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DEPARTMENT OF ECOLOGY
Northwest Region Office
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February 8, 2024

David Yuchasz
Woodinville CD, LLC
3110 NE 177th Pl # 321
Woodinville, WA 98072
(davidyuchasz@gmail.com)

Re: Opinion pursuant to WAC 173-340-515(5) on Remedial Action for the following Hazardous Waste Site:

- **Site Name:** Coit Services
- **Site Address:** 16750 Woodinville-Redmond Rd NE, Woodinville, WA 98072
- **Facility/Site No.:** 36189742
- **Cleanup Site ID No.:** 16672
- **VCP Project No.:** NW3377

Dear David Yuchasz:

The Washington State Department of Ecology (Ecology) received your request for an opinion on work planned at the Coit Services facility (Site; formerly Woodinville West Business Park Building C). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70A.305 RCW.

Issue Presented and Opinion

Pursuant to completion of the Site characterization work described in *Remedial Investigation and Focused Feasibility Study Report, Building C at Woodinville West Business Park, Woodinville. Washington,* published March 2023 (*March 2023 RI/FFS*) and *Additional Investigation Report, Building C at Woodinville West Business Park, Woodinville, Washington*, published October 12, 2023 (*October 2023 Additional Investigation Report*), is additional work necessary to resolve data gaps?

YES. Ecology has determined that limited additional characterization of groundwater is necessary to fully characterize the site prior to the implementation of the proposed remedial actions.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following releases:

- Tetrachloroethylene (PCE); cis-1,2-dichloroethene (DCE); and vinyl chloride into the Soil.
- Vinyl chloride into the Groundwater.

Enclosure A includes a detailed description and diagrams of the Site, as currently known to Ecology.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel associated with this Site is affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. Landau Associates Inc., *Additional Investigation Report, Building C at Woodinville West Business Park, Woodinville, Washington*, October 12, 2023.
2. SLR International Corporation (SLR), *Remedial Investigation and Focused Feasibility Study Report, Building C at Woodinville West Business Park, Woodinville, Washington*, March 2023.
3. Ecology, *Initial Investigation Field Report, Woodinville West Business Park, 16750 Woodinville-Redmond Road NE, Woodinville, WA*, July 11, 2022.
4. SLR, *Notification of Recently Discovered Historical Release, Woodinville West Business Park, Building C, 16750 Woodinville-Redmond Road Northeast, Woodinville, Washington*, June 7, 2022.
5. Coda Consulting Group, *Phase II Indoor air Quality and Subsurface Assessment, Industrial Building, 16750 Woodinville-Redmond Road, Woodinville, WA*, December 29, 2021.
6. AECOM, *Phase II Environmental Site Assessment, Woodinville West Business Park, Building C, 16750 Redmond-Woodinville Road Northeast, Woodinville, Washington*, December 16, 2019.

These documents are accessible in electronic form from the Site web page[1]. The complete records are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Visit our Public Records Request page[2] to submit a public records request or get more information about the process. If you require assistance with this process, you may contact the Public Records Officer at publicrecordsofficer@ecy.wa.gov or 360-407-6040.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis and Opinion

Based on a review of your documents, Ecology has determined:

1. **Characterization of the Site**

Based on a review of the *March 2023 RI/FFS* and *October 2023 Additional Investigation Report*, Ecology concurs that the Site has been sufficiently characterized to establish cleanup standards and select a cleanup action. The Site is described above and in **Enclosure A**.

- **Soil.**

  Historical uses of dry-cleaning solvents at the Site from 1999 to 2007 resulted in the release of PCE; cis-1,2-DCE; and vinyl chloride (collectively HVOCs) into the soil. Soil samples collected from 2019 to 2023 indicate that soil containing HVOCs above their respective cleanup levels are present in the area of an oil-water separator and former dry-cleaning machine (see **Enclosure A**, **Figure 2**).

[1] https://apps.ecology.wa.gov/cleanupsearch/site/16672
[2] https://ecology.wa.gov/publicrecords

Soil samples collected from approximately 0 to 20 feet below ground surface (bgs) from borings B-7, B-11, B-12, GP-4, GP-5, SB-4, MW-1, and DMW-1 contained cis-1,2-DCE above the Method B cleanup level. Soil samples collected from 0 to 7 feet bgs from B-11, GP-4, and GP-5 contained PCE above the Method A cleanup level. A soil sample collected from B-11 also contained vinyl chloride above Method B cleanup level from 10 to 15 feet bgs. Soil samples collected from the remaining borings at the Site did not contain HVOCs above their respective Method A or B cleanup levels. The horizontal and vertical extent of soil contamination at the Site is sufficiently characterized.

- **Groundwater.**

  A total of five temporary and seventeen permanent monitoring wells were installed at the Site from 2019 to 2023 to characterize the extent of HVOCs in groundwater (GP-1 to GP-5, MW-1 to MW-15, DW-1 and DW-2; see **Enclosure A, Figure 2**). Based on the results of these investigations, two contaminant plumes were identified associated with the location of the oil-water separator and former dry-cleaning machine (see **Enclosure A, Figure 4**). Groundwater samples collected from MW-1, MW-2, MW-3, MW-4, MW-7, MW-8, MW-9, MW-13, MW-14, and MW-15 contained vinyl chloride above the Method A cleanup level. No other wells at the Site contained any HVOCs above their respective Method A or B cleanup levels. The extent of groundwater contaminated with HVOCs is defined vertically and to the west and south.

  Ecology recommends installing additional monitoring wells to the north and south of MW-15 to fully constrain the limits of HVOCs in groundwater in this portion of the site. See section 2 below for further discussion of groundwater cleanup levels and points of compliance with respect to groundwater-surface water interactions.

  For future groundwater monitoring events, please work with the laboratory staff to ensure the laboratory reporting limits for all contaminants are below the applicable MTCA cleanup levels.

- **Surface Water.**

  In August of 2023, a total of seven surface water samples were collected from the Sammamish River, located downgradient of the releases (see **Enclosure A, Figure 2**). None of the samples contained HVOCs above laboratory reporting limits. Based on the results of additional recommended groundwater sampling discussed above, additional surface water sampling may be necessary at the Site.

- **Air.**

  Soil gas and indoor air sampling was conducted at the Site in December 2021 and July 2023. A total of two soil gas samples (SG-1 and SG-2) and eleven air samples were collected at the site (A-01 to A-08, IA-1, IA-2, and AA-1; see **Enclosure A, Figure 6**). Soil gas sample SG-02, collected in the vicinity of the former dry-cleaning machine, contained PCE, TCE, and vinyl chloride above the Method B screening levels for unrestricted use.

  None of the indoor air samples contained HVOCs above the Method B cleanup levels for unrestricted use with the exception of A-02. Methylene chloride was found above the Method B cleanup level in sample A-02. Due to the lack of detection in other soil or groundwater samples at the Site, and the common use of methylene chloride as a cleaning agent, Ecology concurs that this detection may be attributed to interference based on the current use of the buildings.

Based on the results of indoor air sampling at the Site, air at the at the Site is sufficiently characterized and the vapor intrusion pathway may be considered incomplete.

- **EIM Data Upload.**

  Electronic submittal of all sampling data into Ecology's electronic Environmental Information Management (EIM) database is a requirement in order to receive a final Ecology opinion for this Site. To date, no data from the Site has been submitted to EIM. Help and guidance on submitting data to EIM is available on the EIM Templates & Guidance page[3] Nicole Masurat (nicole.masurat@ecy.wa.gov; (564) 669-8294) is Ecology's contact and resource on entering data into EIM.

2. **Cleanup Standards**

- **Soil.** Based on the measured depth to groundwater and presence of HVOCs in soil and groundwater, the leaching pathway is complete at the Site. MTCA Method A soil cleanup levels for unrestricted use, which are protective of the leaching pathway, are appropriate at the site (WAC 173-340-740(2); Table 740-1). Where Method A cleanup levels are not available for Site contaminants, the Method B cleanup level protective of the leaching pathway is appropriate (WAC 173-340-740(3)(b)(iii)(A)). The standard point of compliance for protection of groundwater is throughout the Site (WAC-173-340-740(6)(b)).

  Ecology appreciates your consideration of the need for a terrestrial ecological evaluation (TEE) at the Site. Since the Site does not qualify for an exclusion, a simplified TEE is needed. Based on Ecology's analysis, the simplified TEE may be ended based on contaminants analysis (WAC-173-340-7942(2)(c)). Contaminants identified at the Site do not include those listed in Table 749-2. Please note that a TEE Form[4] is needed to record your evaluation of the simplified TEE.

- **Groundwater.** Groundwater at the Site discharges to the Sammamish River along the eastern Site boundary (western bank of the Sammamish River). Per WAC 173-340-720(3)(b)(iv), where groundwater discharges to surface water, groundwater cleanup levels shall be established for protection of surface water beneficial uses. The highest beneficial use of surface water at the site is protection of human health (WAC173-201A-600(1)). Per WAC 173-201A-240(5)(b) and Table 240, the appropriate cleanup level for vinyl chloride protective of human health through consumption of water and aquatic organisms is 0.020 µg/L.

  The standard point of compliance for groundwater is throughout the Site from the beginning of the saturated interval to the lowest depth which could potentially be affected (WAC 173-340-720(8)(b)). Depending on the results of the remedial actions discussed below, a conditional point of compliance (CPOC) may be appropriate at the Site. Please refer to Ecology's *Implementation Memorandum No. 16: Developing Conditional Points of Compliance at MTCA Sites Where Groundwater Discharges to Surface Water*[5], revised December 2017, for further information regarding CPOCs protective of surface water.

- **Air.** At this time, Ecology recommends using Method B cleanup levels protective of unrestricted

[3] https://apps.ecology.wa.gov/eim/help/HelpDocuments
[4] https://apps.ecology.wa.gov/publications/SummaryPages/ECY090300.html
[5] https://apps.ecology.wa.gov/publications/SummaryPages/1609053.html

use as preliminary cleanup levels for air at the Site (WAC 173-340-750(3)(b)). The standard point of compliance is defined as ambient air throughout the Site (WAC 173-340-750(6)).

3. **Proposed Remedial Actions**

The preferred cleanup alternative identified in your *March 2023 RI/FFS* and *October 2023 Additional Investigation Report* includes the following remedial actions:

- Injection of emulsified soybean oil to promote biodegradation of HVOCs in soil and groundwater at the Site at depths ranging from 2 to 20 feet bgs.
- Performance monitoring of soil in the area of GP-4 to confirm the efficacy of bioaugmentation in soils at the Site.
- Quarterly groundwater monitoring conducted for a minimum period of 2 years following remedial injections. In addition to HVOCs, groundwater samples will also be analyzed for methane, ethane, and ethene to monitor the progress of dechlorination.

Ecology appreciates your evaluation of the need for pilot testing to confirm the efficacy of bioaugmentation at the Site. Ecology recommends drafting a pilot test work plan to ensure that sufficient data are collected to document the results of the pilot test. Performance monitoring soil samples from the oil-water separator area will also be necessary to document the success of remedial actions in this part of the Site.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70A.305.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70A.305.080 and WAC 173-340-545.

3. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70A.305.170(6).

Contact Information

Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). After you have addressed our concerns, you may request another review of your cleanup. Please do not hesitate to request

additional services as your cleanup progresses. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/vcp. If you have any questions about this opinion, please contact me by phone at (206) 459-6287 or e-mail at david.unruh@ecy.wa.gov.

Sincerely,

David Unruh
Site Manager
Toxics Cleanup Program, NWRO

Enclosures (1): A – Description and Diagrams of the Site

cc: Mike Staton, Landau Associates, Inc. (mstaton@landauinc.com)
Sonia Fernández, VCP Coordinator (sonia.fernandez@ecy.wa.gov)

Enclosure A

Description and Diagrams of the Site

Site Description

This section provides Ecology's understanding and interpretation of Site conditions and is the basis for the opinions expressed in the body of the letter.

Site

The Site is defined by releases of the following at 16750 Woodinville-Redmond Rd NE in Woodinville, King County, Washington (**Figure 1**, **Figure 2**).

- PCE; cis-1,2-DCE; and vinyl chloride into the Soil.
- Vinyl chloride into the Groundwater.

The Site is located on the east side of Woodinville-Redmond Rd NE. It is located on one irregularly shaped parcel totaling 9.76 acres in area with the King County parcel number 092605-9084 (the Property).

Area and Property Description

The Site is located in a commercial area in Woodinville. The Property is currently developed with two warehouse buildings, Building C (16750 Woodinville-Redmond Rd NE; 49,000 square feet) and Building D (16650 Woodinville-Redmond Rd NE; 61,000 square feet; **Figure 2**). According to MTCA, the Site is defined as all areas where contamination has come to be located. Based on Site investigations, the Site includes Building C and the area north and east of Building C.

Use of the surrounding properties include the following:

- North and south: warehouses and office space for utility locating services and a specialty salt manufacturer.
- East: Sammamish River with multi-family residences beyond.
- West: Woodinville-Redmond Road NE with undeveloped land beyond.

Property History and Current Use

The Property was first developed in 1999 with the current buildings. Coit Services, an upholstery and rug cleaning service, operated a dry-cleaning machine in suite C-102 from 1999 to 2007 (**Figure 3**). Building C is currently occupied by three tenants including pump sales and service, rug and upholstery cleaning (Coit Services), and construction services businesses.

Sources of Contamination

The source of PCE; cis-1,2-DCE; and vinyl chloride (collectively HVOCs) contamination at the Site is associated with the historical dry-cleaning operations (**Figure 3**). Contamination at the Site was initially found in 2019 as part of a Phase II Environmental Site Assessment. The sources of

contamination at the Site appear to be the former location of the dry-cleaning equipment in Suite C-102 and an oil-water separator located to the north of Building C (**Figure 4**, **Figure 5**).

Physiographic Setting

The Site is located within the Puget Sound Lowland Physiographic Province, a north-south trending structural and topographic depression that is bordered on its west side by the Olympic Mountains, and to the east by the Cascade Mountain foothills. The Puget Sound Lowland is underlain by Tertiary volcanic and sedimentary bedrock and has been filled to the present-day land surface with Pleistocene-aged glacial and nonglacial sediments.

Repeated advances and retreats of the continental glaciers that flowed through the area out of Canada more than 10,000 years ago created the low, undulating plains that are characteristic of the Puget Sound Lowland. Current land surfaces reflect the changes that are directly related to the most recent glacial advance and retreat through the region, known as the Vashon Stade of the Fraser Glaciation.

The Site is located on relatively flat ground at an elevation of approximately 40 feet above mean sea level (amsl) in the Sammamish River valley, a floodplain approximately 0.75 miles wide in this area. Immediately to the west of the Property, a highland rises to a maximum elevation of approximately 320 feet amsl.

Surface/Storm Water System

Stormwater runoff on the Property disperses via sheet flow to catch basins which drain to an oil water separator immediately north of Building C, which subsequently drains to a stormwater detention pond northeast of Building C (**Figure 3**). The closest surface water body to the Site is the Sammamish River, located adjacent to the east of the Property.

Ecological Setting

The Property and surrounding properties to the north, south, and west are zoned for industrial use. Land surfaces on the Property are primarily covered by buildings and asphalt and concrete pavement with some small, landscaped areas. A total of approximately 10.5 acres of undeveloped land are located to the west and east of the Property along the river valley slope and the Sammamish River, respectively.

Geology

The geologic map[6] of the area indicates that the Site is underlain by younger alluvium. Younger alluvium in this area includes gravels to silts with pebbles and cobbles deposited by the Sammamish River in channels and floodplains. Boring logs for explorations advanced at the Site indicate that the Property is underlain by fill materials from a depth of approximately 2 to 7 feet below ground surface (bgs). Fill materials are underlain by deposits of interbedded sands,

[6] https://ngmdb.usgs.gov/Prodesc/proddesc_7467.htm

sandy silts, and silts to the maximum explored depth of 52 feet bgs, interpreted to be alluvial deposits.

Groundwater

From 2019 to 2023, a total of 17 permanent monitoring wells were installed at the Site in two depth intervals: shallow (MW-1 to MW-15), and deep (DMW-1, DMW-2; **Figure 3**). Wells in the shallow interval are installed with 15- to 20- foot screens installed from 3 to 23 feet bgs. Depth to water in shallow wells ranges from 8.70 to 16.54 feet bgs (23.01 to 18.01 feet NAVD88[7]). Wells DW-1 and DW-2 are installed with 5-foot screens installed from 42.5 to 49 feet bgs. Depth to water in deep interval wells ranges from 11.01 to 16.54 feet bgs (20.92 to 19.86 feet NAVD88). Shallow groundwater flow at the Site is oriented to the east-northeast toward the Sammamish River (**Figure 6**).

Water Supply

Drinking water at the Property is supplied by the Woodinville Water District. The Woodinville Water District's water is purchased from the City of Seattle, which in turn sources its water from reservoirs on the Tolt and Cedar Rivers, located approximately 23 miles east and 31 miles southeast of the Site, respectively. The closest 10-year wellhead protection zone is located 3 miles to the northeast of the Site.

Release and Extent of Contamination

Soil.

Subsurface investigations conducted at the Site from 2019 through 2023 have identified the extent of HVOC contamination in soil at the Site. Soil samples collected from 0 to 20 feet bgs from borings B-11, B-12, GP-4, GP-5, SB-4, DMW-1, and MW-1, in the vicinity of the former dry-cleaning machine, contained cis-1,2-DCE above the Method B cleanup level (**Figure 4**). Additionally, PCE was present above the Method A cleanup level in soil samples collected from 0 to 7 feet bgs from B-11, GP-4, and GP-5. Vinyl chloride was also present above the Method B cleanup level in B-11 at a depth of 10-15 feet bgs. Near the oil-water separator, a soil sample collected from boring B-7 at a depth of 10-15 feet bgs contained cis-1,2-DCE above the Method B cleanup level.

Groundwater.

Groundwater samples collected from temporary and permanent monitoring wells from 2019 to 2023 contained vinyl chloride above the Method A PCUL. In the vicinity of the former dry-cleaning machine, groundwater samples collected from temporary and permanent monitoring wells B-11, GP-4, MW-1, and MW-4 contained vinyl chloride above the Method A PCUL (**Figure 5**). Groundwater samples collected from B-4, B-7, GP-3, MW-2, MW-8, MW-9, MW-13, MW-14,

[7] North American Vertical Datum of 1988

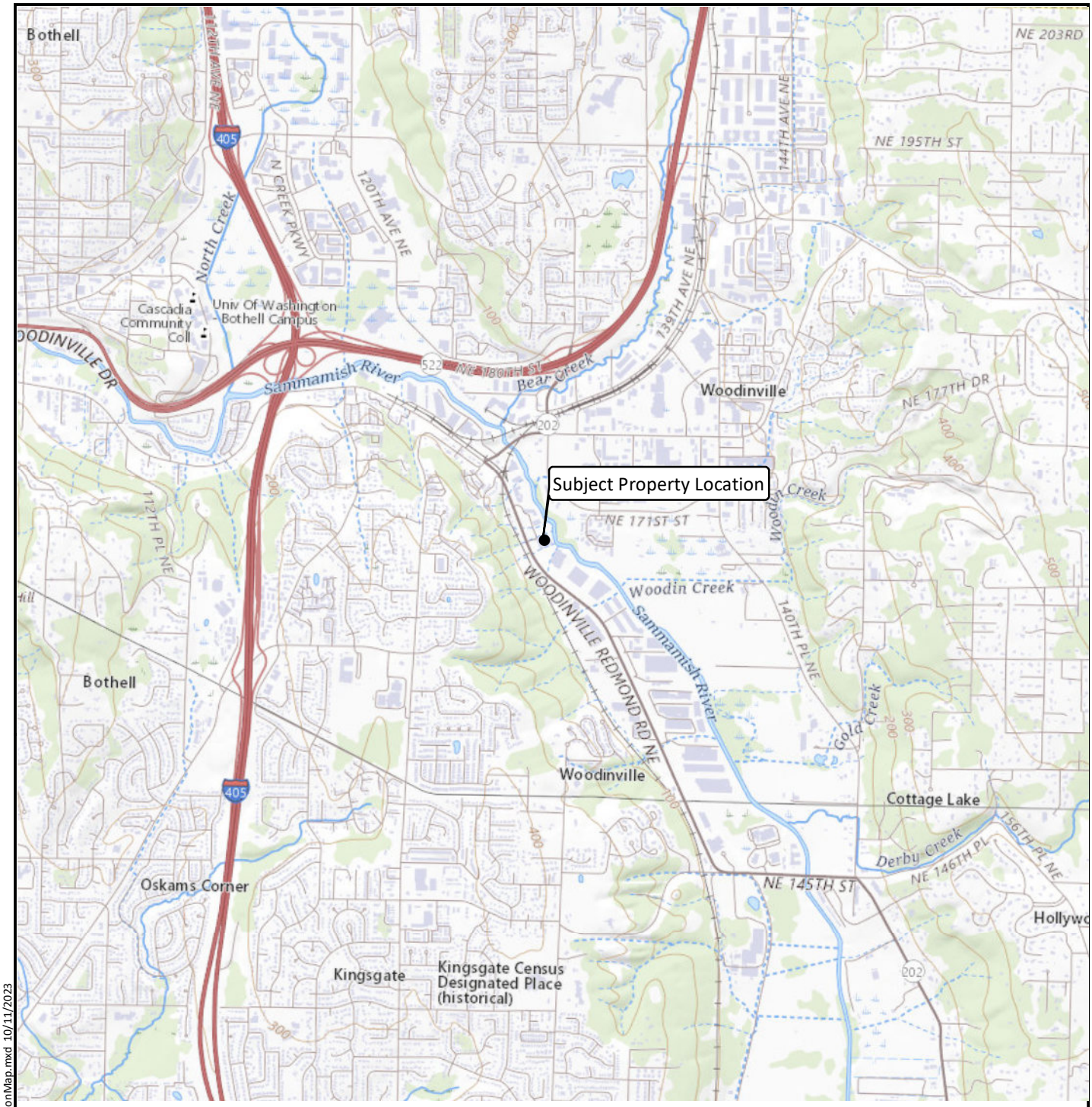
and MW-15 in the vicinity of the oil-water separator also contained vinyl chloride above the Method B cleanup level.

Surface water.
A total of seven surface water samples were collected from the Sammamish River in August 2023 (**Figure 3**). Samples were collected at the midpoint between the thalweg and west bank of the river near the river bottom using a peristaltic pump. None of the surface water samples contained HVOCs above the laboratory reporting limits and applicable MTCA cleanup levels.

Air.
In December 2021, two soil gas samples, SG-01 and SG-02, were collected from borings B-10 and B-12, respectively (**Figure 7**). Borings were advanced to a depth of 4 feet bgs, and a temporary soil gas probe was installed. Sample SG-02 contained PCE; trichloroethylene (TCE); cis-1,2-DCE; and vinyl chloride above the Method B screening level for unrestricted use.

Seven indoor air samples and one ambient air sample were also collected at the Site in December 2021 (A-01 to A-08; **Figure 7**). With the exception of A-02, none of the samples contained HVOCs above the Method B cleanup levels for unrestricted use. Methylene chloride was detected in A-02 at a concentration of 293 micrograms per cubic meter ($\mu g/m^3$). This contaminant has not historically been detected in soil or groundwater at the site. Due to the lack of methylene chloride in other media at the Site and the common use of this compound as a cleaning agent, this result likely represents an interference.

An additional indoor air sampling event was conducted in July 2022. Two indoor air samples were collected from the building and one ambient air sample was collected outside to the east of the building (IA-1 and IA-2, AA-1; **Figure 7**). None of these samples contained HVOCs above the laboratory reporting limits and Method B cleanup levels.



Enclosure A Figure 1

Data Source: Esri.

G:\Projects\1789\002\010\015\F01 SubjectPropertyLocationMap.mxd 10/11/2023

LANDAU ASSOCIATES

Building C Woodinville West Business Park 16750 Woodinville Redmond Rd. NE Woodinville, Washington	**Subject Property Location Map**	Figure 1

King County iMap

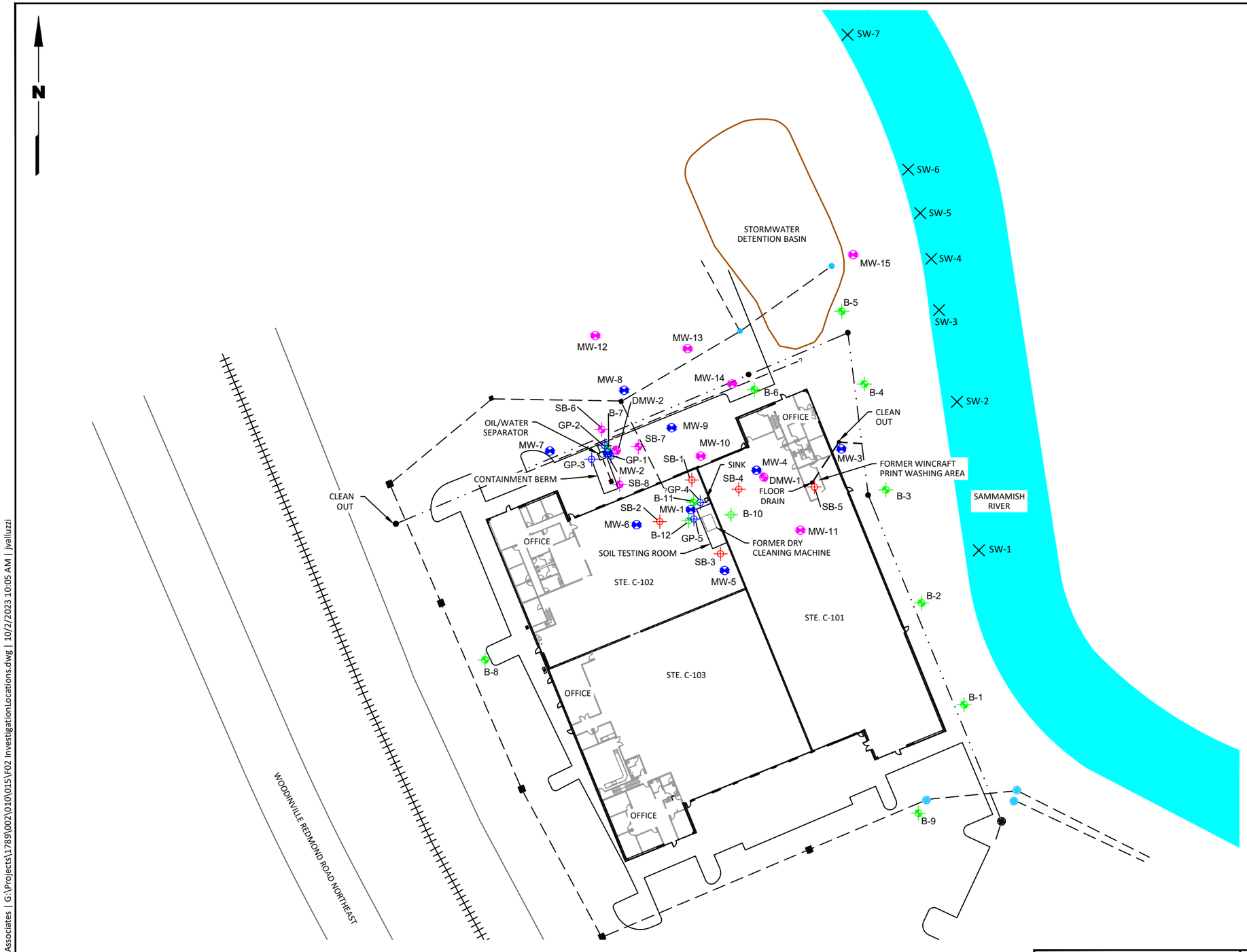
Date: 2/6/2024 Notes:

Parcel 092605-9084 boundary

N

Enclosure A Figure 2

King County



Notes

1. BUILDING FLOOR PLAN BASED ON CODA CONSULTING GROUP'S 2021 SAMPLE PLAN.
2. LOCATIONS OF FEATURES ARE APPROXIMATE.
3. HVOC = HALOGENATED VOLATILE ORGANIC COMPOUNDS
4. BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION.

Legend

- SW-1 — SURFACE WATER SAMPLE LOCATION AND DESIGNATION
- SB-7 — MAY 2023 SOIL BORING LOCATION AND DESIGNATION
- MW-11 — MAY THROUGH JULY 2023 SHALLOW GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- DMW-1 — 2023 DEEP GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- SB-1 — APRIL 2022 SOIL BORING LOCATION AND DESIGNATION
- MW-6 — EXISTING SHALLOW GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- GP-1 — 2019 SOIL BORING AND TEMPORARY WELL LOCATION AND DESIGNATION
- B-6 — 2021 SOIL BORING AND TEMPORARY WELL LOCATION AND DESIGNATION
- B-10 — 2021 SOIL BORING LOCATION AND DESIGNATION
- UNDERGROUND OIL/WATER SEPARATOR
- STORM DRAIN MANHOLE
- STORM DRAIN LINE
- STORMWATER CATCH BASIN
- SANITARY SEWER MANHOLE
- SANITARY SEWER LINE
- SIDE SEWER/DRAIN LINE

Enclosure A Figure 3

0 70 140
Scale in Feet

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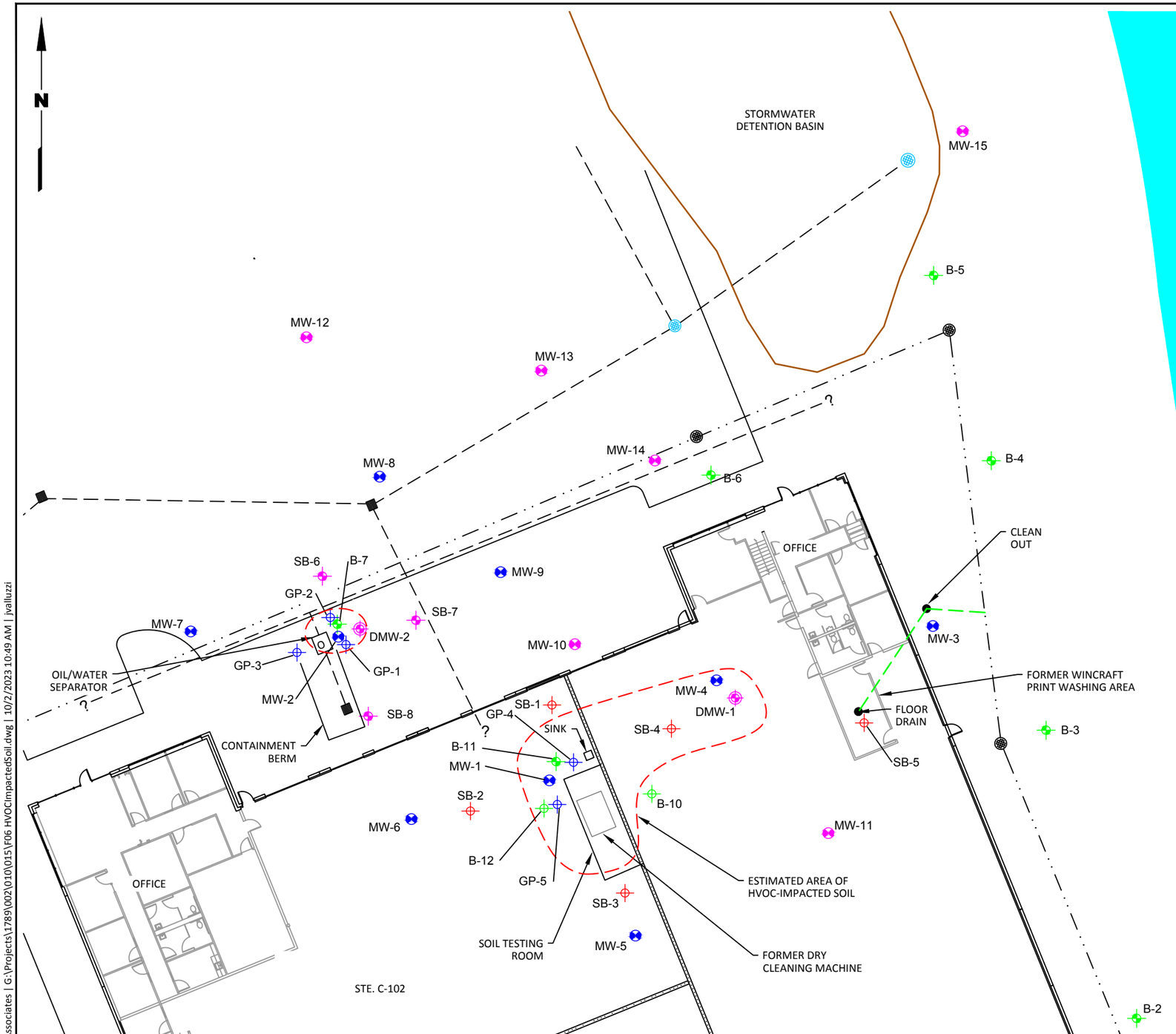
Building C
Woodinville West Business Park
16750 Woodinville Redmond Rd. NE
Woodinville, Washington

Soil, Groundwater and Surface Water Investigation Locations

Figure 2



Notes

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2. LOCATIONS OF FEATURES ARE APPROXIMATE.
3. HVOC = HALOGENATED VOLATILE ORGANIC COMPOUNDS
4. BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION.

Legend

SB-7	MAY 2023 SOIL BORING LOCATION AND DESIGNATION
MW-11	MAY THROUGH JULY 2023 SHALLOW GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
DMW-1	2023 DEEP GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
SB-1	APRIL 2022 SOIL BORING LOCATION AND DESIGNATION
MW-6	EXISTING SHALLOW GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
GP-1	2019 SOIL BORING AND TEMPORARY WELL LOCATION AND DESIGNATION
B-6	2021 SOIL BORING AND TEMPORARY WELL LOCATION AND DESIGNATION
B-10	2021 SOIL BORING LOCATION AND DESIGNATION
	UNDERGROUND OIL/WATER SEPARATOR
	STORM DRAIN MANHOLE
	STORM DRAIN LINE
	STORMWATER CATCH BASIN
	SANITARY SEWER MANHOLE
	SANITARY SEWER LINE
	SIDE SEWER/DRAIN LINE
	ESTIMATED AREA OF HVOC-IMPACTED SOIL

Enclosure A Figure 4

Building C
Woodinville West Business Park
16750 Woodinville Redmond Rd. NE
Woodinville, Washington

Estimated Areas of HVOC-Impacted Soil

Figure 6

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N

MW-15	8/1/2023
VC	0.22

MW-12	6/7/2023
VC	<0.400*

MW-13	6/7/2023
VC	1.34

MW-14	6/7/2023
VC	1.52

DMW-2	6/8/2023
VC	<0.400*

MW-8	6/8/2023
VC	0.860

MW-9	6/7/2023
VC	0.360 J

MW-10	6/7/2023
VC	<0.400*

MW-7	6/7/2023
VC	<0.400*

MW-4	6/8/2023
VC	1.85

MW-3	6/8/2023
VC	<0.400*

MW-2	6/7/2023
VC	1.19

DMW-1	6/8/2023
VC	<0.400*

MW-1	6/7/2023
VC	<0.400*

MW-11	6/8/2023
VC	<0.400*

MW-6	6/7/2023
VC	<0.400*

MW-5	6/7/2023
VC	<0.400*

SW-5
SW-4
SW-3
SW-2
SW-1
SAMMAMISH RIVER
STORMWATER DETENTION BASIN
ESTIMATED AREAS OF VINYL CHLORIDE-IMPACTED GROUNDWATER
ESTIMATED AREA OF HVOC-IMPACTED SOIL
MW-15
MW-12
MW-13
MW-14
MW-8
MW-9
MW-10
MW-7
MW-4
MW-3
MW-2
DMW-1
MW-1
MW-11
MW-6
MW-5
DMW-2
B-5
B-4
B-6
B-2
B-3
B-10
SB-6
B-7
GP-2
SB-7
DMW-2
GP-3
GP-1
MW-2
SB-8
SB-1
GP-4
SINK
SB-4
B-11
MW-1
SB-2
B-12
GP-5
SB-3
SOIL TESTING ROOM
FLOOR DRAIN
SB-5
CLEAN OUT
OFFICE
OIL/WATER SEPARATOR
CONTAINMENT BERM
FORMER WINCRAFT PRINT WASHING AREA
FORMER DRY CLEANING MACHINE
STE. C-102
0
30
60
Scale in Feet

Notes

1. BUILDING FLOOR PLAN BASED ON CODA CONSULTING GROUP'S 2021 SAMPLE PLAN.
2. LOCATIONS OF FEATURES ARE APPROXIMATE.
3. HVOC = HALOGENATED VOLATILE ORGANIC COMPOUNDS
4. * = THE ANALYTE WAS NOT DETECTED AT A CONCENTRATION GREATER THAN THE METHOD REPORTING LIMIT (MRL); HOWEVER, THE MRL EXCEEDED THE MTCA METHOD A OR METHOD B CLEANUP LEVEL.
5. VALUES IN RED ARE DETECTION WHERE THE RESULT EXCEED THE MTCA METHOD A CLEANUP LEVEL (0.20 µg/L).
6. VC= VINYL CHLORIDE
7. µg/L = MICROGRAMS PER LITER
8. J = SAMPLE RESULT IS ESTIMATED. THE RESULT WAS DETECTED BELOW THE LOWEST POINT OF THE CALIBRATION CURVE, BUT ABOVE THE METHOD DETECTION LIMIT (MDL).
9. BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION.

Legend

- SB-7 — MAY 2023 SOIL BORING LOCATION AND DESIGNATION
- MW-11 — MAY THROUGH JULY 2023 SHALLOW GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- DMW-1 — 2023 DEEP GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- SB-1 — APRIL 2022 SOIL BORING LOCATION AND DESIGNATION
- MW-6 — EXISTING SHALLOW GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- GP-1 — 2019 SOIL BORING AND TEMPORARY WELL LOCATION AND DESIGNATION
- B-6 — 2021 SOIL BORING AND TEMPORARY WELL LOCATION AND DESIGNATION
- B-10 — 2021 SOIL BORING LOCATION AND DESIGNATION
- UNDERGROUND OIL/WATER SEPARATOR
- STORM DRAIN MANHOLE
- STORM DRAIN LINE
- STORMWATER CATCH BASIN
- SANITARY SEWER MANHOLE
- SANITARY SEWER LINE
- SIDE SEWER/DRAIN LINE
- ESTIMATED AREA OF VINYL CHLORIDE-IMPACTED GROUNDWATER
- SW-1 — SURFACE WATER SAMPLE LOCATION AND DESIGNATION

WELL NUMBER -	MW-11	6/8/2023	- DATE
ANALYTE -	VC	<0.400	- CONCENTRATION (IN µg/l)

Enclosure A Figure 5

Building C
Woodinville West Business Park
16750 Woodinville Redmond Rd. NE
Woodinville, Washington

Estimated Areas of Vinyl Chloride-Impacted Groundwater in 2023

Figure 3

LANDAU ASSOCIATES

N

MW-15 (19.18')

STORMWATER DETENTION BASIN

SAMMAMISH RIVER

MW-12 (18.10')

MW-13 (19.98')

MW-14 (19.87')

MW-8 (21.12')

MW-9 (20.14')

MW-10 (20.68')

MW-7 (20.28')

MW-2 (20.25')

MW-4 (19.94')

MW-3 (19.52')

OIL/WATER SEPARATOR

CONTAINMENT BERM

OFFICE

FORMER WINCRAFT PRINT WASHING AREA

FLOOR DRAIN

SINK

MW-1 (20.23')

FORMER DRY CLEANING MACHINE

MW-6 (20.33')

MW-11 (19.92')

SOIL TESTING ROOM

MW-5 (20.29')

OFFICE

STE. C-102

STE. C-101

19.20'

19.30'

19.40'

19.50'

19.60'

19.70'

19.80'

19.90'

20.00'

20.10'

20.20'

20.30'

NOTES

1. BUILDING FLOOR PLAN BASED ON CODA CONSULTING GROUP'S 2021 SAMPLE PLAN.
2. LOCATIONS OF FEATURES ARE APPROXIMATE.
3. DUE TO ANOMALOUS DEPTH TO GROUNDWATER MEASUREMENTS, THE GROUNDWATER ELEVATIONS OF MW-8 AND MW-12 WERE EXCLUDED FROM THE CONTOURING.
4. THE STORMWATER DETENTION POND WAS DRY AT THE TIME OF THE DEPTH TO GROUNDWATER MEASUREMENTS ON AUGUST 1, 2023.
5. BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION.

LEGEND

MW-11	MAY THROUGH JULY 2023 SHALLOW GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
MW-6	EXISTING SHALLOW GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
(19.94')	SHALLOW GROUNDWATER ELEVATION (IN FEET ABOVE NAVD 88 DATUM) ON AUGUST 1, 2023
20.20'	INFERRED GROUNDWATER ELEVATION CONTOUR LINE (IN FEET ABOVE NAVD 88 DATUM)
	INFERRED GROUNDWATER FLOW DIRECTION

0 30 60

Scale in Feet

Enclosure A Figure 6

LANDAU ASSOCIATES

Building C Woodinville West Business Park 16750 Woodinville Redmond Rd. NE Woodinville, Washington	**Shallow Groundwater Elevation Contour Map - August 1, 2023**	Figure 5

NOTES

1) BUILDING FLOOR PLAN BASED ON CODA CONSULTING GROUP'S 2021 SAMPLE PLAN.
2) LOCATIONS OF FEATURES ARE APPROXIMATE.
3) [a] = BACKGROUND AMBIENT AIR SAMPLE LOCATION

LEGEND

IA-1	2022 INDOOR AIR SAMPLE LOCATION AND DESIGNATION
A-01	2021 INDOOR AIR SAMPLE LOCATION AND DESIGNATION
B-10/SG-1	2021 SOIL BORING AND SOIL VAPOR SAMPLE LOCATION AND DESIGNATION
	UNDERGROUND OIL/WATER SEPARATOR
	STORM DRAIN MANHOLE
	STORM DRAIN LINE
	STORMWATER CATCH BASIN
	SANITARY SEWER MANHOLE
	SANITARY SEWER LINE
	SIDE SEWER/DRAIN LINE
	RAILROAD TRACKS

Enclosure A Figure 7

BUILDING C
WOODINVILLE WEST BUSINESS PARK
16750 WOODINVILLE REDMOND RD. NE
WOODINVILLE, WASHINGTON

Drawing
INDOOR AIR AND SOIL VAPOR SAMPLE LOCATIONS

Date	February 17, 2023	Scale	AS SHOWN	Drawing No.	3
File Name	01-03	Project No.	101.20841.00001		

SLR

Drawing path: N:\Bothell\1 PROJECTS\Fox Rothschild\Woodinville CD, LLC Project\Figures\01-03.dwg