



January 26, 2023

Washington Department of Ecology (Ecology)
Ms. Donna Musa
15700 Dayton Ave. N.
Shoreline WA 98133

Subject: Updated Groundwater Data, ERTS 719681
Auburn Volkswagen
Bluestone Project Number BE-0107-E
3109 Auburn Way N.
Auburn, WA 98002

Dear Ms. Musa:

Thank you for discussing the Auburn Volkswagen site with me earlier. As discussed, attached is the latest groundwater data for the site to assist you with your decision making. For your easy of reference, we have updated all of the Tables and Figures for this project and combined them with this submittal. Please let me know if additional information would be helpful, e.g., the laboratory reports.

We look forward to hearing Ecology's decision on this matter.

Sincerely,
Bluestone Environmental NW

Dan Hatch
President

Attachments January 10, 2023, Updated Tables and Figures

Table 1

Laboratory Analytical Results: Petroleum, PAHs, Metals in Soil⁽¹⁾
Auburn Volkswagen
3109 Auburn Way North, Auburn, WA
Project No. BE-0107-E

Boring / Location Identifier	Sample Date	Sample Name	Sample Depth (ft)	PID Readings (PPM)	Gasoline Range Organics	Diesel Range Organics	Heavy/ Lube Oil Range Organics	Benzene	Toluene	Ethyl-benzene	Xylenes	Vinyl chloride	2-Methylnaphthalene	1-Methylnaphthalene	Naphthalene	Other Polycyclic Aromatic Hydrocarbons	PAHs	Arsenic	Cadmium	Chromium	Mercury	Lead
					GRO	DRO	ORO															
Method A Cleanup Levels																						
B-10	7/20/22	B-10-3	3	0.0	--	--	--	--	--	--	--	--	<0.01	<0.01	<0.01	(2)	--	--	--	--	--	
	7/20/22	B-10-5	5	4.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	7/20/22	B-10-6	6	0.0	--	--	--	--	--	--	--	--	0.042	0.029	0.013	(2)	--	--	--	--	--	--
	7/20/22	B-10-8	8	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B-11	7/20/22	B-11-3	3	0.0	--	--	--	--	--	--	--	--	<0.01	<0.01	<0.01	(2)	--	--	--	--	--	--
	7/20/22	B-11-5	5	0.0	--	--	--	--	--	--	--	--	<0.01	<0.01	<0.01	(2)	--	--	--	--	--	--
	7/20/22	B-11-8	8	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B-12	7/20/22	B-12-3	3	0.0	--	--	--	--	--	--	--	--	<0.01	<0.01	<0.01	(2)	--	--	--	--	--	--
	7/20/22	B-12-5	5	0.0	--	--	--	--	--	--	--	--	<0.01	<0.01	<0.01	0.336	--	--	--	--	--	--
	7/20/22	B-12-8	8	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B-13	7/20/22	B-13-3	3	0.0	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	7/20/22	B-13-5	5	0.0	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	7/20/22	B-13-8	8	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
B-14	7/20/22	B-14-3	3	0.0	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	7/20/22	B-14-5	5	0.0	--	<50	<250	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	7/20/22	B-14-8	8	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-1	5/23/22	MW-1-5	5	0.0	<5	<50	<250	<0.02	<0.02	<0.02	<0.06	--	--	--	--	--	--	--	--	--	--	
	5/23/22	MW-1-7	7	0.0	<5	<50	<250	<0.02	<0.02	<0.02	<0.06	--	<0.01	<0.01	<0.01	(2)	13.4	<1	12.0	<1	10.3	--
	5/23/22	MW-1-12	12	0.0	<5	<50	<250	<0.02	<0.02	<0.02	<0.06	--	--	--	--	--	--	--	--	--	--	
	5/23/22	MW-1-15	15	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-2	5/23/22	MW-2-5	5	0.0	<5	<50	<250	<0.02	<0.02	<0.02	<0.06	--	--	--	--	--	--	--	--	--	--	
	5/23/22	MW-2-8	8	0.0	<5	<50	<250	<0.02	<0.02	<0.02	<0.06	--	<0.01	<0.01	<0.01	(2)	11.0	<1	18.8	<1	4.6	--
	5/23/22	MW-2-12	12	0.0	<5	<50	<250	<0.02	<0.02	<0.02	<0.06	--	--	--	--	--	--	--	--	--	--	
	5/23/22	MW-2-15	15	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-3	5/23/22	MW-3-3	3	0.0	<5	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	<0.01	<0.01	<0.01	(2)	2.96	<1	9.05	<1	6.38	--
	5/23/22	MW-3-5	5	0.0	<5	<50	<250	<0.02	<0.02	<0.02	<0.06	--	--	--	--	--	--	--	--	--	--	
	5/23/22	MW-3-10	10	0.0	<5	<50	<250	<0.02	<0.02	<0.02	<0.06	--	--	--	--	--	--	--	--	--	--	
	5/23/22	MW-3-15	15	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table 1

Laboratory Analytical Results: Petroleum, PAHs, Metals in Soil⁽¹⁾
Auburn Volkswagen
3109 Auburn Way North, Auburn, WA
Project No. BE-0107-E

Boring / Location Identifier	Sample Date	Sample Name	Sample Depth (ft)	PID Readings (PPM)	Gasoline Range Organics	Diesel Range Organics	Heavy/ Lube Oil Range Organics	Benzene	Toluene	Ethyl-benzene	Xylenes	Vinyl chloride	2-Methylnaphthalene	1-Methylnaphthalene	Naphthalene	Other Polycyclic Aromatic Hydrocarbons					
					GRO	DRO	ORO									PAHs					
					Laboratory Units Reported in mg/kg																
Method A Cleanup Levels					30/100*	2,000	2,000	0.03	7	6	9	†	†	†	5	various	20	2.0	2,000	2.0	250
MW-4	5/23/22	MW-4-3	3	0.6	<5	<50	2,900	<0.02	<0.02	<0.02	<0.06	<0.05	<0.2	<0.2	<0.2	(2)	2.33	<1	7.46	<1	2.88
	5/23/22	MW-4-5	5	0.0	<5	<50	<250	<0.02	<0.02	<0.02	<0.06	--	--	--	--	--	--	--	--	--	--
	5/23/22	MW-4-10	10	0.0	<5	<50	<250	<0.02	<0.02	<0.02	<0.06	--	--	--	--	--	--	--	--	--	--
	5/23/22	MW-4-15	15	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	5/23/22	MW-5-3	3	0.5	<5	<50	<250	<0.02	<0.02	<0.02	<0.06	<0.05	0.038	0.028	0.014	(2)	5.56	<1	10.4	<1	5.86
	5/23/22	MW-5-5	5	0.0	<5	<50	<250	<0.02	<0.02	<0.02	<0.06	--	--	--	--	--	--	--	--	--	--
	5/23/22	MW-5-10	10	0.0	<5	<50	<250	<0.02	<0.02	<0.02	<0.06	--	--	--	--	--	--	--	--	--	--
	5/23/22	MW-5-15	15	0.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes: Analysis Methods: NWTPH-Gx & Dx, EPA 5035A/8260C. See Laboratory reports for specifics.

(1) Summary Table of most common analytes. See Laboratory Analytical Report for full list of analyzed compounds.

(2) Analytes not listed were not detected above laboratory reporting limits.

* GRO Cleanup Level: 30 when benzene is present at the Site, 100 when benzene is not present.

† Method (A or B) Cleanup Level has not been established for this constituent.

-- Not Analyzed / Unknown

<0.02 Not Detected, concentration less than the laboratory method detection limit.

12 Black Bold Number(s) Indicates Contaminant Detected.

33 Red Bold Number(s) Indicates Concentration Exceeds MTCA Method A Cleanup Level.

Table 2
Laboratory Analytical Results: Petroleum, PAHs, Metals in Groundwater
Auburn Volkswagen
3109 Auburn Way North, Auburn, WA
Project No. BE-0107-E

Well / Location Identifier	TOC Elevation	Depth to Water	Groundwater Elevation (1)	Sample Date	Sample Name	Analytical Results (µg/L)																		
						Gasoline Range Organics		TPH Diesel ⁽³⁾ (C ₁₀ -C ₃₆)		TPH Oil (C ₂₅ -C ₃₆)		Benzene	Toluene	Ethyl-benzene	Xylenes	Other Volatile Organic Compounds & Fuel Additives	Phenanthrene	Other Semivolatile Compounds/ Polycyclic Aromatic Hydrocarbons	Arsenic	Cadmium	Chromium	Mercury	Lead	Total Organic Carbon
						GRO	DRO	ORO	VOCs	PAHs	Metals	TOC mg/L												
Method A Cleanup Levels																								
B-1	--	--	--	4/24/22	B-1-W	<100	88x	<200	<0.35	<1	<1	<2	(2)	<0.04	(2)	70.2	<1	5.64	<1	1.37	--			
B-2	--	--	--	4/24/22	B-2-W	<100	180x	<200	<0.35	<1	<1	<2	(2)	<0.04	(2)	13.9	<1	7.57	<1	1.82	--			
B-4	--	--	--	4/24/22	B-4-W	<100	2,500x	370x	<0.35	<1	<1	<2	(2)	0.092	(2)	104	<1	77.7	<1	9.27	--			
B-5	--	--	--	4/24/22	B-5-W	<100	240x	<250	<0.35	<1	<1	<2	(2)	<0.04	(2)	18.1	<1	22.9	<1	3.27	--			
B-6	--	--	--	4/24/22	B-6-W	<100	110x	<250	<0.35	<1	<1	<2	(2)	<0.04	(2)	29.2	<1	7.02	<1	1.27	--			
MW-1	57.16	8.17	48.99	5/26/22	MW-1-W	<100	420x	--	<0.35	<1	<1	<2	(2)	<0.02	(2)	11.8	<1	<5	<1	<1	--			
		9.42	47.74	7/26/22	MW-1-W	--	960x	--	--	--	--	--	--	--	--	20.0 (T) / 17.8 (D)	--	--	--	--	--			
		8.17	48.99	1/10/23	MW-1	<100	270x	--	<1	<1	<1	--	--	--	--	13.4 (T) / <1 (D)	--	--	--	--	68.2			
MW-2	56.41	7.44	48.97	5/26/22	MW-2-W	<100	300x	--	<0.35	<1	<1	<2	(2)	<0.02	(2)	4.9	<1	<5	<1	<1	--			
		9.85	46.56	7/26/22	MW-2-W	--	940x	--	--	--	--	--	--	--	--	58.1 (T) / 55.6 (D)	--	--	--	--	--			
		7.43	48.98	1/10/23	MW-2	<100	420x	--	<1	<1	<1	<3	--	--	--	--	110 (T) / 97.4 (D)	--	--	--	--	44.1		
MW-3	57.08	8.10	48.98	5/26/22	MW-3-W	<100	470x	--	<0.35	<1	<1	<2	(2)	<0.02	(2)	3.33	<1	2.19	<1	<1	--			
		9.38	47.70	7/26/22	MW-3-W	--	670x	--	--	--	--	--	--	--	--	14.3 (T) / 16.2 (D)	--	--	--	--	--			
		8.09	48.99	1/10/23	MW-3	<100	280x	--	<1	<1	<1	<3	--	--	--	--	20.4 (T) / 17.2 (D)	--	--	--	--	70.1		
MW-4	57.18	8.20	48.98	5/26/22	MW-4-W	<100	290x	--	<0.35	<1	<1	<2	(2)	<0.02	(2)	7.15	<1	<5	<1	<1	--			
		8.20	48.98	5/26/22	MW-Dup	<100	330x	--	<0.35	<1	<1	<2	(2)	<0.02	(2)	6.96	<1	<5	<1	<1	--			
		9.48	47.70	7/26/22	MW-4-W	--	550x	--	--	--	--	--	--	--	--	11.4 (T) / 11.1 (D)	--	--	--	--	--			
		9.48	47.70	7/26/22	MW-Dup	--	510x	--	--	--	--	--	--	--	--	11.5 (T) / 11.9 (D)	--	--	--	--	--			
		8.18	49.00	1/10/23	MW-4	<100	<250	--	<1	<1	<1	<3	--	--	--	--	7.88 (T) / 8.04 (D)	--	--	--	--	19.5		
		8.18	49.00	1/10/23	DUP-W	<100	<250	--	<1	<1	<1	<3	--	--	--	--	7.82 (T) / 7.70 (D)	--	--	--	--	--		
MW-5	57.14	8.12	49.02	5/26/22	MW-5-W	<100	310x	--	<0.35	<1	<1	<2	(2)	<0.02	(2)	53.3	<1	<5	<1	<1	--			
		9.36	47.78	7/26/22	MW-5-W	--	300x	--	--	--	--	--	--	--	--	35.4 (T) / 34.5 (D)	--	--	--	--	--			
		8.14	49.00	1/10/23	MW-5	<100	<250	--	<1	<1	<1	<3	--	--	--	--	26.3 (T) / 23.8 (D)	--	--	--	--	26.2		

Notes:
 Analysis Methods: NWTPH-Gx & Dx, EPA 8260D/8270E/6020B. See Laboratory reports for specifics.

(1) Presented Elevations are based on elevation data based on others work, i.e., work performed on the south adjoining property, 3025 Auburn Way North (Auburn Subaru) and Bluestone Site Measurements.

(2) Analytes not listed were not detected above laboratory reporting limits. See laboratory report for details.

(3) Chromatographs of samples quantify constituent as one product using NWTPH-HCID/Dx methods. See report Appendix G For chromatographs.

* 30 when benzene is present at the Site, 100 when benzene is not present.

** Reported concentrations of analytes for listed method analysis were not detected at laboratory reporting limits except as noted in table. See laboratory report for details.

† Method (A or B) Cleanup Level has not been established. Reported concentrations of analytes for listed method analysis were not detected at laboratory reporting limits except as noted in table. See laboratory report for details.

-- Not Analyzed / Unknown

<0.02 Not Detected, concentration less than the laboratory. Not Analyzed / Unknown

12 Black Bold Numt Black Bold Numt Number(s) Indicates Contaminant Detected.

33 Red Bold Numt Red Bold Numt Red Bold Number(s) Indicates Concentration Exceeds MTCA Method A Cleanup Level.

Dup Duplicate Sample for QA/QC.

x The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

Shading indicates the most recent sampling event.

Table 3

Well Construction & Groundwater Depths

Auburn Volkswagen

3109 Auburn Way North, Auburn, WA

Project No. BE-0107-E

Well Identifier	Well Installation Date	Well Construction Material	Monument / Surface Elevation*	Top of Casing Elevation *	Length of Screen (ft.)	Bottom of Well	Well Diameter (in.)	Measurement Date	Depth to Water	Calculated Water Elevation
MW-1	5/23/22	PVC	57.61	57.16	10	16.2	2	5/26/2022 7/26/2022 8/11/2022 1/10/2023	8.17 9.42 9.88 8.17	48.99 47.74 47.28 48.99
MW-2	5/23/22	PVC	56.91	56.41	10	17	2	5/26/2022 7/26/2022 8/11/2022 1/10/2023	7.44 9.85 9.14 7.43	48.97 46.56 47.27 48.98
MW-3	5/23/22	PVC	57.48	57.08	10	17	2	5/26/2022 7/26/2022 8/11/2022 1/10/2023	8.10 9.38 9.83 8.09	48.98 47.70 47.25 48.99
MW-4	5/23/22	PVC	57.56	57.18	10	17	2	5/26/2022 7/26/2022 8/11/2022 1/10/2023	8.20 9.48 9.89 8.18	48.98 47.70 47.29 49.00
MW-5	5/23/22	PVC	57.55	57.14	10	17	2	5/26/2022 7/26/2022 8/11/2022 1/10/2023	8.12 9.36 9.85 8.14	49.02 47.78 47.29 49.00

Notes:

- * Presented Elevations are based on elevation data based on others work, i.e., work performed on the south adjoining property, 3025 Auburn Way North (Auburn Subaru) and Bluestone Site Measurements.

Table 4
Groundwater Parameters (1)
Auburn Volkswagen
3109 Auburn Way North
Project No. BE-0107-E

Well Identifier	Measurement Date	Temperature (°C)	Conductivity (µS/cm)	Dissolved Oxygen (%)	Dissolved Oxygen (mg/L)	pH	Oxidation Reduction Potential	Turbidity (NTU)
MW-1	5/26/22	15.37	997	22.2	2.21	7.46	-106.1	--
	7/26/22	15.54	1,094	11.1	1.10	6.76	-129.2	--
	1/10/23	16.15	1,194	6.8	0.66	6.65	-169.3	2.10
MW-2	5/26/22	14.12	698	100	10.24	6.62	-86.3	--
	7/26/22	13.87	731	22.9	2.30	6.74	-136.8	--
	1/10/23	14.64	907	6.6	0.67	6.76	-228.9	1.49
MW-3	5/26/22	16.70	1,259	385	3.68	6.84	-96.2	--
	7/26/22	15.70	1,235	5.7	0.56	5.71	-136.8	--
	1/10/23	17.27	1,405	4.3	0.41	6.64	-155.3	0.68
MW-4	5/26/22	16.65	665	32.1	3.12	6.74	-72.6	--
	7/26/22	15.63	796	5.6	0.55	6.66	-97.6	--
	1/10/23	16.99	607	4.7	0.45	6.54	-125.6	0.40
MW-5	5/26/22	16.80	896	50.1	4.84	6.73	-112.6	--
	7/26/22	15.72	620	7.8	0.76	6.71	-123.7	--
	1/10/23	17.03	649	5.0	0.48	6.65	-151.3	6.71

Notes: (1) Parameters at time of sample collection.



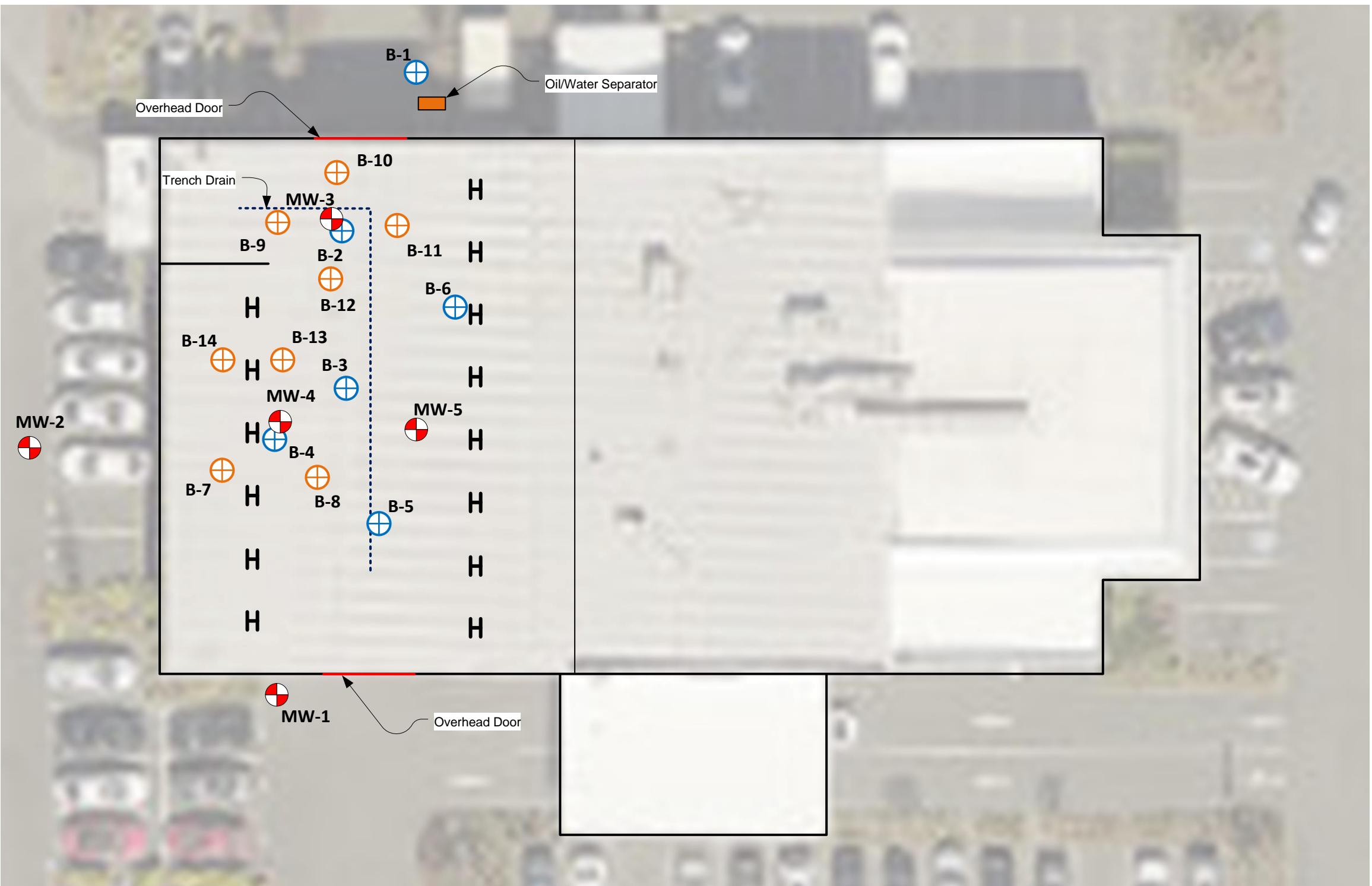
Drawing References: Getty Image, King County iMaps

BLUESTONE
ENVIRONMENTAL, NW



Site Location Maps
Auburn Dealership
3109 Auburn Way North
Auburn, WA

Figure
1

**General Legend**

Building Outline

Groundwater Monitoring Well Location (May 23, 2022)

Trench Drain in Shop Floor

July 20, 2022 Soil Boring Location

April 24, 2022 Soil Boring Location

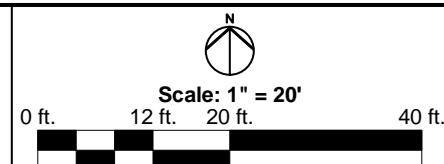
Underground Hoist Location

Site Diagram, Features, and Exploration Locations

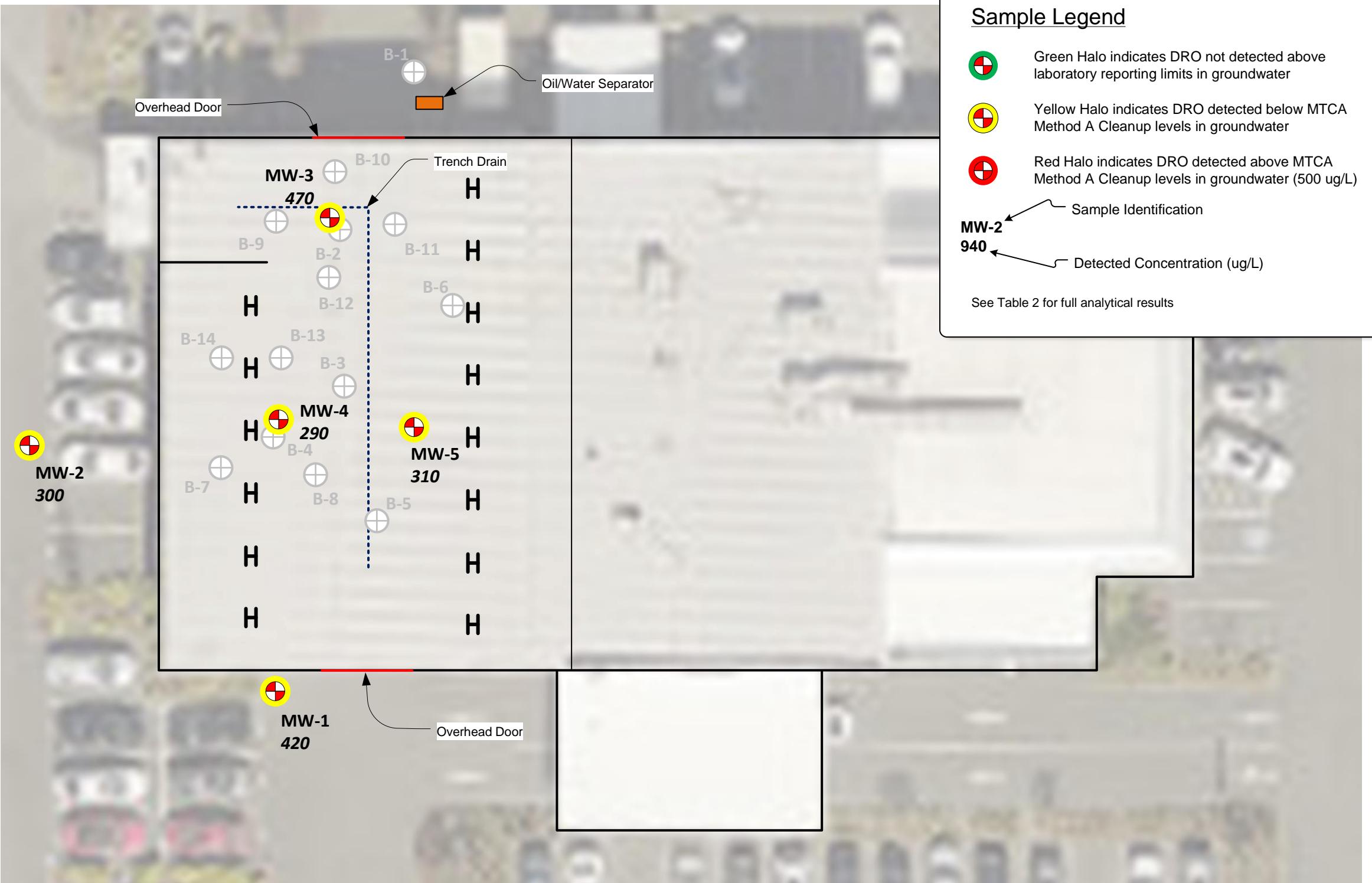
Auburn VW
3109 Auburn Way North, Auburn, WA

Figure and notations are in color. Black and white copies may not be suitable for use.

Figure 2

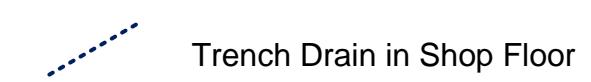


BLUESTONE
ENVIRONMENTAL, NW



Project No. BE-0107-E F3a.vsdx

General Legend



⊕ Soil Boring Location

H Underground Hoist Location

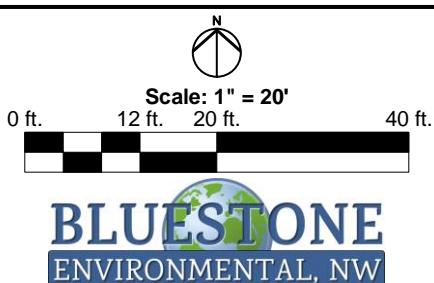
Groundwater Monitoring Well Location

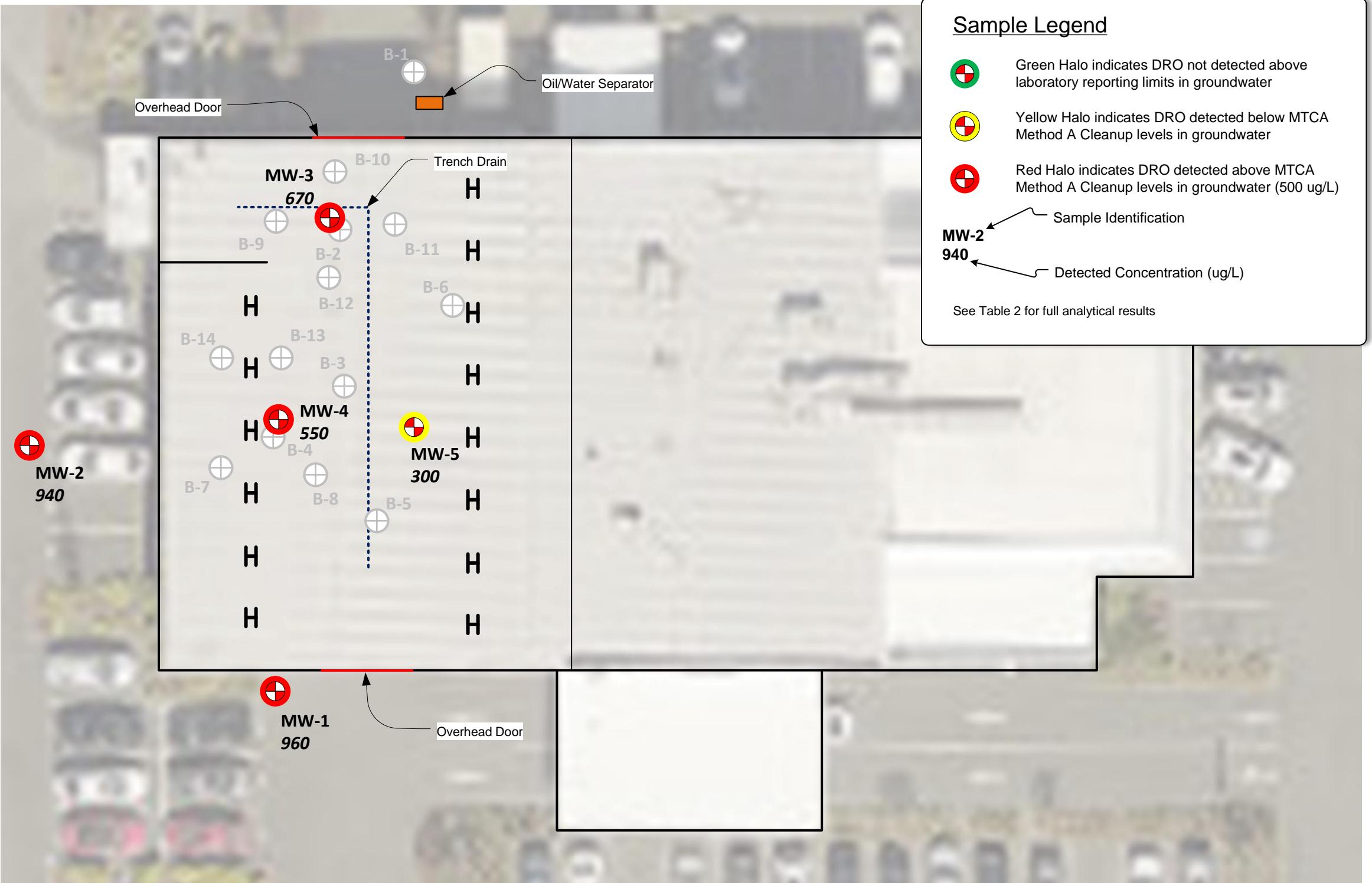
DRO Concentrations in Groundwater
(May 26, 2022)

Auburn VW
3109 Auburn Way North, Auburn, WA

Figure and notations are in color. Black and white
copies may not be suitable for use.

**Figure
3a**





General Legend

Building Outline

Trench Drain in Shop Floor

Soil Boring Location

Underground Hoist Location

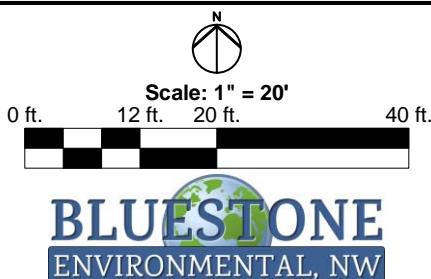
Groundwater Monitoring Well Location

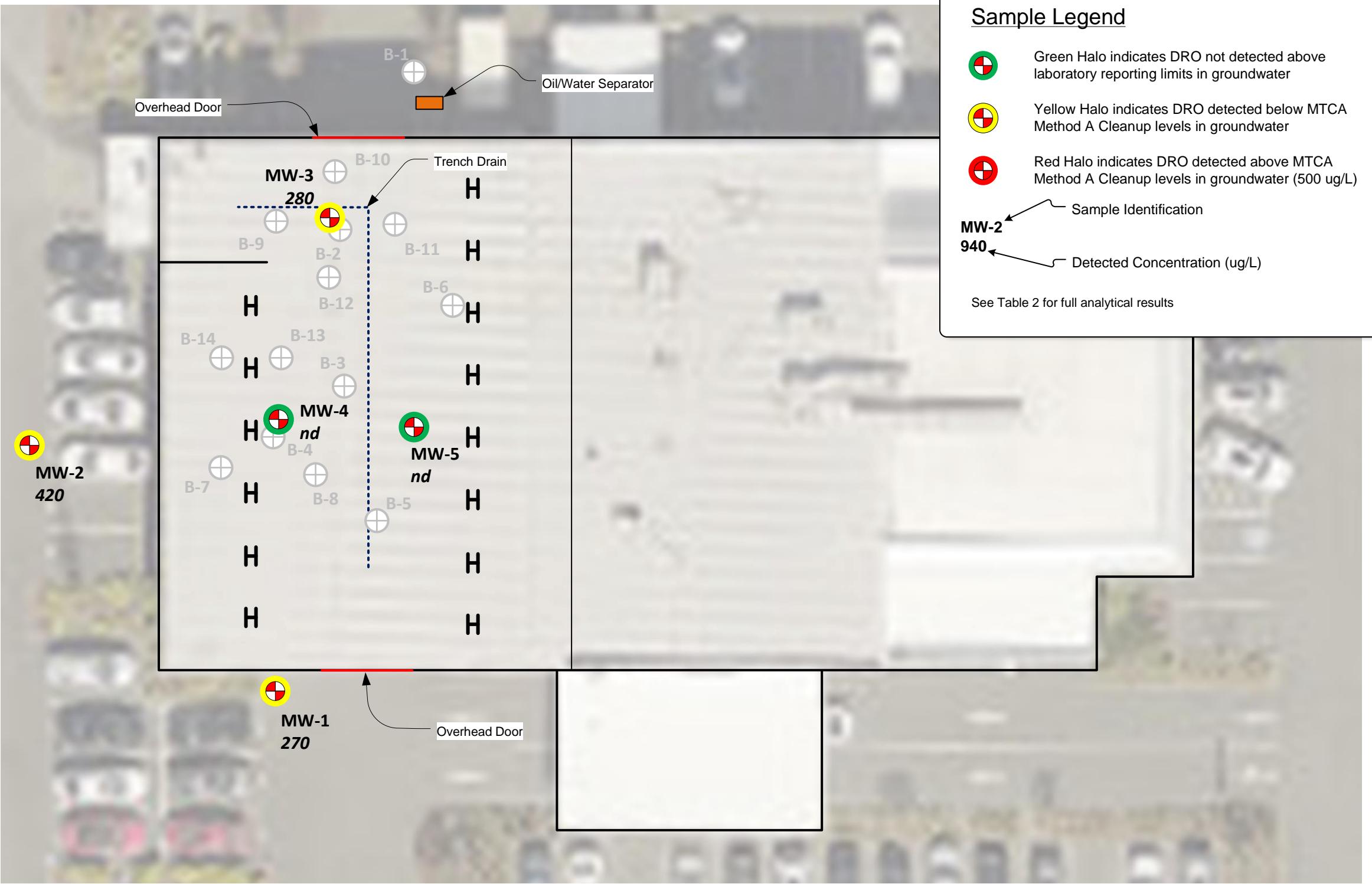
DRO Concentrations in Groundwater
(July 26, 2022)

Auburn VW
3109 Auburn Way North, Auburn, WA

Figure and notations are in color. Black and white copies may not be suitable for use.

**Figure
3b**





General Legend

Building Outline

Trench Drain in Shop Floor

Soil Boring Location

Underground Hoist Location

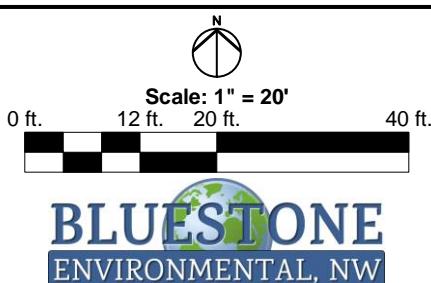
Groundwater Monitoring Well Location

DRO Concentrations in Groundwater
(January 10, 2023)

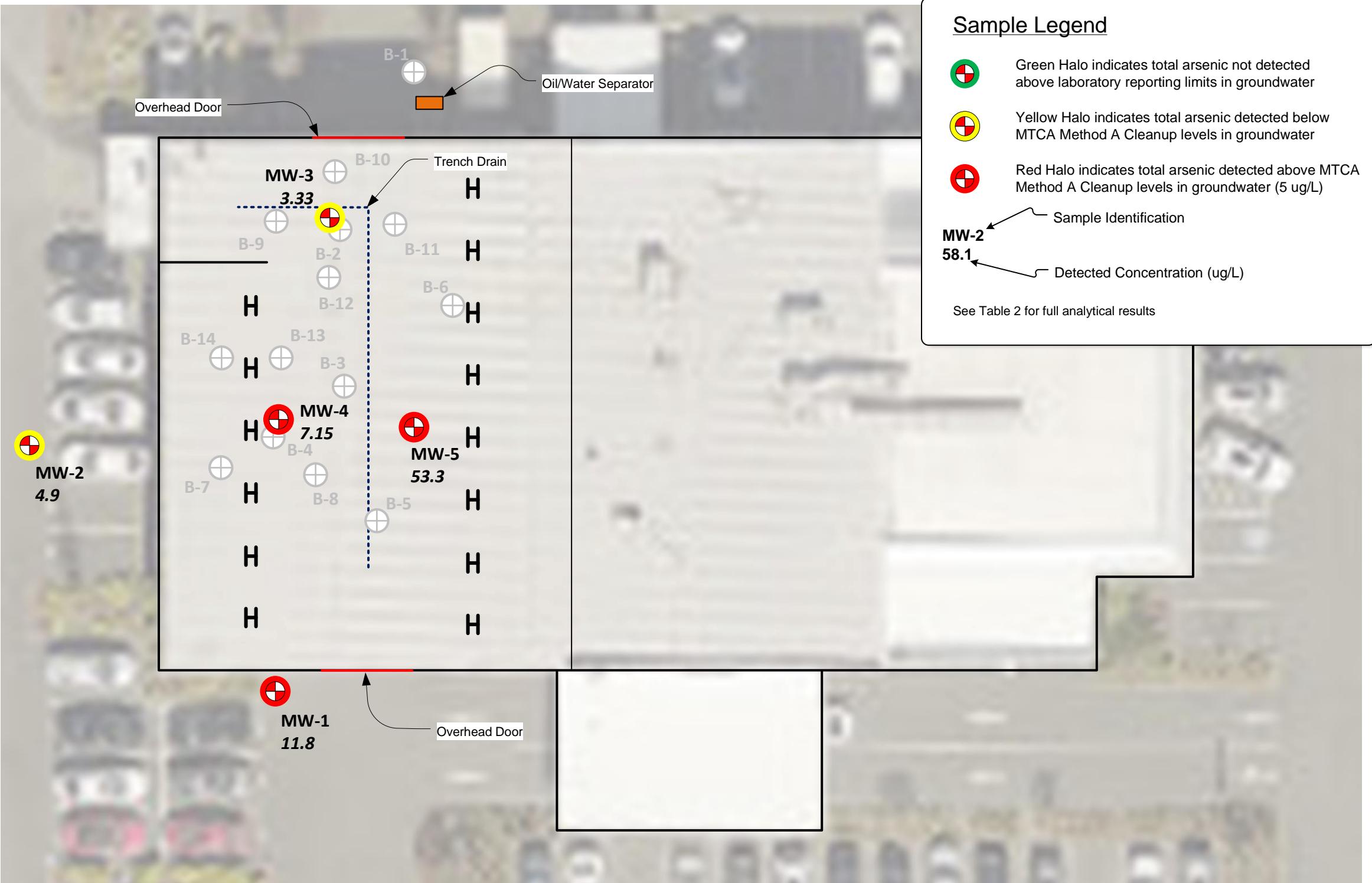
Auburn VW
3109 Auburn Way North, Auburn, WA

Figure and notations are in color. Black and white
copies may not be suitable for use.

**Figure
3c**



BLUESTONE
ENVIRONMENTAL, NW



General Legend

Building Outline

Trench Drain in Shop Floor

Soil Boring Location

Underground Hoist Location

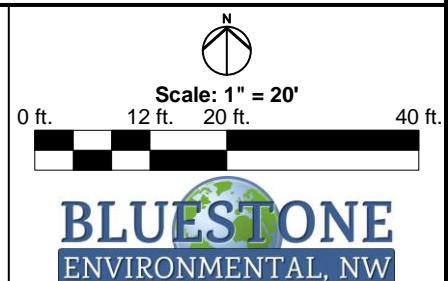
Groundwater Monitoring Well Location

Total Arsenic Concentrations in Groundwater
(May 26, 2022)

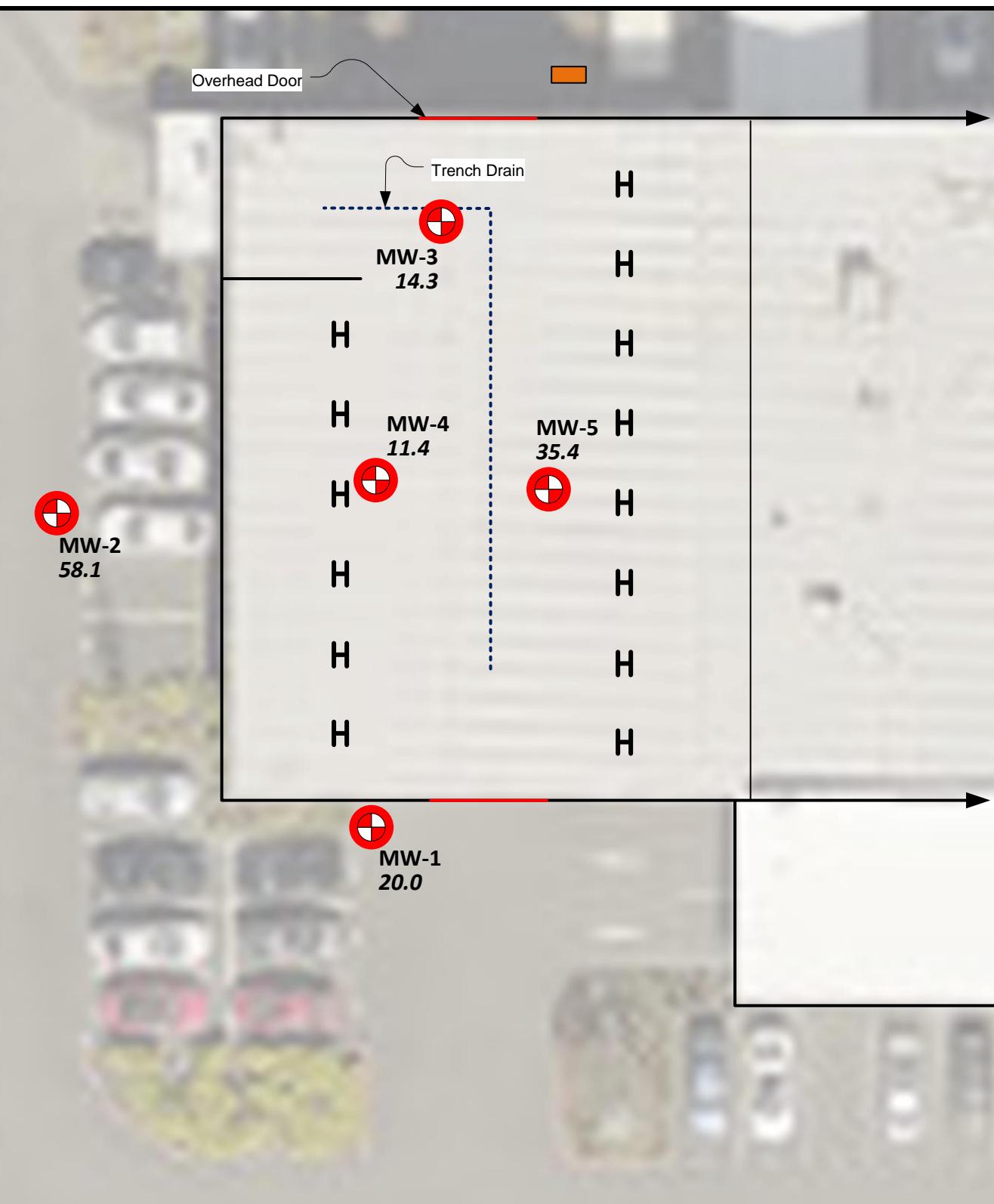
Auburn VW
3109 Auburn Way North, Auburn, WA

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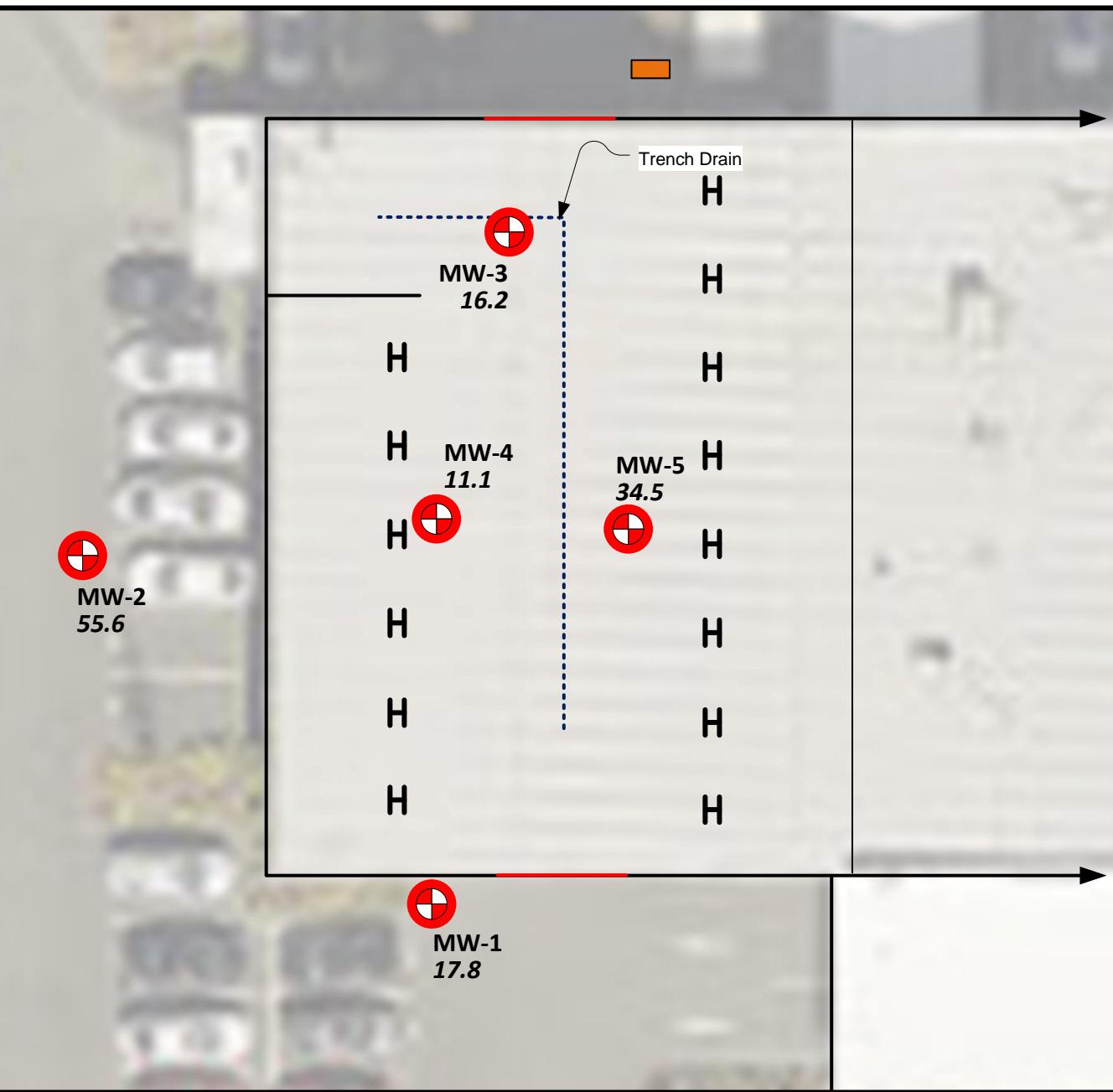
**Figure
4a**



Total Arsenic



Dissolved Arsenic



Sample Legend

- Red Halo indicates total/dissolved arsenic detected above MTCA Method A Cleanup levels in groundwater (5 ug/L)
- Green Halo indicates total/dissolved arsenic not detected above laboratory reporting limits in groundwater
- Yellow Halo indicates total/dissolved arsenic detected below MTCA Method A Cleanup levels in groundwater

MW-2 ← Sample Identification
58.1 ← Detected Concentration (ug/L)

See Table 2 for full analytical results

General Legend



Building Outline



Soil Boring Location



Underground Hoist Location



Trench Drain in Shop Floor



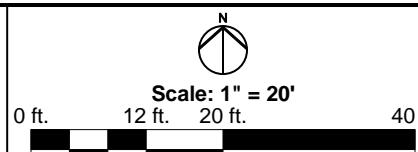
Groundwater Monitoring Well Location

Total and Dissolved Arsenic Concentrations in Groundwater (July 26, 2022)

Auburn VW
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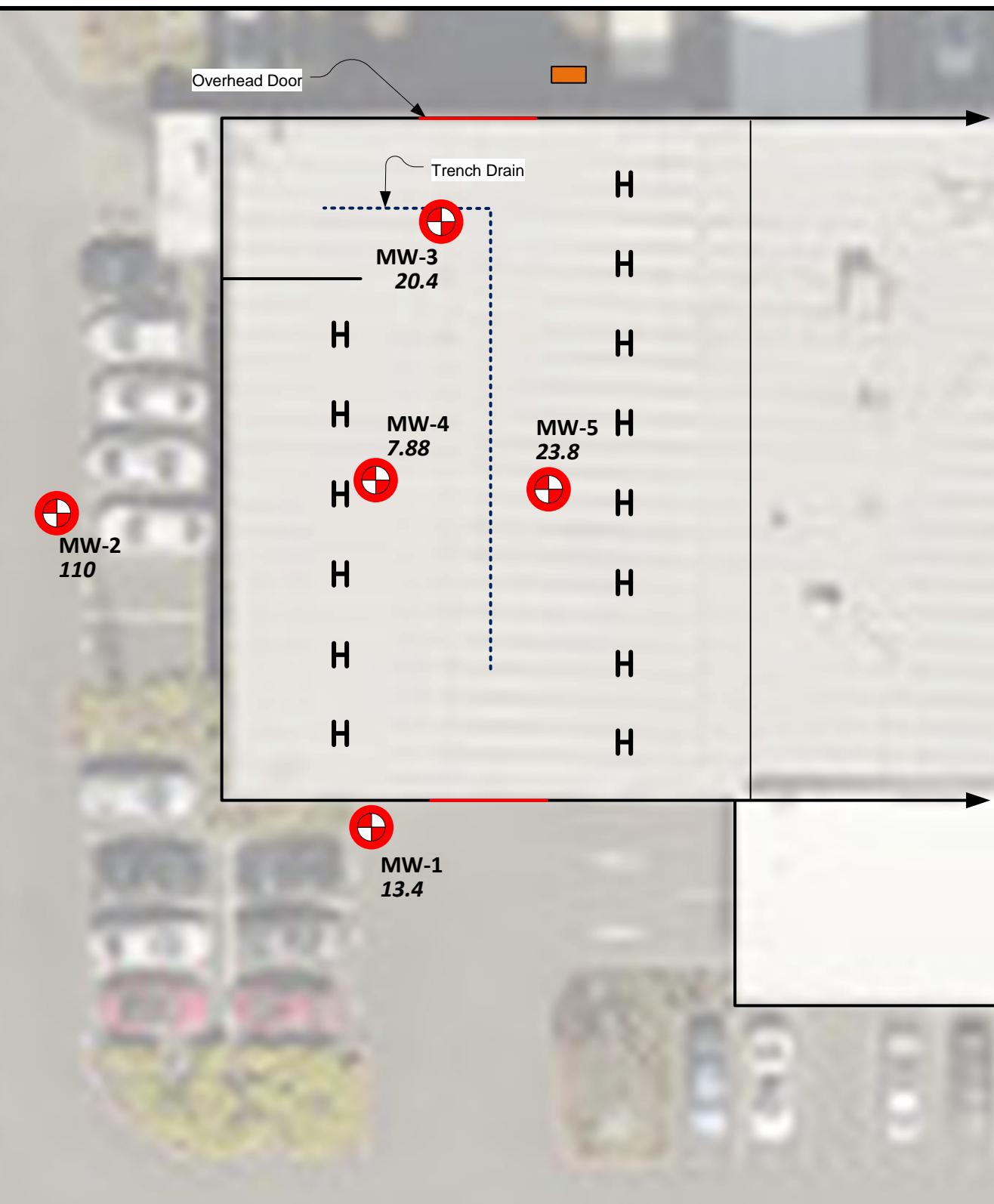
Figure and notations are in color. Black and white copies may not be suitable for use.

Figure
4b

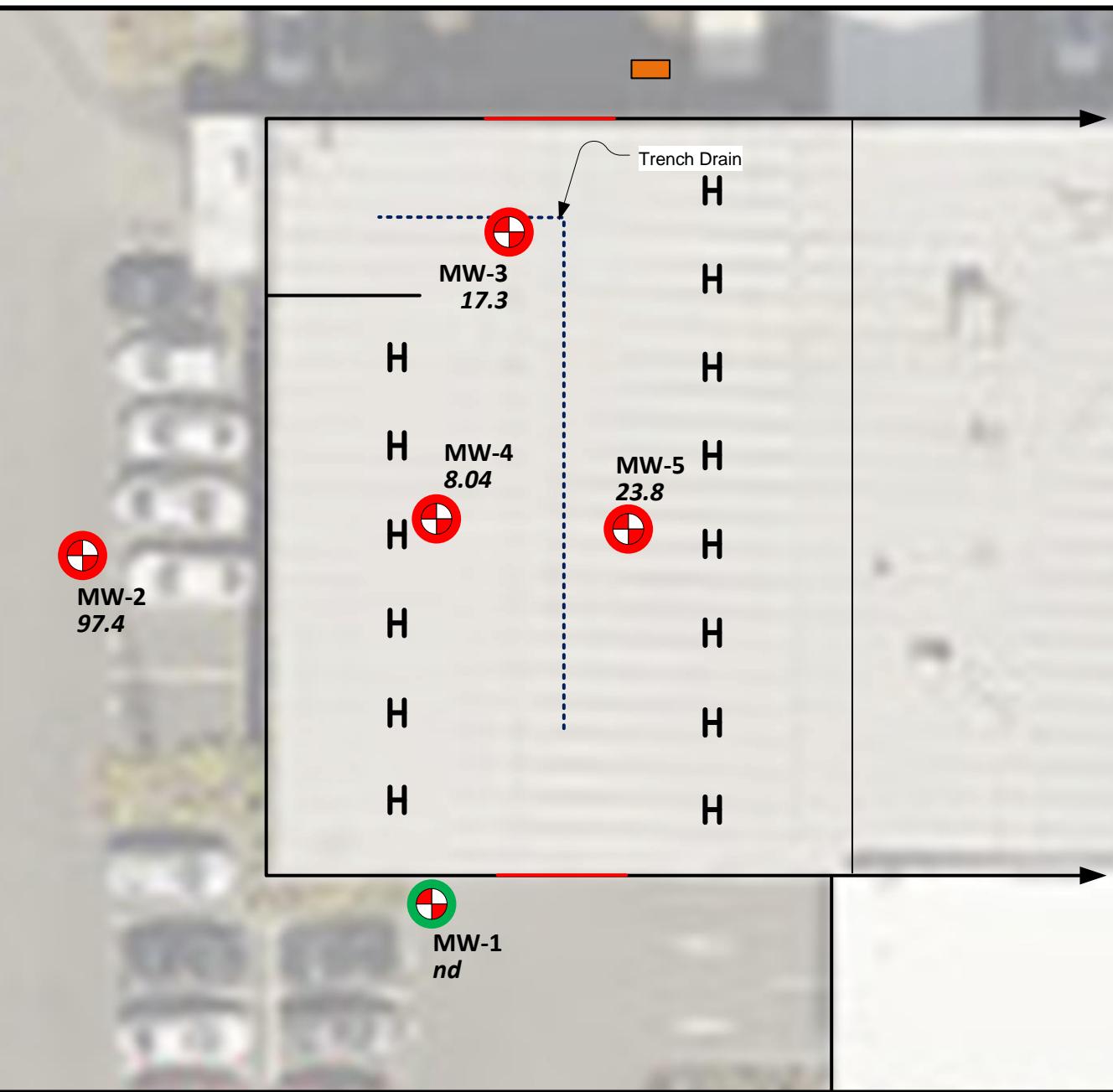


BLUESTONE
ENVIRONMENTAL, NW

Total Arsenic



Dissolved Arsenic



Sample Legend



Green Halo indicates total/dissolved arsenic not detected above laboratory reporting limits in groundwater



Yellow Halo indicates total/dissolved arsenic detected below MTCA Method A Cleanup levels in groundwater



Red Halo indicates total/dissolved arsenic detected above MTCA Method A Cleanup levels in groundwater (5 ug/L)



Sample Identification



Detected Concentration (ug/L)

See Table 2 for full analytical results

General Legend



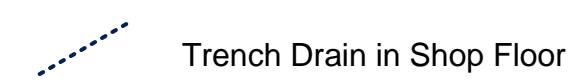
Building Outline



Soil Boring Location



Underground Hoist Location



Trench Drain in Shop Floor



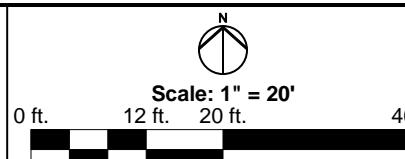
Groundwater Monitoring Well Location

Total and Dissolved Arsenic Concentrations in Groundwater (January 10, 2023)

Auburn VW
3109 Auburn Way North, Auburn, WA

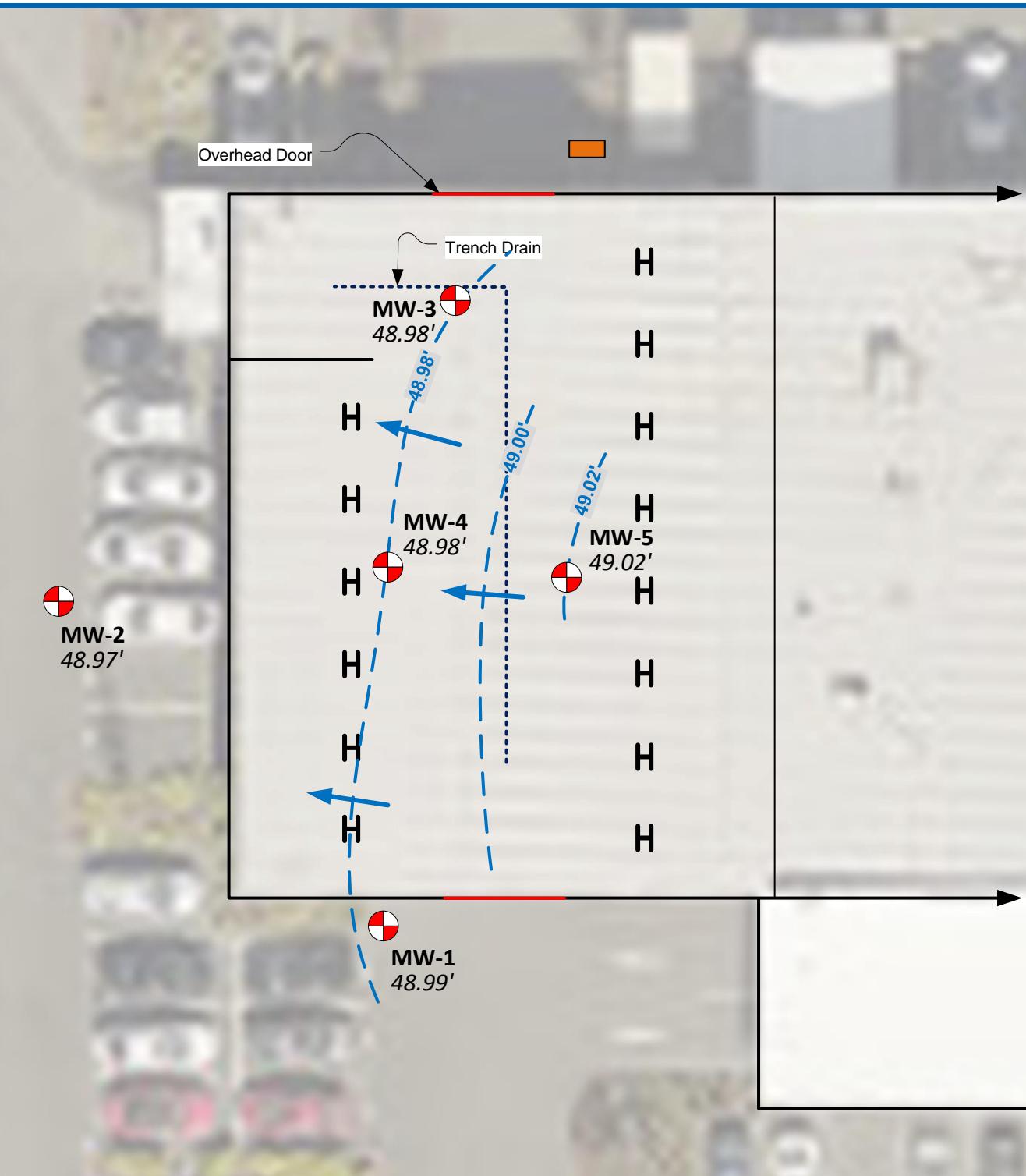
Figure and notations are in color. Black and white copies may not be suitable for use.

Figure
4C

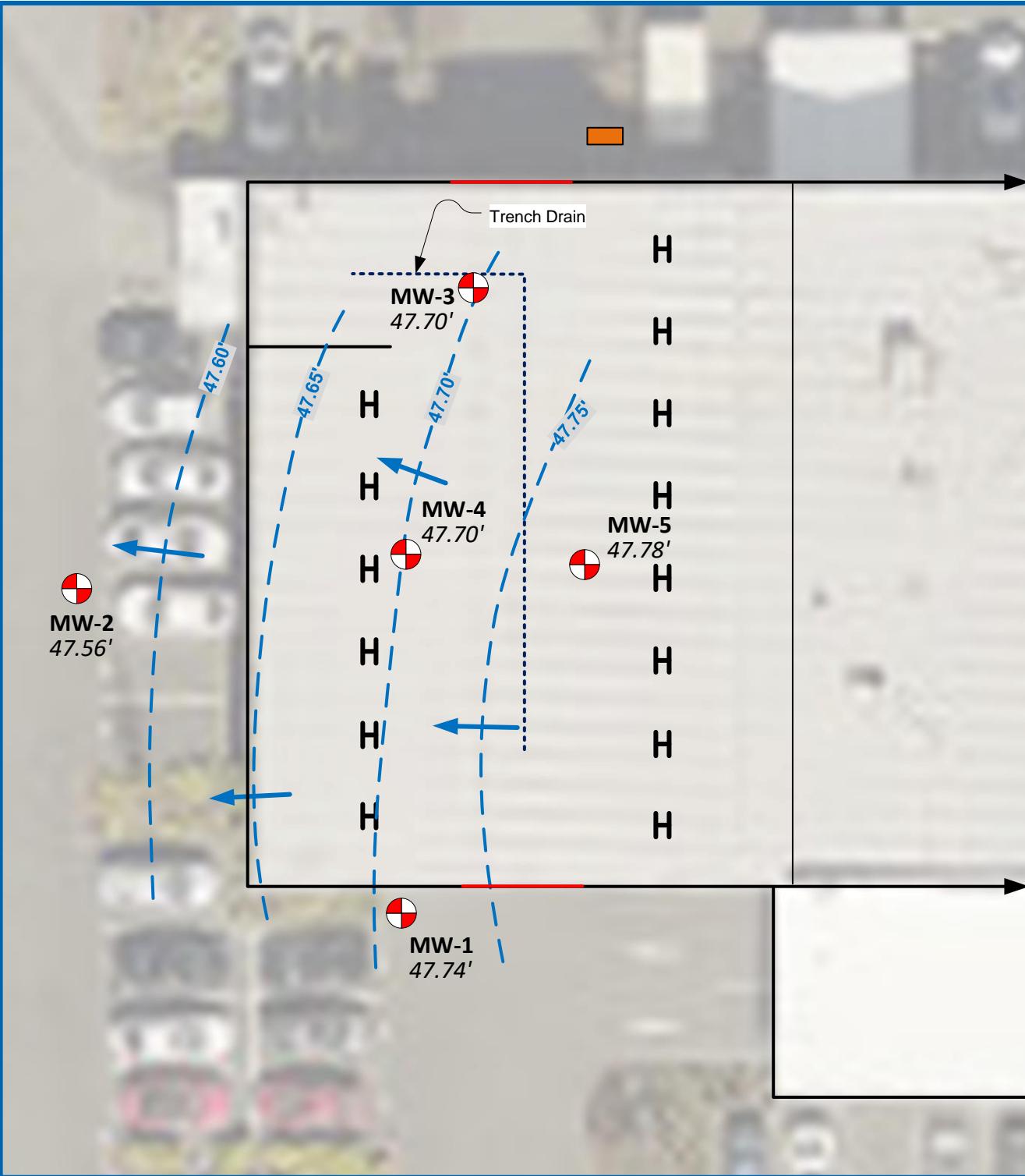


BLUESTONE
ENVIRONMENTAL, NW

May 26, 2022



July 26, 2022



General Legend

Building Outline

Interpreted General Groundwater Gradient



Groundwater Monitoring Well Location with Groundwater Elevation (Bluestone)

Inferred Groundwater Elevation Contour

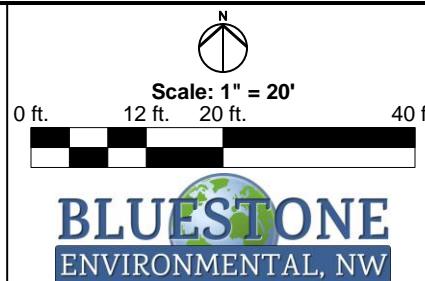
The contours represent an interpretation of available data, for the indicated date. Site groundwater contours may change with additional measurements and/or data points, weather changes, construction activities, and/or other influences.

Groundwater Elevations & Interpreted Gradient, May 2022 & July 2022

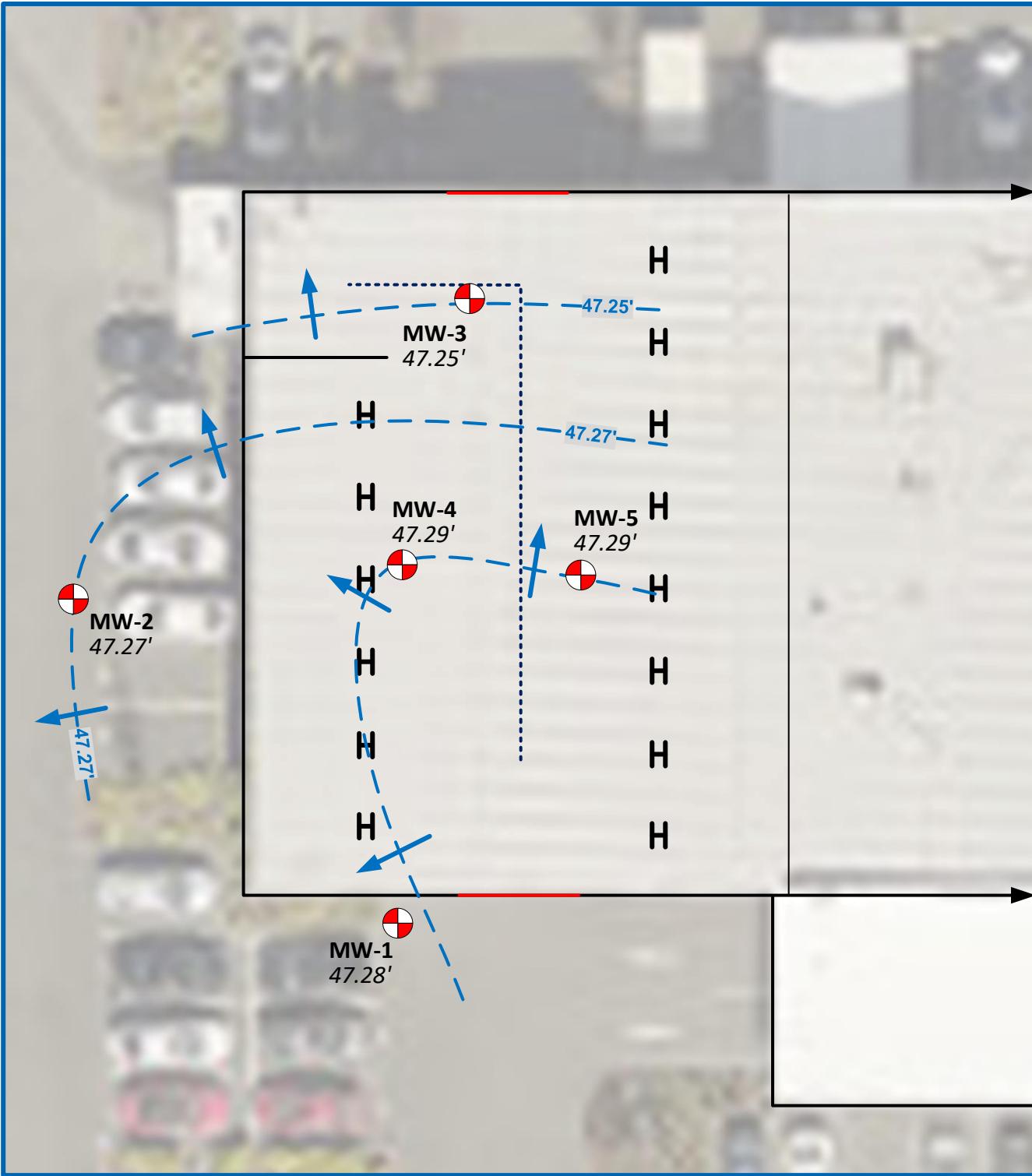
Auburn VW
3109 Auburn Way North, Auburn, WA

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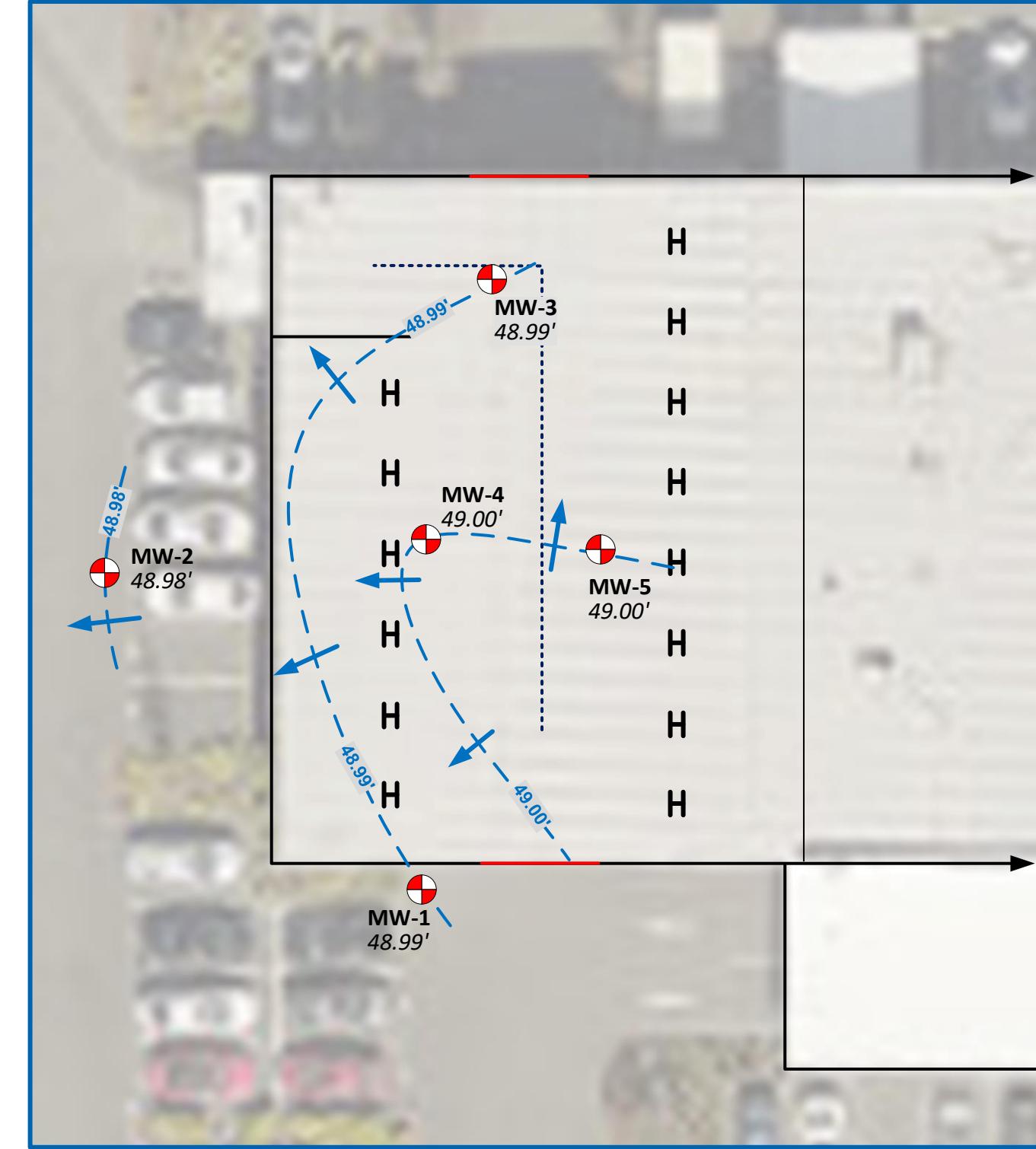
Figure
5a



August 11, 2022



January 10, 2023

General Legend

Building Outline

Interpreted General Groundwater Gradient

Groundwater Monitoring Well Location with
Groundwater Elevation (Bluestone)

Inferred Groundwater Elevation Contour

The contours represent an interpretation of available data, for the indicated date. Site groundwater contours may change with additional measurements and/or data points, weather changes, construction activities, and/or other influences.

Groundwater Elevations & Interpreted
Gradient, August 2022 & January 2023Auburn VW
3109 Auburn Way North, Auburn, WAFigure and notations are in color. Black and white
copies may not be suitable for use.Figure
5b