical laboratory.

Groundwater Monitoring and Sampling

Following soil sampling activities, Puget measured depth to water and collected groundwater samples for analysis from the four existing on-site monitoring wells.

Depth to water measurements indicate groundwater approximately 18.00 to 20.45 feet bgs with a gradient generally directed toward the south and east at a magnitude of approximately 0.02. Following depth to water measurements, groundwater samples were

collected from four monitoring wells according EPA approved, low-flow purging and sampling techniques using a peristaltic pump with dedicated tubing. Groundwater samples were collected in laboratory-supplied containers and placed into an iced cooler pending transport to the analytical laboratory. Copies of groundwater sampling field data sheets are attached.

LABORATORY ANALYSIS AND RESULTS

Select soil and groundwater samples were transported to the Friedman & Bruya, Inc. laboratory in Seattle, Washington, and analyzed for total petroleum hydrocarbons as gasoline (TPH-G) using Ecology Method NWTPH-Gx, total petroleum hydrocarbons as diesel (TPH-D) and total petroleum hydrocarbons as oil (TPH-O) using Ecology Method NWTPH-Dx, benzene, toluene, ethylbenzene and total xylenes (BTEX) using United States Environmental Protection Agency (EPA) Method 8021B, volatile organic compounds (VOCs) using EPA Method 8260D, and total metals using EPA Method 6020B.

Soil sample laboratory results indicate sample S1-13.5 collected at approximately 13.5 feet bgs from boring P-1 near the Drywell 3/Former Dry Well 1 location, contained TPH-G, TPH-D, TPH-O, BTEX and VOC concentrations below their respective laboratory method reporting limits (MRLs). Results of total metals analysis indicate the sample contained arsenic, barium, cadmium, lead and chromium at concentrations below their respective MTCA Method A cleanup levels. Remaining metals concentrations were below the respective laboratory MRLs. Soil sample laboratory results are shown on Table 1 and Table 2.

Groundwater laboratory results indicate the sample collected from Monitoring Well MW-2 contained 1.1 microgram per liter (ug/L) tetrachloroethene, below the MTCA Method A cleanup level of 5 ug/L. Results of total metals analysis indicate groundwater samples collected from MW-1 through MW-4 contained arsenic, barium and/or selenium at concentrations below their respective MTCA Method A cleanup levels. No other analyte concentrations exceeding the respective laboratory MRLs were detected in any of the groundwater samples analyzed. Groundwater sample laboratory results are shown on Table 3 and Table 4. Copies of the official laboratory reports and chain of custody documentation are attached.

CONCLUSIONS

Soil Conditions

Soil sample laboratory results indicate sample S1-13.5 collected at approximately 13.5 feet bgs from boring P-1 near the Former Dry Well 1 location contained TPH-G, TPH-D, TPH-O, BTEX, VOC and total metals concentrations below MTCA Method A cleanup levels.

Based on these results, it appears impacted soil was successfully removed during prior excavation activities and no further cleanup action is required.

Groundwater Conditions

Depth to water measurements collected in February 2023, indicate groundwater approximately 18.00 to 20.45 feet bgs in monitoring wells MW-1 through MW-4, with a gradient generally directed toward the south and east at a magnitude of approximately 0.02. Groundwater elevations are shown on Figure 3.

Groundwater sample laboratory results indicate samples MW-1, MW-2, MW-3 and MW-4 collected from groundwater monitoring wells MW-1 through MW-4, respectively, contained TPH-G, TPH-D, TPH-O, BTEX, VOC and total metals concentrations below their respective MTCA Method A cleanup levels.

Based on these results, it appears groundwater conditions beneath the site are in compliance with MTCA Method A cleanup levels and no further cleanup action is required.

RECOMMENDATIONS

Results of the investigation indicate soil and groundwater concentrations beneath the site are below MTCA Method A cleanup levels and no additional cleanup action is required.

Based on site conditions, Puget recommends submittal of this report to Ecology for review under the Voluntary Cleanup Program with a request for a No Further Action determination and removal of the site owner from the YRRA list of Potentially Responsible Parties.

LIMITATIONS

The scope of work for this investigation was conducted in a manner that is consistent with the level of care and skill ordinarily exercised by other members of the profession practicing in the same locality and under similar conditions as of the date the services were provided. Results of our evaluation including conclusions, opinions and recommendations are based on a limited number of observations and data. Data from other areas may be different. Puget makes no representation, guarantee, or warranty, express or implied, regarding the services, communication, report, opinion, or instrument of service provided.

Puget provides various levels of service to meet the needs of varying clients. Evaluation of geologic and environmental conditions requires judgment leading to conclusions and recommendations that are generally based on incomplete knowledge of subsurface conditions due to the limitations of data from field studies. Although risk cannot be eliminated, more detailed and extensive studies yield more information which may help understand and manage the level of risk.

The work was conducted based on the scope and budget requirements, and site information provided by our client.

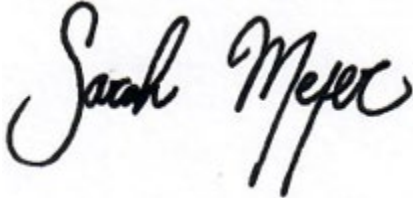
PUGET

ENVIRONMENTAL P.L.L.C.

We appreciate the opportunity to provide service. Please do not hesitate to contact either of the undersigned if you have any questions.

Sincerely,

Puget Environmental, PLLC



Sarah Meyer
Office Manager



John K. Meyer, L.H.G.
Principal Hydrogeologist

Attachments

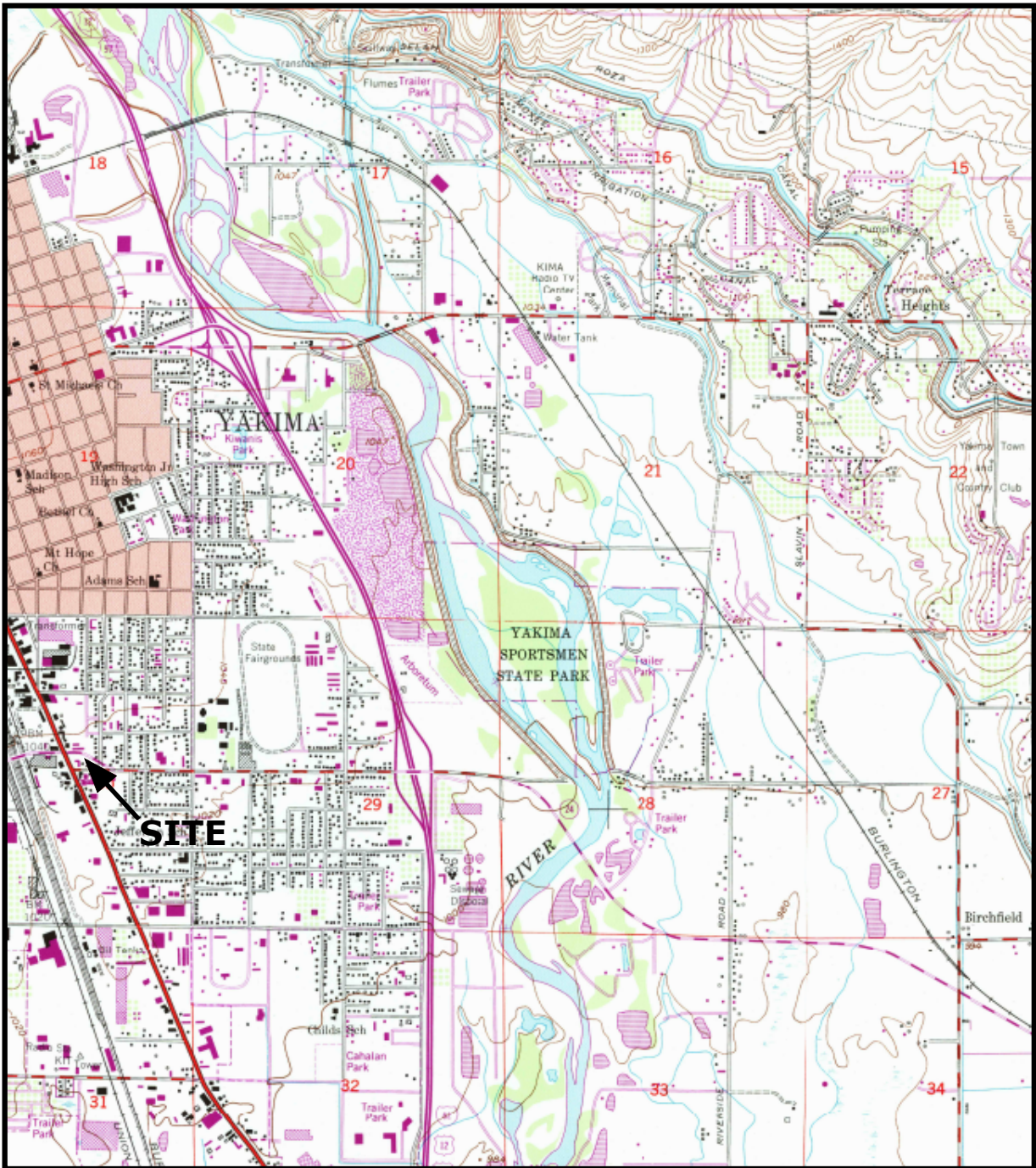
Figures

Tables

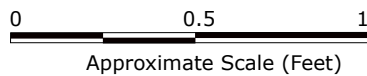
Boring Log

Laboratory Reports and Chain of Custody Documentation

Groundwater Sampling Field Data Sheets



From the United States Geological Survey - Yakima East Quadrangle, Washington - KYakima Co. 7.5 Minute Series 1985



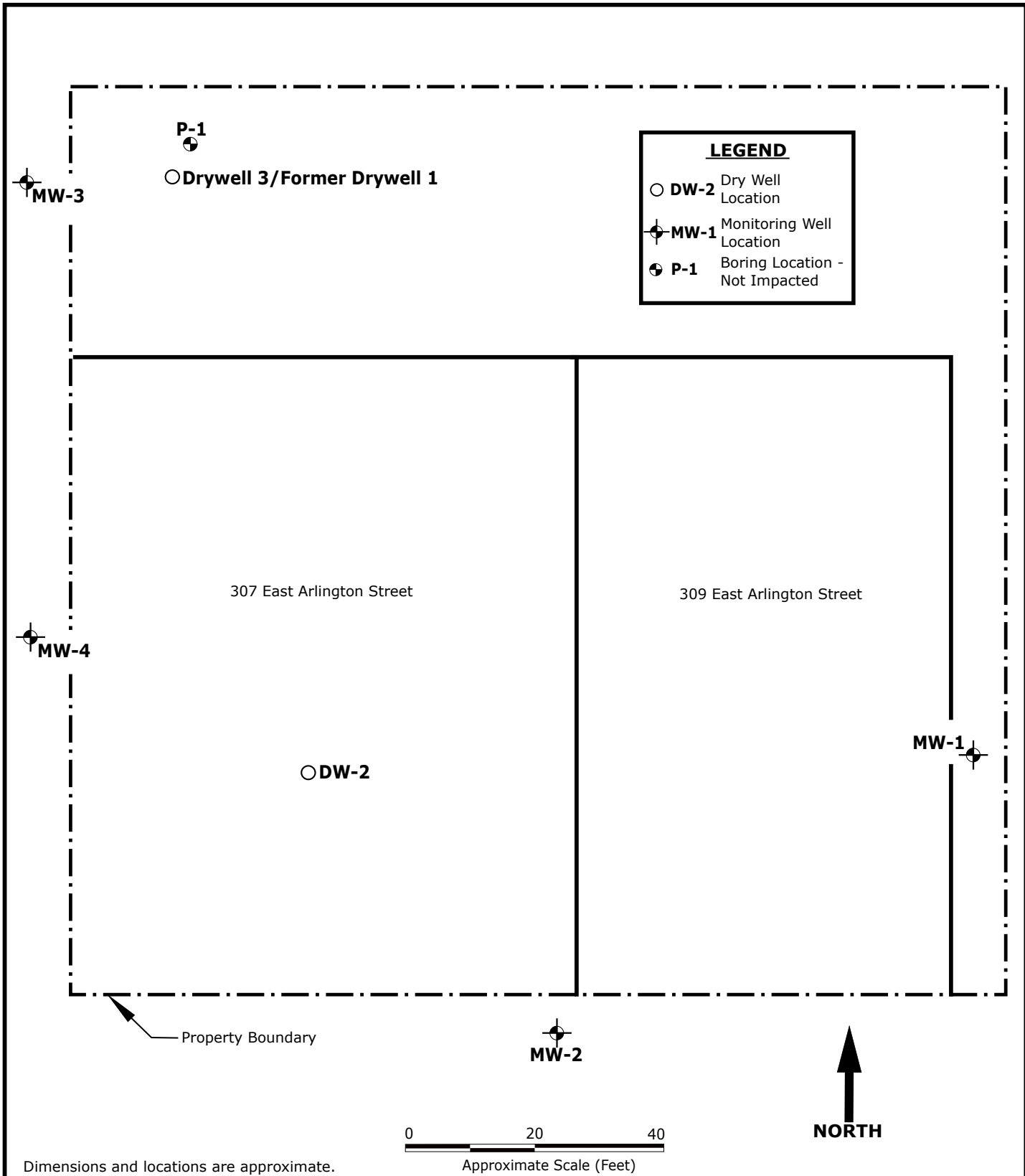
Dimensions and locations are approximate.

PUGET

ENVIRONMENTAL P.L.L.C.
 4616 25th Avenue NE #143
 Seattle, Washington 98105
 PugetEnvironmental.com

Fifth Wheel Truck Repair Site
 307 and 309 East Arlington Street
 Yakima, Washington 98901-3564

FIGURE 1
 SITE LOCATION



Dimensions and locations are approximate.

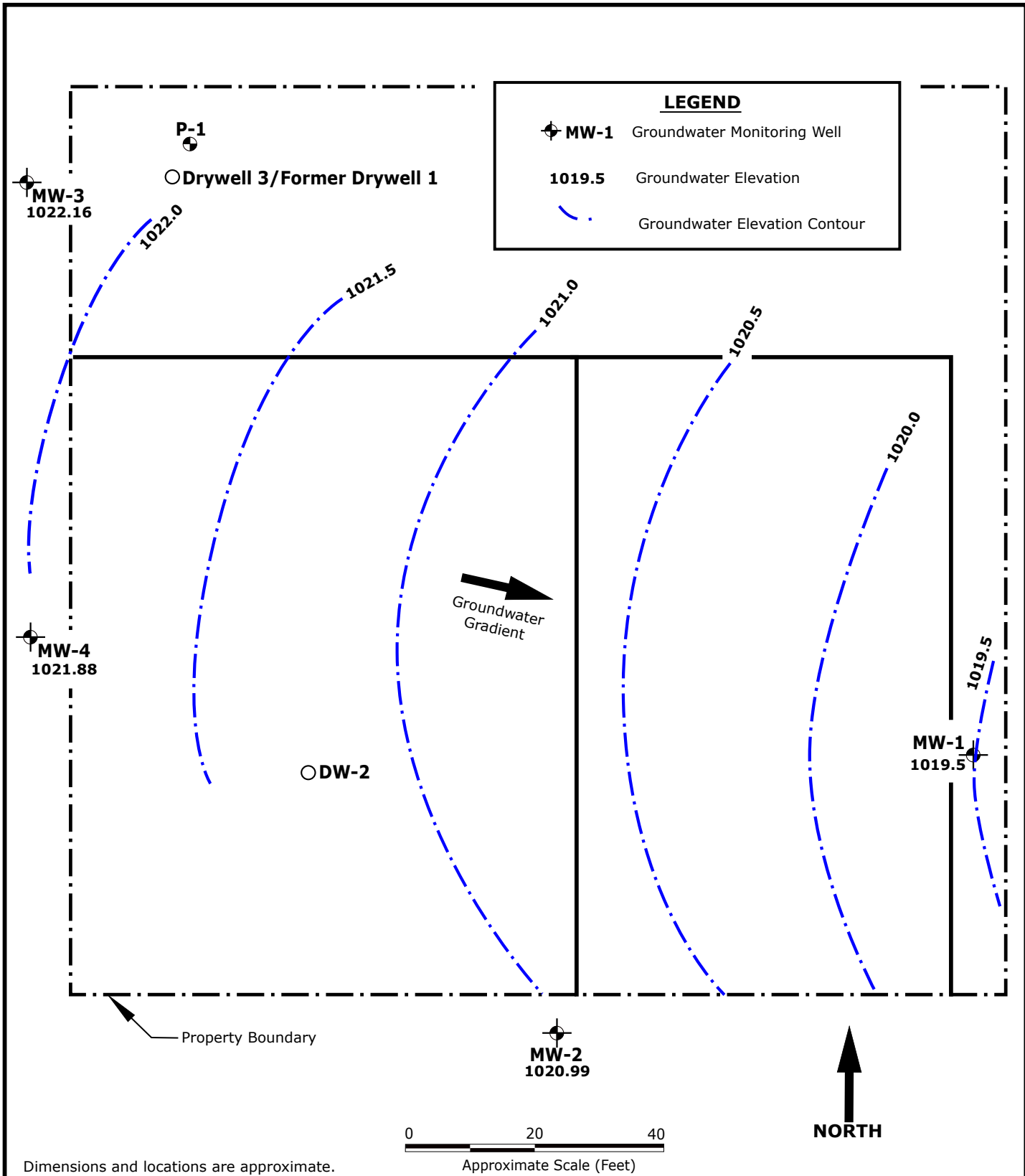
Approximate Scale (Feet)

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Fifth Wheel Truck Repair Site
 307 and 309 East Arlington Street
 Yakima, Washington 98901-3564

FIGURE 2
 SITE PLAN



PUGET

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4616 25th Avenue NE #143
Seattle, Washington 98105
PugetEnvironmental.com

Project Number: 22493 3/22/23 SM

Fifth Wheel Truck Repair Site
307 and 309 East Arlington Street
Yakima, Washington 98901-3564

FIGURE 3
GROUNDWATER ELEVATION
CONTOUR MAP

Table 1
Soil Sample Analytical Results: TPH-G, TPH-D, TPH-O, BTEX and VOCs
Fifth Wheel Truck Repair Site
307 and 309 East Arlington Street
Yakima, Washington 98901-3564

Sample Name	Depth	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	VOC (Tetrachloroethylene)
S1-13.5	13.5	<5	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.025
Model Toxics Control Act (MTCA) Method A Cleanup Level		30/100₁	2,000	2,000	0.03	7	6	9	0.03

TPH-D Total petroleum hydrocarbons as diesel analysis using Ecology Method NW/TPH-Dx
 TPH-O Total petroleum hydrocarbons as oil analysis using Ecology Method NW/TPH-Dx
 TPH-G Total petroleum hydrocarbons as gasoline analysis using Ecology Method NW/TPH-Gx
 Benzene, toluene, ethylbenzene and total xylene analysis using EPA Method 8021B

VOC
 (Tetrachloroethylene) Analysis for volatile organic compounds using EPA Method 8260D. No other analytes detected

< Less than the indicated method reporting limit
 Depths in feet below ground surface
 Results in milligrams per kilogram (mg/kg)
 Bolded and shaded values exceed the Model Toxics Control Act (MTCA) Method A cleanup levels

Table 2
Soil Sample Analytical Results: Total Metals
Fifth Wheel Truck Repair Site
307 and 309 East Arlington Street
Yakima, Washington 98901-3564

Sample Name	Depth	Arsenic	Barium	Cadmium	Lead	Mercury	Selenium	Silver	Chromium
S1-13.5	13.5	3.46	80.9	1.08	45.5	<1	<1	<1	35.0
Model Toxics Control Act (MTCA) Method A Cleanup Level		20	--	2	250	2	--	--	2,000¹

< Less than the indicated method reporting limit
1 Chromium III
Analysis for total metals conducted using EPA Method 6020B
Depths in feet below ground surface
Results in milligrams per kilogram (mg/kg)
Bolded and shaded values exceed the Model Toxics Control Act (MTCA) Method A cleanup levels

Table 3
Groundwater Sample Analytical Results: TPH-G, TPH-D, TPH-O, BTEX and VOCs
Fifth Wheel Truck Repair Site
307 and 309 East Arlington Street
Yakima, Washington 98901-3564

Well ID	Wellhead Elevation	Depth to Water	Groundwater Elevation	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes	VOC (Tetrachloroethylene)
MW-1	1039.95	20.45	1019.5	<100	<50	<250	<1	<1	<1	<3	<1
MW-2	1039.22	18.23	1020.99	<100	<50	<250	<1	<1	<1	<3	1.1
MW-3	1040.29	18.13	1022.16	<100	<50	<250	<1	<1	<1	<3	<1
MW-4	1039.88	18.00	1021.88	<100	<50	<250	<1	<1	<1	<3	<1
Model Toxics Control Act (MTCA) Method A Cleanup Level				1,000/800¹	500	500	5	1,000	700	1,000	5

TPH-D Total petroleum hydrocarbons as diesel analysis using Ecology Method NWTPH-Dx

TPH-O Total petroleum hydrocarbons as oil analysis using Ecology Method NWTPH-Dx

TPH-G Total petroleum hydrocarbons as gasoline analysis using Ecology Method NWTPH-Gx

Benzene, toluene, ethylbenzene and total xylenes analysis using EPA Method 8021B

VOC Analysis for volatile organic compounds using EPA Method 8260D. No other analytes detected
(Tetrachloroethylene)

< Less than the indicated method reporting limit

Depths in feet below top of casing

Wellhead elevations taken from prior consultant's report

Results in micrograms per liter (ug/L)

Bolded and shaded values exceed Model Toxics Control Act (MTCA) Method A cleanup levels

Table 4
Groundwater Sample Analytical Results: Total Metals
Fifth Wheel Truck Repair Site
307 and 309 East Arlington Street
Yakima, Washington 98901-3564

Well ID	Wellhead Elevation	Depth to Water	Groundwater Elevation	Arsenic	Barium	Cadmium	Lead	Mercury	Selenium	Silver	Chromium
MW-1	1039.95	20.45	1019.5	1.28	13.3	<1	<1	<1	2.24	<1	<10
MW-2	1039.22	18.23	1020.99	<1	13.3	<1	<1	<1	1.06	<1	<10
MW-3	1040.29	18.13	1022.16	<1	13.1	<1	<1	<1	<1	<1	<10
MW-4	1039.88	18.00	18.00	<1	13.7	<1	<1	<1	<1	<1	<10
Model Toxics Control Act (MTCA) Method A Cleanup Level				5	--	5	15	2	--	--	50

< Less than the indicated method reporting limit
 Analysis for total metals conducted using EPA Method 6020B
 Depths in feet below top of casing
 Wellhead elevations taken from prior consultant's report
 Results in micrograms per liter (ug/L)
 Bolded and shaded values exceed Model Toxics Control Act (MTCA) Method A cleanup levels

Date: 2/16/2023	Soil Boring Log	Boring Name: P-1
Project Name: Fifth Wheel Truck Repair Site	Location: Near Drywell 1	
Address: 307 and 309 East Arlington Street Yakima, Washington 98901-3564		

Depth	Sample	Blows	PID	USCS	Description	Well Construction
5				GW/GP	0 to 13 feet bgs: Imported gravel fill material	Not Applicable
10				SP	13 to 13.5 feet bgs: Damp, light gray, medium-grained sand with few fines	
15					Refusal encountered at approximately 13.5 feet bgs	
20						
25						
30						
35						

PUGET ENVIRONMENTAL P.L.L.C. 4616 25th Avenue NE #143 Seattle, Washington 98105 Project Number: 22493 SM	Driller Name: Puget Environmental	Sampling Method: 4ft x 2.25-inch sampler with acetate liner
	Drilling Method: Truck-Mounted Direct-Push	Weather Conditions: Cloudy, 40s
	Diameter: 2.25 inches	

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

5500 4th Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

March 2, 2023

John Meyer, Project Manager
Puget Environmental
4616 25th Avenue NE, Suite 143
Seattle, WA 98105

Dear Mr Meyer:

Included are the results from the testing of material submitted on February 17, 2023 from the Yakima, F&BI 302252 project. There are 32 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
c: Sarah Meyer
PGT0302R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/02/23
Date Received: 02/17/23
Project: Yakima, F&BI 302252
Date Extracted: 02/17/23
Date Analyzed: 02/20/23

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

Results Reported on a Dry Weight Basis

Results Reported as mg/kg (ppm)

<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 50-132)
S1-13.5 302252-05	<0.02	<0.02	<0.02	<0.06	<5	69
Method Blank 03-239 MB	<0.02	<0.02	<0.02	<0.06	<5	53

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/02/23
Date Received: 02/17/23
Project: Yakima, F&BI 302252
Date Extracted: 02/20/23
Date Analyzed: 02/21/23

**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 50-150)
MW-1 302252-01	<1	<1	<1	<3	<100	101
MW-2 302252-02	<1	<1	<1	<3	<100	94
MW-3 302252-03	<1	<1	<1	<3	<100	98
MW-4 302252-04	<1	<1	<1	<3	<100	89
Method Blank 03-238 MB	<1	<1	<1	<3	<100	96

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/02/23
Date Received: 02/17/23
Project: Yakima, F&BI 302252
Date Extracted: 02/20/23
Date Analyzed: 02/20/23

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

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

<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> <u>(% Recovery)</u> (Limit 50-150)
S1-13.5 302252-05	<50	<250	106
Method Blank 03-444 MB	<50	<250	96

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/02/23
Date Received: 02/17/23
Project: Yakima, F&BI 302252
Date Extracted: 02/20/23
Date Analyzed: 02/20/23

**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-1 302252-01	<50	<250	108
MW-2 302252-02	<50	<250	107
MW-3 302252-03	<50	<250	112
MW-4 302252-04	<50	<250	115
Method Blank 03-440 MB	<50	<250	110

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	S1-13.5	Client:	Puget Environmental
Date Received:	02/17/23	Project:	Yakima, F&BI 302252
Date Extracted:	02/27/23	Lab ID:	302252-05
Date Analyzed:	02/28/23	Data File:	302252-05.047
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Analyte:	Concentration mg/kg (ppm)
Arsenic	3.46
Cadmium	1.08
Mercury	<1 J
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	S1-13.5	Client:	Puget Environmental
Date Received:	02/17/23	Project:	Yakima, F&BI 302252
Date Extracted:	02/27/23	Lab ID:	302252-05 x5
Date Analyzed:	02/28/23	Data File:	302252-05 x5.079
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Analyte:	Concentration mg/kg (ppm)
Barium	80.9
Chromium	35.0
Lead	45.5
Mercury	<5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Puget Environmental
Date Received:	NA	Project:	Yakima, F&BI 302252
Date Extracted:	02/27/23	Lab ID:	I3-140 mb
Date Analyzed:	02/28/23	Data File:	I3-140 mb.039
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	MG

Analyte:	Concentration mg/kg (ppm)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-1	Client:	Puget Environmental
Date Received:	02/17/23	Project:	Yakima, F&BI 302252
Date Extracted:	02/21/23	Lab ID:	302252-01
Date Analyzed:	02/22/23	Data File:	302252-01.283
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	1.28
Barium	13.3
Cadmium	<1
Lead	<1
Mercury	<1
Selenium	2.24
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-1	Client:	Puget Environmental
Date Received:	02/17/23	Project:	Yakima, F&BI 302252
Date Extracted:	02/21/23	Lab ID:	302252-01 x10
Date Analyzed:	02/23/23	Data File:	302252-01 x10.149
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Chromium	<10
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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-2	Client:	Puget Environmental
Date Received:	02/17/23	Project:	Yakima, F&BI 302252
Date Extracted:	02/21/23	Lab ID:	302252-02
Date Analyzed:	02/22/23	Data File:	302252-02.284
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	13.3
Cadmium	<1
Lead	<1
Mercury	<1
Selenium	1.06
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-2	Client:	Puget Environmental
Date Received:	02/17/23	Project:	Yakima, F&BI 302252
Date Extracted:	02/21/23	Lab ID:	302252-02 x10
Date Analyzed:	02/23/23	Data File:	302252-02 x10.150
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Chromium	<10
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-3	Client:	Puget Environmental
Date Received:	02/17/23	Project:	Yakima, F&BI 302252
Date Extracted:	02/21/23	Lab ID:	302252-03
Date Analyzed:	02/22/23	Data File:	302252-03.285
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	13.1
Cadmium	<1
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-3	Client:	Puget Environmental
Date Received:	02/17/23	Project:	Yakima, F&BI 302252
Date Extracted:	02/21/23	Lab ID:	302252-03 x10
Date Analyzed:	02/23/23	Data File:	302252-03 x10.151
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Chromium	<10
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-4	Client:	Puget Environmental
Date Received:	02/17/23	Project:	Yakima, F&BI 302252
Date Extracted:	02/21/23	Lab ID:	302252-04
Date Analyzed:	02/22/23	Data File:	302252-04.286
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	13.7
Cadmium	<1
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-4	Client:	Puget Environmental
Date Received:	02/17/23	Project:	Yakima, F&BI 302252
Date Extracted:	02/21/23	Lab ID:	302252-04 x10
Date Analyzed:	02/23/23	Data File:	302252-04 x10.152
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
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Chromium	<10
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FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Puget Environmental
Date Received:	NA	Project:	Yakima, F&BI 302252
Date Extracted:	02/21/23	Lab ID:	I3-113 mb2
Date Analyzed:	02/21/23	Data File:	I3-113 mb2.146
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Barium	<1
Cadmium	<1
Chromium	<1
Lead	<1
Mercury	<1
Selenium	<1
Silver	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	S1-13.5	Client:	Puget Environmental
Date Received:	02/17/23	Project:	Yakima, F&BI 302252
Date Extracted:	02/20/23	Lab ID:	302252-05
Date Analyzed:	02/20/23	Data File:	022015.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	90	109
Toluene-d8	108	89	112
4-Bromofluorobenzene	100	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D

Client Sample ID:	Method Blank	Client:	Puget Environmental
Date Received:	Not Applicable	Project:	Yakima, F&BI 302252
Date Extracted:	02/20/23	Lab ID:	03-0339 mb
Date Analyzed:	02/20/23	Data File:	022005.D
Matrix:	Soil	Instrument:	GCMS4
Units:	mg/kg (ppm) Dry Weight	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	90	109
Toluene-d8	109	89	112
4-Bromofluorobenzene	103	84	115

Compounds:	Concentration mg/kg (ppm)
Vinyl chloride	<0.05
Chloroethane	<0.5
1,1-Dichloroethene	<0.05
Methylene chloride	<0.5
trans-1,2-Dichloroethene	<0.05
1,1-Dichloroethane	<0.05
cis-1,2-Dichloroethene	<0.05
1,2-Dichloroethane (EDC)	<0.05
1,1,1-Trichloroethane	<0.05
Trichloroethene	<0.02
Tetrachloroethene	<0.025

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-1	Client:	Puget Environmental
Date Received:	02/17/23	Project:	Yakima, F&BI 302252
Date Extracted:	02/21/23	Lab ID:	302252-01
Date Analyzed:	02/21/23	Data File:	022116.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	lm

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

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.02
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<0.2
1,1,1-Trichloroethane	<1
Trichloroethene	<0.5
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-2	Client:	Puget Environmental
Date Received:	02/17/23	Project:	Yakima, F&BI 302252
Date Extracted:	02/21/23	Lab ID:	302252-02
Date Analyzed:	02/21/23	Data File:	022117.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	88	71	132
Toluene-d8	93	68	139
4-Bromofluorobenzene	100	62	136

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.02
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<0.2
1,1,1-Trichloroethane	<1
Trichloroethene	<0.5
Tetrachloroethene	1.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-3	Client:	Puget Environmental
Date Received:	02/17/23	Project:	Yakima, F&BI 302252
Date Extracted:	02/21/23	Lab ID:	302252-03
Date Analyzed:	02/21/23	Data File:	022118.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	lm

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

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.02
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<0.2
1,1,1-Trichloroethane	<1
Trichloroethene	<0.5
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-4	Client:	Puget Environmental
Date Received:	02/17/23	Project:	Yakima, F&BI 302252
Date Extracted:	02/21/23	Lab ID:	302252-04
Date Analyzed:	02/21/23	Data File:	022119.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	90	71	132
Toluene-d8	91	68	139
4-Bromofluorobenzene	106	62	136

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.02
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<0.2
1,1,1-Trichloroethane	<1
Trichloroethene	<0.5
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Puget Environmental
Date Received:	Not Applicable	Project:	Yakima, F&BI 302252
Date Extracted:	02/20/23	Lab ID:	03-0340 mb
Date Analyzed:	02/20/23	Data File:	022007.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	lm

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	101	71	132
Toluene-d8	103	68	139
4-Bromofluorobenzene	104	62	136

Compounds:	Concentration ug/L (ppb)
Vinyl chloride	<0.02
Chloroethane	<1
1,1-Dichloroethene	<1
Methylene chloride	<5
trans-1,2-Dichloroethene	<1
1,1-Dichloroethane	<1
cis-1,2-Dichloroethene	<1
1,2-Dichloroethane (EDC)	<0.2
1,1,1-Trichloroethane	<1
Trichloroethene	<0.5
Tetrachloroethene	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/02/23

Date Received: 02/17/23

Project: Yakima, F&BI 302252

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

Laboratory Code: 302177-02 (Duplicate)

Analyte	Reporting Units	Sample Result (Wet Wt)	Duplicate Result (Wet Wt)	RPD (Limit 20)
Benzene	mg/kg (ppm)	<0.02	<0.02	nm
Toluene	mg/kg (ppm)	<0.02	<0.02	nm
Ethylbenzene	mg/kg (ppm)	<0.02	<0.02	nm
Xylenes	mg/kg (ppm)	<0.06	<0.06	nm
Gasoline	mg/kg (ppm)	<5	<5	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	mg/kg (ppm)	0.5	100	66-121
Toluene	mg/kg (ppm)	0.5	94	72-128
Ethylbenzene	mg/kg (ppm)	0.5	100	69-132
Xylenes	mg/kg (ppm)	1.5	100	69-131
Gasoline	mg/kg (ppm)	20	100	61-153

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/02/23

Date Received: 02/17/23

Project: Yakima, F&BI 302252

**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: 302237-01 (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	84	70-130
Toluene	ug/L (ppb)	50	82	70-130
Ethylbenzene	ug/L (ppb)	50	82	70-130
Xylenes	ug/L (ppb)	150	87	70-130
Gasoline	ug/L (ppb)	1,000	95	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/02/23

Date Received: 02/17/23

Project: Yakima, F&BI 302252

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

Laboratory Code: 302252-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	(Wet wt) Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	140	99	99	70-130	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	98	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/02/23

Date Received: 02/17/23

Project: Yakima, F&BI 302252

**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	88	104	70-130	17

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/02/23

Date Received: 02/17/23

Project: Yakima, F&BI 302252

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

Laboratory Code: 302346-01 x5 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	mg/kg (ppm)	10	26.1	0 b	0 b	75-125	0 b
Barium	mg/kg (ppm)	50	104	0 b	0 b	75-125	0 b
Cadmium	mg/kg (ppm)	10	<5	101	98	75-125	3
Chromium	mg/kg (ppm)	50	95.7	111	124	75-125	11
Lead	mg/kg (ppm)	50	52.8	169 b	182 b	75-125	7
Mercury	mg/kg (ppm)	5	<5	92	92	75-125	0
Selenium	mg/kg (ppm)	5	<5	100	73 b	75-125	31 b
Silver	mg/kg (ppm)	10	<5	106	111	75-125	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	mg/kg (ppm)	10	86	80-120
Barium	mg/kg (ppm)	50	96	80-120
Cadmium	mg/kg (ppm)	10	97	80-120
Chromium	mg/kg (ppm)	50	102	80-120
Lead	mg/kg (ppm)	50	98	80-120
Mercury	mg/kg (ppm)	5	98	80-120
Selenium	mg/kg (ppm)	5	87	80-120
Silver	mg/kg (ppm)	10	91	80-120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/02/23

Date Received: 02/17/23

Project: Yakima, F&BI 302252

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

Laboratory Code: 302217-01 x10 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	<10	82	92	75-125	11
Barium	ug/L (ppb)	50	284	64 b	108	75-125	51 b
Cadmium	ug/L (ppb)	5	<10	77	81	75-125	5
Chromium	ug/L (ppb)	20	<10	86	92	75-125	7
Lead	ug/L (ppb)	10	<10	80	83	75-125	4
Mercury	ug/L (ppb)	5	<10	77	88	75-125	13
Selenium	ug/L (ppb)	5	<10	71 vo	85	75-125	18
Silver	ug/L (ppb)	5	<10	65 vo	69 vo	75-125	6

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	91	80-120
Barium	ug/L (ppb)	50	95	80-120
Cadmium	ug/L (ppb)	5	98	80-120
Chromium	ug/L (ppb)	20	97	80-120
Lead	ug/L (ppb)	10	96	80-120
Mercury	ug/L (ppb)	5	94	80-120
Selenium	ug/L (ppb)	5	94	80-120
Silver	ug/L (ppb)	5	92	80-120

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/02/23

Date Received: 02/17/23

Project: Yakima, F&BI 302252

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

Laboratory Code: 302269-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Vinyl chloride	mg/kg (ppm)	2	<0.05	58	49	10-138	17
Chloroethane	mg/kg (ppm)	2	<0.5	65	55	10-176	17
1,1-Dichloroethene	mg/kg (ppm)	2	<0.05	72	69	10-160	4
Methylene chloride	mg/kg (ppm)	2	<0.5	69	66	10-156	4
trans-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	82	83	14-137	1
1,1-Dichloroethane	mg/kg (ppm)	2	<0.05	85	87	19-140	2
cis-1,2-Dichloroethene	mg/kg (ppm)	2	<0.05	85	87	25-135	2
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	<0.05	87	92	12-160	6
1,1,1-Trichloroethane	mg/kg (ppm)	2	<0.05	83	87	10-156	5
Trichloroethene	mg/kg (ppm)	2	<0.02	89	96	21-139	8
Tetrachloroethene	mg/kg (ppm)	2	<0.025	79	82	20-133	4

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	mg/kg (ppm)	2	90	22-139
Chloroethane	mg/kg (ppm)	2	91	9-163
1,1-Dichloroethene	mg/kg (ppm)	2	97	47-128
Methylene chloride	mg/kg (ppm)	2	87	10-184
trans-1,2-Dichloroethene	mg/kg (ppm)	2	105	67-129
1,1-Dichloroethane	mg/kg (ppm)	2	109	68-115
cis-1,2-Dichloroethene	mg/kg (ppm)	2	109	72-127
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	109	56-135
1,1,1-Trichloroethane	mg/kg (ppm)	2	108	62-131
Trichloroethene	mg/kg (ppm)	2	118	63-121
Tetrachloroethene	mg/kg (ppm)	2	99	72-114

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/02/23

Date Received: 02/17/23

Project: Yakima, F&BI 302252

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

Laboratory Code: 302251-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent	Acceptance
				Recovery MS	Criteria
Vinyl chloride	ug/L (ppb)	10	<0.02	33	16-176
Chloroethane	ug/L (ppb)	10	<1	61	50-150
1,1-Dichloroethene	ug/L (ppb)	10	<1	80	50-150
Methylene chloride	ug/L (ppb)	10	<5	82	40-143
trans-1,2-Dichloroethene	ug/L (ppb)	10	<1	88	50-150
1,1-Dichloroethane	ug/L (ppb)	10	<1	93	50-150
cis-1,2-Dichloroethene	ug/L (ppb)	10	<1	97	50-150
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	<0.2	95	50-150
1,1,1-Trichloroethane	ug/L (ppb)	10	<1	95	50-150
Trichloroethene	ug/L (ppb)	10	<0.5	94	43-133
Tetrachloroethene	ug/L (ppb)	10	<1	103	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent	Percent	Acceptance Criteria	RPD (Limit 20)
			Recovery LCS	Recovery LCSD		
Vinyl chloride	ug/L (ppb)	10	92	92	70-130	0
Chloroethane	ug/L (ppb)	10	104	101	70-130	3
1,1-Dichloroethene	ug/L (ppb)	10	102	100	70-130	2
Methylene chloride	ug/L (ppb)	10	99	97	29-192	2
trans-1,2-Dichloroethene	ug/L (ppb)	10	100	98	70-130	2
1,1-Dichloroethane	ug/L (ppb)	10	104	102	70-130	2
cis-1,2-Dichloroethene	ug/L (ppb)	10	107	105	70-130	2
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	104	102	70-130	2
1,1,1-Trichloroethane	ug/L (ppb)	10	109	107	70-130	2
Trichloroethene	ug/L (ppb)	10	101	99	70-130	2
Tetrachloroethene	ug/L (ppb)	10	98	96	70-130	2

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

302252
 Report to: John Meyer

Company: Puget Environmental
 Address: 4616 25th Ave NE #143
 City, State, ZIP: Seattle, WA 98108
 Phone: 206-518-4887 Email: _____

SAMPLE CHAIN OF CUSTODY

02/17/23

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 of VS-B1/VW2

SAMPLERS (signature) <u>John Meyer</u>	PO # _____
PROJECT NAME <u>Yakima</u>	INVOICE TO
REMARKS	Project specific RLS? - Yes / No

<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		HVOC 8260	RCRA Metals
MW-1	01 A-G	2/16/23		GW	7	X	X	X							Include Oil
MW-2	02 A-F			GW	6	X	X	X							
MW-3	03 A-G			GW	7	X	X	X							
MW-4	04 A-G			GW	7	X	X	X							
SI-13.5	05 A-E			Soil	5	X	X	X							

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
<u>John Meyer</u>	<u>John Meyer</u>	<u>Puget Environmental</u>	<u>2/17/23</u>	
<u>ANH PHAN</u>	<u>ANH PHAN</u>	<u>ESB</u>	<u>02/17/23</u>	<u>10:39</u>

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

PUGET

ENVIRONMENTAL P.L.L.C.

GROUNDWATER SAMPLING FIELD DATA SHEET

Project Name: Yakima Project #: _____ Date: 2/16/23 Sampler Name: Quinton

Well #:	Time	Temp	Casing Diameter:		Total Depth:		Static W/L:		Water Level	Water Thickness:
			Conductivity mS/cm (3%)	Dissolved O2 mg/L (10%)	pH (+or- 0.1) unit	ORP (+or - 10 mv)				
MW-1	14:00	15.7	361.7	6.40	6.23	181.2	24.2			
	14:03	16.1	374.8	6.33	6.22	188.8				
	14:06	16.2	378.8	6.32	6.22	188.6	24.2			
	14:09	16.1	378.9	6.29	6.23	187.9				

Purge/Sample Equipment _____

Notes: _____

GROUNDWATER SAMPLING FIELD DATA SHEET

Project Name: Yakima Project #: _____ Date: 2/16/23 Sampler Name: Drew

Well #:	Time	Temp	Casing Diameter:	Conductivity mS/cm (3%)	Dissolved O2 mg/L (10%)	pH (+or- 0.1) unit	Static W/L:	ORP (+or - 10 mv)	Water Level	Water Thickness: (ft.)	Remarks
1:43 pm											
1:48 pm	16.6 C	396.2	6.59	6.08	73.3					Start pump	
1:51 pm	16.6 C	392.2	6.46	6.14	68.1					1/4 gallon	
1:54 pm	16.6 C	390.1	6.45	6.17	63.9						
1:57 pm	16.6 C	389.4	6.45	6.19	62.3						

Purge/Sample Equipment: _____
Notes: _____

PUGET

ENVIRONMENTAL P.L.L.C.

GROUNDWATER SAMPLING FIELD DATA SHEET

Project Name: Yakjma		Project #:		Date: 2/6/23		Sampler Name: Quindon			
Well #:	MW-3	Casing Diameter:	(in.)	Total Depth:	(ft.)	Static W/L:	(ft.)	Water Thickness:	(ft.)
Time	Temp	Conductivity mS/cm (3%)	Dissolved O2 mg/L (10%)	pH (+or- 0.1) unit	ORP (+or - 10 mv)	Water Level	Remarks		
13:11	16.0	396.2	5.87	5.68	195.8	18.13			
13:11	16.1	381.6	5.76	5.90	190.0				
13:17	16.2	383.7	5.64	6.03	186.8	18.13			
13:20	16.2	382.8	5.75	6.08	185.6				
13:23	16.1	381.8	5.70	6.10	185.4	18.13			

Purge/Sample Equipment	Notes:

PUGET

ENVIRONMENTAL P.L.L.C.

GROUNDWATER SAMPLING FIELD DATA SHEET

Project Name: Yakima Project #: _____ Date: 2/16/23 Sampler Name: A. Johnson

Well #:	MW-4	Casing Diameter:	(in.)	Total Depth:	(ft.)	Static W/L:	(ft.)	Water Thickness:	(ft.)
Time	Temp	Conductivity mS/cm (3%)	Dissolved O2 mg/L (10%)	pH (+or- 0.1) unit	ORP (+or - 10 mv)	Water Level	Remarks		
<u>15:08</u>									
<u>15:01</u>		<u>378.1</u>	<u>4.74</u>	<u>6.23</u>	<u>193.1</u>	<u>18.00</u>			
<u>15:04</u>		<u>378.1</u>	<u>4.61</u>	<u>6.25</u>	<u>191.9</u>				
<u>15:07</u>		<u>378.4</u>	<u>4.54</u>	<u>6.26</u>	<u>190.8</u>	<u>18.00</u>			

Purge / Sample Equipment

Notes: