



Electronic Copy

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

*Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000
711 for Washington Relay Service • Persons with a speech disability can call (877) 833-6341*

February 9, 2021

Michael Pollard
Centric Partners LLC / Seattle Land Use Company
1420 Fifth Avenue, Suite 2200
Seattle, WA 98101
(michael@seattlelanduseco.com)

Re: Opinion pursuant to WAC 173-340-515(5) on Remedial Action for the following Property associated with a Site:

- **Property Name:** TD Auto Body & Repair
- **Property Address:** 1209 East Fir Street, Seattle, WA 98122
- **Facility/Site No.:** 2501
- **Cleanup Site ID No.:** 2666
- **VCP Project No.:** NW3194

Dear Michael Pollard:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your groundwater monitoring report and natural background calculation for the TD Auto Body & Repair facility (Site). 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 work described in the 3rd Quarter 2020 Groundwater Monitoring Results report, is additional work necessary to resolve data gaps?

YES. Ecology has determined that additional Site characterization work is necessary.

Description of the Property and the Site

This opinion applies only to the Property and the Site described below.

1. Description of the Property.

The Property includes the following tax parcels in King County, which were affected by the Site:

- 8061000035
- 8061000025
- 8061000015
- 8061000005

2. Description of the Site.

The Site is defined by the nature and extent of contamination associated with the following releases:

- Gasoline-range total petroleum hydrocarbons (TPH-G), oil-range petroleum hydrocarbons (TPH-O), benzene, ethylbenzene, xylenes, lead, cadmium, and tetrachloroethene (PCE) into the Soil.
- PCE, trichloroethene (TCE), vinyl chloride, cis-1,2-dichloroethene (1,2-DCE), TPH-G, TPH-O, diesel-range total petroleum hydrocarbons (TPH-D), benzene, 1,2,4-trimethylbenzene, and arsenic into the Groundwater.
- Vinyl chloride, naphthalene, bromodichloromethane, and chloroform into the Air.

Those releases have affected more than one parcel of real property, including the parcels identified above.

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

3. Identification of Other Sites That May Affect the Property.

Please note the King County Records & Elections Storage Building (KCRESB) facility (Facility/Site ID No. 58730) may also affect parcel(s) of real property associated with this Site. Limited information is available regarding the KCRESB facility, since any potential

contamination at that facility has not been characterized, and the source is unknown. This opinion does not apply to any contamination associated with the KCRESB facility.

Please note that the KCRESB facility was referred to as the “King County Archives Warehouse” in Ecology’s January 2020 VCP opinion letter for the TD Auto Body & Repair Site, prior to listing of the KCRESB facility on the Confirmed and Suspected Contaminated Sites List (CSCSL). The KCRESB facility is bounded on the west and south by the Property and is located on King County tax parcel number 8061000040.

Basis for the Opinion

This opinion is based on the information contained in the documents listed in **Enclosure B**. A number of these documents are accessible in electronic form from the [Site webpage](#)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 the *3rd Quarter 2020 Groundwater Monitoring Report* and the November 2020 *Groundwater Monitoring and Response to Opinion Letter Comments* letter, Ecology has determined:

1. The extent of arsenic-contaminated groundwater has not been delineated. Ecology has not received a Remedial Investigation / Feasibility Study (RI/FS) and disproportionate cost analysis (DCA) that addresses arsenic in groundwater. Additional site characterization is needed.
 - a. Dissolved arsenic has been detected in groundwater at the Site at concentrations up to 506 micrograms per liter ($\mu\text{g/L}$), which greatly exceeds the MTCA Method A groundwater cleanup level of 5 $\mu\text{g/L}$. This arsenic concentration was detected in groundwater monitoring well MW-12 during the 3rd quarter 2020, which had a concentration of 4.39 $\mu\text{g/L}$ in the 2nd quarter 2020. Arsenic appears to have

¹ <https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=2666>

² <https://www.ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests>

significantly increased since groundwater injections for treatment of solvent-contaminated groundwater began at the Site in June 2020. Arsenic may be mobilizing in groundwater due to groundwater injections, petroleum impacts, or other conditions that may be altering the groundwater geochemistry.

- b. There may also be a source of arsenic at the Site that has not yet been identified. A dissolved arsenic concentration of 153 $\mu\text{g/L}$ was detected in groundwater monitoring well MW-7, located in the central area of the Site and cross gradient of the groundwater treatment area. This result is an order of magnitude above the expected range of background arsenic in Puget Sound groundwater. Additional sampling is needed to assess the source of this high arsenic concentration.
 - c. Ecology recommends measuring field parameters (such as pH, ORP, DO, temperature, specific conductance, etc.) during sampling of the monitoring wells in order to evaluate the geochemical conditions and changes over time at the Site. For example, there might be a correlation between higher arsenic concentrations and reducing geochemical conditions.
 - d. Arsenic-contaminated groundwater may be migrating off the Property (to the south and east of the groundwater treatment area). A school and proposed affordable housing project are located down gradient of the Property, to the south and east, respectively. Ecology recommends installation of additional monitoring wells along the southern and eastern Property boundaries, and possibly in the adjacent Yesler Way right-of-way to the south and on the Seattle Housing Authority property to the east, in order to assess this migration potential.
2. Ecology does not concur with the proposed Site-specific natural background concentration for arsenic in groundwater because multiple data points that were used in the calculations appear to be in potentially impacted areas and are therefore not representative of natural groundwater conditions.
 - a. A Site-specific natural background concentration for arsenic was proposed in the *3rd Quarter 2020 Groundwater Monitoring Report* and the November 2020 *Groundwater Monitoring and Response to Opinion Letter Comments* letter, which was calculated using a combination of data collected on the Site and data collected by others in the vicinity of the Site. When a Site-specific natural background concentration is calculated, the methodology must be in accordance with WAC 173-340-709. Samples must be representative of natural groundwater conditions and not have been contaminated by releases from the Site or other sources, as indicated in our September 2020 opinion letter.

- b. Multiple data points that were used in the calculations appear to be in potentially impacted areas and are therefore not representative of natural groundwater conditions. These data points include Site well MW-4 (which is located near the groundwater treatment area, and has a significantly elevated arsenic concentration), Site wells MW-3 and MW-8 (which have potential petroleum impacts based on analytical data), and off-Property boring FIR-06 (which has potential petroleum impacts based on analytical data, and has a significantly elevated arsenic concentration).
 - c. If you choose to recalculate a Site-specific natural background concentration for arsenic in groundwater, you may focus on dissolved arsenic from this point forward. That is, you do not need to calculate a total arsenic concentration, since dissolved arsenic is more representative of groundwater quality in samples with highly variable turbidity collected from monitoring wells.
 - d. A figure(s) should be included that depicts the locations of the data points you use in your Site-specific natural background calculation.
 - e. Well logs should be provided for the data points, where available.
 - f. Ecology recommends using a geometric mean instead of an arithmetic mean in your calculations.
3. In response to your November 2020 *Groundwater Monitoring and Response to Opinion Letter Comments* letter, it should be noted that there is no guarantee that Ecology will approve an environmental covenant as a component of a Property or Site No Further Action (NFA) opinion. The appropriateness of an environmental covenant is only considered after a sufficient RI/FS/DCA is completed for all contaminants of concern, and after interim actions to the extent practicable have been successfully completed. The protectiveness and appropriateness of an environmental covenant is evaluated by Ecology on a case-by-case basis, once sufficient information is provided.
4. It should also be noted that in order for Ecology to consider a NFA Likely opinion on a proposed cleanup of the Property, there would need to be documentation that the proposed cleanup will be successful, and that recontamination of the Property will be prevented in the long-term. Documentation that an interim action will achieve the stated objectives can require months and possibly years of confirmation sampling data, especially to confirm that rebound will not occur. A NFA Likely opinion is not supported at this time.

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.

Michael Pollard
February 9, 2021
Page 7

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 (425) 649-7023 or email at tamara.welty@ecy.wa.gov.

Sincerely,

A handwritten signature in black ink that reads "Tamara Welty". The signature is written in a cursive style with a large, stylized initial 'T'.

Tamara Welty, LG, LHG
NWRO Toxics Cleanup Program

Enclosures (2): A – Description and Diagrams of the Site (including the Property)
B – Basis for the Opinion: List of Documents

cc: Daniel Whitman, Whitman Environmental Sciences, (whitenviro@yahoo.com)

Enclosure A

Description and Diagrams of the Site

Site and Property Description

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

Site: The TD Auto Body & Repair facility is located at 1209 East Fir Street and 104, 110, and 124 12th Avenue (Property) (**Figures 1 – 3**). The Site includes the Property, which consists of four King County tax parcels: 8061000035, 8061000025, 8061000015, and 8061000005. The Property's total size is approximately 1.09 acres. The Site may also include the adjacent tax parcel 8061000040 (1215 East Fir Street) that is occupied by the King County Records & Elections Storage Building (KCRESB) facility (Facility/Site ID No. 58730).

Area and Property Description: The area surrounding the Property consists of commercial, residential, and government properties. The Property is bounded by East Fir Street to the north, 12th Avenue to the west, and East Yesler Way to the south. The KCRESB facility is located to the north and east of the Property. A former King County warehouse, currently owned by Seattle Housing Authority, is located further east. Bailey Gatzert Elementary School is located to the south across East Yesler Way.

Property History and Current Use: All of the buildings on the Property were previously used for commercial purposes but are currently vacant. They were most recently occupied by an auto repair shop, restaurant, and curtain manufacturer. A dry cleaner and service station are also historical occupants of the Property. The Property is planned for redevelopment as a six-story, mixed-use building with two floors of underground parking.

Sources of Contamination: The hazardous substances released at the Site include petroleum hydrocarbons, chlorinated solvents, and metals (**Figure 3**). The media affected include soil, groundwater, and air (potentially via soil vapor migration). Multiple potential sources have been identified, including the following former activities: service station (including underground tanks), two auto repair shops, dry cleaner, and potential dumping or contaminated fill on the vegetated slope in the central area of the Property, and an unknown potential source beneath the KCRESB facility.

Physiographic Setting: The Property is located within the Puget Sound Lowland physiographic province, a north-south oriented topographic depression. The land surface in the Site area slopes towards the southeast. The surface elevation at the Property ranges from approximately 200 to 220 feet above mean sea level (amsl).

Surface/Storm Water: The Property and surrounding area is largely covered by asphalt and buildings. Surface runoff is collected by the City storm water system. The closest surface water body to the Property is Elliott Bay, which is located approximately 1 mile west of the Property.

Geology: Soil conditions consist of a layer of relatively unconsolidated fill containing organic material and debris, overlying brown to grayish clayey sand and gravel that is interpreted to be

glacial till or weathered till-derived materials. The thickness of the fill appears to be greatest in the northwestern part of the Property, where depths of up to 20 feet have been encountered. The glacial till includes intermittent layers of sand and extends to the maximum depth explored of 49 feet bgs.

Groundwater: Groundwater has been encountered in borings and monitoring wells at depths of 0.25 to 15.76 feet bgs. The water levels in individual monitoring wells vary seasonally by as much as 3 feet over the period of record (since 2017). Based on groundwater elevation measurements, the groundwater flow direction is consistently towards the southeast (**Figure 2**).

Water Supply: Drinking water for the area is provided by Seattle Public Utilities and is derived from the Cedar and South Fork Tolt River watersheds. There are no groundwater recharge areas, wellhead protection zones, or drinking water wells within 1 mile of the Property.

Release and Extent of Soil and Groundwater Contamination:

Petroleum-contaminated soil and groundwater has been encountered in the northwestern portion of the Property in the vicinity of a former service station. A limited remedial action was conducted in 1991 after petroleum-contaminated soil was discovered in the vicinity of the former gas station's underground tanks.

Petroleum-contaminated soil and groundwater has also been encountered intermittently in the southwestern portion of the Property, in the vicinity of a former auto repair facility and floor sump.

Lead-contaminated soil has been encountered on the vegetated slope in the central portion of the Property. Reportedly, this is suspected to be associated with dumping from a second auto repair facility, formerly located in the northeastern corner of the Property.

The most extensive area of groundwater contaminated with chlorinated solvents was detected in the southeast portion of the Property, which is currently a parking lot. This contaminant plume is presumed to extend beneath the adjacent KCRESB facility. Potential sources of the plume investigated in 2020 include the former dry cleaner located on the Property or an unknown potential source beneath the KCRESB facility, but the exact source is still unknown. Chlorinated solvent contaminated groundwater (primarily vinyl chloride) has also been encountered in the vicinity of the former dry cleaner in the western portion of the Property, and in the vicinity of the former auto repair facility in the southwestern portion of the Property.

Arsenic-contaminated groundwater has been identified on the Property, but has not yet been adequately characterized. Arsenic appears to have significantly increased in the southern portion of the Property since chemical injections to treat solvent-contaminated groundwater began in June 2020. Arsenic may be mobilizing in groundwater due to groundwater injections, petroleum impacts, or other conditions that may be altering the groundwater geochemistry. There may also be a source of arsenic that has not yet been identified.



North



Scale 1 : 24,000

From USGS

Figure 1 - Site Map

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

Project No. WES - 1591

Date June 11, 2017

File ID. 1591F1

WHITMAN
Environmental Sciences

Legend

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

MW-X Well I.D. and Groundwater Elevation

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

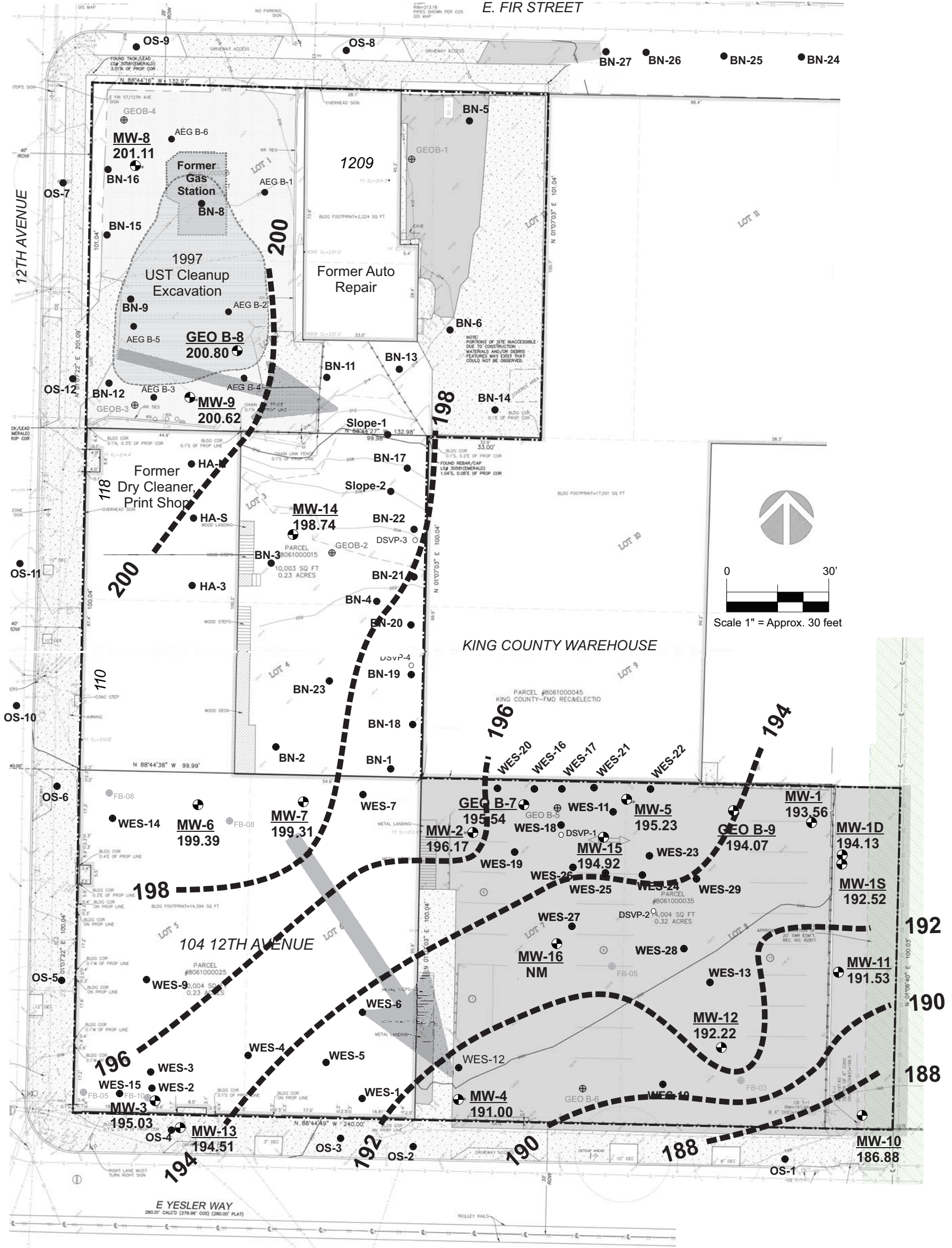
General Direction of Groundwater Migration

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

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

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

WHITMAN
Environmental Sciences



Legend

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

GEO B-7
TCE- 2.9
C12DCE- 3.2

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

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

Bold Italic Exceeds CUL

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

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

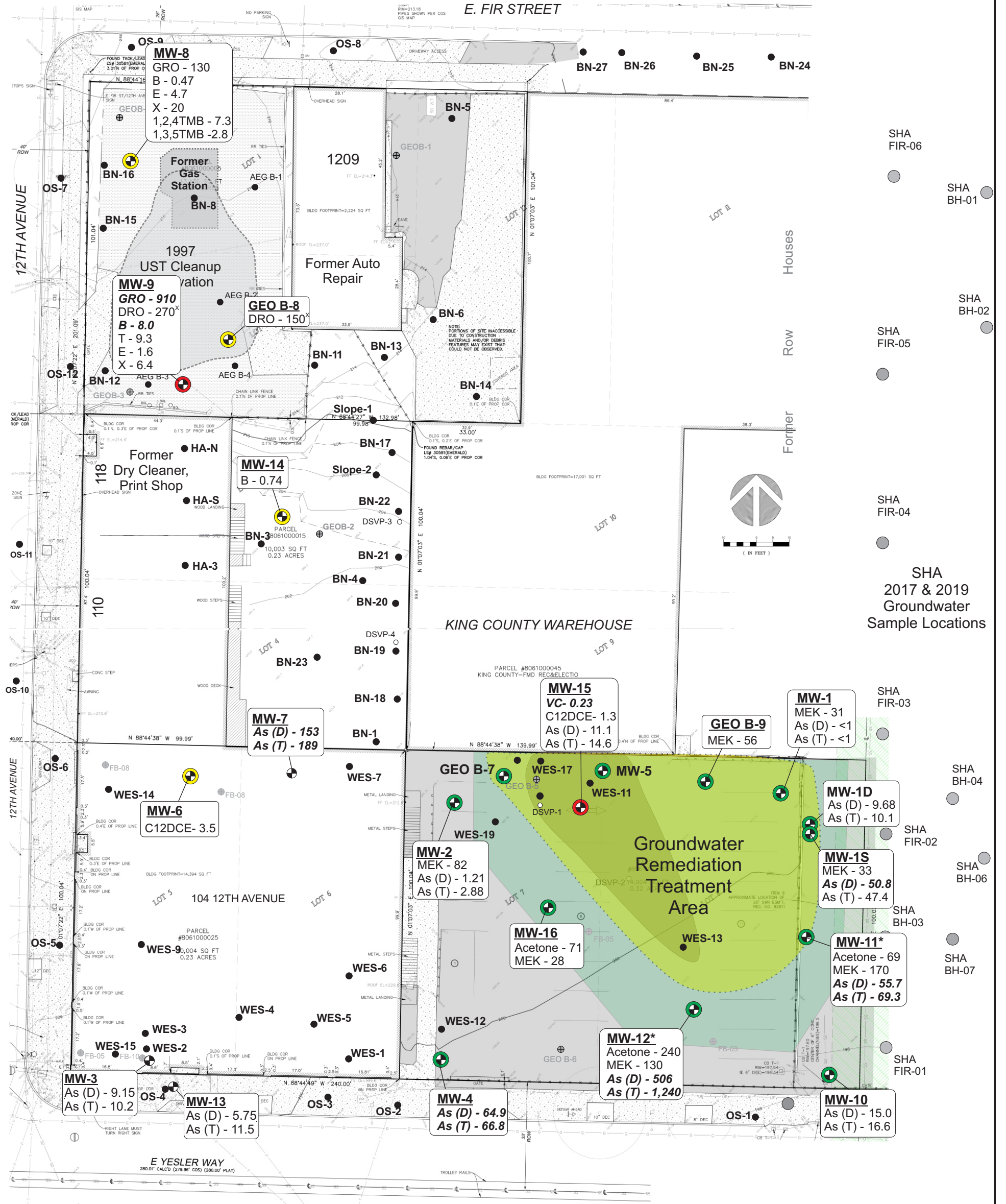
⊕ Monitoring Well with CVOCs or Petroleum Compounds above MTCA Method A in Groundwater in 3rd Quarter 2020 Sampling

Figure 3 - 3rd Quarter 2020 Groundwater Sampling Analytical Results

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

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

WHITMAN
Environmental Sciences



Enclosure B

Basis for the Opinion: List of Documents

1. Whitman Environmental Sciences. Groundwater Monitoring and Response to Opinion Letter Comments, 12th & Yesler Redevelopment Property, Seattle, Washington. November 30, 2020.
2. Whitman Environmental Sciences. 3rd Quarter 2020 Groundwater Monitoring Results, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington. November 19, 2020.
3. Whitman Environmental Sciences. 2nd Quarter 2020 Groundwater Monitoring Results, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington. June 15, 2020. Revised October 28, 2020.
4. Whitman Environmental Sciences. Independent Remedial Action Plan, 12th & Yesler Redevelopment Property, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington 98122. April 8, 2020.
5. Whitman Environmental Sciences. Source Investigation Summary Report, SE Parking Lot Plume, 12th & Yesler Redevelopment Property, Seattle, Washington. April 6, 2020.
6. Department of Ecology. Initial Investigation Field Report, King County Records & Elections Storage Building facility (Facility/Site ID No. 58730). April 2, 2020.
7. Department of Ecology. Opinion on Remedial Action, TD Auto Body & Repair, 1209 East Fir Street, Seattle, WA, VCP NW3194. January 9, 2020.
8. Whitman Environmental Sciences. Remedial Investigation Summary Report, Potential Redevelopment Property, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington. October 26, 2019.
9. Department of Ecology. Opinion on Proposed Cleanup, TD Auto Body & Repair, 1209 East Fir Street, Seattle, WA, VCP NW3194. June 6, 2019.
10. Whitman Environmental Sciences. Independent Remedial Action Plan, Proposed Redevelopment Property, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington. April 2, 2019.
11. Whitman Environmental Sciences. June-July 2018 Groundwater Monitoring Results, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington. August 22, 2018 (Amended February 20, 2019).
12. Department of Ecology. Request for Additional Information to Provide Opinion on the Investigation and Cleanup under the VCP for the following Contaminated Site: TD Auto Body & Repair, 1209 East Fir Street, Seattle, WA 98122. July 24, 2018.
13. Whitman Environmental Sciences. Additional Off-Site Environmental Site Investigation, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington. September 6, 2017.

14. Whitman Environmental Sciences. Phase I & II Environmental Site Assessment, 104-124 12th Avenue & 1209 E. Fir Street, Seattle, Washington. September 1, 2017.
15. Geotech Consultants, Inc. Transmittal Letter – Preliminary Geotechnical Engineering Study, Proposed Mixed-Use Building, 104, 110, and 124 – 12th Avenue, Seattle, Washington. August 2, 2017.
16. Amec Foster Wheeler Environment & Infrastructure, Inc. Phase II Environmental Site Assessment, 1215 East First Street, Seattle, Washington. July 2017.
17. Farallon Consulting. Phase I Environmental Site Assessment, 12th and Yesler Property, 104 through 10812th Avenue and 1206 East Yesler Way, Seattle, Washington. January 4, 2016.
18. Associated Environmental Group, LLC. Phase II Environmental Site Assessment, 12th Avenue Parking Lot, 110 & 124 12th Ave, Seattle, Washington. November 14, 2014.
19. RZA-AGRA (Rittenhouse-Zeman & Associates, Inc.) Engineering & Environmental Services. Level III Site Remediation Report, Sturves Addition, Lots 1 and 2, 12th Avenue and Fir Street, Seattle, Washington. November 6, 1991.