

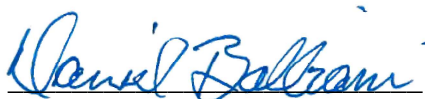
A Report Prepared for:  
BMR-Dexter LLC  
700 Dexter Avenue North, Suite 250  
Seattle, WA 98109

**INTERIM ACTION COMPLETION REPORT  
AMERICAN LINEN SUPPLY CO DEXTER AVE SITE  
700 DEXTER AVENUE NORTH  
SEATTLE, WASHINGTON**

**Agreed Order No. DE 14302  
Facility Site Identification Number: 3573  
Cleanup Site Identification Number: 12004**

**AUGUST 27, 2025**

By:



Daniel A. Balbiani, P.E.  
Principal Engineer

Craig J. Peterson, PE

Digitally signed by Craig J.  
Peterson, PE  
DN: C=US,  
E=craig.peterson@NV5.com,  
O=NV5, CN="Craig J. Peterson,  
PE"  
Date: 2025.09.02 09:52:18-07'00'

Craig J. Peterson, P.E.  
Principal Environmental Engineer

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## 1.0 INTRODUCTION

NV5 Environmental, Inc. (“NV5”) has prepared this revised interim action (“IA”) completion report on behalf of BMR-Dexter LLC (“BMRD”) for the American Linen Supply Co Dexter Ave Site (“Site”) located at 700 Dexter Avenue North, Seattle, Washington (Figure 1). The report was originally drafted by PES Environmental Inc. (“PES”) and subsequently revised by NV5. NV5 acquired PES in 2021 and renamed the firm to NV5 Environmental Inc. in December 2024. The author of this report is noted as PES in this document for historic clarity. PES conducted the IA consistent with the requirements of Sections VI.G and VII.K of Agreed Order No. DE 14302 (“AO”) between the State of Washington Department of Ecology (“Ecology”) and BMRD.

For the purpose of this report, the word “Site” will refer to an area where contamination released at the property located at 700 Dexter Avenue North (“Property”) has come to be located, generally consistent with the definition of “site” or “facility” in the Washington Model Toxics Control Act (“MTCA”, Chapter 173-340 of the Washington Administrative Code [“WAC”]), and generally consistent with the AO.<sup>1</sup> The word “Property” will refer to the area within the 700 Dexter Avenue North property boundary (Figure 1). The Property constitutes a portion of the Site.

### 1.1 Interim Action Approach

Consistent with WAC 173-340-430, the IA was conducted starting in 2018 to: (1) reduce the threat to human health or the environment by substantially reducing the concentrations of chlorinated volatile organic compounds (“CVOCs”); and (2) address CVOCs at the Property and at the Seattle Department of Transportation (“DOT”) Mercer Parcels to the south that could have become substantially worse or cost substantially more to address if the IA had not been conducted and cleanup actions at the properties delayed. The specific objectives were to reduce the CVOC and petroleum hydrocarbon mass in saturated soil and groundwater at the Property, reduce CVOC mass in saturated soil and groundwater at the Seattle DOT Mercer Parcels, provide for continued treatment after Property redevelopment, control CVOC migration from the Property to surrounding properties, and control migration of CVOCs into the building constructed at the Property. The Site vicinity is shown on Figure 2.

To meet those objectives, the IA employed source removal during Property redevelopment, in-situ CVOC treatment beneath the redevelopment limit at the Property and in a small area in the western portion of the Seattle DOT Mercer Parcels, in-situ treatment on the downgradient edges of the Property redevelopment, installation of a waterproof and chemical-resistant vapor barrier around the saturated limits of the Property building foundation, and additional in-situ CVOC treatment beneath the Property building after construction.

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<sup>1</sup> WAC 173-340-200(b) defines a “site” or “facility” as any site or area where a hazardous substance, other than a consumer product in consumer use, has been deposited, stored, disposed of, or placed, or otherwise come to be located. AO No. DE 14302 defines this Site by the full lateral and vertical extent of contamination in soil, groundwater, and air (vapor), and possible surface water and sediments attributed, but not limited to, releases from past operations of the commercial laundry and retail gasoline station formerly located on the Property.

The IA was conducted concurrent with a remedial investigation (“RI”) performed at the Site and implemented the scopes of work presented in the following documents:

1. Final Interim Action Work Plan (“IAWP”; PES, 2018), approved by Ecology via letter dated August 31, 2018;
2. Final Contingent Action Addendum (“CAA”) to the Final Interim Action Work Plan (PES, 2019a), approved by Ecology via letter dated March 4, 2019;
3. Final Contaminated Media Management Plan (“CMMP”; PES, 2019c), approved by Ecology via letter dated March 21, 2019;
4. Remedial Investigation/Feasibility Study Work Plan Addendum No. 2 (PES, 2021), approved by Ecology via email correspondence on March 30, 2021; and
5. Interim Action Work Plan Addendum No. 2 (PES, 2022a), approved by Ecology via email correspondence on February 22, 2022.

## **1.2 Implementation Report Organization**

This report is organized as follows:

**Section 1 – Introduction:** Describes the IA approach and organization of this report;

**Section 2 – Site Background:** Provides a summary of the Property description and history, the regulatory history, and conceptual site model;

**Section 3 – Project Organization and Responsibilities:** Summarizes the project team members and responsibilities;

**Section 4 – Interim Action Implementation:** Details the implementation of the IA, including well installation, amendment injections, mass excavation activities, performance monitoring, and waste management;

**Section 5 – Interim Action Performance:** Summarizes the IA relative to IAWP performance expectations and the effects of the IA on the Site CVOC plume

**Section 6 – Future Interim Action Activities:** Describes the future IA performance monitoring and reporting; and

**Section 7 – References:** Lists the sources of information referenced in the document.

## **2.0 SITE BACKGROUND**

This section briefly summarizes the Property location and description, the Property history and development, the surrounding facilities, the regulatory history of the Site, and future Property use. The IAWP and Revised Agency Review Draft Remedial Investigation Report (NV5, 2025) provide a more complete description of the project background.

## **2.1 Property Location and Description**

BMRD owns the Property at 700 Dexter Avenue North in Seattle, Washington (Figure 1). The Property is located in the northeast quarter of Section 30, Township 25 North, Range 4 East, Willamette Meridian in King County, Washington. It consists of 1.4 acres zoned SM-SLU 175/85-280, which is a Seattle mixed use zone for the South Lake Union Urban Center that allows both residential and a wide variety of commercial development. BMRD has completed the development of two adjacent 14-story office towers that encompass the entire Property. Three levels of underground parking (below the elevation of 8<sup>th</sup> Avenue North) and a partial subgrade level for parking and support facilities (located between the elevation of Dexter Avenue North and 8<sup>th</sup> Avenue North) lie beneath the office towers. The existing buildings are approximately 60 percent occupied, which include on-street retail and offices on floors above the surrounding streets.

Excavation for the parking garage and foundations extended to elevations ranging from 10.7 to 0.7 feet relative to the North American Vertical Datum of 1988 (“NAVD 88”)<sup>2</sup>, varying based on the location of subsurface support facilities (e.g., elevators) and foundation requirements for the buildings. The depth of soil excavated to allow construction of the parking garage and support facilities varied with location on the Property based on variability in the ground surface elevations. For a large portion of the Property where the pre-construction ground surface elevation was approximately 40 feet, the excavation depth for construction of the garage and foundations ranged from 29.3 to 39.3 feet below the pre-construction ground surface.

Dexter Avenue North, at an approximate elevation of 57 feet, bounds the Property to the west, and 8<sup>th</sup> Avenue North (approximate elevation of 43 feet) bounds the Property to the east. Valley Street, which bounds the Property to the north, and Roy Street, which bounds the Property to the south, both slope gently to the east. Full utility services are available in the area, with water, sanitary sewer, and storm drainage provided by Seattle Public Utilities, power provided by Seattle City Light, natural gas provided by Puget Sound Energy, and telecommunications provided by Century Link.

## **2.2 Property History**

This section provides a brief summary of the Property history and development. The 2013 Draft RI Report (SoundEarth Strategies (“SES”), 2013a), which served as a source of this summary, provides more detailed information, including copies of city records and photographs. Former Property owners included American Linen Supply Company (“American Linen”; owner prior to April 28, 2015) and 700 Dexter LLC (between April 28, 2015, and January 8, 2017).

Residences existed on the Property from at least 1893 until 1925. American Linen acquired the southern half of the Property in 1925 and developed it into an industrial laundry operation.

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<sup>2</sup> All references to elevations in this report are to the North American Vertical Datum of 1988 (“NAVD 88”) whether explicitly stated or not.

A refueling facility (i.e., gasoline service station) was built on the northwest corner of the Property in 1930, with several underground storage tanks (“USTs”) and two dispenser islands. In 1947, building additions were reportedly constructed by American Linen, including the addition of four 6,000-gallon USTs supplying heating oil for the boilers and a building addition initially operated as a parking garage and automotive repair facility. In 1966, the refueling facility located in the northwest portion of the Property was demolished and replaced by a building addition incorporated as part of the commercial laundry. Between 1947 and 1966, a fuel dispenser was constructed, and up to three USTs were installed along the northern Property boundary in the northeast quadrant of the Property. Laundry and dry cleaning operations were conducted at the Property until the mid 1990’s, with other uses of the Property including several automotive repair shops, a bakery, and a car rental office. The buildings on the Property were demolished between January 14 and March 8, 2013.

## **2.3 Property Regulatory History**

In November 2012, 700 Dexter LLC (the previous Property owner) entered Ecology’s Voluntary Cleanup Program (“VCP”, VCP Project No. NW2652) to begin addressing subsurface contamination at the Site. Under the VCP, 700 Dexter LLC submitted a draft RI Report (SES, 2013a) and a draft feasibility study (“FS”) Report (SES, 2013b). In 2015, 700 Dexter LLC requested that future cleanup work be administered under a formal agreement with Ecology, so Ecology terminated their participation in the VCP. Subsequently, Ecology issued determination of potential liable person (“PLP”) status letters to 700 Dexter LLC and American Linen in December 2015, based on American Linen being the owner and operator of the Property at the time of disposal or release of hazardous substances and 700 Dexter LLC having owned and possessed a hazardous substance and having arranged for treatment of the hazardous substance at the Property. The Property was acquired by BMRD on January 11, 2017. On January 12, 2017, Ecology also issued a determination of PLP status letter to BMRD due to its status as the current owner of the Property.

BMRD and Ecology entered into AO No. DE 14302 with an effective date of October 24, 2017. The AO requires that BMRD perform an RI/FS and prepare a preliminary draft Cleanup Action Plan (“DCAP”). The AO also provides for the implementation of the IAs described in this report.

## **2.4 Conceptual Site Model**

### **2.4.1 Geology**

The Site sits at the intersection of marginal glacial and lacustrine depositional environments, with recent lake deposits, glacial till, glacial ice-contact deposits, and recessional lake deposits present in the near surface at the Site. Human activity in the area has removed and redeposited native materials and generated other artificial surface deposits. The resulting lithology is both horizontally and vertically heterogeneous. Based on the investigations conducted at the Site, the subsurface lithology beneath fill material consists of predominantly silty sand with lesser units of sand, silty gravel, silt, sandy silt, and clay (artificial fill overlying lacustrine deposits and glacial till and/or ice contact deposits). Below this are coarser deposits of sand and silty

sand with variable amounts of gravel (outwash and/or interglacial deposits). Densities range from loose near the surface to very dense at depth. Drilling encountered dense to very dense soil in the borings at depths greater than 30 to 40 feet bgs, although drilling in the western portion of the Site encountered dense to very dense soil as shallow as 5 feet bgs.

## 2.4.2 Hydrogeology

### 2.4.2.1 Hydrostratigraphy

Discontinuous water-bearing zones in glacial or ice-contact deposits in the west and lacustrine or interglacial deposits in the east underlie the Site. These zones have been classified as follows:

- Shallow Zone – an unconfined water-bearing zone in the fill, recent lacustrine deposits, and upper portion of the glacial till/ice-contact deposits;
- Intermediate Zone – dense to very dense, semi-confined to confined water-bearing zones in the glacial till/ice-contact deposits west of 9<sup>th</sup> Avenue North and medium dense to dense, semi-confined to confined water-bearing zones in the lacustrine deposits east of 9<sup>th</sup> Avenue North; and
- Deep Zone – a very dense, confined water-bearing zone in the outwash/interglacial deposits.

West of 9<sup>th</sup> Avenue North the Intermediate Zone is divided into an upper coarser zone (termed the Intermediate A Zone) and a lower finer zone (termed the Intermediate B Zone), but east of 9<sup>th</sup> Avenue North, the Intermediate Zone is thinner as a whole, and there is less lithologic distinction between the Intermediate A and Intermediate B Zones. The Intermediate Zone serves as a leaky aquitard that is less permeable beneath and near the western edge of the Property (in the glacial deposits) and becomes leakier to the east (in the lacustrine deposits). A lower aquitard consisting of very hard, fine-grained glacial drift was found below in the Deep Zone in a few locations.

### 2.4.2.2 Groundwater Flow Direction

When not influenced by dewatering activities occurring at or near the Site, the natural groundwater flow direction was generally to the east in the Shallow, Intermediate A, and Intermediate B Zones. In the same conditions (i.e., no dewatering), groundwater flow in the Deep Zone was westward to the west of a groundwater high located in the 9<sup>th</sup> Avenue North area (between Westlake Avenue North and the alley located west of 9<sup>th</sup> Avenue North) and eastward to the east of the groundwater high. Construction dewatering both at the Property and at neighboring properties significantly affected the groundwater flow directions in all four water-bearing zones during the IA and RI, with easterly groundwater flow in all four zones when dewatering was occurring at Block 37 in 2017; southeasterly groundwater flow in the southern portion of the Site in the Shallow, Intermediate A, and Intermediate B Zones and throughout the Site in the Deep Zone when dewatering was occurring at Block 38 West in 2020 and 2021; and radial flow toward the Property in the Shallow, Intermediate A, and



Intermediate B Zones when dewatering was occurring at the Property in 2019. Future dewatering activities in the South Lake Union area could similarly influence groundwater flow at the Site, potentially resulting in significant changes in groundwater flow direction during the period of pumping. The magnitude of these impacts would be determined by the location, depth, flow rate, and length of time of any future dewatering in the area.

### 2.4.3 Contaminant Sources

The primary sources of contamination at the Site originated at the Property and included: (1) releases of chlorinated solvents from the former dry cleaning operations and (2) releases of petroleum hydrocarbons from former USTs. The releases from the former dry cleaning operations resulted in elevated concentrations of CVOCs including tetrachloroethene (perchloroethylene or “PCE”) and its breakdown products trichloroethene (“TCE”), cis-1,2-dichloroethene (“cDCE”), and vinyl chloride (“VC”) in both soil and groundwater that exceeded screening levels. The primary sources of petroleum hydrocarbon contamination at the Property were the UST system located in the northeast corner of the Property and the heating oil USTs located in the southwestern portion of the Property near the former boiler room. Petroleum impacts to soil and groundwater on the Property were generally limited in extent during preparation and implementation of the IAWP, with most concentrations being below the screening levels. Petroleum-related detections on the Property were infrequent compared to CVOCs and exceedances were primarily near the UST system in the northeast corner.

### 2.4.4 Contaminant Fate and Transport

This section provides a brief summary of the fate and transport of the primary chemicals of concern identified in the IAWP (i.e., PCE, TCE, cDCE, and VC) that were the primary focus of the IAs described in this report. The IAWP and Revised Agency Review Draft Remedial Investigation Report (NV5, 2025) provide a more detailed description of CVOC fate and transport, including discussion of the fate and transport of petroleum hydrocarbons present at the Site.

Historical desorption of CVOCs from soil in the source areas, continued desorption of CVOCs from secondary sources (fine-grained soil), and potential dissolution of residual dense non-aqueous phase liquid (“DNAPL”) in the saturated zone beneath the Property have likely generated most of the dissolved CVOCs in groundwater at the Site. Volatilization and diffusion are likely active processes in the vadose zone above the Shallow Zone plume. Anaerobic biodegradation that was occurring at the Site prior to implementation of the IA has been enhanced through Property and near-Property amendment injections conducted as part of the IA, which has contributed to generally decreasing concentrations of PCE and TCE over time in IA monitoring wells and Property-adjacent monitoring wells. Monitored natural attenuation (“MNA”) screening scores have also generally been indicative of adequate or strong evidence of anaerobic biodegradation in those same monitoring wells. For the portion of the Site south and east of the Property, decreasing CVOC concentration trends and geochemical parameter concentrations supportive of anaerobic biodegradation indicate a stable to gradually shrinking Site CVOC plume.

The primary transport mechanism from the Property source area and other source areas at the Site is advective flow of contaminants dissolved in groundwater, with Shallow and Intermediate Zone flow toward Lake Union and Deep Zone flow west and southeast from a groundwater high near the intersection of 9<sup>th</sup> Avenue North and Roy Street. Construction dewatering at and near the Site modifies the natural groundwater flow directions by pulling groundwater toward the areas being dewatered, with the effects most pronounced near the dewatering wells and in the water-bearing zone being pumped. Changes in Lake Union water levels also influence shallower groundwater flow, with the higher summer lake levels driving shallow groundwater away from the lake.

Groundwater flow and contaminant transport are further influenced by the presence of a dense/hard, generally fine-grained, low permeability aquitard beneath the Property and extending east toward the lake. The aquitard is in the Intermediate B Zone beneath the Property and immediately east of the Property, and is thicker, denser, and tighter than it appears to be east of the alley, where it is in the Intermediate A Zone. The higher elevation groundwater recharge and the presence of the aquitard result in generally downward hydraulic gradients from the Shallow Zone to the Deep Zone, with the effect of both downward and horizontal contaminant movement. The thicker and denser nature of the aquitard beneath and near the Property better serves to limit downward advective transport than does the thinner, less dense aquitard east of the alley. The aquitard appears to be particularly leaky near the area around the 9th Avenue North and Roy Street intersection, with higher deep groundwater elevations (mounding) and higher deep CVOC concentrations.

As discussed above, sorption/desorption in the plume slows the rate of contaminant transport, extends the life of the plume (especially in the finer units and interbeds), and increases the concentrations of CVOCs sorbed to soil; dispersion (and to a lesser degree diffusion) serves to spread the plume; and biodegradation slows the rate of contaminant transport and shortens the life of the plume. Potential CVOC dissolution from any residual DNAPL beneath the Property would extend the life of the plume.

Focusing on the CVOCs released at the Property, these transport mechanisms and pathways have resulted in a CVOC plume beneath and generally east and southeast of the Property with the lateral extent of the plume increasing with depth. The CVOC plume in the Shallow Zone extends east of the Property to approximately the alley and south of the Property to approximately the south side of Roy Street. The CVOC plume in the Intermediate A and B Zones extends east of the Property to approximately 9<sup>th</sup> Avenue North and south of the Property to approximately the southern portion of the Seattle DOT Mercer Parcels. The CVOC plume in the Deep Zone extends east of the Property to approximately the west side of Lake Union (at an elevation well below the bottom of the lake) and south of the Property to approximately the southern portion of the Seattle DOT Mercer Parcels. The extent of the Intermediate B Zone and Deep Zone CVOC plume at the southeast corner of the Site (near the intersection of Westlake Avenue North and Mercer Street) has been extended to the southeast by dewatering at properties in the vicinity, with the current extent to near the northwest corner of Block 38 West.

### 2.4.5 Exposure Pathways and Receptors

Based on the current and expected future zoning codes and property uses, a wide variety of light industrial, residential, and commercial uses are allowed at the Site, including daycare centers. Groundwater at the Site is not currently used for drinking water, but consumption of groundwater cannot be ruled out in the future. Based on these uses, the current and likely future Site conditions (paved or covered by buildings), and the depth of contamination, the potential exposure pathways and receptors for contaminated media at the Site are as follows:

- **Soil:** direct contact (including ingestion) of contaminated soil by site workers during maintenance activities, construction, or redevelopment; leaching of contaminants to groundwater; and volatilization of contaminants to soil vapor with subsequent migration to indoor air;
- **Groundwater:** ingestion of contaminated groundwater (drinking water) is a potential, though extremely unlikely, future exposure pathway; direct contact and incidental ingestion of groundwater are potential future exposure pathways during construction and volatilization of contaminants from contaminated groundwater at the water table to soil vapor is likely a complete pathway in vicinity of soil vapor probe SV01 on 8<sup>th</sup> Avenue Northeast of the Property; and
- **Soil Vapor:** potential future vapor intrusion risk in the SV01 area if the current building or a future building at the Seattle Roy Aloha Shops becomes occupied.

Although Ecology has designated surface water in Lake Union to be protected for a wide range of uses (including domestic, industrial, and agricultural water supply), given the Site hydrogeology and lack of CVOC transport at concentrations of concern from groundwater to the lake the groundwater-to-surface water pathway to exposure is considered incomplete at this Site.

## 3.0 PROJECT ORGANIZATION AND RESPONSIBILITIES

This section of the report describes the primary organizations involved in the project and their responsibilities.

### 3.1 Washington State Department of Ecology

Ecology is the primary regulatory agency overseeing the implementation of interim actions conducted at the Site and ensuring the work was performed consistent with the AO and approved work plans. Ecology was responsible for providing or approving critical program elements through its various programs including the following:

- **Toxics Cleanup Program:** Ecology provided review and approval of interim actions and supplemental investigation work plans and addendums (IAWP), proposed monitoring plans, implementation of the Public Participation Plan and overall AO compliance;

- Hazardous Waste & Toxics Reduction Program: Ecology provided review and approval of contaminated soil disposal plans including approval of requests for disposal of the soil as a non-hazardous waste;
- Water Quality Program: Ecology provided review and approval of Underground Injection Control (UIC) injection well registrations and issuance, and permit issuance for discharging construction dewatering and stormwater via the Construction Stormwater General Permit (“CSWGP”); and
- Water Resources Program: Ecology provided review and approval of variances for nested injection well construction and well decommissioning.

### **3.2 BMR-Dexter LLC**

BMRD is the property owner and was responsible for managing all aspects of the cleanup action and complying with the requirements of Agreed Order No De 14302 with Ecology.

### **3.3 OAC Services**

OAC Services was retained by BMRD to manage the construction activities related to the property.

### **3.4 PES Environmental, Inc.**

PES was retained by BMRD to perform various site investigations and to design and implement the IAs at the Site. PES’s specific involvement included preparation of the environmental reports, drawings, technical specifications, and oversight of associated environmental work at the Site. PES hired the following subcontractors.

#### **3.4.1 Cascade Environmental**

Cascade Environmental (“Cascade”), a Washington State licensed drilling company, performed environmental drilling services. Cascade’s services included the installation of wells, soil borings, well development, and well decommissioning.

#### **3.4.2 Fremont Analytical**

Fremont Analytical, an accredited laboratory analyzed soil samples from stockpiles, soil treated in-situ during excavation, and groundwater for site characterization and waste disposal.

#### **3.4.3 Holt Services**

Holt Services (“Holt”), a Washington State licensed drilling company, performed environmental drilling services, including the installation of wells.

#### **3.4.4 Pace Analytical National**

Pace Analytical National, an accredited laboratory, analyzed soil and groundwater for site characterization and waste disposal.

#### **3.4.5 Bush, Roed & Hitchings, Inc.**

Bush, Roed & Hitchings (“BRH”) provided surveying services throughout the IA, mainly related to monitoring and injection well locations and elevations. BRH also provided surveying services directly to Turner Construction (Section 3.6).

#### **3.4.6 WH Pacific**

WH Pacific, an NV5 Company, provided surveying services during implementation of the IA related to monitoring and injection well locations and elevations.

#### **3.4.7 SiREM**

SiREM of Knoxville, Tennessee, conducted Gene-Trac testing in select groundwater samples to provide information for biological reductive dichlorination evaluation.

#### **3.4.8 Applied Professional Services**

Applied Professional Services provided utility locating services to clear locations before excavation and drilling work.

#### **3.4.9 In-Situ Oxidative Technologies, Inc.**

In-Situ Oxidative Technologies, Inc. (“ISOTEC”) a specialty consultant, prepared a work plan for in-situ treatment of soil and groundwater through injections. ISOTEC oversaw and performed the injections prior to the excavation and following the excavation in wells installed at the Property perimeter, in the Property basement, and at the Seattle DOT Mercer Parcels.

### **3.5 Republic Services**

Republic Services was retained by BMRD to transport and dispose contaminated soil from the excavation and the construction debris.

### **3.6 Turner Construction**

Turner Construction (“Turner”) was the prime construction contractor retained by BMRD. They were responsible for constructing the entire project. Work completed by Turner included all site preparation and demolition, excavation, utility installation and abandonment, stormwater management, and all activity related to building construction. Unless otherwise specified, Turner hired and relied upon the following major specialty contractors to carry out the work.

### **3.6.1 DBM Contractors, Inc.**

DBM Contractors, Inc. (“DBM”) performed the soldier pile and lagging system for the retaining wall installation. This work also included the drilling and installation of wells for the dewatering system.

### **3.6.2 EMB Consulting**

EMB Consulting designed and oversaw an air monitoring plan during construction.

### **3.6.3 Environmental Chemical Corporation and Titan Earthwork LLC**

Environmental Chemical Corporation (“ECC”), a specialty contractor, prepared a work plan for the in-situ treatment of the soil during the excavation. ECC oversaw the layout and treatment of the soil during the excavation. ECC retained Titan Earthwork LLC (“Titan”) to perform the in-situ soil treatment and soil handling.

### **3.6.4 JR Hayes Corporation**

JR Hayes Corporation (“JR Hayes”) performed the site demolition and soil excavation.

### **3.6.5 WaterTectonics**

WaterTectonics performed stormwater management and treatment during the construction activities.

## **3.7 Waste Management**

Waste Management was retained by BMRD to transport and dispose contaminated, including hazardous/dangerous waste, soil from the excavation.

## **4.0 INTERIM ACTION IMPLEMENTATION**

This section describes the IA activities on the Property (Sections 4.1 through 4.6, 4.8, and 4.10), at the perimeter of the Property (Sections 4.7 and 4.9), and near monitoring well HMW-9IB on the Seattle DOT Mercer Parcels property (Section 4.11), including the pre-injection activities, mass excavation activities, chemical-resistant vapor barrier installation, injection program design and execution, and performance monitoring. As noted in Section 1.1, the IA was conducted in accordance with the procedures detailed in the work plans (primarily the IAWP and addenda) and WAC 173-340-430. The IA discussions in this section briefly describe or refer to those procedures and note deviations from the IAWP. Figure 3 provides a timeline of the IA activities conducted to address the Site CVOCs.

#### **4.1 Interim Action Summary**

The IA employed a multi-faceted approach to reduce the mass of CVOCs and petroleum hydrocarbons in the source areas at the Site, sequenced as follows:

1. Cascade installed injection wells beneath the Property, and ISOTEC used the wells to inject amendments for in-situ chemical oxidation (“ISCO”) and enhanced reductive dechlorination (“ERD”) before Property redevelopment work began. The ISCO treatment reduced both CVOC and petroleum hydrocarbon mass and the ERD further reduced CVOC mass. Cascade decommissioned these on-Property wells prior to the start of soil excavation work;
2. Additional CVOC and petroleum hydrocarbon mass was removed from the Property during soil excavation and associated dewatering that were conducted during Property redevelopment;
3. Turner installed a waterproof and chemical-resistant vapor intrusion barrier membrane around the building foundation to protect against CVOC intrusion to the basement (both vapor and water intrusion);
4. Cascade installed injection wells at the perimeter of the downgradient sides of the Property that ISOTEC used to inject ERD amendments. These perimeter wells remain in place for potential future use;
5. Cascade installed injection wells at the Seattle DOT Mercer Parcels property, which ISOTEC used to inject ERD amendments at a cDCE and VC hotspot prior to planned redevelopment at this property. These wells remain in place for use until the property is redeveloped; and
6. Cascade installed injection and monitoring wells beneath the Property building after completion of the soil excavation. ISOTEC injected ERD amendments into the injection wells after completion of the building foundation and when deemed necessary based on the ongoing performance monitoring at the Property. These injection and monitoring wells remain in place for potential future use.

#### **4.2 Pre-Construction Well Installation**

IA injection wells and IA performance monitoring wells were installed before Property construction activities were initiated. Figure 4 shows the locations of the Property and Property-adjacent wells, and Figure 5 shows the locations of the wells farther from the Property. The IAWP details the installation of these wells. The following Section 4.2 discussion summarizes the injection and monitoring well installations to provide context for the discussion of their subsequent use.



### 4.2.1 Property Injection Wells

Cascade installed 157 injection wells (Figure 4) between February and October 2018 in portions of the Property where PCE concentrations in soil exceeded 0.5 mg/kg. The wells were installed in four treatment zones:

- **Treatment Zone A (TZ-A):** 57 wells (IW-1A through IW-58A) screened between approximately elevation +11 feet to -10 feet relative to NAVD88;
- **Treatment Zone B (TZ-B):** 56 wells (IW-1B through IW-56B) screened between approximately elevation -10 feet to -25 feet NAVD88;
- **Treatment Zone C (TZ-C):** 28 wells (IW-1C to IW-28C) screened between approximately elevation -25 feet to -40 feet NAVD88; and
- **Treatment Zone D (TZ-D):** 16 wells (IW-1D to IW-16D) screened between approximately elevation -40 feet to -55 feet NAVD88.

All injection wells were constructed with 15-foot long, nominal 2-inch inside diameter (“ID”) Schedule 40 polyvinyl chloride (“PVC”) wells with 0.020-inch slotted screens, except for 15 wells completed in Treatment Zone A. These 15 wells (IW-3A, IW-4A, IW-5A, IW-9A, IW-10A, IW-17A, IW-18A, IW-19A, IW-20A, IW-40A, IW-41A, IW-42A, IW-45A, IW-50A, and IW-51A) were completed with 20-foot long screens (from elevation +10 feet to -10 feet). Appendix A provides a summary of the well completions (Table A-1) and the well completion logs. Figures 6 through 9 show the injection well locations by treatment zone, Figure 10 depicts a cross section with PCE treatment areas and injection wells, and Figure 11 depicts the injection well construction schematics.

### 4.2.2 Performance Monitoring Well Installations

Cascade installed 20 wells between March and May 2018 to monitor the performance of the Property IA injections, with four wells (MW-149 through MW-152) located on the Property, eight wells (MW-142 through MW-145 and MW-156 through MW-159) located in the sidewalk on the east side of 8<sup>th</sup> Avenue North, two wells (MW-160 and MW-161) located in the sidewalk on the west side of 8<sup>th</sup> Avenue North, and six wells (MW-146 through MW-148 and MW-153 through MW-155) located in the sidewalk on the south side of Roy Street (Figures 4 and 5). In the MW-158 monitoring well boring, an impenetrable obstruction was encountered at a depth of 34 feet, so an adjacent boring was drilled and MW-158A installed in that boring. Three of the wells were installed in the Shallow Zone, six wells in the Intermediate A Zone, seven wells in the Intermediate B Zone, and four wells in the Deep Zone. As discussed in the IAWP, Cascade constructed each well with nominal 2-inch ID Schedule 40 PVC and 10-foot long 0.020-inch slotted screens.

Cascade installed three additional monitoring wells (MW-162, MW-163, and MW-164) in January 2019. The three wells were installed in the upper portion of the Deep Zone near locations with elevated Property soil and/or groundwater CVOC concentrations in Treatment



Zone D (Figure 4). The wells provided additional soil and groundwater data in the depth range immediately below Treatment Zone D. Cascade constructed each well with nominal 2-inch ID Schedule 40 PVC and 10-foot long 0.020-inch slotted screens.

Holt installed two monitoring wells (MW-189 and MW-190) in September 2019 in the sidewalk along the northern Property boundary adjacent to Deep Zone well MW102 (Figures 4 and 5). MW-189 and MW-190 were installed in the Intermediate A Zone and Intermediate B Zone, respectively, to monitor the performance of the Property IA and to confirm the extent of CVOCs in the Intermediate Zone on the north side of the Property.

All wells on the Property were decommissioned by March 15, 2019 (see Section 4.4), before initiating excavation activities. Appendix A provides the well completion details (Table A-1) and the well completion logs.

### **4.3 Source Area In-Situ Treatment**

The in-situ treatment technologies used during the IA included both ISCO, employing modified Fenton's reagent ("MFR") as the oxidant, and ERD, using emulsified vegetable oil ("EVO"). Consistent with the IAWP, these technologies were implemented in a phased approach. First, PES contracted ISOTEC to inject MFR in the Property injection wells (Figure 4) in three ISCO injection events between September 2018 and January 2019. Second, ISOTEC injected EVO in the Property injection wells during a single event between February and March 2019. The in-situ treatment completed in the four treatment zones covered approximately 49,800 square feet and encompassed the source area (CVOC concentrations exceeding 0.5 mg/kg).

#### **4.3.1 ISCO Injection Design**

The design of the source area ISCO program was for approximately 380 to 680 gallons of MFR reagents to be injected in each injection well during each of the three injection events (PES, 2018). Based on the number and spacing of the injection wells, the reagent distribution radius was expected to be 12.5 feet (ISOTEC, 2019; see Appendix B). It was anticipated that each injection event would take three weeks to complete, with a 4-week interval between events to allow for all reagents to be consumed and the subsurface treatment zone to return to background conditions. Groundwater samples were collected from select wells following each ISCO injection event (Section 4.12.2).

#### **4.3.2 EVO Injection Design**

The EVO injection event was designed to begin at least 4 weeks after the last ISCO injection event and act as a slow-release carbon source enhancing bioremediation for 2 to 5 years. The EVO amendment was designed to include a blended mixture of EVO, sodium lactate, pH buffer, bioaugmentation cultures, and anoxic water.

### 4.3.3 Permitting

The project was registered with the Ecology Underground Injection Control (“UIC”) Program and received Rule Authorization for the injections from the Ecology UIC Coordinator prior to the beginning of the first injection event (Ecology, 2017; see Appendix C).

### 4.3.4 ISCO Injections

Consistent with the procedures described in the IAWP, ISOTEC conducted three ISCO injection events from September 2018 to January 2019 (ISOTEC, 2019; see Appendix B).

#### 4.3.4.1 ISCO Injection Procedures

The ISCO reagents (MFR) consisted of a neutral pH, chelated ferrous iron solution (catalyst) and dilute hydrogen peroxide (oxidizer) in approximately equal volumes. ISOTEC prepared the reagents using hydrogen peroxide, and a catalyst mixture consisting of an inorganic salt, a granular solid iron component, and chelating agent (ISOTEC, 2019). ISCO injections were completed by attaching wellhead assemblies equipped with pressure gauges and relief valves to the casing of each injection well. The wellhead assemblies were connected to the oxidizer, catalyst, or water tanks. ISOTEC used air-operated double-diaphragm pumps to inject the ISCO mixture into the injection wells using the following injection sequence:

1. Water (to clear any residuals from the tubing);
2. Iron Catalyst;
3. Water (to clear the injection equipment of residual catalyst);
4. Oxidizer; and
5. Water (to clear the injection equipment of residual oxidizer).

ISOTEC monitored and recorded reagent volumes, flow rates, and injection pressures at regular intervals. Reagent surfaced during injection in between 39 and 50 wells over the course of the three ISCO injection events. Surfacing is the migration of gases, groundwater and/or reagent to ground surface through natural or man-made conduits. When surfacing occurred, ISOTEC terminated the injection process at that well, which limited the total volume of reagent that was injected in the well causing the surfacing. The following sections summarize the three ISCO injections events. The events were generally consistent, with no significant differences. ISOTEC (2019) in Appendix B summarizes the details and results of the three injection events.

#### 4.3.4.2 ISCO Injection Event 1

ISOTEC injected 75,282 gallons of reagent (catalyst and oxidizer combined) into 155 injection wells between September 13 and October 3, 2018 (Figures 6 through 9). The two wells that were not injected into during the first event were IW-58A and IW-16D, both of which were installed after this event on October 17 and 18, 2018. The reagent was injected in wells in TZ-A through TZ-D as follows:

1. **TZ-A.** ISOTEC injected approximately 28,258 gallons of reagent into 56 TZ-A wells, with approximately 504 gallons injected into each well. Reagent flow rates varied from 1.1 to 2.5 gallons per minute (“gpm”), and injection pressures ranged from approximately 2 to 100 pounds per square inch (“psi”). Surfacing occurred while injecting in 18 wells;
2. **TZ-B.** ISOTEC injected approximately 27,812 gallons of reagent into 56 TZ-B wells, with approximately 497 gallons injected into each well. Reagent flow rates ranged from 0.4 to 2.7 gpm, and injection pressures ranged from approximately 10 to 100 psi. Surfacing occurred while injecting in 11 wells;
3. **TZ-C.** ISOTEC injected approximately 10,212 gallons of reagent into 28 TZ-C wells, with approximately 365 gallons injected into each well. Reagent flow rates ranged from 0.3 to 2.9 gpm, and injection pressures varied from approximately 10 to 100 psi. Surfacing occurred while injecting in 9 wells; and
4. **TZ-D.** ISOTEC injected approximately 8,800 gallons of reagent into 15 TZ-D wells, with approximately 587 gallons injected into each well. Reagent flow rates varied from 1.0 to 2.5 gpm, and injection pressures varied from approximately 10 to 100 psi. Surfacing occurred while injecting in 1 well.

#### 4.3.4.3 ISCO Injection Event 2

ISOTEC injected 78,215 gallons of reagent (catalyst and oxidizer combined) into 157 injection wells between November 5 and December 1, 2018 (Figures 6 through 9). The reagent was injected in wells in TZ-A through TZ-D as follows:

1. **TZ-A.** ISOTEC injected approximately 28,565 gallons of reagent into 57 TZ-A wells, with approximately 514 gallons injected into each well. Reagent flow rates varied from 1.5 to 2.8 gpm, and injection pressures ranged from approximately 0 to 100 psi. Surfacing occurred while injecting in 19 wells;
2. **TZ-B.** ISOTEC injected approximately 29,250 gallons of reagent into 56 TZ-B wells, with approximately 522 gallons injected into each well. Reagent flow rates ranged from 0.5 to 2.8 gpm, and injection pressures ranged from approximately 10 to 100 psi. Surfacing occurred while injecting in 13 wells;

3. **TZ-C.** ISOTEC injected approximately 11,075 gallons of reagent into 28 TZ-C wells, with approximately 396 gallons injected into each well. Reagent flow rates ranged from 1.0 to 2.9 gpm, and injection pressures varied from approximately 14 to 100 psi. Surfacing occurred while injecting in 7 wells; and
4. **TZ-D.** ISOTEC injected approximately 9,325 gallons of reagent into 16 TZ-D wells, with approximately 583 gallons injected into each well. Reagent flow rates varied from 0.9 to 2.5 gpm, and injection pressures ranged from approximately 24 to 100 psi. Surfacing occurred while injecting in 2 wells.

#### 4.3.4.4 ISCO Injection Event 3

ISOTEC injected 75,755 gallons of reagent (catalyst and oxidizer combined) into 157 injection wells between December 18, 2018 and January 20, 2019 (Figures 6 through 9). The reagent was injected in wells in TZ-A through TZ-D as follows:

1. **TZ-A.** ISOTEC injected approximately 26,805 gallons of reagent into 57 TZ-A wells, with approximately 516 gallons injected into each well. Reagent flow rates ranged from 1.1 to 3.2 gpm, and injection pressures varied from approximately 0 to 92 psi. Surfacing occurred while injecting in 22 wells;
2. **TZ-B.** ISOTEC injected approximately 27,730 gallons of reagent into 56 TZ-B wells, with approximately 495 gallons injected into each well. Reagent flow rates varied from 0.5 to 2.8 gpm, and injection pressures varied from approximately 14 to 100 psi. Surfacing occurred while injecting in 19 wells;
3. **TZ-C.** ISOTEC injected approximately 11,290 gallons of reagent into 28 TZ-C wells, with approximately 403 gallons injected into each well. Reagent flow rates ranged from 0.7 to 2.5 gpm, and injection pressures ranged from approximately 0 to 100 psi. Surfacing occurred while injecting in 8 wells; and
4. **TZ-D.** ISOTEC injected approximately 9,930 gallons of reagent into 16 TZ-D wells, with approximately 621 gallons injected into each well. Reagent flow rates varied from 0.9 to 2.3 gpm, and injection pressures ranged from approximately 26 to 100 psi. Surfacing occurred while injecting in 1 well.

#### **4.3.5 EVO Injection**

ISOTEC conducted one EVO injection event between February 12 and March 3, 2019. Details of the EVO injection procedures are provided in ISOTEC (2019) in Appendix B and are summarized below.

##### 4.3.5.1 EVO Injection Procedures

Bioremediation reagents consisted of carbon substrate electron donors (primarily EVO), pH buffers, anoxic water, and dechlorinating bacteria. ISOTEC (2019) provides the details on the bioremediation reagent preparation. EVO injections were completed by attaching wellhead

assemblies equipped with pressure gauges and relief valves to the casing of each injection well. The wellhead assemblies were connected to the reagent mixing tanks. ISOTEC used air-operated double-diaphragm pumps to inject the EVO amendments into the injection wells. Water was initially injected into each well, followed by dilute EVO (slow-release carbon substrate). ISOTEC generally conducted the EVO injections in 250-gallon batches in each injection well, with additional sodium lactate (a quick-release carbon substrate) mixed into the first 250-gallon batch in each well.

Bioaugmentation was performed following the injection of approximately 75 to 90 percent of the EVO. Dehalococcoides (“DHC”) were the target dechlorinating bacteria (anaerobic). ISOTEC conducted bioaugmentation at each well using the following sequence:

1. Anoxic water (to fill the injection well volume with deoxygenated water);
2. DHC bacteria; and
3. Anoxic water (to chase the DHC bacteria with deoxygenated water).

After ISOTEC completed bioaugmentation in a well, the remainder of the EVO was injected followed by a final water flush to clear the injection equipment of reagent.

The following section summarizes the EVO injection event. ISOTEC (2019) in Appendix B provides the details and results of the event.

#### 4.3.5.2 EVO Injection Event

ISOTEC injected 124,905 gallons of EVO, 10,440 gallons of anoxic water, and 225 liters of DHC culture into 153 injection wells (Figures 6 through 9). Four wells (IW-36A, IW-28B, IW-54B, and IW-22C) were not used during the EVO injection event due to excessive surfacing during the final ISCO injection event or excessive pressure requirement (i.e., greater than 100 psi). ISOTEC injected EVO in TZ-A through TZ-D wells as follows:

1. **TZ-A.** ISOTEC injected approximately 46,245 gallons of EVO, 3,570 gallons of anoxic water, and 81 liters of DHC into 56 TZ-A wells. The average volumes of EVO, anoxic water, and DHC injected into each well were approximately 845 gallons, 81 gallons, and 1.2 liters, respectively. Injection flow rates ranged from 1.2 to 3.2 gpm, and injection pressures varied from approximately 0 to 66 psi. Surfacing occurred while injecting in 21 wells;
2. **TZ-B.** ISOTEC injected approximately 45,970 gallons of EVO, 3,940 gallons of anoxic water, and 93 liters of DHC into 54 TZ-B wells. The average volumes of EVO, anoxic water, and DHC injected into each well were approximately 851 gallons, 86 gallons, and 1.3 liters, respectively. Injection flow rates varied from 0.7 to 3.3 gpm, and injection pressures ranged from approximately 0 to 86 psi. Surfacing occurred while injecting in 17 wells;

3. **TZ-C.** ISOTEC injected approximately 20,090 gallons of EVO, 1,560 gallons of anoxic water, and 30 liters of DHC into 27 TZ-C wells. The average volumes of EVO, anoxic water, and DHC injected into each well were approximately 744 gallons, 82 gallons, and 0.9 liters, respectively. Injection flow rates ranged from 0.7 to 3.1 gpm, and injection pressures ranged from approximately 0 to 86 psi. Surfacing occurred while injecting in 10 wells; and
4. **TZ-D.** ISOTEC injected approximately 12,600 gallons of EVO, 1,370 gallons of anoxic water, and 21 liters of dechlorinating bacteria into 16 TZ-D wells. The average volumes of EVO, anoxic water, and dechlorinated bacteria injected into each well were approximately 845 gallons, 81 gallons, and 1.4 liters, respectively. Injection flow rates ranged from 1.4 to 3.2 gpm, and injection pressures ranged from approximately 4 to 100 psi. Surfacing occurred while injecting in 2 wells.

#### 4.3.6 Deviations from the Work Plan

The source area in-situ program was conducted consistent with the IAWP, with the exception of not being able to inject into four wells (IW-36A, IW-28B, IW-54B, and IW-22C) due to excessive surfacing or pressure requirements. There were no other deviations. The noted deviations from the IAWP did not impact the overall efficacy of the IA.

#### 4.4 Property Well Decommissioning

Cascade decommissioned all of the electrical resistance heating/soil vapor extraction (“ERH/SVE”) system completions<sup>3</sup>, monitoring wells, and injection wells within the Property boundary in December 2018, January 2019, and March 2019. The work was completed by March 15, 2019, prior to initiating Property construction work. All monitoring and injection wells were properly decommissioned by filling the wells with bentonite and removing the PVC (where appropriate), consistent with the Ecology well regulations (WAC 173-160-460). Since the ERH/SVE completions were not constructed consistent with the Ecology well regulation, PES applied for and received a well variance to decommission them similar to the monitoring and injection wells. Figure 4 shows the locations of the monitoring and injection wells decommissioned within the Property boundary, and Appendix A provides the well decommissioning documentation (Ecology Resource Protection Well Reports), including a figure showing the locations of the decommissioned ERH/SVE completions.

#### 4.5 Mass Excavation Activities

The CMMP summarized the various redevelopment construction activities that involved the generation of contaminated soil waste requiring proper management and disposal. Specifically, it defined the construction sequencing, applicable soil disposal classifications, soil management

<sup>3</sup> In 2013, the former property owner, 700 Dexter, LLC, installed and operated an ERH/SVE system to reduce the CVOC concentrations in the upper 40 feet across much of the Property. The ERH/SVE system included the installation of 165 heating electrodes and 16 heat monitoring probes. Details regarding the ERH/SVE are provided in the IAWP.



areas, and procedures for excavating, stockpiling, loading, and transporting the contaminated soil generated by each of the relevant construction activities. The CMMP also provided procedures for conducting in-situ treatment of select soils prior to excavation and discussed odor and dust control, collecting and analyzing confirmation soil samples, equipment decontamination, and a contingency plan if unexpected conditions are encountered. Finally, the CMMP outlined the approach for managing groundwater waste generated during dewatering activities and construction related stormwater runoff.

The sequence of construction activities that involved generation of contaminated soil waste included shoring system installation, surface structure demolition, soil excavation including in-situ treatment of select soils prior to excavation, dewatering system installation, and groundwater and stormwater management. Shoring system installation activities began on March 19, 2019, mass soil excavation began on May 2, 2019, and nearly all of the soil removal was completed by November 13, 2019. The dewatering system started operation in August 2019 and continued through July 2020. Except as noted below, all activities were carried out consistent with the procedures detailed in the CMMP.

#### 4.5.1 Contaminated Soil Disposal Classifications

The CMMP provides a detailed description of the CVOC contaminated soil disposal classifications that were managed during mass excavation activities. Based on the primary source of contaminants at the Property (former dry cleaning operations), the CVOCs at and adjacent to the Property meet the definition of listed dangerous waste F002 (i.e., spent halogenated solvent). Soil containing these CVOCs is considered to contain F002-listed dangerous waste unless Ecology issues a “contained-in policy” determination indicating that the contaminated soil can be managed as a solid waste because it no longer contains the dangerous waste. Ecology issues this determination based on the contaminant concentrations and how the contaminated soil will be disposed of once the determination has been provided. As described in the CMMP, the following is a summary of the contained-in criteria for CVOCs that have been detected on the Property:

PCE:	14 mg/kg
TCE:	10 mg/kg
cis-1,2-DCE:	160 mg/kg (MTCA Method B-based)
vinyl chloride:	0.67 mg/kg (MTCA Method B-based)

PES submitted a request for contained-in determination (CID) to Ecology on March 5, 2019, and Ecology issued its CID approval in its letter dated March 18, 2019. On October 1, 2019, PES submitted a request for an increase in the total soil quantity approved in Ecology’s March 18, 2019 CID. Ecology approved the increased quantity in an email from Mr. Byung Maeng of Ecology to Mr. Brian O’Neal of PES dated October 2, 2019. Copies of the CID requests and Ecology’s approvals are provided in Appendix E.

In addition to the CVOC contaminated soil subject to Ecology's CID, the following two additional CVOC contaminated soil disposal classifications applied to soil removed during mass excavation activities:

- **Dangerous Waste CVOC-Contaminated Soil Meeting the Universal Treatment Standard.** Soil with concentrations of PCE and related CVOCs greater than the contained-in criteria must be managed as a dangerous waste. Soil with CVOC concentrations above the contained-in criteria but below the treatment standard (10 times the Universal Treatment Standard [UTS]) must be disposed of directly in a Resource Conservation and Recovery Act (RCRA) Subtitle C permitted landfill. The UTS for PCE, TCE, and/or vinyl chloride is 6 mg/kg. Therefore, soil with CVOC concentrations less than 60 mg/kg were transported to an appropriate landfill for direct disposal; and
- **Dangerous Waste CVOC Contaminated Soil Exceeding the Universal Treatment Standard.** Soil containing PCE, TCE, and/or vinyl chloride at concentrations exceeding the treatment standard (10 times the UTS or 60 mg/kg) must be treated prior to landfill disposal at a RCRA Subtitle C permitted landfill. The type of treatment required is dependent on the concentration of CVOCs. Based on the CVOC concentration, soil meeting this classification was transported to a permitted facility for appropriate treatment prior to landfill disposal.

## 4.5.2 Shoring

The shoring system required for Property development included the installation of 128 soldier piles and lagging around the perimeter of the Property. Prior to drilling and installation of the shoring system, JR Hayes constructed working benches for the soldier pile drill rigs in the western half of the Property. Consistent with the CMMP, the bench located in the southwestern corner was constructed using existing site soil from the elevated portion of the southwestern section of the Property, while the northwest bench was constructed using imported recycled concrete fill. The recycled concrete was covered with plastic sheeting and geotextile prior to placing a gravel working surface on which the drill rigs operated. Benches were moved and constructed along the northern and eastern property lines, and the southeastern corner consistent with the CMMP as drilling and installation progressed. The imported recycled concrete fill was sampled after soldier pile drilling was completed and subsequently hauled off as clean fill. The gravel working surface was hauled off as contained-in (i.e., non-hazardous) soil at the start of the site mass excavation work.

### 4.5.2.1 Soldier Pile Drilling

DBM, contracted by Turner, drilled and installed the shoring and lagging system at the Property as part of the redevelopment. In April 2019, DBM installed 128 soldier piles (see Figure 12) to bottom elevations ranging from 0 to -14.5 feet NAVD88. DBM used two drill rigs to install the soldier piles inside the 2.5-foot diameter borings. PES was onsite during all soldier pile drilling and field screened all soil from the soldier pile cuttings.



Consistent with the CMMP, PES collected soil samples along the western wall from soldier piles W3 to W14 below elevation 40 feet, and along the eastern wall between soldier piles E17 and E22 and E28 and E31 at an elevation range of approximately 8 to 13 feet. Soil cuttings from these soldier piles were stockpiled, analytical results were submitted to Ecology for contained-in approval, and subsequently disposed of as contained-in soil (see Appendix E).

Due to the soil conditions encountered during the soldier pile drilling, DBM needed to add a polymer support slurry or powder to stabilize the open borehole walls. The depths at which DBM needed to start adding the slurry or powder for each pile was documented by PES and soil cuttings that were in contact with the stabilizing slurry or powder were segregated and hauled off as dangerous waste (see Section 4.13).

#### 4.5.2.2 Tie Backs, Soil Nails, and Lagging

Between April and September of 2019, DBM drilled and installed approximately 239 tiebacks and 42 soil nails as part of the shoring design as described in the CMMP. The tiebacks and/or soil nail rows were installed adjacent to the soldier piles at elevations of approximately 45, 35, 25, 15, and 5 feet (see CMMP). As described in the CMMP, soil cuttings generated from the tiebacks and soil nail drilling were field screened and hauled off for disposal as contained-in soil. Per Section 3.4 of the CMMP and consistent with the requirements of Ecology's March 18, 2019, Contained-In Determination, soil cuttings generated from tiebacks E17 through E22 and E28 through E31 at elevation 34.5 were stockpiled and sampled. After analytical results were approved by Ecology, stockpiled soil was hauled off for disposal as contained-in soil (see Appendix E).

#### 4.5.2.3 Dewatering System Installation

The dewatering system installation consisted of installing approximately 130 perimeter well points through the shoring wall at the approximate elevation of 20 feet, consistent with the CMMP. Based on relatively dry conditions during the initial stages of the excavation, Turner construction elected not to drill and install the 4 large diameter vertical extraction wells on the interior of the Property that were described in the CMMP. As with the soldier piles and tieback installation all soil was field screened and was managed as soil meeting contained-in criteria.

Based on very wet conditions in the northeast corner during the final stage excavation, Turner subcontracted Cascade to install 3 dewatering wells, DW-1 through DW-3, from December 11 through 12, 2019. Wells were drilled with a track mounted sonic rig to a depth of approximately 25 feet below grade (approximately elevation -14 feet). PES logged and field screened soil cuttings from DW-1, DW-2, and DW-3. Soil conditions and well completion details can be found in the boring logs in Appendix A and the locations of the wells are shown on Figure 12. Soil cuttings were placed in a supersack and hauled off for disposal as soil meeting contained-in criteria. Subsequent to the dewatering well installation, PES observed Cascade develop the dewatering wells. Development and decontamination water was transferred to the water treatment system storage tanks and discharged after treatment (see Section 4.5.4).

#### 4.5.3 Surface Structure Demolition

As noted above in the property history (Section 2.2), the buildings on the Property were demolished between January 14 and March 8, 2013. In 2018, the Property consisted of a concrete slab and concrete walls from the former buildings. The concrete walls were supported by braces anchored to the concrete slab. The demolition of remaining surface structures at the site was conducted by JR Hayes and began on March 18, 2019, and lasted until approximately April 24, 2019. Consistent with the CMMP, concrete and metal debris from surface structures on the Property was hauled off as clean material and recycled.

#### 4.5.4 Water Management and Treatment

WaterTectonics and Turner completed the installation of the water treatment system on the southeastern corner of the Property on 8th Ave NE in April of 2019. The system was designed to initially discharge to the King County sewer system and BMRD obtained Wastewater Discharge Authorization No. 4482-01 on January 4, 2019 (Appendix C). The treatment system was inspected by King County Industrial Waste (“KCIW”) staff on April 11, 2019, and was approved to begin operations consistent with the requirements of the discharge authorization. BMRD also applied for and obtained coverage under Ecology’s Construction Stormwater General Permit (“CSWGP”; Permit No. WAR307169) for managing stormwater during construction. Ecology issued Administrative Order Docket No. 16204 on February 21, 2019 (Appendix C), that amended the CSWGP to allow for the discharge of treated stormwater and treated dewatering water to Lake Union if the water met certain benchmarks outlined in the Administrative Order. Discharge occurred to the sanitary sewer through early October 2019 when the discharge was switched over to a new storm sewer line that had been constructed. Following the switchover to the new storm sewer, treated water was discharged to Lake Union under CSWGP No. WAR307169.

The treatment system consisted of two 5,000 gallon holding tanks for water generated during construction and dewatering. From the tanks, water was pumped to an air stripper to volatilize VOCs and through liquid phase granular activated carbon (GAC) tanks for final polishing before water was discharged to the sewer. The vapor generated during air stripping was processed through vapor phase GAC vessels, followed by potassium permanganate zeolite vessels as a final polishing step prior to discharge to atmosphere. Samples of discharge water and vapor were collected by WaterTectonics and reported under the KCIW permit. Samples of the water discharging from the treatment system after the switchover to the storm sewer in October 2019 were collected by Turner consistent with the requirements of the CSWGP and Administrative Order Docket No. 16204. Copies of the discharge monitoring reports are included in Appendix C. The system was properly decommissioned in August 2020, following the shutdown of the dewatering system on the Property.

#### 4.5.5 Soil Excavation and Disposal

After the soldier pile installation and demolition of the remaining surface structures, JR Hayes began mass soil excavation of the Property on May 2, 2019. The mass excavation for the parking garage and foundations extended to elevations ranging from 10.7 to 0.7 feet across the

entire Property, this included approximately 8 inches (0.67 feet) of over-excavation beneath the bottom of the foundations to create a working surface (rat slab) for installation of the waterproofing and vapor intrusion barrier membrane, and then a second rat slab to protect the membrane and provide a working surface for construction of the building foundation.

#### Soil Screening and Sampling Procedures and Results

During the mass excavation soil was screened and sampled as described in Sections 3.4.1 and 3.4.3 in the CMMP (PES, 2019). As noted in Section 3.3 of the CMMP (PES, 2019), prior to mass excavation, four Soil Management Areas (“SMAs”; SMA-1 through SMA-4; see Figure 12) were defined and select areas were identified for over-excavation extending beyond the base required for foundation construction (see Figure 12). During mass excavation activities, one additional soil management area (SMA-5) was identified and delineated (see below).

##### 4.5.5.1 SMA-1 and SMA-5

SMA-1 was defined as all soils not needing additional treatment prior to excavation and encompassed all areas on the Property not included in SMA-2 through SMA-4. In general, SMA-1 soil was removed from the site in two-foot lifts by JR Hayes using a combination of bulldozers and backhoes. Soil was transferred to the surge pile located inside the eastern portion of the Property boundary along 8<sup>th</sup> Avenue North. Soil from the surge pile was then loaded into lined trucks and hauled to the approved disposal facility (see Section 4.13 for a discussion of waste disposal).

During excavation in SMA-1, solvent odors and elevated field screening results were detected from soil underneath a large concrete footing of the former building on May 22, 2019. Per the procedures described in the CMMP, the area was cordoned off and four soil samples were collected from two test pits (100 and 101; Figure 12) and submitted to Fremont for expedited analysis. The laboratory results confirmed two locations approximately 10 feet apart with soils exceeding the contained in criteria (PCE concentrations between 21.8 and 111 mg/kg). Based on these results, 11 test pits (including one at the same location as 101) were dug around the initial sample locations, and an additional 29 soil samples were collected and analyzed (Figure 12). The surveyed test pit locations defined the boundaries of the area with soils exceeding the contained-in criteria both laterally and vertically. This new area was located in the middle of the Property just north of boring B-247 and designated as SMA-5 (Figure 12). The source of this contamination may have been what appeared to be a sanitary sewer line running through the area (see Figure 4). Analytical results for the initial SMA-5 soil samples are provided in Appendix E.

Using the data obtained from the test pits and field screening during excavation of SMA-5, approximately 193 tons of soil exceeding the contained-in criteria was excavated from SMA-5 on May 28, 2019, and June 3 and June 6, 2019. The extent of the SMA-5 excavation is shown on Figure 12. The bottom of the excavation extended to elevations ranging from elevation 30.5 to 33 feet. The excavated soil was placed in lined roll-off containers for transport and disposed of as dangerous waste on May 30 and June 4 and June 13, 2019.

Additional soil compliance samples were collected from the excavation sidewalls and bottom of the excavation on May 28 and 30, 2019, and June 6, 2019. The May 28, 2019 compliance samples indicated soil CVOC concentrations were below the contained-in criteria (Figure 12 and Appendix E).

On May 30, 2019, elevated field screening readings were observed during ongoing work in SMA-5 and a sample was collected (05-33-108-32). The results indicated CVOC concentrations were greater than the contained-in criteria. An additional 1 cubic yard of soil was excavated from this area on June 3 and 6, 2019, and a compliance sample was collected at the excavation bottom on June 6, 2019 (05-31-108-30.5). The results indicated the remaining CVOC concentrations were below the contained-in criteria. The sample location is shown on Figure 12 (location 108) and the analytical results are provided in Appendix E.

Concurrent with the delineation of SMA-5, solvent odors and elevated field screening results were also detected from a sump structure (“Sump-5”, Figure 12) removed from the northwest quadrant of the Property. The sump was intact at the time of removal and field screening, including PID screening below the sump, did not reveal elevated readings. Sampling of the sediment inside the structure and of the concrete itself confirmed the presence of PCE concentrations exceeding the contained-in criteria (e.g., PCE concentrations of 8,630 mg/kg and 1,270 mg/kg, respectively). Appendix E provides analytical results. The concrete and associated sediment were placed in eight lined super-sacks for transport and disposed of as dangerous waste (11 tons total) on June 13, 2019.

On September 20, 2019, during excavation at the base of the parking garage west of SMA-2 (Figure 12) and northeast of CA-A1 (Figures 13), DNAPL was observed leaching out of a 6-inch-thick sand seam located on top of a sandy silt layer. The DNAPL (less than 8 fluid ounces) was removed with absorbent pads and excavated for off-site disposal. The upper 6 inches of soil beneath the DNAPL location was removed and stockpiled. A sample of the DNAPL (DNAPL-092019) and three soil samples (N6W23-5.5, N7W23-5.5 and N8W23-5.5) were collected from the soil located beneath removed soil and analyzed for CVOCs. The results indicated that the DNAPL was primarily PCE and the soil samples indicated that DNAPL was not present in the soil beneath the area of removed soil (Figure 12). Tables summarizing the sampling data and copies of the laboratory reports are included in Appendix E.

On September 23, 2019, soil from the area west of where the DNAPL was observed was excavated and stockpiled based on field screening. The area and the original DNAPL location were located in and below the completed excavation for a deep footing for the north parking garage elevator. The excavation removed the 6-inch-thick sand seam located on top of a sandy silt layer where the DNAPL was previously observed at the location described above. Seven soil samples were collected from the sidewalls and bottom of this excavation (Figure 12). The results indicated the presence of PCE exceeding screening levels in the remaining soil (see Appendix E); however, further excavation was not completed in this area due to the depth of the existing excavation below the bottom of the large footing in this area. DNAPL was not observed in this excavation nor was it observed elsewhere on the Property during excavation activities, with the exception of the initial location described above. Tables summarizing the sampling data and copies of the laboratory reports are included in Appendix E.

#### 4.5.5.2 SMA-2, SMA-3, and SMA-4

As described in the CMMP (PES, 2019), where soil was anticipated to be above contained-in criteria (i.e., PCE concentrations above 14 mg/kg) within the excavation limits, three additional soil management areas were established (SMA-2, SMA-3, and SMA-4). Soils in these areas were treated in-situ using the procedures described in Section 3.5 of the CMMP and described below in Section 4.5.6.

#### Soil Disposal

Untreated soil from SMA-1 and treated soil from SMA-2 through SMA-4 met the contained-in criteria per the contained-in policy (Ecology 1993) and was hauled and disposed of as non-hazardous solid waste. Soil from SMA-5 exceeded the contained-in criteria and was disposed of as dangerous waste per Ecology's *Dangerous Waste Regulations* (Chapter 173-303 WAC). In total, 137,781 tons of contained-in soil and 1,431 tons of dangerous waste were removed from the Property during mass excavation activities (Table 1). Soil disposal categories, facilities, handling information, and quantities are detailed in Section 4.13. Disposal documentation is included in Appendix D.

#### **4.5.6 In-Situ Soil Treatment During Excavation**

Portions of SMA-2, SMA-3, and SMA-4 contained soil with CVOC concentrations exceeding the contained-in criteria. The process for the treatment and excavation of soil in these three soil management areas was performed in accordance with the CMMP (PES, 2019) and involved overburden sampling, perimeter test pit sampling, in-situ treatment of soil in 2- to 4-foot-thick lifts, post-treatment confirmation sampling, and removal from the SMA and disposal. ECC was retained by Turner to manage the in-situ treatment of the soil during the excavation and ECC retained Titan to perform the in-situ soil treatment and soil handling. ECC summarized their work in a report entitled *In-Situ Soil Remediation Completion Report* (ECC, 2020), a copy of which is included in Appendix E.

Consistent with the CMMP, PES reported all details and sampling results during each step of the treatment process to Ecology's Hazardous Waste and Toxics Reduction program personnel for review and approval prior to proceeding to the next step. This process is described in further detail below. Table 2 summarizes the treatment of each of the 29 individual lifts, including the dates of Ecology's disposal approval and the total amount of soil removed for each lift. E-mail communications with Ecology including maps of treatment areas and sampling locations, tables summarizing the results, and copies of the analytical laboratory reports for each treatment lift are included in Appendix E.

##### 4.5.6.1 Overburden

JR Hayes removed and disposed of soil meeting the contained-in criteria until the excavation reached 2 feet above the elevation expected to be the top of the soil exceeding the contained-in criteria. These 2 feet of soil sitting above the soil requiring treatment was referred to as the "overburden" within each SMA. Once the overburden elevation was reached, Turner



surveyed and marked the predetermined coordinates of the lateral extent of the soil exceeding the contained-in criteria (i.e., the SMA). After the lateral extents of each SMA were physically delineated, PES collected overburden soil samples from each of the 1-foot-thick layers above the top of the soil exceeding the contained-in criteria. Analysis of the samples indicated that the overburden from each SMA was within the contained-in criteria (i.e., below the threshold concentration). All overburden was removed from each SMA, except for a portion from SMA-3, and added to the contained-in stockpile. Field screening of the overburden in SMA-3 indicated potential concentrations of CVOCs above the contained-in criteria at approximately elevation 35.5 ft NAVD 88 (only 6-inches above the first treatment lift). The additional soil from SMA-3, approximately 15 cubic yards, was treated with the first treatment lift as discussed below in Section 4.5.5.3. Tables summarizing the overburden sampling results and maps showing their location are provided for each SMA in Appendix E.

#### 4.5.6.2 Treatment Perimeter Test Pit Sampling

Concurrent with the testing of the overburden described above, Titan dug test pits along the perimeter of each surveyed treatment area at approximately 25-foot intervals. The first test pits in each SMA extended from the top of the overburden layer to at least 4 feet below it, so that perimeter samples could be collected adjacent to the next two 2-foot-thick layers of soil requiring treatment. In each perimeter test pit, PES collected samples from approximately the midpoint of each 2-foot-thick treatment lift in order to confirm lateral extent of soils requiring in-situ treatment. This test-pitting process was repeated as soil treatment proceeded downward, with additional test pits dug and sampled to confirm the lateral boundaries in advance of the next two to three treatment lifts. Where a perimeter sample result exceeded the contained-in criteria, the lateral extent of a treatment area was expanded at that location, and new perimeter test pits (“step-out” test pits) were dug and sampled to confirm where soils met the contained-in criteria. Step out test pits were required at several depth intervals in all three SMAs. See Appendix E for further information.

#### 4.5.6.3 In-Situ Treatment and Confirmation Soil Sampling

ECC and Titan performed in-situ treatment in accordance with procedures described in the CMMP (PES, 2019). Once lateral boundaries were identified for each treatment lift, Titan used an excavator to disturb and loosen soil within the treatment area to the designated depth of the lift. Predetermined quantities of dry potassium permanganate (KMnO<sub>4</sub>) powder were then added to the surface of the soil and blended with the soil using an excavator-mounted hydraulic drum cutterhead. KMnO<sub>4</sub> solution (concentration of 5 to 20 g/L) was then sprayed onto and mixed into the soil to activate the KMnO<sub>4</sub>. Treated soil was covered in plastic sheeting (i.e., visqueen) and left to sit overnight to allow for the KMnO<sub>4</sub> to complete the treatment.

To monitor treatment progress and confirm that PCE concentrations were reduced to 14 mg/kg or less, PES collected post-treatment grab samples for field screening with an AQR Color-Tec Field PCE Test Kit. Soil where field screening indicated possible concentrations still exceeding 14 mg/kg was retreated following the same treatment steps as described above. When field screening indicated PCE concentrations were expected to be below 14 mg/kg, PES collected confirmation soil samples consistent with EPA Method 5035 and analyzed for

CVOCs by EPA Method 8260C. At least two samples were collected per 1-foot layer of the treatment lift (e.g., 4 samples for a 2-foot lift, 6 samples for a 3-foot lift) with locations spaced horizontally throughout the treated area to show whether treatment had been effective (i.e., reduced PCE concentrations to below 14 mg/kg). Analyses were performed on a same-day turnaround time. When verification sample laboratory results indicated treated soil still contained PCE at concentrations above 14 mg/kg, soil was retreated. Once analytical results confirmed soil meeting the contained-in criteria, Titan removed the treated soil from the SMA and stockpiled it until Ecology approved it for disposal with other contained-in soil on the Property.

Where the bottom of a treatment layer was above the final design excavation elevation (i.e., additional soil excavation will be required for building mass excavation), PES collected soil samples from the native soil beneath the last treated layer after all treated soil had been removed. The native soil samples were analyzed for CVOCs to document that all the soil containing PCE at concentrations exceeding 14 mg/kg had been treated and removed. If PCE in these samples exceeded this criterion, the soil treatment process continued until sampling indicated differently or the design excavation was reached. Tables summarizing the soil sampling results and maps showing sample locations are included in Appendix E for each SMA.

Specific details about treatment in each SMA are reported below.

### SMA-2

Soil treatment in SMA-2 (Figure 12) started at elevation of 29 to 27 feet NAVD 88 on June 10, 2019. ECC and Titan treated approximately 1,202 cubic yards (2,043 tons) of soil in SMA-2 from elevation 29 to 5 feet NAVD 88 (See Table 2). Approximately 12 cubic yards of this was additional soil treated following results of test pit sampling between elevations 23 to 17 feet NAVD 88. ECC and Titan treated all lifts in 2-foot intervals as described in the CMMP (PES, 2019), except for the final two lifts which they treated in 3-foot intervals. These lifts (11 to 8 and 8 to 5 feet NAVD 88) were treated in 3-foot lifts following approval from Ecology. ECC and Titan retreated the 8 to 5 feet NAVD 88 lift in SMA-2 after the initial verification samples from the first treatment indicated concentrations above contained-in levels. No other lifts needed retreating.

### SMA-3

Soil treatment in SMA-3 (Figure 12) started with treatment of soil from elevation of 35.5 to 33 feet NAVD 88 on May 20, 2019. ECC and Titan treated approximately 721 cubic yards (1,225 tons) of soil in SMA-3 from elevation 35.5 to 12.5 feet NAVD 88 (Table 2). ECC and Titan treated an additional 228 cubic yards (388 tons) of soil in the area between SMA-3 and SMA-4 following results of field screening of overburden and step out samples from perimeter test pit sampling. The area adjacent to SMA-3 and SMA-4 included designated over-excavation areas (Figure 12), and therefore treatment extended from 14 feet to 5 feet NAVD 88 (Table 2). ECC and Titan treated lifts in 2-foot intervals as described in the CMMP (PES, 2019), to an elevation of 15 feet NAVD 88. They treated the final lift in SMA-3 in a

single 2.5-foot interval (from 15-12.5 feet NAVD 88). The SMA-3 over-excavation (below elevation 12.5 feet) and the excavation in the northern portion of the adjacent area (area between SMA-3 and SMA-4) were treated in approximately 3-foot intervals from 14 to 9.5 feet NAVD 88. ECC treated the remaining excavation in the adjacent area in 4-foot intervals from 13 to 5 feet NAVD 88 (lifts 13-9 and 9-5).

#### SMA-4

Soil treatment in SMA-4 (Figure 12) started with treatment of soil from elevation of 27.5 to 22.5 feet on June 18, 2019. ECC and Titan treated approximately 242 cubic yards (411 tons) of soil in SMA-4 from elevation 27.5 to 22.5 feet and 12.5 to 5 feet NAVD 88 (Table 2). Approximately 94 cubic yards of this total was additional soil treated as result of step out test pit sampling between elevations 27.5 to 23 feet and 12.5 to 5 feet NAVD 88. The only lift in SMA-4 that ECC and Titan treated in 2-foot interval as described in the CMMP (PES, 2019) was from 26 to 24 feet NAVD 88. ECC and Titan treated two lifts in 1.5-foot intervals, 27.5 to 26 and 24 to 22.5 feet NAVD 88, and the remaining three lifts in 2.5-foot intervals following approval from Ecology. The interval from 22.5 to 12.5 feet NAVD 88 was not treated, and all soil was hauled as contained-in soil as described in the CMMP (PES, 2019). ECC and Titan completed treatment of SMA-4 soil on September 3, 2019.

#### 4.5.6.4 Reporting and Ecology Approvals

As noted above, PES reported all details and sampling results to Ecology for review and approval at each step of the in-situ treatment and disposal. Table 2 summarizes the treatment timeline including the treatment completion date and the date Ecology approved the treated soil for disposal under the CID. Prior to disposal of treated soil, PES transmitted an e-mail including maps of treatment areas, sampling locations, and the analytical data for each treatment lift to Ecology with a request for a contained-in determination for that soil. Soil was not disposed of until Ecology responded, typically in a day or less, with the contained-in determination and disposal approval. Appendix E provides the e-mail communications related to the in-situ treatment and associated sampling results (summary tables and laboratory reports) and sample location maps.

#### **4.5.7 Deviations from the Work Plan**

The mass excavation activities, including the in-situ treatment of soil in SMA-2, SMA-3, and SMA-4, were conducted consistent with the process described in the IAWP and CMMP and there were no deviations from this approach.

#### 4.6 Chemical-Resistant Vapor Barrier Installation

As discussed in Sections 10.1.2 and 11.1.2 of the IAWP, BMRD's building design team evaluated the vapor intrusion mitigation methods that were integrated into the building design to mitigate the potential for vapors to migrate into the occupied portions of the proposed development. The vapor intrusion mitigation approach and design were documented in an October 11, 2018, memorandum from Morisson Hershfield ("MH"). Colloidal Environmental



Technologies Company (“CETCO”) also provided a statement in a letter dated January 17, 2019, that the vapor/waterproofing barrier being used at the site (CETCO CoreFlex 60) is resistant to PCE and TCE and concentrations identified in the IAWP and will be an effective barrier to chemical vapor intrusion. The MH memorandum and CETCO letter were submitted to Ecology on January 22, 2019, and copies are included in Appendix F.

The MH memorandum summarized the design for controlling water and vapor penetration into the below grade portion of the building on the Property, including information related to quality control and quality assurance (“QA/QC”) of the installation. As described in the memorandum, the waterproofing/vapor intrusion barrier membrane was pre-applied below the foundation slab and on the foundation walls prior to casting the concrete slab and foundation walls. Injection and monitoring wells penetrate the bottom slab and waterproofing, each consisting of a single steel casing that is grouted and capped to provide a water and vapor tight seal within the wells.

CETCO Coreflex 60 was used as the foundation waterproofing and gas/vapor barrier. The technical data sheet and the Product Manual for the Coreflex 60 is attached to the MH memorandum in Appendix F. The Coreflex membrane consists of a 60 mil (1.5 millimeter) thick thermoplastic membrane integrally bonded to a hydrophilic “Active Polymer Core” (“APC”), which swells when exposed to water to provide a secondary waterproofing barrier should water penetrate past the thermoplastic facer. The APC has a geotextile fabric on the interior surface, which achieves a mechanical bond to concrete that is cast against it, resulting in membrane that is fully bonded to the foundation structure. The thermoplastic membrane provides the primary waterproofing as well as the gas/vapor barrier. All laps/seams in the membrane are heat welded to provide a durable seal.

The vapor barrier system was installed by a manufacturer-approved applicator who has completed CETCO’s Approved Applicator Program. During installation, OAC provided independent third-party certified inspection of the installation of the vapor barrier system throughout the construction process. OAC was certified by CETCO under their Hydroshield Quality Assurance Program and Warranty program (Appendix F). OAC’s inspection process confirmed that the installation was in accordance with the manufacturers’ requirements. This process included review of all substrates prior to the membrane installation; review of all completed membrane and detailing work prior to the membrane being covered/concealed, and review of all waterstops at cold joints in the concrete.

After the installation process was complete, including follow-up warranty work, OAC issued a letter dated March 30, 2022, that all work is compliant with CETCO’s detail standards, all required inspection reports have been submitted and there are no outstanding action items or issues on site (see Appendix F).

Based on OAC’s certification documentation, including the final certification letter included in Appendix F, CETCO granted BMRD coverage under CETCO’s 15-year Hydroshield system warranty on January 11, 2022 (Appendix F).

#### 4.6.1 Deviations from the Work Plan

There were no deviations from the Work Plan and the associated MH Memorandum.

#### 4.7 Perimeter Injection Well Installation

Cascade installed 94 perimeter injection wells (47 dual completion wells; A1C1 through A23C23 and B1D1 through B24D24) just outside Property along 8<sup>th</sup> Avenue North and Roy Street (Figures 4 and 13). The wells were installed between January and March 2019 (PES, 2020b), and, after utility improvements allowing access to some of the well locations, in August and September 2020. Similar to the Property injection wells, the perimeter injection wells were screened in treatment zones TZ-A through TZ-D (ranging from elevation +10 feet to -55 feet). The design of the perimeter injection wells consisted of dual-completion wells (PES, 2018) due to the limited space available to install these wells. Prior to installing the wells, PES obtained a variance from Ecology (Ecology, 2018) from the prohibition of nested resource protection wells (WAC 173-160-420) and the required street use permit and utility clearances. The wells were installed consistent with the variance and permit requirements.

##### 4.7.1 Perimeter Injection Well Drilling

PES observed the drilling and installation of the perimeter injection wells to log the lithology, document the well installations, and collect soil and groundwater samples. Perimeter well pairs A1C1 through A12C12 (intersecting TZ-A and TZ-C) and well pairs B1D1 through B12D12 (intersecting TZ-B and TZ-D) were drilled and installed along 8<sup>th</sup> Avenue North. Perimeter injection well pairs A13C13 through A23C23 and well pairs B13D13 through B24D24 were installed along Roy Street. Cascade installed most of the perimeter wells between January and March 2019. Well pairs A14C14, A15C15, B22D22, A23C23, B23D23, and B24D24 were installed in August 2020, and replacement perimeter wells D14R, D18R, and D19R were installed in December 2020.

##### 4.7.2 Perimeter Injection Well Construction

The dual-completion wells were constructed as specified in the IAWP (Figure 11), with the screen intervals as follows:

- **“Type 1” Completion.** A dual-completion well was installed at these locations, with a well screened between elevations 10 feet and -10 feet (TZ-A) and a well screened between elevations -25 feet and -40 feet (TZ-C) installed in the same boring (wells A1C1 through A23C23). A bentonite seal was placed in the boring annulus between the two well screen intervals; and
- **“Type 2” Completion.** A dual-completion well was installed at these locations, with a well screened between elevations -10 feet and -25 feet (TZ-B) and a well screened between elevations -40 feet and -55 feet (TZ-D) installed in the same boring (wells B1D1 through B24D24). A bentonite seal was placed in the boring annulus between the two well screen intervals.

The “Type 1” and “Type 2” wells were located approximately 10 feet apart, such that successive “Type 1” well locations (and successive “Type 2” well locations) were 20 feet apart (assuming a radius of influence greater than 10 feet). Cascade constructed the wells with 2-inch-diameter Schedule 40 PVC flush-thread casing and 0.020-inch slotted PVC screen, filling the annulus of each injection well with #2/12 sand from the bottom of each well screen to approximately one foot above the top of the screen. Cascade filled the well annulus between the two filter packs and above the top filter pack with hydrated bentonite pellets or chips to a depth of 6 feet bgs, with the remainder of the borehole filled with concrete. The wells were installed during building construction and prior to sidewalk and road reconstruction. The wells were buried in soil to protect them during construction. During sidewalk and road reconstruction, the top of each well casing was completed with a flush-with-grade steel monument such that the well can be used for monitoring purposes as necessary or as an injection well. Wells were constructed consistent with the IAWP (PES, 2018), except where noted in Section 4.7.7. Table A-1 in Appendix A summarizes the well completion details for the perimeter injection wells, and Appendix A also provides the well completion logs.<sup>4</sup>

### 4.7.3 Replacement Wells

Mass excavation activities damaged the TZ-D wells at well pairs B14D14, B18D18, and B19D19. Wells D14, D18, and D19 were abandoned and replaced with single completion wells D14R, D18R, and D19R, respectively, in December 2020 (see Section 4.7.7). The replacement wells were each installed in a new borehole located as close to the original borehole as possible and the well screen was placed at the same interval as the original well. Table A-1 in Appendix A summarizes the well completion details for the replacement perimeter injection wells, and Appendix A also provides the well completion logs.

### 4.7.4 Well Development and Surveying

PES developed the perimeter injection wells shortly after installation of each well, consistent with the Sampling and Analysis Plan (“SAP”) included in Appendix L of the IAWP (PES, 2018). W&H Pacific surveyed the horizontal and vertical locations of the perimeter injection wells in November 2022, after completion of the well monument installation during sidewalk and road surfaces reconstruction. The surveying was conducted to provide accurate location data for the wells and samples and ensure accuracy of the figures showing the wells. The horizontal datum was the North American Datum of 1983/1991 (“NAD 83/91”), and the vertical datum was NAVD 88. Appendix G provides the survey results.

### 4.7.5 Soil and Groundwater Sampling

PES collected soil and groundwater samples from the perimeter injection wells consistent with the procedures outlined in the IAWP SAP. Laboratory analyses and laboratory data validation were conducted consistent with the SAP and Quality Assurance Project Plan (“QAPP,” Appendix M in the IAWP).

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<sup>4</sup> The perimeter injection wells are identified with the prefix “PRB” in Table A-1 and the well completion logs in Appendix A (i.e., dual completion well A1C1 is listed in Table A-1 as “PRB-A1” and “PRB-C1” and on the well completion log as “PRB-A1/PRB-C1”).

PES collected 132 soil samples from the perimeter injection well borings during drilling activities from January through March 2019. Soil samples were not collected from the perimeter injection well borings that were drilled in August and December 2020. The soil samples were collected to characterize the soil adjacent to the Property and for waste management purposes. The soil sample results are presented and discussed in the RI/FS Work Plan Addendum (PES, 2020b) and Revised Agency Review Draft RI Report (NV5, 2025).

PES collected 28 groundwater samples from select perimeter injection wells in September 2020. The wells were sampled as part of the baseline collection of groundwater samples from the perimeter injection wells prior to EVO injection. The groundwater samples were submitted to Pace for VOC and geochemical parameter analysis. Tables summarizing the perimeter injection well sampling results are provided in Appendix H and copies of the laboratory results are included in the Revised Agency Review Draft RI Report (NV5, 2025). Investigation Derived Waste

Investigation-derived waste (“IDW”) from the drilling and development of the perimeter injection wells was managed consistent with the CMMP (PES, 2019c). Section 4.13 summarizes the IDW management and disposal, and Appendix D provides the IA waste management documentation.

#### 4.7.6 Deviations from the Work Plan

The IAWP stated that 100 perimeter injection wells (50 dual completion wells) would be installed; however, due to underground obstacles and lack of available space, only 94 perimeter injection wells (47 dual completion wells) were installed. Deviations from the IAWP included moving locations of wells due to underground utilities or the need to accommodate future access upon the completion of construction activities. These location changes are summarized below:

- Well pairs B1D1 through A12C12 and B1D1 through B12D12 were relocated to the street (8<sup>th</sup> Avenue North). The relocation of these wells was necessary to allow future access once the construction of the building, sidewalk, and landscaping were completed;
- Well pair A14C14 was installed in the street (Roy Street) due to the obstacles of underground utilities in the original planned location. Well pair A14C14 is located just south of B14D14;
- Well pair A15C15 was accidentally skipped over during drilling activities, so all the subsequently drilled wells were shifted up one location from west to east and renamed (renumbered). Well pair A15C15 was relocated and installed in Roy Street, south of B15D15;

- Well pairs A24C24 and B24D24 could not be drilled as planned due to the limited space on Roy Street. The limited space was due to utility vaults and aboveground utilities located between wells A18C18 and B18D18. Subsequently, the locations for well A19C19 through A23C23 and B19D19 through B23D23 were shifted slightly to the west. Well pair B24D24 was later relocated and installed in Roy Street between A15C15 and A14C14. Well pair A24C24 was not installed; and
- Well pair B23D23 was moved into Roy Street, south of the original intended location. The drilling of well pair B23D23 was initiated by pre-drilling activities (clearing the top 5 feet bgs by a vacuum truck); however, the drilling rig could not access the location, so the well pair location was moved to allow drilling rig access.

In addition to the changes in perimeter well locations, another deviation included the replacement of three wells completed in TZ-D. D14 (from pair B14D14), D18 (from pair B18D18) and D19 (from pair B19D19) were damaged and subsequently replaced with wells D14R, D18R, and D19R (discussed in Section 4.7.3). The original wells D14, D18, and D19 were decommissioned in-place.

There were no other deviations from the IAWP except for the adjustments to the number and locations of the wells described above.

#### **4.8 Contingent Action Well Installation**

The contingent action (“CA”) was implemented beneath the building to install monitoring wells and injection wells beneath the building footprint, monitor the groundwater quality after preconstruction source area treatment, and inject additional ERD amendments when necessary. The IAWP (PES, 2018) presented the rationale for the CA, and the Contingent Action Addendum (“CAA”) to the Final Interim Action Work Plan (PES, 2019a) detailed the injection and monitoring well network design, the monitoring plan, and CA performance criteria. The CA injection and monitoring well design considered the construction of the building foundation (e.g., thickness and rebar), the groundwater heads beneath the building foundation, and the waterproofing and vapor barrier system design. Cascade installed the contingent injection wells and contingent action monitoring wells consistent with the IAWP (PES, 2018) and CAA (PES, 2019a) just before the building slab was constructed, and the surface monument of each well was subsequently integrated into the slab.

##### **4.8.1 Contingent Action Injection Wells**

Cascade installed 63 CA injection wells on the Property between August and October 2019 (Figure 13). PES observed the drilling and installation of the injection wells to log the lithology, drilling, and well installations, and to collect soil samples. Cascade installed 21 wells in TZ-A (wells CA-A1 through CA-A21), 21 wells in TZ-B (wells CA-B1 through CA-B21), 13 wells in TZ-C (wells CA-C1 through CA-C13), and 8 wells in TZ-D (CA-D1 through CA-D8). Injection wells that were completed in the same treatment zone were spaced approximately 20 feet from each other, and each injection well was separated from other wells completed at different depths by approximately 5 feet (Figure 14). The 63 injection wells were

located in the north-south-oriented corridors along the western, central, and eastern portions of the Property to create three transects of wells oriented perpendicular to groundwater flow. These transects provide the capacity to treat areas upgradient of, within, and downgradient of the source areas identified in the IAWP, including the two primary areas of high CVOC concentrations on the Property near the former western boiler room and near the former loading dock.

- The western transect of 27 injection wells (from CA-A1 on the north end to CA-B8 on the south end) provides the ability to inject EVO just upgradient of the former loading dock area located in the north-central portion of the Property, and also directly into the former western boiler room area located in the southwestern portion of the Property;
- The central transect of 24 injection wells (from CA-A9 on the north end to CA-B15 on the south end) provides the ability to directly inject EVO into the middle of the former loading dock area and also in the area downgradient of the former western boiler room source area;
- The eastern transect of six TZ-A and TZ-B injection wells (from CA-A16 on the north end to CA-B18 on the south end) provides the ability to inject EVO into the area downgradient of the former loading dock area; and
- The six TZ-A and TZ-B wells located in the southeast corner of the Property (from CA-A19 on the west end to CA-B21 on the east end) provide the ability to inject EVO into an area with previous CVOCs above the IA PCE remediation level (0.5 mg/kg).

Groundwater treated by the CA injection wells is further treated by a fourth transect of injection wells provided by the perimeter injection wells as groundwater leaves the Property.

Appendix A provides the well completion details in Table A-1. A typical well construction diagram for the CA injection wells is presented on Figure 14 and well completion logs are included in Appendix A.<sup>5</sup>

#### 4.8.2 Contingent Action Monitoring Wells

Cascade installed 24 CA monitoring wells (MW-165 through MW-188) in September and October 2019. PES was on site during the drilling and installation of the contingent action injection wells to log the lithology, drilling, and well installations, and to collect soil samples. The contingent action monitoring wells are distributed throughout the Property in six well clusters, with each group including a well completed in each of the four treatment zones (i.e., TZ-A, TZ-B, TZ-C, and TZ-D). Figures 4 and 13 show the wells clusters:

<sup>5</sup> Well logs were not prepared for each CA injection well. For a given series of CA injection wells, the deepest well was drilled first and sampled to establish the subsurface conditions/geology. For example, for CA-A1/CA-B1/CA-C1 in the NW corner (Figure 13), the boring for CA-C1 was drilled and sampled first to establish the geologic conditions for the CA-A1/CA-B1/CA-C1 location and that boring/well completion log was prepared and included in Appendix A. The other wells, CA-A1 and CA-B1 were drilled without soil sampling and completed as specified in the CAA.



- Well Cluster 1 – MW-165 through MW-168;
- Well Cluster 2 – MW-169 through MW-172;
- Well Cluster 3 – MW-173 through MW-176;
- Well Cluster 4 – MW-177 through MW-180;
- Well Cluster 5 – MW-181 through MW-184; and
- Well Cluster 6 – MW-185 through MW-188.

The rationale for the well locations is as follows:

- The westernmost monitoring well group (Well Cluster 4) provides data to assess the interim action's effectiveness at addressing contamination in the former western boiler room source area;
- The central monitoring well group (Well Cluster 2) is located both downgradient of the former western boiler room source area and near the former loading dock area; and
- The four monitoring well groups located on the southern (Well Clusters 5 and 6) and eastern (Well Clusters 1 and 3) sides of the Property are located downgradient of the overall treatment areas and provide data to assess the on-Property interim action's overall performance and simultaneously provide data upgradient of the perimeter injection wells.

In addition to the 24 wells located on the Property, two additional monitoring wells (MW-189 and MW-190) were installed just north of the Property near existing deep monitoring well MW102 (Figures 4 and 13). MW-189 was screened in the Intermediate A Zone, and MW-190 was screened in the Intermediate B Zone. These two wells were installed to provide data to help define the northern extent of contamination off the Property, and to monitor the long-term effectiveness of the on-Property treatment.

Subsurface conditions at each well cluster and at MW-189/MW-190 were evaluated by collecting soil samples from the deepest well(s) at each location during drilling (i.e., MW-168, MW-171, MW-172, MW-176, MW-180, MW-183, MW-184, MW-188, and MW-190). Appendix A provides the well completion details (Table A-1) and the well completion logs.

#### 4.8.3 Soil Sampling

PES collected 42 soil samples from the CA injection and monitoring wells for waste management purposes. The samples were collected and analyzed consistent with the procedures outlined in the IAWP SAP and QAPP. The soil sample results are presented and discussed in the Revised Agency Review Draft RI Report (NV5, 2025).



#### 4.8.4 Well Development and Surveying

PES developed the perimeter injection wells shortly after installation of each well, consistent with the SAP included in Appendix L of the IAWP (PES, 2018). Turner surveyed the horizontal and vertical locations of the CA injection and monitoring wells in November 2019, after completion of the foundation surfaces at the well heads. The surveying was conducted to provide accurate location data for the wells and samples and ensure accuracy of the figures showing the wells. The horizontal datum was NAD 83/91, and the vertical datum was NAVD 88. Appendix G provides the survey results.

#### 4.8.5 Investigation Derived Waste

IDW from the drilling and development of the perimeter injection wells was managed consistent with the CMMP (PES, 2019c). Section 4.13 summarizes the IDW management and disposal, and Appendix D provides the IA waste management documentation.

#### 4.8.6 Deviations from the Work Plan and/or Contingent Action Addendum

CA injection well CA-C2 was damaged and abandoned in August 2019. The well was replaced with well CA-C2A in September 2019. Cascade drilled and installed the CA-C2A well screen at approximately the same depths as the original CA-C2 well. In addition, the locations of Well Cluster 3 (MW-173 through MW-176) had to be moved from the original planned location due to the presence of a crane footing at the time of drilling. There were no other deviations from the IAWP or CAA.

### 4.9 EVO Injection in Perimeter Wells

The primary objective of the perimeter well injection program is to treat groundwater exiting the Property in the four vertical treatment zones (TZ-A through TZ-D). The perimeter treatment program was initiated following the installation of the 94 perimeter injection wells that were installed in 2019 and 2020 (Section 4.7). The perimeter injection wells were installed as dual-completion wells in 47 locations just outside the south and east perimeters of the Property (Figures 4 and 13), with 23 well pairs intersecting TZ-A and TZ-C (A1C1 through A23C23) and 24 well pairs intersecting TZ-B and TZ-D (B1D1 through B24D24). The perimeter injection well screens are 20 feet long in TZ-A, and 15 feet long in TZ-B, TZ-C, and TZ-D.

PES contracted ISOTEC to implement the perimeter well EVO injections and the injections were conducted consistent with the approach outlined in the *Perimeter Injection Plan* (PES, 2020c), that was dated and submitted to Ecology on September 16, 2020, and approved by Ecology without comment via email correspondence on September 18, 2020. The EVO injections occurred in two separate events. ISOTEC conducted the first event between September and October 2020 and the second event between February and March 2021. Injections were made into all 94 perimeter wells over the course of the two events. ISOTEC (2021) details the procedures and results of the perimeter well EVO injections (see Appendix B). ISOTEC refers to the perimeter injection wells as “IW” in their report.

#### **4.9.1 EVO Injection Design**

ISOTEC used the same EVO mixture in the perimeter wells that they used in the Property injections. The EVO blend included EVO, sodium lactate, pH buffers, bioaugmentation cultures, and anoxic water (ISOTEC, 2021; see Appendix B).

#### **4.9.2 Permitting**

The perimeter injection wells were included in the wells registered and authorized by the Ecology UIC Program in 2017 (Ecology, 2017; see Appendix C).

#### **4.9.3 EVO Injection Events**

Injection activities occurred during building construction at the Property, which required coordination between ISOTEC and Turner as a safety precaution and to manage access to wells in active construction areas. For the second injection event, ISOTEC conducted the injection activities outside of regular working hours in order to not interfere with the ongoing construction activities. Details of the two events are presented in ISOTEC's 2021 report in Appendix B and summarized below.

##### **4.9.3.1 EVO Injection Procedures**

ISOTEC divided the perimeter injection wells into four treatment subareas to organize the injection activities. Two of the subareas were located along the east Property perimeter (8<sup>th</sup> Avenue North), and two of the subareas were located along the south Property perimeter (Roy Street). ISOTEC used the same injection procedures in the perimeter wells that were used previously at the Property (see Section 4.3.5), with up to six injection locations used simultaneously. ISOTEC injected EVO into each perimeter well until reaching approximately 90 percent of the planned EVO volume. This was followed by injection of 30-gallons of anoxic water, the DHC culture, 50 to 70 gallons of anoxic water, and the remaining 10 percent of the planned EVO volume. ISOTEC completed the injection process with a 10- to 15-minute flush of anoxic chase water.

##### **4.9.3.2 2020 EVO Injection Event**

ISOTEC was on site from September 21 through October 18, 2020. EVO injections started on September 23, but were discontinued on September 30 after seepage of a white colored liquid was observed in the lowest building parking levels (P2 and P3) on September 29. After investigation of the seepage and consideration of the injection procedures, ISOTEC made the following adjustments:

- Setting the maximum injection pressure to 70 psi;
- Reducing the flow rates to less than 2.0 gpm at all perimeter injection wells;

- Reducing the flow rates to less than 1.5 gpm for locations with 0 psi (concern of preferential subsurface pathways);
- Limiting the injection volume to 250 gallons per location per day; and
- Deferring further injection into TZ-A and TZ-B to a later event.

After making adjustments to the injection procedures, ISOTEC resumed injection activities on October 6 and monitored parking levels P2 and P3 at regular intervals throughout the day for any seepage. The adjustments to the injection procedures were successful in minimizing the seepage. Approximately 250 gallons of fluid from seepage was collected, containerized, and stored on the Property. The fluid was managed per the CMMP (PES, 2019c).

During the 2020 perimeter well injection activities, ISOTEC injected a total of 59,250 gallons of EVO, 4,890 gallons of anoxic water, and 7.9 liters of DHC. Injection pressures ranged from 0 to 85 psi before procedure modification, with a maximum pressure of 70 psi after procedure modification. Injections were stopped for the day at any location where a flow rate greater than 0.5 gpm could not be achieved while keeping the pressure below 70 psi. The average flow rate was 1.46 gpm during the entire event.

Of the 59,250 gallons of EVO injected in the event, ISOTEC injected 11,350 gallons into TZ-A, 11,195 gallons into TZ-B, 17,080 gallons into TZ-C, and 19,625 gallons into TZ-D. The average pressure and flow rate in TZ-A was 31 psi and 1.85 gpm, respectively. The average pressures and flow rates in TZ-B, TZ-C, and TZ-D were similar with the average pressures ranging from 40 to 45 psi and the average flow rates ranging from 1.20 to 1.39 gpm.

ISOTEC could not complete injections in three TZ-D wells (perimeter wells D1, D8, and D19) during the 2020 event. Perimeter well D1 received 140 gallons, which was approximately 12 percent of the target volume. The intention was to return and complete the injection at this well in the second event. Perimeter wells D18 and D19 did not accept any material during the 2020 event, and the wells were found to have been damaged during the installation process. The two wells were decommissioned (see Section 4.4), and replacement perimeter wells D18R and D19R were installed in December 2020 (see Section 4.7.3).

#### 4.9.3.3 2021 EVO Injection Event

ISOTEC was on site from February 8 through March 2, 2021. Due to weather delays, the injection activities started on February 16. The injection procedures followed the modifications that were made during the 2020 event to minimize seepage into parking levels P2 and P3. ISOTEC monitored levels P2 and P3 daily at regular intervals for seepage and kept spill materials and equipment onsite as a precaution. During the 2021 injection event, approximately 40 gallons of fluid derived from seepage on level P3 was collected, containerized, and stored on the Property. The fluid was managed per the CMMP (PES, 2019c).

During the 2021 event, ISOTEC injected a total of 49,362 gallons of EVO, 4,217 gallons of anoxic water, and 7.75 liters of DHC. Of the total EVO injected, 22,150 gallons were injected in TZ-A, 14,155 gallons into TZ-B, 7,180 gallons into TZ-C, and 5,877 gallons into TZ-D. Injection pressures ranged from 0 to 70 psi typically, with a few wells peaking at 90 psi; injections were stopped for the day at any location where a flow rate greater than 0.5 gpm could not be achieved while keeping the pressure below 70 psi, per the modified injection procedures established during the 2020 event. The average flow rate was 1.54 gpm during the entire event.

ISOTEC reported that all of the perimeter wells received the proposed EVO quantities, except three wells in TZ-D (D1, D18R, and D19R). Perimeter well D1 was damaged between the 2020 and 2021 injection events and could not be repaired. ISOTEC attempted injections at D1, but pressures rose above 100 psi so the injection was stopped. Upon further inspection, an obstruction was found in well D1 at approximately 59 feet bgs. This location was abandoned, and the remaining volume was distributed into nearby injection wells. Replacement perimeter wells D18R and D19R were able to accept some reagent at high injection pressures but were not finished due to time constraints. Perimeter well D18R received 870 gallons of EVO (approximately 80 percent of the proposed volume) and bioaugmentation amendments at an average flow rate of 0.8 gpm. Perimeter well D19R received 752 gallons (approximately 66 percent of the proposed volume) and no bioaugmentation amendments at an average flow rate 0.9 gpm.

#### 4.9.4 General Observations from Perimeter Well EVO Injections

Over the course of both injection events, ISOTEC continued to make adjustments to optimize injection productivity and minimize seepage and/or surfacing. For any future injections, ISOTEC recommends utilizing the 2021 injection approach, which includes the following key elements (ISOTEC, 2021; see Appendix B):

- Maintain an injection flow rate of 2 gpm and an injection pressure not to exceed 70 psi (lower injection pressures were recommended by ISOTEC for future injections);
- Limiting the injection volume to an individual screen to 250 to 500 gallons per day; and
- Spreading active injection points out spatially, to the extent practicable (injecting in adjacent injection points was not recommended). ISOTEC reported that injections into two different treatment zone screens can be done on the same day if conducted with a 1-to-3-hour gap between injections.

ISOTEC reported that TZ-A encountered lower pressures and a higher injection flow rates than the other three treatment zones (TZ-B, TZ-C, and TZ-D). The injection observations in TZ-B, TZ-C, and TZ-D were found to be similar. Limited variability was observed spatially for the perimeter wells located on the south Property perimeter (Roy Street) and the east Property perimeter (8<sup>th</sup> Avenue North).

#### 4.9.5 Deviations from the Work Plan

ISOTEC conducted the perimeter well injection event consistent with the IAWP and *Perimeter Injection Plan* (PES, 2020c), except for the inability to inject into well D1.

#### 4.10 2022 EVO Injection in CA Wells

The 2022 CA well EVO injection event was conducted to provide continued treatment of residual source area contamination beneath the building. PES described the approach for the CA injections in a letter entitled *Contingent Action Addendum Approach* (PES, 2022b) that was submitted to Ecology on September 29, 2022, and approved by Ecology via email correspondence on September 30, 2022. Although performance monitoring data showed evidence of continued ERD from the 2018 and 2019 injections, the CA well injection event was conducted based on persistent residual CVOCs beneath the building and a favorable well access period post-construction and before full building occupancy.

##### 4.10.1 EVO Injection Design

ISOTEC used a modified version of the EVO mixture used in the on-Property injections in 2019 and in the perimeter injection wells in fall 2020 and winter 2021. The EVO blend included EVO, ferrous sulfide, Nutrimax, pH buffers, bioaugmentation cultures, and anoxic water (ISOTEC, 2023; see Appendix B). ISOTEC added ferrous sulfide to promote rapid abiotic CVOC dechlorination with reactions that do not generate lesser chlorinated ethenes (cDCE and VC), similar to reactions of CVOCs with zero valent iron. The Nutrimax nutrient/additive blend was added to support biotic dechlorination.

##### 4.10.2 Permitting

The project was registered with the Ecology UIC Program and received Rule Authorization for the injections from the Ecology UIC Coordinator prior to the beginning of the injection event (Ecology, 2022b; see Appendix C).

##### 4.10.3 EVO Injection Event

ISOTEC was on site from November 8 through December 16, 2022, with a break for the Thanksgiving holiday. ISOTEC used modified injection procedures from those used in the pre-construction Property EVO injections and in the perimeter well injections, with up to four injection locations used simultaneously. ISOTEC first completed an initial injection well assessment, where 30 to 60 gallons of the EVO solution (EVO, ferrous sulfide, pH buffers, Nutrimax, and anoxic water) was attempted in each of the 63 injection wells to record initial injection pressures and flow rates. The initial injections were conducted to guide sequencing for the remainder of the treatment program. ISOTEC maintained flow rates between 1 and 2 gpm on wells with pressures below 40 psi. If the injection pressure was greater than 40 psi, flow rates were adjusted to keep pressures below 40 psi. If the pumps were not able to inject at or below 1 gpm and maintain a pressure less than 40 psi, injections were stopped at that well. ISOTEC attempted injections in all 63 injection locations, recording observations of flow

rate, injection pressure, and day lighting. Bioaugmentation followed with the injection of anoxic water and DHC bacteria to accelerate the rate of CVOC degradation. All the proposed EVO volume was injected first then anoxic water, followed by the DHC culture, and finished with a flush of anaerobic water.

After the Thanksgiving holiday, ISOTEC no longer added ferrous sulfide to the EVO solution due to odor complaints within the building. Injection locations that were stopped due to pressure during the first phase were reattempted. The EVO solution was injected at a rate that kept pressures as low as possible and pressures were observed in the range of 16 to 80 psi.

The entire proposed quantity of EVO was injected into 60 of 63 injection wells. Injection wells CA-B1 and CA-C11 were unable to receive injection solutions (only 25 and 50 gallons of diluted EVO, respectively) and well CA-C12 received approximately half of the planned EVO solution (285 gallons injected) along with bioaugmentation of DHC. The unused EVO solution from these three wells was injected into 21 surrounding wells (ISOTEC, 2023; see Appendix B). During the event, ISOTEC injected 42,600 gallons of EVO, 6,075 gallons of anoxic water, 4,006 gallons of pH buffer, 1,145 gallons of Nutrimax, and 9.45 liters of DHC. Of the total EVO injected, 14,465 gallons were injected into TZ-A, 14,460 gallons into TZ-B, 7,995 gallons into TZ-C, and 5,680 gallons into TZ-D. Injection pressures generally ranged from 0 to 80 psi in most wells, with a few requiring pressures of up to 90 psi, and the average flow rate was 1.35 gpm during the entire event.

#### **4.10.4 Deviations from the Work Plan**

The perimeter well injection event was conducted consistent with the IAWP, CAA, and *Contingent Action Addendum Injection Approach* (PES, 2022b).

#### **4.11 HMW-9IB Area Interim Action**

The IA near HMW-9IB on the Seattle DOT Mercer Parcels property, located south of the 700 Dexter Avenue North property, was conducted to treat elevated concentrations of CVOCs in groundwater (PES, 2021 and 2022a) near monitoring well HMW-9IB, a 67-foot-deep Intermediate B Zone monitoring well on the western portion of the Seattle DOT Mercer Parcels property (Figure 14). Ecology requested that the extent of the elevated groundwater PCE, TCE, cDCE, and VC concentrations in the vicinity of HMW-9IB be defined and, if appropriate, treated prior to the redevelopment of the Seattle DOT Mercer Parcels by a prospective purchaser (800 Mercer, LLC).

The Seattle DOT Mercer Parcels property is to be redeveloped with two 13-story towers (one on the western half, and one on the eastern half of the property) separated above grade by the vacated Eighth Avenue North right-of-way. The two separate towers will share a below-grade parking garage that will underlie the vast majority of the Seattle DOT Mercer Parcels, including the area around HMW-9IB. Four levels of below-grade parking are planned, resulting in a uniform lowest finished floor having a design elevation of approximately 10.75 feet (approximately 23 to 48 feet below the variable ground surface elevation of the Seattle DOT Mercer Parcels). The foundation for the buildings and garage will consist of a



3-foot to 8-foot thick concrete mat, resulting in a bottom of excavation ranging from elevation 2.75 to 7.75 feet. Shoring will be used to conduct the excavation and consist of a combination of soldier piles with tie-backs (western portion of the excavation) and secant piles (eastern portion of the excavation). Dewatering will also be required throughout the excavation and construction process. Redevelopment was expected to begin in late 2023 or early 2024, but has been delayed and is now expected to begin sometime in 2026.

#### 4.11.1 HMW-9IB Investigation and Results

As requested by Ecology, PES prepared an RI/FS work plan addendum (PES, 2021) that provided the scope of work for investigating the concentrations and distribution of CVOCs in groundwater near HMW-9IB. The investigation included installation of seven new wells between May and June 2021: one Intermediate A Zone well (MW-344) and six Intermediate B Zone wells (MW-345 through MW-350; see Figure 5). Soil samples were collected below the proposed base of the redevelopment excavation (elevation of 5 feet) and analyzed for VOCs. For the purposes of the investigation, PES collected groundwater samples from each new monitoring well and existing wells concurrently with the second and third quarter Site-wide monitoring events in June and August 2021, respectively. Pace analyzed the groundwater samples for VOCs and geochemical parameters (alkalinity, chloride, total iron, total manganese, nitrate, dissolved gases, sulfate, and total organic carbon).

PES provided the results of the investigation in the IAWP Addendum No. 2 (PES, 2022a), which successfully defined the area of elevated CVOCs on the Seattle DOT Mercer Parcels. Elevated concentrations of cDCE and VC (greater than 3,000  $\mu\text{g/L}$  combined concentration of cDCE and VC) were detected in wells HMW-20IA in the Intermediate A Zone and HMW-9IB in the Intermediate B Zone. In the monitoring wells surrounding HMW-20IA and HMW-9IB, including the new wells installed as part of the investigation, the concentrations of CVOCs detected in the investigation sampling events were more than an order of magnitude lower and generally less than 100  $\mu\text{g/L}$ . The results indicated that the area of elevated CVOC concentrations was limited to the interior of the Seattle DOT Mercer Parcels and that CVOCs from that area have not migrated from the immediate vicinity of HMW-9IB, which defined the area to conduct the IA.

#### 4.11.2 Injection Well Installation

Cascade installed 10 injection wells in the HMW-9IB area (IWS-01 through IWS-10) in March 2022. The number and location of the injection wells was based on an anticipated 12-foot reagent distribution radius. The wells were screened in the Intermediate B Zone, at elevations between approximately +2 feet to -13 feet NAVD88. PES was on site during the drilling and installation of the injection wells to log the lithology, drilling, and well installations, and to collect soil samples. Figure 15 shows the injection well locations. Appendix A provides the well completions (Table A-1) and boring logs, and Appendix G provides the survey data.



### 4.11.3 EVO Injection Design

In the HMW-9IB area injections, ISOTEC used a modified version of the EVO mixture employed in the on-Property injections in 2019 and in the perimeter injection wells in fall 2020 and winter 2021. The EVO blend included two different blends: (1) SRS-SD from Terra Systems that was comprised of 60 percent soybean oil, 4 to 5 percent sodium lactate, emulsifiers, nutrients, Vitamin B12, and water; and (2) SRS-Z blend that was formulated as 45 percent soybean oil, 10 percent zero valent iron (4 micron), 3 to 4 percent sodium lactate, emulsifiers, nutrients, Vitamin B12, and water. Additional Nutrimax, pH buffers, bioaugmentation cultures, and anoxic water were also used in the amendments (ISOTEC, 2022; see Appendix B). ISOTEC added the Nutrimax nutrient/additive blend to support bacteria growth and promote abiotic CVOC dechlorination.

### 4.11.4 Permitting

The HMW-9IB area injections were registered with the Ecology UIC Program and received Rule Authorization for the injections from the Ecology UIC Coordinator prior to the beginning of the injection event (Ecology, 2022a; see Appendix C).

### 4.11.5 EVO Injection Event

ISOTEC conducted the EVO injections in IWS-01 through IWS-10 between April 19 and 25, 2022. The injection sequence consisted of an initial low volume (10 to 20 gallon) anoxic water injection to test the tubing and equipment, followed by reagent injection and a final anoxic water flush to clear the injection equipment. The injection sequence was repeated as necessary until the target injection volumes were reached. For reagent injection, ISOTEC injected all the proposed EVO volume first (April 19 through 24), then anoxic water, followed by the DHC culture (April 25), and finished with a flush of anoxic water. ISOTEC recorded observations of flow rate and injection pressure (ISOTEC, 2022; see Appendix B).

During the event, ISOTEC injected 10,005 gallons of EVO, 420 gallons of anoxic water, and 23 liters of DHC. Injection pressures ranged up to 98 psi, and the average flow rate was generally between 1.5 and 1.7 gpm during the entire event. Injection well IWS-07 did not accept EVO, so the volume of EVO and DHC were distributed in surrounding injection wells.

### 4.11.6 Deviations from the Work Plan

The HMW-9IB injection event was conducted consistent with IAWP Addendum No. 2, with the exception noted above regarding injection well IWS-07 not accepting EVO.

## 4.12 Interim Action Performance Monitoring

Groundwater and soil vapor were monitored during the interim action to evaluate performance. PES conducted groundwater monitoring to facilitate design of the IA at the Property and in the HMW-9IB area, establish baseline conditions before the initial IA injections at the Property and at the Property perimeter, monitor conditions between Property injection events, and

monitor conditions after all of the injection events. Starting with the implementation of the RI in the fourth quarter of 2019, IA performance monitoring was conducted as part of each RI monitoring event. The performance monitoring well network included existing wells on and adjacent to the Property, newly installed monitoring wells, select monitoring from several injection wells installed prior to the MFR injections, select perimeter injection wells prior to injecting EVO in these wells, and existing and new monitoring wells in the HMW-9IB area (Figure 16). The network changed over time based on the stage of the IA (baseline monitoring, inter-injection monitoring, and post-injection monitoring) and the RI. The soil vapor network included existing and new vapor probes outside the Property boundaries (Figure 16). Tables 3 and 4 summarize the locations and frequency of the groundwater and soil vapor monitoring, respectively, and the laboratory analyses of the collected samples.

Performance groundwater and soil vapor monitoring was conducted consistent with the scope and procedures outlined in the IAWP (PES, 2018), the CAA (PES, 2019a), the RI/FS Work Plan (PES, 2019g), the Proposed Groundwater and Soil Vapor Monitoring Plan (PES, 2020d), the RI/FS Work Plan Addendum No. 2 (PES, 2021), the IAWP Addendum No. 2 (PES, 2022a), and the 2023 Groundwater and Soil Vapor Monitoring Plan (PES, 2023b).

#### **4.12.1 Groundwater Monitoring Before Property IA Injections**

PES collected groundwater samples to support IA design in March, April, and June 2017 from 53 monitoring wells installed by others prior to 2017 (PES, 2018). Pace analyzed all groundwater samples for VOCs, most of the groundwater samples for geochemical parameters, and select groundwater samples that were collected near the northern part of the Property for gasoline range organics (“GRO”).

PES conducted baseline groundwater sampling between March and May 2018 in 77 monitoring wells and 40 injection wells. The baseline sampling event included all performance monitoring wells and all accessible Site-wide monitoring wells. To provide a vertical profile of CVOCs in groundwater, PES sampled injection wells in and near apparent contamination hot spots and in areas needing additional sampling coverage. Pace analyzed all groundwater samples for VOCs and most of the groundwater samples for geochemical parameters and GRO. Groundwater samples collected from the injection wells were only analyzed for VOCs.

Prior to IA injections, PES conducted four complete rounds of groundwater level monitoring that included wells from the Shallow, Intermediate A, Intermediate B, and Deep Zones at the Site. The events were conducted on March 20, March 24, June 12, and October 11, 2017. PES also instrumented nine monitoring wells with pressure transducers to monitor the effects of groundwater extraction at Blocks 25, 31, and 37.

The results for the baseline monitoring activities conducted in 2017 and 2018 were presented in the IAWP (PES, 2018).

#### 4.12.2 Groundwater Monitoring Between Property IA Injections

Groundwater samples were collected between ISCO injection events in October 2018 (17 monitoring wells sampled between October 25 and 29) and December 2018 (18 monitoring wells sampled between December 12 and 17) to monitor the effects of the injections (PES, 2019g). PES collected groundwater samples from 57 monitoring wells after the third ISCO injection event (primarily between January 21 and February 1, 2019) to document the Site conditions prior to the injection of EVO. Additionally, groundwater samples were collected from MW-162, MW-163, and MW-164 to provide groundwater data just below the deepest treatment zone (Treatment Zone D) adjacent to and downgradient of areas with elevated Treatment Zone D CVOCs. Pace analyzed all samples for VOCs, with select samples analyzed for GRO and/or geochemical parameters used to evaluate biodegradation.

The results for these groundwater monitoring activities were presented in the RI/FS Work Plan (PES, 2019g).

#### 4.12.3 Groundwater Monitoring After Property IA Injections

PES conducted groundwater monitoring after the last Property IA injection event (which was conducted from February 12 through March 3, 2019) and before implementation of the RI. Events occurred in the first, second, and third quarters of 2019 and the results were presented in quarterly data summary reports submitted to Ecology in April, July, and October, 2019 (PES, 2019d-f).

**First Quarter 2019:** The first quarter 2019 monitoring event included collecting groundwater samples from 20 monitoring wells between March 11 and March 13, 2019, and one round of groundwater level measurement in all available monitoring wells at the Site on March 14, 2019 (PES, 2019d). Pace analyzed all samples for VOCs, with select samples analyzed for GRO and/or geochemical parameters used to evaluate biodegradation. Monitoring wells on the Property were decommissioned after they were sampled.

**Second Quarter 2019:** During the second quarter 2019 monitoring event, PES collected groundwater samples from 43 monitoring wells outside of the Property between April 22 and May 3, 2019, and conducted one round of groundwater level measurements in all available monitoring wells at the Site on April 22, 2019 (PES, 2019e). Pace analyzed all samples for VOCs, with select samples analyzed for GRO and/or geochemical parameters used to evaluate biodegradation.

**Third Quarter 2019:** In the third quarter of 2019, PES collected groundwater samples from 45 monitoring wells outside of the Property between July 15 and August 1, 2019, and measured groundwater levels in all available monitoring wells at the Site on July 16, 2019 (PES, 2019f). Pace analyzed all samples for VOCs, with select samples analyzed for GRO and/or geochemical parameters used to evaluate biodegradation.

#### 4.12.4 Groundwater Monitoring After the HMW-9IB IA Injections

After the April 2022 EVO injections in the HMW-9IB area injection wells, PES monitored select Intermediate B Zone monitoring wells on a quarterly basis. The wells were monitored to confirm groundwater flow directions in the area, document the distribution of injection fluids, confirm that the injections create conditions conducive to reductive dechlorination, and track the changes in contaminant concentrations over time. The monitored wells included HMW-9IB, MW-346, MW-347, MW-348, and MW-349, which were sampled in May 2022, August 2022, November 2022, and February or March 2023. PES also monitored Intermediate A Zone well MW-344 in November 2022 and Intermediate B Zone wells MW-345 (November 2022) and MW-350 (November 2022 and February 2023). Groundwater samples collected in May 2022, August 2022, and January 2023 were analyzed for VOCs and a limited suite of geochemical parameters including chloride, nitrate, sulfate, TOC, and dissolved gases. Pace analyzed the samples collected in November 2022 for VOCs and the full geochemical suite of parameters (alkalinity, chloride, nitrate, sulfate, total iron and manganese, and dissolved gases).

Groundwater levels were monitored in most of the monitoring wells on the Seattle DOT Mercer Parcels in May, August, and November 2022 and in February 2023.

The May and August 2022 sampling results were presented in the data summary report submitted to Ecology in January 2023 (PES, 2023a). The November 2022 and February/March 2023 monitoring results are presented in this IA completion report (see Tables 5 through 7 and Section 5.4).

#### 4.12.5 Groundwater Monitoring During the RI

PES collected groundwater samples from 49 to 122 monitoring wells off of the Property during seven quarterly events between the fourth quarter 2019 and the second quarter 2021 (October 2, 2019, through June 8, 2021). RI monitoring conducted after injection in the perimeter wells (late 2020 and early 2021) served as performance monitoring for that portion of the IA. The sampled wells included 8 to 24 Shallow Zone wells, 24 to 64 Intermediate A and B Zone wells, and 17 to 37 Deep Zone wells (PES, 2019g and 2020d). During these sampling events, PES also collected groundwater samples from the 24 CA monitoring wells on the Property. During each sampling event, from 3 to 10 monitoring wells that were planned to be sampled were not sampled due to insufficient water, lack of well access, or EVO being present in the well. Pace analyzed all samples for VOCs, with select samples analyzed for GRO and/or geochemical parameters used to evaluate biodegradation. The results are presented in the Revised Agency Review Draft RI Report (NV5, 2025).

#### 4.12.6 Groundwater Monitoring After the RI

PES continued to collect groundwater samples and monitor groundwater levels on a quarterly basis after completion of RI data collection in the second quarter of 2021. The monitoring events between the third quarter 2021 and fourth quarter 2022 were conducted consistent with PES (2020d), and the first quarter 2023 through the fourth quarter 2024 events were conducted

per PES (2023b). This IA completion report discusses the results of the sampling conducted through the first quarter 2023. Groundwater sampling data collected after the first quarter 2023 will be presented in future reports submitted to Ecology.

The sampling results for the third quarter 2021 through the third quarter 2022 monitoring events were presented in the data summary report submitted to Ecology in January 2023 (PES, 2023a). The results of the fourth quarter 2022 and first quarter 2023 monitoring events are presented in this IA completion report (see Tables 5 through 7 and Sections 5.3 through 5.5).

**Third Quarter 2021:** PES measured one round of groundwater levels in 89 monitoring wells in the accessible Site-wide monitoring well network on August 16, 2021, including 41 monitoring wells on the Seattle DOT Mercer Parcels and Seattle DOT Dexter Parcel sites. Between August 2 and August 23, 2022, PES collected groundwater samples from 71 monitoring wells outside of the Property, including 9 Shallow Zone wells, 21 Intermediate A Zone wells, 24 Intermediate B Zone wells, and 17 Deep Zone wells. The 24 CA monitoring wells on the Property were also sampled during the third quarter 2021 event. Pace analyzed all samples for VOCs, with select samples analyzed for GRO and/or geochemical parameters used to evaluate biodegradation. PES also submitted groundwater samples from a subset of Property CA monitoring wells to SiREM in Knoxville, Tennessee, for Gene-Trac testing to quantify DHC, and DHC functional genes (vcrA, bvcA, and tceA) for biological reductive dichlorination evaluation.

**Fourth Quarter 2021:** Between November 3 and December 17, 2021, PES collected groundwater samples from 85 monitoring wells outside of the Property, including 17 Shallow Zone wells, 25 Intermediate A Zone wells, 21 Intermediate B Zone wells, and 22 Deep Zone wells. The 24 CA monitoring wells on the Property were also sampled during the fourth quarter 2021 event. Pace analyzed all samples for VOCs, with select samples analyzed for GRO and/or geochemical parameters used to evaluate biodegradation. PES did not monitor groundwater levels during the fourth quarter of 2021 due to access and time restrictions.

**First Quarter 2022:** On February 14, 2022, PES measured one round of groundwater levels in 117 monitoring wells within the Site-wide monitoring well network and in 48 monitoring wells on the Seattle DOT Mercer Parcels and Seattle DOT Dexter Parcel sites. PES collected groundwater samples from 60 monitoring wells outside of the Property between February 15 and March 8, 2022, including 8 Shallow Zone wells, 17 Intermediate A Zone wells, 13 Intermediate B Zone wells, and 22 Deep Zone wells. The 24 CA monitoring wells on the Property were also sampled during the first quarter 2022 event. Pace analyzed all samples for VOCs, with select samples analyzed for GRO and/or geochemical parameters used to evaluate biodegradation.

**Second Quarter 2022:** On May 16, 2022, PES measured one round of groundwater levels in 119 monitoring wells within the Site-wide monitoring well network and in 32 monitoring wells on the Seattle DOT Mercer Parcels. PES collected groundwater samples from 103 monitoring wells outside of the Property between May 2 and June 9, 2022, including 18 Shallow Zone wells, 27 Intermediate A Zone wells, 27 Intermediate B Zone wells, and 31 Deep Zone wells.



The 24 CA monitoring wells on the Property were also sampled during the second quarter 2022 event. Pace analyzed all samples for VOCs, with select samples analyzed for GRO and/or geochemical parameters used to evaluate biodegradation.

**Third Quarter 2022:** On August 8, 2022, PES measured one round of groundwater levels in 113 monitoring wells within the Site-wide monitoring well network, and in 30 monitoring wells on the Seattle DOT Mercer Parcels. PES collected groundwater samples from 56 monitoring wells outside of the Property between August 1 and August 23, 2022, including 9 Shallow Zone wells, 15 Intermediate A Zone wells, 15 Intermediate B Zone wells, and 17 Deep Zone wells. The 24 CA monitoring wells on the Property were also sampled during the third quarter 2022 event. Pace analyzed all samples for VOCs, with select samples analyzed for GRO and/or geochemical parameters used to evaluate biodegradation.

**Fourth Quarter 2022:** On November 7, 2022, PES measured one round of groundwater levels in 115 monitoring wells within the Site-wide monitoring well network, and in 35 monitoring wells on the Seattle DOT Mercer Parcels. PES collected groundwater samples from 105 monitoring wells on and outside of the Property between October 25 and November 18, 2022, including 17 Shallow Zone wells, 27 Intermediate A Zone wells, 30 Intermediate B Zone wells, 31 Deep Zone wells, and 24 CA monitoring wells. Pace analyzed all samples for VOCs and geochemical parameters used to evaluate biodegradation.

**First Quarter 2023:** On February 21 and 22, 2023, PES measured one round of groundwater levels in 90 monitoring wells within the Site-wide monitoring well network, and in 30 monitoring wells on the Seattle DOT Mercer Parcels. PES collected groundwater samples from seven monitoring wells outside of the Property on February 22 and 23, 2023, including one Intermediate A Zone well and six Intermediate B Zone wells. Pace analyzed all samples for VOCs, with select samples analyzed for geochemical parameters used to evaluate biodegradation.

#### 4.12.7 Interim Action Performance Soil Vapor Monitoring

PES collected soil vapor samples consistent with the IAWP (PES, 2018) from vapor probes SV01, SV02, and SV03 in September 2018 and February and April 2019. The samples were collected to establish a baseline (September 2018 samples) and to monitor the effects of the IA Property injections on soil vapor outside of the Property (2019 samples). PES collected vapor samples from SV01 and SV02 in July and November 2019 and from SV01 in January and April 2020. SV03 could not be sampled after April 2019 due to damage to the probe, and SV02 could not be sampled in January and April 2020 due to water in the probe screen that could not be removed.

Consistent with the RI/FS Work Plan (PES, 2019g) and RI/FS Work Plan Addendum (PES, 2020b), PES collected vapor samples from 27 soil vapor probes (SV01, SV02, and SV-04 through SV-28) in July 2020, from 26 soil vapor probes (SV01 and SV-04 through SV-28) in November and December 2020, from 23 soil vapor probes (SV01, SV-06 through SV-25, SV-27 and SV-28) in February 2021, and from 23 soil vapor probes (SV01, SV-06 through SV-12, and SV-14 through SV-28) in May 2021. SV02 could not be sampled after

July 2020 due to water in the probe screen that could not be removed. Similarly, SV-13 could not be sampled in May 2021 due to water in the probe screen that could not be removed. PES could not access SV-04 and SV-05 in the first and second quarters of 2021 due to the presence of a tent encampment.

PES revised the vapor probe sampling program in the third quarter of 2021. With Ecology's concurrence (Ecology, 2021a), PES collected soil vapor samples from six probes (SV-01, SV-04, SV-05, SV-13, SV-15, and SV-16). With Ecology's concurrence (Ecology, 2021b), PES eliminated soil vapor sampling in all vapor probes but the pair immediately east of the Property (SV01 and SV-18), which were both sampled in December 2021, March, May, August, and November 2022, and February 2023. To confirm that the soil vapor VC detections in SV01 and SV-18 were localized, PES collected soil vapor samples in March 2022 from eight additional probes surrounding the SV01/SV-18 area (SV-08, SV-09, SV-12, SV-13, SV-17, SV-21, SV-22, and SV-23).

Pace analyzed all vapor samples for VOCs using EPA Method TO-15.

Soil vapor monitoring results for sampling performed from September 2018 through May 2021 are presented in the Revised Agency Review Draft RI Report (NV5, 2025). The results for vapor sampling conducted from August 2021 through August 2022 monitoring events were presented in the data summary report submitted to Ecology in January 2023 (PES, 2023a). The results of the November 2022 and February 2023 sampling events are presented in this IA completion report (Table 9). Soil vapor sampling data collected after February 2023 will be presented in future reports submitted to Ecology.

#### **4.12.8 Deviations from the Work Plan**

Deviations from the IAWP were primarily changes made to the monitoring network. The changes are described below:

- Groundwater sampling after ISCO injections was conducted consistent with the IAWP, except well MW-140 (which had been decommissioned due to utility relocations) was not sampled;
- The CA monitoring wells were added to the IAWP post-ISCO injection quarterly groundwater monitoring network;
- The CA monitoring wells were also added to the post-perimeter well injection monitoring network;
- In the fourth quarter of 2019, the IA performance monitoring network was combined with the RI well network (off Property wells) for efficiency. Over time, unneeded wells were eliminated from the monitoring network, and in the first quarter of 2021, the sampling frequency of selected plume wells was reduced; and



- As described above, the IA soil vapor monitoring network (SV01, SV02, and SV03) was combined with the RI soil vapor monitoring network (SV-04 through SV-28), with probes eliminated from the network after four quarters of samples were collected. As previously discussed, probes were permanently removed from the network due to water submergence of the probe screen (SV02 and SV03) or due to lack of significant VOC detections, and a limited number of soil vapor samples were missed due to lack of access or water submergence.

#### **4.13 Waste Management**

Construction, mass excavation, and interim action activities at the Site generated waste consisting of soil, water, sludge, and construction debris. The waste was classified as both non-dangerous waste (i.e., solid waste) and dangerous waste (also known as hazardous waste). The non-dangerous waste consisted primarily of soil, including soil requiring in-situ treatment, generated during mass excavation activities in 2019. Although RI activities were also ongoing at the same time, this section only documents the waste that was generated from the IA activities. The management of waste derived from RI activities is summarized in the Revised Agency Review Draft RI Report (NV5, 2025). IA waste managed per the CMMP (PES, 2019c) is summarized below and elsewhere in this report and disposal documentation is included in Appendix D.

##### **4.13.1 Contained-In Soil**

Prior to construction activities, PES obtained a contained-in determination from Ecology on March 18, 2019 (Ecology, 2019), for the approval to dispose of soil meeting the applicable criteria per Ecology's contained-in policy (Ecology, 1993) as "non-dangerous". The contained-in soil was generated during the mass excavation activities and includes soil with CVOC concentrations exceeding the contained-in criteria that was treated in-situ. Section 4.5 describes the mass excavation of soil, including the in-situ treatment of the above-criteria contaminated soil. Republic Services ("Republic") and Waste Management, Inc. ("WM") transported soil meeting the contained-in criteria offsite during mass excavation activities from April 4, 2019, through November 13, 2019. PES submitted analytical results for treated soil to Ecology for a contained-in determination and approval prior to transporting off the site as contained-in soil. Republic also pre-approved the soil prior to transport and disposal and transported the contained-in soil under appropriate bills of lading (Appendix D) to the Roosevelt Regional Landfill, in Roosevelt, Washington. WM pre-approved the soil for transport and disposal prior to transporting the contained-in soil for disposal at the Greater Wenatchee Regional Landfill, in Wenatchee, Washington (see Appendix D).

Table 1 summarizes the disposal of both contained-in and other non-dangerous waste soil from April through December 2019. Republic transported approximately 125,381 tons of contained-in soil off the site from April 4, 2019, through November 13, 2019, and WM transported approximately 12,400 tons of contained-in soil off the site from May 29, 2019, to September 9, 2019. A total of 137,781 tons of contained-in soil was transported off site and disposed of between April and November 2019. Quarterly reporting of the contained-in soil

was conducted per Ecology requirements. Appendix D provides the contained-in truck tickets and certificates of disposal, and Appendix E provides the Ecology contained-in approval documentation.

Approximately 568 gallons of non-dangerous sludge was transported offsite in October 2019, and disposed of at the WM facility in Arlington, Oregon.

#### 4.13.2 Dangerous Waste

PCE-contaminated soil and water were disposed offsite as dangerous waste per Ecology's *Dangerous Waste Regulations* (Chapter 173-303 WAC). Other dangerous waste generated during the mass excavation activities included debris such as construction waste (concrete), spent carbon from the water treatment system, and sludge from soldier pile drilling. All the waste was managed consistent with the CMMP (PES, 2019). During the mass excavation activities in 2019, WM transported and disposed of the generated dangerous waste soil and water at the WM hazardous waste facility in Arlington, Oregon. Table 1 summarizes the shipments of dangerous waste soil from the site. Other dangerous waste soil and water that were generated in 2020 through 2022 are discussed below. Appendix D provides the dangerous waste manifests and the annual Ecology Dangerous Waste Reports.

##### 4.13.2.1 Dangerous Waste Soil and Debris

PCE-contaminated soil included soil excavated during the mass excavation activities not meeting the contained-in criteria either due to elevated CVOC concentrations and/or excessive water content, and includes soil cuttings generated during IA well drilling and sampling. Approximately 1,413 tons of PCE-contaminated soil and approximately 16 tons of construction debris were generated during the pre-excavation soldier pile drilling and mass excavation activities from April through December 2019. IA drilling activities (perimeter injection and contingent action well installations) generated a total of approximately 226 tons of PCE-contaminated soil in 2019 (198 tons) and 2020 (28 tons). Perimeter injection wells were drilled and installed from January through March 2019, and in August, November, and December 2020. The contingent action wells were drilled and installed from August through October 2019. Sections 4.7 and 4.8 document the drilling and installation of the perimeter injection wells and the contingent action wells, respectively. In both 2021 and 2022, dangerous waste soil generated included drill cuttings from IA well installation. As shown in the Annual Dangerous Waste Reports for 2021 and 2022 (Appendix D), a total of 8.25 tons and 9.25 tons of soil were disposed of in 2021 and 2022, respectively.

##### 4.13.2.2 Dangerous Wastewater and Sludge

PCE-contaminated water included investigation derived wastewater from drilling, sampling, and water treatment system decommissioning activities. The onsite water treatment system was approved for operation on April 11, 2019, and operated through July 20, 2020. The system was used to treat construction stormwater, water generated from dewatering activities during construction, and well development and purge water generated during well installation and groundwater sampling activities. Development and purge water from drilling and

groundwater sampling were also treated through the onsite water treatment system; however, the water was temporarily containerized onsite and disposed offsite as a dangerous waste by WM during the times when the water treatment system was not active. The water treatment system is described in more detail in Section 4.5.

Approximately 2,989 gallons of PCE-contaminated water and sludge that was characterized as dangerous waste was generated during the pre-excavation soldier pile drilling and mass excavation activities from April through December 2019. Approximately 13,597 gallons of water and sludge characterized as dangerous waste from the water treatment system decommissioning was generated in 2020. In both 2021 and 2022, dangerous wastewater and sludge generated included development and purge water from IA well installation and sampling. As shown in the Annual Dangerous Waste Reports for 2021 and 2022 (Appendix D), a total of 5.75 tons and 8.75 tons of water were disposed of in 2021 and 2022, respectively. All dangerous waste sludge and wastewater generated during the IA was transported by WM for disposal at their Subtitle C Hazardous Waste Landfill in Arlington, Oregon.

#### 4.13.2.3 Annual Dangerous Waste Reporting

PES submitted annual dangerous waste reports to Ecology for waste generated from 2019 through 2022. Ecology requires the annual reporting of dangerous waste activities in Washington state. Reporting includes submitting records of managed waste profiles, quantities generated and disposed, transporters and disposal facilities, and dangerous waste manifests. Appendix D provides copies of these reports.

## **5.0 INTERIM ACTION PERFORMANCE**

Tables 3 and 4 summarize the groundwater and soil vapor monitoring that has been conducted at the Site since 2017, including the performance monitoring data collected at and outside of the Property and in the HMW-9IB area. Most of the IA performance monitoring data has been reported in other documents submitted to Ecology:

- The baseline and post-ISCO and EVO injection performance monitoring summary and results were documented in the RI/FS Work Plan (PES, 2019g) and the first quarter 2019 summary report submitted to Ecology on April 22, 2019 (PES, 2019d);
- The second, third, and fourth quarter 2019 summary of performance monitoring activities and results were submitted to Ecology on July 23, 2019 (PES, 2019e), October 23, 2019 (PES, 2019f), and January 31, 2020 (PES, 2020a), and were summarized in the RI/FS Work Plan Addendum (PES, 2020b);
- The Revised Agency Review Draft RI Report (NV5, 2025) presented the RI data and performance monitoring data collected in 2020 and the first two quarters of 2021; and
- The 2021–2022 Groundwater and Soil Vapor Data Report (PES, 2023a) provided the results of performance monitoring data and other plume data collected in the last two quarters of 2021 and the first three quarters of 2022.

Since these results have already been submitted to Ecology and are quite voluminous, they are not presented again in this report. IA performance monitoring and plume monitoring conducted in the fourth quarter of 2022 and first quarter of 2023, which have not yet been reported to Ecology, are presented in Tables 5 through 7 and Table 9. Appendices I and J provide copies of the laboratory reports and data validation memoranda, respectively, for the samples collected and analyzed in the fourth quarter of 2022 and the first quarter of 2023. Table 7A provides a summary of monitored natural attenuation scoring for groundwater samples collected from March 2017 through February 2023. Table 8 evaluates the CVOC time-trends using the GSI Mann-Kendall toolkit (Conner et al, 2012). The toolkit uses the Mann-Kendall statistical method to quantitatively determine if the concentrations of a constituent in a well are increasing, stable, or decreasing over time.

The following sections summarize the IA expectations provided in the IAWP, CAA, and IAWP Addendum No. 2 and the performance monitoring results relative to these expectations.

## **5.1 Property In-Situ Treatment**

### **5.1.1 IA Expectations**

The three rounds of ISCO and one round of EVO injected in late 2018 and early 2019 were expected to generally reduce contaminant mass beneath the Property, as evidenced by decreasing CVOC concentrations in the CA monitoring wells (MW-165 through MW-188). This overall expectation was to be measured by comparing monitoring results to “benchmarks” established in the CAA. The comparison of results to these benchmarks is discussed below.

It was also expected that the injections could result in increased dissolved-phase CVOC concentrations in some areas where the MFR reagents might cause desorption of contaminants from soil into the dissolved phase. Over the first two years after the Property in-situ treatment, a decrease in CVOC concentrations of over 50 percent was anticipated, with an approximate order of magnitude decrease in PCE concentrations. Other expectations for the Property in-situ treatment included the establishment of or improvement in geochemical conditions conducive to biodegradation and the control of CVOC migration to downgradient areas of the Site. Additional injections of EVO into the CA injection wells were anticipated to yield similar results as the initial injection events, further lowering CVOC concentrations and improving geochemical conditions.

### **5.1.2 Performance Monitoring Results**

#### **5.1.2.1 Benchmark Comparison**

As noted above, the overall expectation of mass reduction was to be evaluated by comparing groundwater monitoring results to benchmarks established in the CAA. The method for calculating the benchmarks is described in the notes of Table 10, but in general, the expectations are that:

- PCE and TCE concentrations will decrease by an order of magnitude in both the source areas and in areas downgradient of the source areas on the Property; and
- cDCE and VC concentrations will decrease by up to 50 percent over the initial 18 months following EVO injection. The expectation for cDCE and VC is more complex since the reductive dechlorination of PCE and TCE will initially produce a transitory increase in cDCE and VC concentrations from the baseline concentrations. Over time, however, continued reductive dechlorination is expected to reduce the cDCE and VC concentrations below baseline conditions.

Briefly, the preliminary benchmarks were calculated using data collected in the baseline sampling event in March and April 2019 before all of the on-Property wells were decommissioned prior to initiating construction. The data were modeled to predict the baseline concentrations at the location where the future CA monitoring wells (i.e., MW-165 through MW-188) were to be located. These preliminary benchmarks are not a regulatory level or a remediation level, they are only a tool to assess the initial performance of the interim action. There are uncertainties in the preliminary benchmarks due to the lack of actual groundwater data at the CA well locations and likely changes in CVOC concentrations due to the ongoing in-situ reductive dechlorination process.

As expected, some of the preliminary benchmark concentrations were significantly different than the actual concentrations measured in the CA monitoring wells once they were installed. To evaluate the impact of this variability, concentrations of the first two monitoring events of the CA wells (November 2019 and January 2020) were averaged to create a revised benchmark which are also shown on Table 10. Also included in Table 10 are the October 2022 monitoring results; these results are shaded if the result did not meet the preliminary benchmark. Finally, Table 10 indicates whether the October 2022 result met the revised benchmark concentration.

As can be seen in Table 10, most of the exceedances of the preliminary benchmarks are for cDCE and VC, and nearly all of those are in the monitoring wells either in or immediately downgradient of source areas (i.e., clusters 2, 4, and 5). PCE and TCE exceeded their benchmarks in four locations (MW-172, MW-177, MW-182, and MW-184), all in these same source-area well clusters. As shown in Figure 17, PCE met the benchmark in the other twenty CA monitoring wells.

#### 5.1.2.2 CVOC Time Trends

PES reviewed the CVOC time-trends for the CA monitoring wells between their first sampling in the fourth quarter of 2019 and the most recent sampling in the first quarter of 2023 using the Mann-Kendall analysis to quantitatively determine if the concentrations of a constituent in a well are increasing, stable, or decreasing over time. PES evaluated the time-series data for the proposed RI chemicals of concern (“COCs”), which include PCE, TCE, cDCE, 1,1-dichloroethene (“DCE”), and VC. PES also used the toolkit to evaluate the time trends of the micromolar CVOC concentration (sum of the micromolar concentrations of PCE, TCE, cDCE, and VC). Table 8 and Figures 18 through 21 present the results of the evaluation.



The time trend plots for all of the CA monitoring wells are included in Appendix K.

**Treatment Zone A Wells.** The Mann-Kendall analysis results for the proposed RI COCs (Table 8 and Appendix K) in the Treatment Zone A monitoring wells (MW-165, MW-169, MW-173, MW-177, MW-181, and MW-185) indicate generally decreasing CVOC concentrations in all these wells except for MW-165, which exhibited no trend for all CVOCs except VC which was probably increasing. These results meet the IAWP expectations for these wells as shown in Table 10.

**Treatment Zone B Wells.** The Mann-Kendall analysis trends for the proposed RI COCs in the Treatment Zone B monitoring wells (MW-166, MW-170, MW-174, MW-178, MW-182, and MW-186) indicate a mix of increasing, stable/no trend, and decreasing CVOC concentrations in all these wells. Increases were seen in at least one CVOC in all of these wells except for MW-186 in the southeastern corner of the Property. The biggest increases and highest concentrations were seen for cDCE and VC in the wells in, and immediately downgradient of, source areas. As noted above, these types of increases are not unexpected as cDCE and VC are produced through the reductive dechlorination of PCE and TCE. While a few wells have increasing concentrations of PCE (MW-174 and MW-178), the concentrations in these wells are generally low, and these results generally meet the IAWP expectations. There are four wells (MW-166, MW-170, MW-178, and MW-182) where cDCE and VC concentrations are high and there is an increasing trend. As noted above, increasing or stable concentrations of cDCE and VC were anticipated, especially in source area wells, and as discussed below in Section 5.1.3.2 and shown on Figure 20, the results of the geochemical parameter testing show very strong evidence of reductive dechlorination in these wells. Overall, two of the six Treatment Zone B wells (MW-170 and MW-186) meet the IAWP expectations, while the other four have not yet met the expectations.

**Treatment Zone C Wells.** The Mann-Kendall analysis trends for the proposed RI COCs in the Treatment Zone C monitoring wells (MW-167, MW-171, MW-175, MW-179, MW-183, and MW-187) indicate generally decreasing or stable trends in concentrations in wells MW-167, MW-175, MW-179, and MW-187. For wells MW-171 in the source area in the center of the property and well MW-183 in the southwest corner, concentrations were generally increasing. As with the increasing concentrations in the Treatment Zone B wells, the largest increases and highest concentrations are for cDCE and VC. The concentrations for the other CVOCs are much lower and in some cases below the proposed cleanup levels. As noted above, increasing or stable concentrations of cDCE and VC were anticipated and as discussed below in Section 5.1.3.2 and shown on Figure 20, the results of the geochemical parameter testing show strong evidence of reductive dechlorination in these wells. Overall, four of the six Treatment Zone C wells (MW-167, MW-175, MW-179, and MW-187) meet the IAWP expectations while the other two have not yet met the expectations.

**Treatment Zone D Wells.** The Mann-Kendall analysis trends for the proposed RI COCs in the Treatment Zone D monitoring wells (MW-168, MW-172, MW-176, MW-180, MW-184, and MW-188) indicate generally decreasing or stable concentrations in wells MW-172 and MW-188, mixed trends but at very low concentrations in MW-176, and generally increasing trends in MW-168, MW-180, and MW-184. As with the other treatment zones, the largest

increases and highest concentrations are for cDCE and VC, but in general the concentrations in the Treatment Zone D wells are lower than in the Treatment Zone B and C wells. As noted above for the Treatment Zone B and C wells, the increasing or stable concentrations of cDCE and VC in source area wells are not unexpected and the results of the geochemical parameter testing show limited to strong evidence of reductive dechlorination in these wells. Overall, two of the six Treatment Zone D wells meet the IAWP expectations while the other four have not yet met the expectations.

#### **5.1.2.3 Geochemical Parameters**

Following the Property perimeter EVO injections, the average MNA screening scores in the on-Property monitoring wells indicate strong evidence of conditions conducive to anaerobic biodegradation in Treatment Zones A and B, adequate to strong evidence of anaerobic biodegradation conditions in Treatment Zone C, and limited to strong evidence of anaerobic biodegradation conditions in Treatment Zone D (Table 7A). These results indicate that the conditions beneath the Property are very conducive to anaerobic biodegradation, especially in the source area wells. Combined with the generally decreasing CVOC concentrations, the Property IA is meeting expectations for its effects on areas beneath the Property.

It is also important to note that the first round of EVO injection into the CA injection wells occurred in late 2022 and this should result in even stronger conditions for degradation.

### **5.2 Soil Removal During Foundation Excavation**

#### **5.2.1 IA Expectations**

The expectation for soil removal during the excavation of the building foundation was that the CVOC contaminant mass beneath the Property would be reduced, all the vadose zone soil would be removed from the Property, and the upper portion of the saturated zone and the CVOC mass associated with this soil would be removed from the Property.

#### **5.2.2 Performance Monitoring Results**

The mass excavation activities described in Section 4.5 met the expectation for this component of the IA by: (1) treating approximately 4,067 tons of soil in-situ prior to excavation to reduce CVOC concentrations to levels below the contained-in criteria, (2) removing approximately 137,781 tons of soil containing CVOCs at concentrations up to the contained-in criteria, and (3) removing soil to elevations ranging from 10.7 to 0.7 feet across the entire Property, removing all the vadose zone soil and the upper portion of the saturated zone. Performance monitoring data associated with soil sampling to verify in-situ treatment results prior to disposal are included in Appendix E.



### **5.3 Perimeter In-Situ Treatment**

#### **5.3.1 IA Expectations**

The one round of EVO injected into the perimeter injection wells in late 2020 and early 2021, combined with the effects of Property ISCO and EVO injections and Property construction excavation and dewatering, was expected to generally reduce contaminant mass at the Property boundary and immediately downgradient of the Property. These effects were expected to be evidenced by decreasing CVOC concentrations in the perimeter wells and wells immediately downgradient of the Property, the establishment of or improvement in geochemical conditions conducive to biodegradation, and the control of CVOC migration to downgradient areas of the Site.

IAWP Table 19 outlined the expectations for the performance monitoring wells adjacent to the Property within 1 to 3 years after perimeter in-situ treatment. It was expected that there would be:

1. Less than an order of magnitude decrease in CVOC concentrations in the Shallow Zone wells on 8<sup>th</sup> Avenue North and Roy and in the Intermediate A Zone and Deep Zone wells on Roy Street;
2. Approximately one order of magnitude decrease in PCE and TCE concentrations and stable to declining concentrations of cDCE and VC in the Intermediate A and Deep Zone wells on 8<sup>th</sup> Avenue North; and
3. No discernible change in CVOC concentrations was expected in the Intermediate B Zone wells.

#### **5.3.2 Performance Monitoring Results**

##### **5.3.2.1 CVOC Time Trends**

PES used the GSI Mann-Kendall toolkit (Conner et al, 2012) to evaluate the time-trends of the proposed RI COCs and the micromolar CVOC concentration sum between the second quarter of 2018 and the first quarter of 2023. Table 8 and Figures 18 through 21 present the results of the evaluation, and the discussion below reflects the evaluation of the time-series data in this timeframe.

**Shallow Zone Wells.** The Mann-Kendall analysis results for the proposed RI COCs (Table 8 and Appendix K) in the Shallow Zone monitoring wells on 8<sup>th</sup> Avenue North (R-MW6, MW-9, MW121, MW125, and MW-159) indicate generally decreasing CVOC concentrations. The Mann-Kendall results for groundwater CVOC concentrations in the two Roy Street wells (MW-154 and MW-155) generally indicate no trend or a stable trend. These results meet the IAWP expectations for these wells as shown in IAWP Table 19 and Table 11.

**Intermediate A Zone Wells.** The Mann-Kendall analysis trends (since 2018) for the proposed RI COCs in the Intermediate A Zone monitoring wells on 8<sup>th</sup> Avenue North (MW107, MW-142, MW-144R, and MW-156) indicate generally decreasing CVOC concentrations in MW107, MW-144R, and MW-156 (except for PCE, which exhibited no trend) and no trend or stable trend (cDCE and VC) to decreasing trends (PCE and TCE) in MW-142. Inspection of the time-trend plots for these wells (Appendix K) indicates that the trends since injection into the perimeter wells ranged from stable to decreasing, with concentration decreases of up to two orders of magnitude for PCE and TCE. The Mann-Kendall results for groundwater CVOC concentrations in the two Roy Street Intermediate A Zone wells (BB-8 and MW-146) indicate no trend or stable trend (PCE and TCE) to decreasing trends (cDCE and VC) in BB-8 and decreasing trends for all proposed RI COCs in MW-146. Inspection of the time-trend plots for BB-8 and MW-146 indicates that the trends since injection into the perimeter wells were generally downward, with concentration decreases of less than an order of magnitude in BB-8 and over an order of magnitude in MW-146. These results generally meet the IAWP expectations for these wells.

**Intermediate B Zone Wells.** The Mann-Kendall analysis trends for the proposed RI COCs in the Intermediate B Zone monitoring wells on 8<sup>th</sup> Avenue North (MW-143, MW-145R, and W-MW-01) indicate no trends in the MW-143 CVOC concentrations and decreasing CVOC concentration trends in MW-145R and W-MW-01. The MW-157 and W-MW-02 CVOC trend analyses were incomplete due to the presence of EVO in the wells. Inspection of the time-trend plots for these wells indicates downward trends in the wells MW-143, MW-145R, and W-MW-01. The Mann-Kendall results for groundwater CVOC concentrations in the two Roy Street Intermediate B Zone wells (MW-147 and MW-148) indicate decreasing PCE and TCE concentrations and a range of trends for the dichloroethenes and VC (no trend, stable, decreasing, or increasing). Inspection of the time-trend plots for MW-147 and MW-148 indicates that the trends since injection into the perimeter wells were generally downward in MW-147 and stable in MW-148, except for increases in the low-level VC concentrations (just exceeding the proposed cleanup level). These results meet the IAWP expectations for these wells.

**Deep Zone Wells.** The Mann-Kendall analysis trends for the proposed RI COCs in the Deep Zone monitoring wells on 8<sup>th</sup> Avenue North (MW104, MW-158A, MW-160, and MW-161) indicate generally decreasing CVOC concentrations in MW-104 and MW-158A, and a range of CVOC trends for the MW-160 and MW-161 (no trend, decreasing, or increasing; see Table 8); the micromolar CVOC concentration trend results were inconclusive for the MW-160 and MW-161 data. Inspection of the time-trend plots for these wells indicates that the trends since injection into the perimeter wells (late 2020 and early 2021) were decreasing in all wells, from less than an order of magnitude decrease (MW-158A) to greater than two orders of magnitude decrease (TCE in MW104, MW-160, and MW-161). The Mann-Kendall results for groundwater CVOC concentrations in the Roy Street Deep Zone wells (MW105, MW106, and MW-153) indicate a range of trends (no trend, stable, decreasing, or increasing), with the micromolar CVOC concentration trend results stable for the MW106 data and inconclusive for the MW-105 and MW-153 data. Inspection of the time-trend plots for these wells indicates that the trends since injection into the perimeter wells were generally stable to decreasing, except for an apparent increasing cDCE trend (below the proposed cleanup level) in MW-153.

These results generally meet the IAWP expectations for these wells.

In general, the CVOC time-trends in the Shallow, Intermediate A, Intermediate B, and Deep Zone wells on 8<sup>th</sup> Avenue North and Roy Street meet the expectations for CVOC time trends post perimeter EVO injection, indicating that the IA injections at the Property and along the eastern and southern Property perimeter are reducing contaminant mass at the Property boundary and immediately downgradient of the Property. In short, the IA was implemented consistent with the IAWP and addenda and is working as designed (i.e., reducing contaminant mass in the source areas and reducing concentrations in groundwater at and around the Property).

#### 5.3.2.2 Geochemical Parameters

Following the Property perimeter EVO injections, the average MNA screening scores in the monitoring wells on 8<sup>th</sup> Avenue North and Roy Street indicates limited to adequate evidence of conditions conducive to anaerobic biodegradation in the Shallow Zone, adequate to strong evidence of anaerobic biodegradation conditions in the Intermediate A Zone, limited to strong evidence of anaerobic biodegradation conditions in the Intermediate B Zone, and limited to adequate evidence of anaerobic biodegradation conditions in the Deep Zone (see Table 7A for MNA scores). These results indicate that the conditions to the east and south of the Property are conducive at least in a limited way to anaerobic biodegradation. Combined with the generally decreasing CVOC concentrations, the Property IA is meeting expectations for its effects on areas immediately adjacent to the Property.

### 5.4 HMW-9IB In-Situ Treatment

#### **5.4.1 IA Expectations**

As inferred in IAWP Addendum No. 2, PES expected decreasing CVOC concentrations in the performance monitoring wells surrounding the HMW-9IB area injection wells (MW-345 through MW-350) and the establishment of or improvement in geochemical conditions conducive to biodegradation in the area.

#### **5.4.2 Performance Monitoring Results**

Tables 5 through 8 and Figure 15 present the performance monitoring data for the HMW-9IB area IA, including investigative and baseline data collected before the April 2022 EVO injections and the four quarters of data collected after the EVO injections.

##### 5.4.2.1 CVOC Time Trends

Since the April 2022 EVO injections, the Mann-Kendall analysis results for CVOC concentrations in groundwater indicate generally decreasing CVOC concentrations for the monitoring wells in the HMW-9IB area (HMW-9IB and MW-345 through MW-350). The trends for the proposed RI COCs (Table 8 and Appendix K) are downward in all the monitoring wells in the area but upgradient well MW-350, which has increasing low-level VC

concentrations (just exceeding the proposed cleanup level). Parent CVOCs (PCE and TCE) have dropped to concentrations below the proposed cleanup levels, and daughter CVOCs (cDCE and VC) have decreased up to an order of magnitude since EVO injections.

#### 5.4.2.2 Geochemical Parameters

The average MNA screening score (Figure 20 and Table 7A) following the HMW-9IB EVO injections indicates adequate or limited evidence of conditions conducive to anaerobic biodegradation in the treatment area (HMW-9IB) and in most of the wells adjacent to the treatment area (MW-347, MW-348, and MW-349).

Based on the CVOC concentrations, CVOC time-trends, and geochemical results in the performance monitoring wells, the HMW-9IB area IA has met the pre-injection expectations.

### **5.5 Outside the Property**

#### **5.5.1 IA Expectations**

As noted in Sections 5.1 through 5.3, the IA implemented at the Property and areas downgradient of the Property boundary was expected to generally reduce contaminant mass immediately downgradient of the Property (Table 11), resulting in decreasing CVOC concentrations and the establishment of or improvement in geochemical conditions conducive to biodegradation in the wells immediately downgradient of the Property. Over time, it was expected that these conditions would be propagated further downgradient at the Site.

#### **5.5.2 Performance Monitoring Results**

Tables 5 through 8 provide the performance monitoring data for wells outside of the Property, and Figures 18 through 21 depict the time-trends and geochemical scores since the beginning of the Property IA. Section 5.3.2 discusses the effects of the Property IA on the wells immediately downgradient of the Property. This section adds to the Revised Agency Review Draft RI Report discussion of the portions of the CVOC plume beyond 8<sup>th</sup> Avenue North and Roy Street, incorporating the fourth quarter 2022 and first quarter 2023 data.

##### 5.5.2.1 CVOC Time Trends

As noted in the Revised Agency Review Draft RI Report, generally decreasing CVOC concentration trends in wells outside the Property (Figures 18 through 21) indicate a stable to slowly shrinking plume, except where significantly influenced by the recent operation of construction-related dewatering systems. A review of the data generated since the end of the RI in the second quarter of 2021 continues to show a stable to slowly decreasing CVOC plume. This is supported both by the Mann-Kendall analyses (Table 8) and a visual inspection of the CVOC trends. The Mann-Kendall analysis indicates decreasing, stable (typically in wells with low CVOC concentrations), or no trend in all Site monitoring wells outside of the areas discussed above except for MW-189 and MW-190 on the south side of Valley Street north of the Property, MW-325 and MW-326 on the north side of Mercer Street, FMW-137 in the alley

east of Block 38 West, and MW103 in the alley east of the Seattle Roy Aloha Shops. Inspection of the CVOC time-trend plots (Appendix K) supports the Mann-Kendall results, except for MW119 (upward cDCE and VC trends in the last two quarters of 2022); MW-189 (downward cDCE and VC trends since the second quarter of 2021); and MW-308, FMW-141, MW-318, and MW-323 (upward cDCE and VC trends since the second quarter of 2021). IA implementation at the Property, Property boundary, and HMW-9IB area will over time promote CVOC biodegradation, resulting in continued shrinking of the COVC plume.

#### 5.5.2.2 Geochemical Parameters

The Revised Agency Review Draft RI Report noted that the geochemical parameter concentrations were conducive to anaerobic biodegradation in portions of the Site plume with elevated CVOC concentrations. Figures 18 through 21 show that there are areas of the Site with natural attenuation screening scores (Table 7A) indicating adequate to strong evidence of conditions supportive of anaerobic biodegradation to the east and southeast of the Property, where CVOC concentrations are the highest.

Since the end of the RI (second quarter of 2021), the MNA screening scores in Shallow Zone wells close to the Property (MW-159 and R-MW6) have continued to show adequate or strong evidence of anaerobic biodegradation, with wells outside of the Shallow Zone CVOC plume showing less evidence of anaerobic biodegradation conditions. In the Intermediate A Zone, the MNA screening scores since the end of the RI have continued to indicate adequate or strong evidence of anaerobic biodegradation in wells within the CVOC plume (MW107, MW108, MW109, MW110, MW115, MW119, MW-142, MW-144R, MW-146, MW-156, MW-189, MW-308, and MW-344), although the natural attenuation screening scores in these wells have dropped somewhat after second quarter 2022 through 1<sup>st</sup> quarter 2023. Similar to the Intermediate A Zone, the MNA screening scores in Intermediate B wells in the CVOC plume (FMW-141, MW111, MW-143, MW-147, MW-157, MW-311, MW-314, MW-318, MW-322, and W-MW-01) have continued to indicate adequate or strong evidence of anaerobic biodegradation, with somewhat lower recent screening scores in some of the wells.

Within the current limits of the Deep Zone CVOC plume, the MNA screening scores after the RI have continued to indicate adequate or strong evidence of anaerobic biodegradation in most Deep Zone monitoring wells, including FMW-129, GEI-2, MW103, MW105, MW113, MW128, MW-158A, MW-161, MW-319, MW-323, MW-324, MW-328, MW-329, MW-341, and MW-342. As in the other water-bearing zones, the recent natural attenuation screening scores (i.e., after second quarter 2022) were somewhat lower in some of the wells.

#### 5.5.2.3 Effects of Dewatering

As discussed in the Revised Agency Review Draft RI Report, construction dewatering at the Property and neighboring properties significantly influenced the groundwater flow directions in all four water-bearing zones during the Property IA, with easterly groundwater flow in all four zones when dewatering was occurring at Block 37; southeasterly groundwater flow in the southern portion of the Site in the Shallow, Intermediate A, and Intermediate B Zones and throughout the Site in the Deep Zone when dewatering was occurring at Block 38 West; and

radial flow toward the Property in the Shallow, Intermediate A, and Intermediate B Zones when dewatering was occurring at the Property. The changes in groundwater flow directions and hydraulic gradients influenced the CVOC concentrations at some locations during and shortly after dewatering activities. Given that the recent episodes of dewatering in the South Lake Union area ended in early 2021, the CVOC results in the fourth quarter of 2022 and first quarter of 2023 should be representative of relatively undisturbed conditions. As in the past, future dewatering activities in the South Lake Union area could influence groundwater flow at the Site, potentially resulting in concentration changes within the CVOC plume and CVOC movement in directions inconsistent with ambient groundwater flow. These impacts would be determined by the location, flow rate, and length of time of any future dewatering in the area.

## **6.0 FUTURE INTERIM ACTION ACTIVITIES**

Future IA activities will include continued performance monitoring of the Property IA (injections in the CA and perimeter wells) and HMW-9IB area IA; potential additional ERD amendment injections based on the performance monitoring data; developing and implementing an additional IA (i.e., ERD amendment injections) in additional Site areas with elevated CVOC concentrations; and evaluation and reporting of the data collected during these activities. The following sections summarize these activities.

### **6.1 Interim Action Performance Monitoring**

BMRD has continued to monitor the performance of the interim action by implementing the 2023 Groundwater and Soil Vapor Monitoring Plan (PES, 2023b) beginning in May 2023 and extending through the fourth quarter of 2024. The 2023 monitoring plan included performance monitoring of the Property and HMW-9IB IAs and wells that are monitoring the Site CVOC plume. The 2023 plan details sampling of 106 monitoring wells in the second quarter, 9 monitoring wells in the third quarter, and 129 wells in the fourth quarter (Figure 16). Performance monitoring of the Property and perimeter well IA occurred in the second and fourth quarter events, and performance monitoring of the HMW-9IB IA occurred quarterly from May 2023 through the end of 2024.

Performance monitoring is being revised as necessary in subsequent monitoring plans to include future IA performance monitoring requirements as approved by Ecology. The monitoring approach for 2025 is described in the 2025 Groundwater and Soil Vapor Monitoring Plan (Aspect, 2025a), approved by Ecology via email correspondence on April 25, 2025. Performance monitoring for subsequent years, will be evaluated based on the data collected through the end of 2025, and any adjustments will be coordinated with, and approved by, Ecology.

### **6.2 Additional Site Interim Action**

BMRD has designed an expansion of the IA to address selected elevated CVOC concentration areas east of the Property. The process for developing the additional IA work involved evaluating available groundwater data and physical constraints (e.g., utilities and traffic



restrictions) to determine the potential areas of highest concentrations of CVOCs outside the Property along primary migration pathways of Site-related CVOCs and in locations accessible to conducting additional IA treatment activities. The results of this evaluation, along with the proposed scope of work, are documented in the IAWP Addendum #3 (Aspect 2025b), which Ecology approved in a letter dated August 15, 2025. Implementation of the IA addendum activities is expected to begin during fourth quarter 2025.

### **6.3 Data Evaluation and Reporting**

Performance monitoring data will be validated, tabulated, and evaluated for groundwater flow directions, CVOC concentration trends, and geochemical conditions. BMRD will submit to Ecology summaries of these data and evaluations quarterly, in accordance with the 2025 Groundwater and Soil Vapor Monitoring Plan (Aspect, 2025a).

Consistent with the AO and as approved by Ecology in an email dated May 29, 2024, BMRD will submit bimonthly progress reports to Ecology by the 15<sup>th</sup> of the month following the reporting period. The progress reports will include a summary of IA activities conducted, deviations from work plans, personnel and schedule changes, and upcoming work. Validated analytical data collected as part of the IA will be entered in Ecology's Environmental Information Management database.

## **7.0 REFERENCES**

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## LIMITATIONS

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The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, nor the use of segregated portions of this report.

## TABLES



Table 1

**Waste Reporting (April through December 2019)  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Date Transported	Contained-In Soil						Dangerous Waste Soil		
	Republic			Waste Management			Waste Management		
	Total Trucks	Total Transported/ Disposed (pounds)	Total Transported/ Disposed (tons)	Total Trucks	Total Transported/ Disposed (pounds)	Total Transported/ Disposed (tons)	Manifests	Total Transported/ Disposed (pounds)	Total Transported/ Disposed (tons)
4/4/2019	9	485,080	243	—	—	—	1	60,000	30.00
4/5/2019	0	—	—	—	—	—	1	63,880	31.94
4/8/2019	4	241,660	121	—	—	—	1	68,120	34.06
4/9/2019	4	240,040	120	—	—	—	1	63,820	31.91
4/10/2019	0	—	—	—	—	—	1	60,960	30.48
4/11/2019	0	—	—	—	—	—	2	129,480	64.74
4/12/2019	7	394,120	197	—	—	—	2	131,260	65.63
4/15/2019	0	—	—	—	—	—	2	131,100	65.55
4/16/2019	0	—	—	—	—	—	2	127,320	63.66
4/17/2019	0	—	—	—	—	—	3	193,540	96.77
4/18/2019	0	—	—	—	—	—	3	195,300	97.65
4/22/2019	10	567,320	284	—	—	—	3	188,140	94.07
4/23/2019	0	—	—	—	—	—	3	189,580	94.79
4/24/2019	0	—	—	—	—	—	3	188,780	94.39
4/25/2019	0	—	—	—	—	—	4	259,960	129.98
4/26/2019	0	—	—	—	—	—	2	128,720	64.36
5/1/2019	0	—	—	—	—	—	2	128,740	64.37
5/7/2019	26	1,631,660	816	—	—	—	—	—	—
5/8/2019	27	1,632,800	816	—	—	—	—	—	—
5/9/2019	25	1,493,900	747	—	—	—	—	—	—
5/10/2019	28	1,683,120	842	—	—	—	—	—	—
5/13/2019	39	2,318,920	1,159	—	—	—	—	—	—
5/14/2019	36	2,205,260	1,103	—	—	—	—	—	—
5/15/2019	27	1,619,200	810	—	—	—	—	—	—
5/16/2019	37	2,295,440	1,148	—	—	—	—	—	—
5/17/2019	46	2,662,260	1,331	—	—	—	—	—	—
5/20/2019	53	3,249,060	1,625	—	—	—	—	—	—
5/21/2019	54	3,363,220	1,682	—	—	—	—	—	—
5/22/2019	52	3,120,400	1,560	—	—	—	—	—	—
5/23/2019	45	2,637,960	1,319	—	—	—	—	—	—
5/24/2019	52	3,077,240	1,539	—	—	—	—	—	—
5/28/2019	60	3,580,680	1,790	—	—	—	—	—	—
5/29/2019	51	3,055,220	1,528	5	327,840	163.92	—	—	—
5/30/2019	50	2,989,840	1,495	—	—	—	5	311,260	155.63
5/31/2019	50	3,019,940	1,510	5	325,820	162.91	—	—	—
6/3/2019	56	3,240,060	1,620	5	305,760	152.88	—	—	—
6/4/2019	59	3,512,640	1,756	5	323,900	161.95	3	74,300	37.15
6/5/2019	58	3,382,800	1,691	5	327,860	163.93	—	—	—
6/6/2019	56	3,155,500	1,578	—	—	—	—	—	—
6/7/2019	48	2,763,880	1,382	5	312,660	156.33	—	—	—
6/10/2019	58	3,382,440	1,691	5	336,760	168.38	—	—	—
6/11/2019	52	3,004,420	1,502	5	326,280	163.14	—	—	—
6/12/2019	51	3,083,740	1,542	5	331,820	165.91	—	—	—
6/13/2019	44	2,648,000	1,324	5	319,400	159.70	1	22,000	11.00
6/14/2019	52	3,151,060	1,576	5	327,000	163.50	—	—	—

Table 1

**Waste Reporting (April through December 2019)**  
**American Linen Supply Co Dexter Ave Site**  
**700 Dexter Avenue North, Seattle, Washington**

Date Transported	Contained-In Soil						Dangerous Waste Soil		
	Republic			Waste Management			Waste Management		
	Total Trucks	Total Transported/ Disposed (pounds)	Total Transported/ Disposed (tons)	Total Trucks	Total Transported/ Disposed (pounds)	Total Transported/ Disposed (tons)	Manifests	Total Transported/ Disposed (pounds)	Total Transported/ Disposed (tons)
6/17/2019	60	3,590,540	1,795	10	614,580	307.29	—	—	—
6/18/2019	52	2,922,780	1,461	9	527,440	263.72	—	—	—
6/19/2019	53	3,176,340	1,588	8	510,440	255.22	—	—	—
6/20/2019	45	2,710,920	1,355	13	827,380	413.69	—	—	—
6/21/2019	52	3,332,120	1,666	10	568,880	284.44	—	—	—
6/24/2019	39	2,375,200	1,188	9	588,200	294.10	—	—	—
6/25/2019	53	3,205,580	1,603	9	567,560	283.78	—	—	—
6/26/2019	52	2,952,780	1,476	11	661,360	330.68	—	—	—
6/27/2019	55	2,891,800	1,446	13	661,360	422.46	—	—	—
6/28/2019	50	2,850,180	1,425	10	661,360	328.95	—	—	—
<b>2Q19 Totals:</b>	<b>1,837</b>	<b>108,897,120</b>	<b>54,449</b>	<b>157</b>	<b>9,753,660</b>	<b>4,967</b>	<b>45</b>	<b>2,694,260</b>	<b>1,358</b>
7/1/2019	67	3,757,000	1,879	9	555,720	277.86	0	—	—
7/2/2019	45	2,587,400	1,294	8	500,220	250.11	0	—	—
7/3/2019	57	3,365,920	1,683	9	501,020	250.51	0	—	—
7/5/2019	0	—	—	2	131,220	65.61	0	—	—
7/8/2019	52	3,133,280	1,567	9	579,180	289.59	0	—	—
7/9/2019	55	3,320,180	1,660	11	723,260	361.63	0	—	—
7/10/2019	53	3,011,160	1,506	11	721,280	360.64	0	—	—
7/11/2019	55	3,247,380	1,624	11	662,000	331.00	0	—	—
7/12/2019	54	2,795,840	1,398	10	560,800	280.40	0	—	—
7/15/2019	52	3,082,180	1,541	10	636,980	318.49	0	—	—
7/16/2019	43	2,421,960	1,211	10	662,120	331.06	0	—	—
7/17/2019	49	2,742,940	1,371	10	636,020	318.01	0	—	—
7/18/2019	53	3,051,780	1,526	10	639,200	319.6	0	—	—
7/19/2019	40	2,346,620	1,173	1	51,340	25.67	0	—	—
7/22/2019	48	2,779,060	1,390	4	230,380	115.19	0	—	—
7/23/2019	48	2,778,300	1,389	5	336,740	168.37	0	—	—
7/24/2019	0	—	—	8	525,380	262.69	0	—	—
7/25/2019	0	—	—	7	438,920	219.46	0	—	—
7/26/2019	0	—	—	15	958,320	479.16	0	—	—
7/29/2019	54	3,085,320	1,543	0	—	—	0	—	—
7/30/2019	59	3,374,300	1,687	0	—	—	0	—	—
7/31/2019	64	3,754,020	1,877	0	—	—	0	—	—
8/6/2019	18	1,172,040	586	0	—	—	0	—	—
8/7/2019	25	1,987,060	994	0	—	—	0	—	—
8/8/2019	31	1,685,880	843	0	—	—	0	—	—
8/9/2019	33	1,773,500	887	10	632,380	316.19	0	—	—
8/12/2019	34	1,771,060	886	9	503,480	251.74	0	—	—
8/23/2019	0	—	—	11	675,920	337.96	0	—	—
8/26/2019	52	3,161,560	1,581	5	301,220	150.61	0	—	—
8/27/2019	54	3,264,100	1,632	4	249,560	124.78	0	—	—
8/28/2019	49	2,806,780	1,403	5	287,420	143.71	0	—	—
8/29/2019	47	2,717,140	1,359	5	317,160	158.58	0	—	—
8/30/2019	40	2,463,440	1,232	5	310,240	155.12	0	—	—
9/3/2019	52	3,076,480	1,538	5	304,820	152.41	0	—	—

Table 1

**Waste Reporting (April through December 2019)**  
**American Linen Supply Co Dexter Ave Site**  
**700 Dexter Avenue North, Seattle, Washington**

Date Transported	Contained-In Soil						Dangerous Waste Soil		
	Republic			Waste Management			Waste Management		
	Total Trucks	Total Transported/Disposed (pounds)	Total Transported/Disposed (tons)	Total Trucks	Total Transported/Disposed (pounds)	Total Transported/Disposed (tons)	Manifests	Total Transported/Disposed (pounds)	Total Transported/Disposed (tons)
9/4/2019	57	3,345,740	1,673	5	303,480	151.74	0	—	—
9/5/2019	57	3,446,700	1,723	5	306,620	153.31	0	—	—
9/6/2019	39	2,287,880	1,144	5	327,640	163.82	0	—	—
9/9/2019	55	3,246,080	1,623	5	295,000	147.5	0	—	—
9/10/2019	49	2,913,660	1,457	0	—	—	0	—	—
9/11/2019	45	2,535,300	1,268	0	—	—	0	—	—
9/12/2019	46	2,699,600	1,350	0	—	—	0	—	—
9/13/2019	37	2,218,360	1,109	0	—	—	0	—	—
9/18/2019	21	1,268,340	634	0	—	—	0	—	—
9/19/2019	25	1,515,660	758	0	—	—	0	—	—
9/20/2019	25	1,542,360	771	0	—	—	0	—	—
9/23/2019	26	1,579,840	790	0	—	—	0	—	—
9/24/2019	23	1,363,080	682	0	—	—	0	—	—
9/25/2019	32	1,913,900	957	0	—	—	0	—	—
9/26/2019	27	1,533,840	767	0	—	—	0	—	—
9/27/2019	28	1,688,900	844	0	—	—	0	—	—
9/30/2019	31	1,845,600	923	0	—	—	0	—	—
<b>3Q19 Totals:</b>	<b>2,006</b>	<b>117,458,520</b>	<b>58,729</b>	<b>239</b>	<b>14,865,040</b>	<b>7,433</b>	<b>0</b>	<b>0</b>	<b>0</b>
10/1/2019	27	1,624,640	812	0	—	—	2	70,500	35
10/2/2019	23	1,317,420	659	0	—	—	0	—	—
10/3/2019	26	1,500,100	750	0	—	—	0	—	—
10/4/2019	26	1,486,060	743	0	—	—	0	—	—
10/8/2019	17	935,200	468	0	—	—	0	—	—
10/9/2019	26	1,508,780	754	0	—	—	0	—	—
10/11/2019	25	1,479,200	740	0	—	—	0	—	—
10/14/2019	26	1,586,640	793	0	—	—	0	—	—
10/15/2019	31	1,941,260	971	0	—	—	0	—	—
10/16/2019	31	1,934,080	967	0	—	—	0	—	—
10/17/2019	25	1,491,660	746	0	—	—	0	—	—
10/23/2019	22	1,324,060	662	0	—	—	0	—	—
10/24/2019	16	958,140	479	0	—	—	0	—	—
10/30/2019	25	1,536,560	768	0	—	—	0	—	—
10/31/2019	18	1,114,600	557	0	—	—	0	—	—
11/5/2019	10	610,260	305	0	—	—	0	—	—
11/6/2019	8	471,720	236	0	—	—	2	66,380	33
11/8/2019	11	640,900	320	0	—	—	0	—	—
11/12/2019	12	676,560	338	0	—	—	0	—	—
11/13/2019	5	269,100	135	0	—	—	0	—	—
12/16/2019	0	—	—	0	—	—	1	9,000	5
<b>4Q19 Totals:</b>	<b>410</b>	<b>24,406,940</b>	<b>12,203</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>145,880</b>	<b>73</b>
<b>Project Totals:</b>	<b>4,253</b>	<b>250,762,580</b>	<b>125,381</b>	<b>396</b>	<b>24,618,700</b>	<b>12,400</b>	<b>50</b>	<b>2,840,140</b>	<b>1,431</b>

Table 2

**Soil Management Area Contained-In Soil Approval Summary  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

SMA	Lift Elevation <sup>1</sup>	Approval Status							Comment
		Bounding Samples Approved		Treatment Complete	Lab Test Confirmation	Ecology Approval	Cubic		
		Date	Initial	Date	Date	Date	Yards	Tons	
<b>SMA-2</b>									
2	29	6/5/2019		6/10/2019	6/12/2019	6/13/2019	118	200	
2	27	6/5/2019		6/19/2019	6/21/2019	6/21/2019	118	200	
2	25	6/5/2019		6/25/2019	6/27/2019	6/27/2019	118	200	
2	23	6/28/2019		7/3/2019	7/9/2019	7/9/2019	121	206	
2	21	6/28/2019		7/10/2019	7/11/2019	7/12/2019	121	206	
2	19	6/28/2019		7/12/2019	7/16/2019	7/17/2019	125	213	
2	17	7/18/2019		7/19/2019	7/22/2019	7/26/2019	118	200	
2	15	7/31/2019		7/31/2019	8/2/2019	8/5/2019	72	122	
2	13	8/1/2019		8/5/2019	8/7/2019	8/7/2019	72	122	
2	11	8/1/2019		8/12/2019	8/14/2001	8/15/2019	108	183	Change from 2 foot lifts to 3 foot lifts
2	8	8/12/2019		8/15/2019	8/20/2019	8/21/2019	112	191	
<b>Total Soil Treated in SMA-2:</b>							<b>1,202</b>	<b>2,043</b>	
<b>SMA-3</b>									
3	35	5/17/2019		5/20/2019	5/21/2019	5/22/2019	48	82	Included an additional 0.5 foot in first layer
3	33	5/17/2019		6/5/2019	6/6/2019	6/10/2019	32	55	
3	31	6/5/2019		6/7/2019	6/10/2019	6/11/2019	38	65	Sample ID shows lift 31; treatment date of 6/7/19
3	31A	6/14/2019		6/17/2019	6/19/2019	6/20/2019	79	134	Sample IDs show lifts 30 and 31.5; treatment date of 6/17/19
3	29	6/24/2019		6/26/2019	6/27/2019	6/28/2019	142	242	Lifts 29 and 27 being treated together; 4 foot treatment lifts
3	27	6/24/2019		6/26/2019	6/27/2019	6/28/2019			Included with 29 ft lift
3	25	6/28/2019		7/2/2019	7/8/2019	7/8/2019	69	118	
3	22.5	7/15/2019		7/16/2019	7/18/2019	7/19/2019	86	147	Lifts 23 and 21 being treated together; 4 foot treatment lifts
3	21	7/15/2019		7/16/2019	7/18/2019	7/19/2019			Included with 23 ft lift
3	21	7/11/2019		8/2/2019	8/6/2019	8/6/2019	86	147	
3	19	7/24/2019		8/7/2019	8/9/2019	8/10/2019	74	125	
3	17	8/12/2019		8/13/2019	8/15/2019	8/15/2019	29	50	
3	15	8/12/2019		8/16/2019	8/19/2019	8/19/2019	35	60	Treatment of lifts 15-12.5
<b>Total Soil Treated in SMA-3:</b>							<b>721</b>	<b>1,225</b>	

Table 2

Soil Management Area Contained-In Soil Approval Summary  
 American Linen Supply Co Dexter Ave Site  
 700 Dexter Avenue North, Seattle, Washington

SMA	Lift Elevation <sup>1</sup>	Approval Status							Comment
		Bounding Samples Approved		Treatment Complete	Lab Test Confirmation	Ecology Approval	Cubic		
		Date	Initial	Date	Date	Date	Yards	Tons	
SMA 4									
4	27.5	6/14/2019		6/18/2019	6/19/2019	6/20/2019	6	10	Sample ID shows lift 27, treated 27.5 to 26
4	26	6/18/2019		6/20/2019	6/21/2019	6/24/2019	10	17	Sample ID shows lift 25: treated 26 to 24
4	24	6/18/2019		6/24/2019	6/26/2019	6/27/2019	8	14	Boundary sample ID shows lift 25; treated 24 to 22.5
4	12.5	8/22/2019		8/22/2019	8/23/2019	8/29/2019	53	90	Treated 12.5 to 10 feet
4	10	8/26/2019		8/26/2019	8/28/2019	8/29/2019	82	140	Treated 10 to 7.5 feet
4	7.5	8/27/2019		9/3/2019	9/4/2019	9/4/2019	82	140	Treated 7.5 to 5 feet
Total Soil Treated in SMA-4:							242	411	
Area Adjacent to SMA-3 and SMA-4									
3/4	14-9.5	8/27/2019		9/7/2019	9/9/2019	9/10/2019	92	156	Lift 14-9.5
3/4	13-9	8/28/2019		9/7/2019	9/9/2019	9/10/2019	68	116	Lift 13-9
3/4	9-5	8/28/2019		9/10/2019	9/11/2019	9/11/2019	68	116	Lift 9-5
Total Soil Treated in SMA-3/4:							228	388	
TOTAL TREATED (approved for Contained-In disposal):							2,392	4,067	
Notes: SMA = Soil Management Area. Cubic yards calculated from tons based on a conversion factor of 1.7. Ecology = Washington State Department of Ecology. 1 = The lift numbers refer to the elevation of the top of the layer being treated. For example for SMA-3, Lift 35 represents the top of soil that was treated between Elevation 35 and 33.									







## Summary of Groundwater Monitoring Since 2017

### American Linen Supply Co Dexter Ave Site

### 700 Dexter Avenue North, Seattle, Washington

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### Table 3

**Summary of Groundwater Monitoring Since 2017  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Monitoring Well or Boring	Area Location	Groundwater Level Monitoring		Groundwater Sampling																										
		Periodic Events	Continuous Monitoring	2017			2018			2019				2020				2021				2022				2023	Laboratory Analyses			
				Q1	Q2	Q3	Mar-June	Oct	Dec	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	GRO	VOCs	MNA	Field
PRB-B19	Roy St ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	X	X	X
PRB-B21	8th Ave N ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
PRB-B23	Roy St ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	X	X	X
Treatment Zone C Perimeter Wells																														
PRB-C1	8th Ave N ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	X	X	X
PRB-C5	8th Ave N ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	X	X	X
PRB-C11	8th Ave N ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	X	X	X
PRB-C14	Roy St ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	X	X	X
PRB-C17	Roy St ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	X	X	X
PRB-C19	Roy St ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	X	X	X
PRB-C23	Roy St ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	X	X	X
Treatment Zone D Perimeter Wells																														
PRB-D1	8th Ave N ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	X	X	X
PRB-D4	8th Ave N ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	X	X	X
PRB-D11	8th Ave N ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	X	X	X
PRB-D13	Roy St ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	X	X	X
PRB-D16	8th Ave N ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
PRB-D17	Roy St ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	X	X	X
PRB-D19	8th Ave N ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
PRB-D20	Roy St ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	X	X	X
PRB-D23	Roy St ROW	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	X	X	X
Notes:																														
Property = 700 Dexter Avenue North.																														
GRO = Gasoline-range organics using NWTPH-Gx.																														
VOCs = Volatile organic compounds using EPA Method 8260C.																														
MNAs = Monitored natural attenuation parameters: nitrate, sulfate, chloride using EPA 300.0; total iron and manganese using EPA 6020/200.8; total organic carbon using SM5310B; alkalinity using SM2320B; ferrous iron using Hach kit 8146; dissolved methane, ethane, and ethene using RSK-175.																														
Beginning October 2020, select locations were sampled for an abbreviated MNA analyte list, including sulfate, TOC, total iron, total manganese, methane, ethane, and ethene. On the SDOT property, the abbreviated MNA analyte listed includes chloride, nitrate, sulfate, TOC, methane, ethane, and ethene.																														
Field parameters include pH, temperature, specific conductance, dissolved oxygen, and oxidation/reduction potential.																														
Q = Quarter of the year.																														
X = Sampled or analyzed.																														
– = Not sampled or analyzed.																														



Table 4

**Summary of Soil Vapor Monitoring Since 2017  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Soil Vapor Probe	Area Location	Soil Vapor Sampling																	
		2018	2019				2020				2021				2022				2023
		Q3	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
SV01	8th Ave N ROW	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SV02	8th Ave N ROW	X	X	X	X	X	-	-	X	-	-	-	-	-	-	-	-	-	-
SV03	8th Ave N ROW	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SV-04	Roy St ROW	-	-	-	-	-	-	-	X	X	-	-	X	-	-	-	-	-	-
SV-05	Roy St ROW	-	-	-	-	-	-	-	X	X	-	-	X	-	-	-	-	-	-
SV-06	Roy St ROW	-	-	-	-	-	-	-	X	X	X	X	-	-	-	-	-	-	-
SV-07	Roy St ROW	-	-	-	-	-	-	-	X	X	X	X	-	-	-	-	-	-	-
SV-08	8th Ave N ROW	-	-	-	-	-	-	-	X	X	X	X	-	-	X	-	-	-	-
SV-09	8th Ave N ROW	-	-	-	-	-	-	-	X	X	X	X	-	-	X	-	-	-	-
SV-10	Valley Street ROW	-	-	-	-	-	-	-	X	X	X	X	-	-	-	-	-	-	-
SV-11	Valley Street ROW	-	-	-	-	-	-	-	X	X	X	X	-	-	-	-	-	-	-
SV-12	Valley Street ROW	-	-	-	-	-	-	-	X	X	X	X	-	-	X	-	-	-	-
SV-13	Valley Street ROW	-	-	-	-	-	-	-	X	X	X	-	X	-	X	-	-	-	-
SV-14	Roy St ROW	-	-	-	-	-	-	-	X	X	X	X	-	-	-	-	-	-	-
SV-15	Roy St ROW	-	-	-	-	-	-	-	X	X	X	X	X	-	-	-	-	-	-
SV-16	8th Ave N ROW	-	-	-	-	-	-	-	X	X	X	X	X	-	-	-	-	-	-
SV-17	8th Ave N ROW	-	-	-	-	-	-	-	X	X	X	X	-	-	X	-	-	-	-
SV-18	8th Ave N ROW	-	-	-	-	-	-	-	X	X	X	X	-	X	X	X	X	X	X
SV-19	9th Ave N ROW	-	-	-	-	-	-	-	X	X	X	X	-	-	-	-	-	-	-
SV-20	9th Ave N ROW	-	-	-	-	-	-	-	X	X	X	X	-	-	-	-	-	-	-
SV-21	Alley Between 8th & 9th Ave	-	-	-	-	-	-	-	X	X	X	X	-	-	X	-	-	-	-
SV-22	Alley Between 8th & 9th Ave	-	-	-	-	-	-	-	X	X	X	X	-	-	X	-	-	-	-
SV-23	Alley Between 8th & 9th Ave	-	-	-	-	-	-	-	X	X	X	X	-	-	X	-	-	-	-
SV-24	Alley Between 8th & 9th Ave	-	-	-	-	-	-	-	X	X	X	X	-	-	-	-	-	-	-
SV-25	Dexter Ave N ROW	-	-	-	-	-	-	-	X	X	X	X	-	-	-	-	-	-	-
SV-26	Dexter Ave N ROW	-	-	-	-	-	-	-	X	X	-	X	-	-	-	-	-	-	-
SV-27	Dexter Ave N ROW	-	-	-	-	-	-	-	X	X	X	X	-	-	-	-	-	-	-
SV-28	Dexter Ave N ROW	-	-	-	-	-	-	-	X	X	X	X	-	-	-	-	-	-	-
<b>Notes:</b> All samples analyzed for VOCs by EPA TO-15. Q = Quarter of the year.																			
X = Sampled. - = Not sampled.																			

Table 5

**Groundwater Analytical Data, October 2022 through February 2023  
American Linene Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Sampling Method	PCE	TCE	cDCE	tDCE	1,1-DCE	VC
<b>Proposed Cleanup Levels</b>				<b>5.0</b>	<b>4.0</b>	<b>16</b>	<b>100</b>	<b>7.0</b>	<b>0.29</b>
<b>Groundwater Screening Level for Soil Vapor (Shallow Zone Only)</b>				<b>24</b>	<b>1.4</b>	<b>–</b>	<b>77</b>	<b>130</b>	<b>0.35</b>
<b>Shallow Water Bearing Zone</b>									
MW121	8th Ave N ROW, E side	10/31/22	Peristaltic	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	<b>1.03</b>
MW125	Valley St ROW, N side	10/31/22	Peristaltic	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
MW-154	Roy St ROW, S side	11/03/22	Bladder	<b>88.8</b>	<b>6.04</b>	<b>0.925</b>	0.0572 U	0.0200 U	0.0273 U
MW-155	Roy St ROW, S side	11/04/22	Bladder	<b>47.5</b>	<b>11.7</b>	<b>61.4</b>	<b>0.188 J</b>	<b>0.227</b>	<b>0.270</b>
MW-159	8th Ave N ROW, E side	10/31/22	Peristaltic	0.0280 U	0.0160 U	<b>0.448</b>	0.0572 U	0.0200 U	<b>0.0960 J</b>
MW-301 (duplicate)	Valley St ROW, S side	10/31/22	Bladder	<b>0.881</b>	<b>0.112</b>	<b>0.114</b>	0.0572 U	0.0200 U	0.0273 U
		10/31/22	Bladder	<b>1.14</b>	<b>0.122</b>	<b>0.123</b>	0.0572 U	0.0200 U	0.0273 U
MW-310	Alley E of Seattle Roy Aloha Shops	11/01/22	Peristaltic	0.0280 U	0.0160 U	<b>0.109</b>	0.0572 U	0.0200 U	0.0273 U
MW-312	Alley E of Seattle Roy Aloha Shops	11/01/22	Peristaltic	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
MW-313	Alley E of Seattle Roy Aloha Shops	11/01/22	Bladder	0.0280 U	0.0160 U	<b>9.77</b>	<b>0.144 J</b>	0.0200 U	<b>0.580</b>
MW-320	9th Ave N ROW, W side	11/04/22	Peristaltic	<b>0.285</b>	0.0160 U	0.0560 U	0.0572 U	0.0200 U	0.0273 U
MW-332	Roy St ROW, N side	11/04/22	Peristaltic	0.0280 U	0.0160 U	<b>0.104</b>	0.0572 U	0.0200 U	0.0273 U
MW-337	Lake Union Park, N end	11/02/22	Peristaltic	0.0280 U	0.0160 U	<b>0.112</b>	0.0572 U	0.0200 U	0.0273 U
MW-339	Lake Union Park, S end	11/02/22	Peristaltic	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
MW-9	8th Ave N ROW, E side	10/31/22	Peristaltic	0.0280 U	0.0160 U	<b>0.0970 J</b>	0.0572 U	0.0200 U	<b>0.342</b>
R-MW5	Dexter Ave N ROW, E side	11/08/22	Bladder	<b>0.515 J+</b>	<b>0.314 J+</b>	<b>0.297</b>	0.0572 U	0.0200 U	0.0273 U
R-MW6	8th Ave N ROW, W side	11/04/22	Peristaltic	0.140 U	<b>0.220</b>	<b>5.08</b>	0.286 U	0.100 U	<b>1.56</b>
SCL-MW101	Alley E of Seattle Roy Aloha Shops	11/03/22	Peristaltic	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
<b>Intermediate A Water-Bearing Zone</b>									
BB-8	Roy St ROW, S side	11/09/22	Peristaltic	<b>109 J+</b>	<b>32.2</b>	<b>23.5</b>	<b>0.224</b>	<b>0.131</b>	0.0273 UJ
FMW-142	9th Ave N ROW, E side	11/04/22	Peristaltic	<b>0.271</b>	0.0160 U	0.0590 U	0.0572 U	0.0200 U	0.0273 U
GEI-MW-1	Block 79 East, N end	11/04/22	Peristaltic	<b>0.147</b>	0.0160 U	<b>0.119</b>	0.0572 U	0.0200 U	0.0273 U
MW107	8th Ave N ROW, W side	10/31/22	Bladder	<b>0.101</b>	<b>0.125</b>	<b>4.05</b>	<b>3.69</b>	0.0200 U	<b>2.74</b>
		02/23/23	Peristaltic	0.0280 U	0.0160 U	<b>4.84</b>	<b>2.70</b>	0.0200 U	<b>2.13</b>
MW108	Alley E of Seattle Roy Aloha Shops	11/01/22	Peristaltic	<b>97.7</b>	<b>42.7</b>	<b>455</b>	<b>2.80</b>	<b>1.16</b>	<b>115</b>
MW109	Alley E of Seattle Roy Aloha Shops	11/01/22	Peristaltic	0.0280 U	0.0160 U	<b>20.9</b>	0.0572 U	0.0200 U	<b>4.26</b>
MW110	Alley E of Seattle Roy Aloha Shops	11/01/22	Bladder	<b>513 J</b>	<b>248 J</b>	<b>359 J</b>	<b>2.28</b>	<b>2.42</b>	<b>0.344</b>
MW115	9th Ave N ROW, W side	11/03/22	Peristaltic	<b>0.0760 J</b>	0.0160 U	<b>0.103</b>	0.0572 U	0.0200 U	<b>0.253</b>
MW116	9th Ave N ROW, W side	11/04/22	Peristaltic	0.0280 U	0.0160 U	0.0330 U	0.0572 U	0.0200 U	0.0273 U
MW119 (duplicate)	9th Ave N ROW, W side	11/02/22	Peristaltic	<b>0.0920 J</b>	<b>5.28</b>	<b>64.0</b>	<b>0.152 J</b>	<b>0.267</b>	<b>5.65</b>
		11/02/22	Peristaltic	<b>0.0880 J</b>	<b>4.81</b>	<b>58.9</b>	<b>0.139 J</b>	<b>0.212</b>	<b>4.96</b>
MW120	8th Ave N ROW, E side	10/31/22	Peristaltic	<b>61.8</b>	<b>17.7</b>	<b>24.9</b>	<b>0.173 J</b>	<b>0.337</b>	<b>0.397</b>

Table 5

**Groundwater Analytical Data, October 2022 through February 2023  
American Linene Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Sampling Method	PCE	TCE	cDCE	tDCE	1,1-DCE	VC
<b>Proposed Cleanup Levels</b>				<b>5.0</b>	<b>4.0</b>	<b>16</b>	<b>100</b>	<b>7.0</b>	<b>0.29</b>
MW127	8th Ave N ROW, E side	10/31/22	Peristaltic	0.0280 U	0.0160 U	<b>0.635</b>	0.0572 U	<b>0.0480 J</b>	<b>0.169</b>
MW-142	8th Ave N ROW, E side	10/31/22	Peristaltic	0.0280 U	<b>0.0850</b>	<b>19.1</b>	<b>0.233</b>	<b>0.0900 J</b>	<b>40.0</b>
(duplicate)		10/31/22	Peristaltic	<b>0.785</b>	0.0800 U	<b>22.3</b>	0.286 U	0.100 U	<b>43.2</b>
MW-144R	8th Ave N ROW, E side	11/02/22	Bladder	0.0280 U	<b>0.0830</b>	<b>0.131</b>	0.0572 U	0.0200 U	<b>0.124</b>
MW-146	Roy St ROW, S side	11/03/22	Bladder	0.0280 U	<b>0.101</b>	<b>13.8</b>	<b>1.22</b>	<b>0.0900 J</b>	<b>173</b>
MW-156	8th Ave N ROW, E side	10/31/22	Peristaltic	<b>648</b>	<b>249</b>	<b>523</b>	<b>3.23</b>	<b>2.32</b>	<b>0.757</b>
MW-189	Valley St ROW, S side	10/31/22	Bladder	0.0280 U	0.0160 U	<b>3.00</b>	0.0572 U	0.0200 U	<b>26.8</b>
MW-302	Dexter Ave N ROW, E side	11/08/22	Bladder	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	<b>0.0540 J</b>
MW-306	Roy St ROW, S side	11/04/22	Bladder	<b>0.0770 J</b>	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
MW-308	Alley E of Seattle Roy Aloha Shops	11/01/22	Peristaltic	0.0280 U	0.0160 U	<b>72.7</b>	<b>1.28</b>	<b>0.152</b>	<b>31.1</b>
MW-315	Mercer St ROW, N side	11/02/22	Bladder	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
MW-317	9th Ave N ROW, W side	11/01/22	Peristaltic	0.140 U	0.0800 U	0.138 U	0.286 U	0.100 U	0.137 U
MW-325	Mercer St ROW, N side	11/02/22	Bladder	0.0280 U	0.0160 U	<b>1.12</b>	0.0572 U	0.0200 U	0.0273 U
MW-327	Lake Union Park, S end	11/02/22	Peristaltic	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
MW-330	Valley St ROW, N side	10/31/22	Bladder	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
MW-331	Alley E of Seattle Roy Aloha Shops	11/01/22	Peristaltic	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	<b>0.258</b>
MW-333	900 Roy St, S end	11/02/22	Peristaltic	0.280 U	0.160 U	0.276 U	0.572 U	0.200 U	0.273 U
MW-344	SDOT Mercer Parcels, NW quadrant	11/18/22	Bladder	0.0280 U	<b>0.700</b>	<b>620</b>	<b>7.92</b>	<b>0.895</b>	<b>942</b>
<b>Intermediate B Water-Bearing Zone</b>									
FMW-141	Alley E of Seattle Roy Aloha Shops	11/03/22	Peristaltic	<b>0.316</b>	<b>0.848</b>	<b>180</b>	<b>0.375</b>	<b>0.325</b>	<b>130</b>
HMW-9IB	SDOT Mercer Parcels, SW quadrant	11/09/22	Bladder	0.700 U	0.400 U	<b>119</b>	<b>3.28 J</b>	0.500 U	<b>1,220</b>
		02/23/23	Bladder	0.140 U	0.0800 U	<b>36.7</b>	<b>3.49</b>	0.100 U	<b>116</b>
MW111	Alley E of Seattle Roy Aloha Shops	11/01/22	Peristaltic	0.0280 U	0.0160 U	<b>0.639</b>	0.0572 U	0.0200 U	<b>8.22</b>
MW112	Dexter Ave N ROW, W side	11/08/22	Bladder	0.0280 UJ	0.0160 UJ	0.0276 UJ	0.0572 UJ	0.0200 UJ	0.0273 UJ
MW126	Alley E of Seattle Roy Aloha Shops	11/01/22	Peristaltic	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
MW-143	8th Ave N ROW, E side	11/01/22	Bladder	0.0280 U	0.0160 U	<b>0.100 J</b>	0.0572 U	0.0200 U	<b>0.274</b>
MW-145R	8th Ave N ROW, E side	11/02/22	Bladder	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
MW-147	Roy St ROW, S side	11/03/22	Bladder	0.0280 U	<b>0.116</b>	<b>72.7</b>	<b>2.06</b>	<b>0.174</b>	<b>146</b>
MW-148	Roy St ROW, S side	11/04/22	Bladder	<b>0.0400 J</b>	<b>0.0360 J</b>	<b>0.0720 J</b>	0.0572 U	0.0200 U	<b>0.480</b>
MW-190	Valley St ROW, S side	10/31/22	Bladder	0.0280 U	0.0160 U	<b>78.7</b>	<b>0.0980 J</b>	<b>0.156</b>	<b>64.4</b>
MW-303	Dexter Ave N ROW, E side	11/08/22	Bladder	0.0280 UJ	0.0160 UJ	0.0276 UJ	0.0572 UJ	0.0200 UJ	0.0273 UJ
MW-307	Roy St ROW, S side	11/04/22	Bladder	<b>0.274</b>	<b>0.0490</b>	<b>0.146</b>	0.0572 U	0.0200 U	0.0273 U
MW-309	Alley E of Seattle Roy Aloha Shops	11/01/22	Peristaltic	0.0280 U	0.0160 U	<b>0.255</b>	0.0572 U	0.0200 U	<b>13.1</b>
MW-311	Alley E of Seattle Roy Aloha Shops	11/01/22	Peristaltic	0.0280 U	<b>0.162</b>	<b>0.267</b>	0.0572 U	0.0200 U	<b>1.37</b>

Table 5

**Groundwater Analytical Data, October 2022 through February 2023  
American Linene Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Sampling Method	PCE	TCE	cDCE	tDCE	1,1-DCE	VC
Proposed Cleanup Levels				5.0	4.0	16	100	7.0	0.29
MW-314	Alley E of Seattle Roy Aloha Shops	11/01/22	Bladder	2.85	44.7	576 J	2.77	3.25	32.0
MW-316	Mercer St ROW, N side	11/02/22	Bladder	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
MW-318	9th Ave N ROW, W side	11/01/22	Peristaltic	0.0280 U	0.0160 U	5.50	0.0572 U	0.0200 U	46.1
MW-322	9th Ave N ROW, W side	11/03/22	Peristaltic	0.315	0.892	598	2.60	1.53	243
MW-334	900 Roy St, S end	11/03/22	Peristaltic	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
MW-335	Mercer St ROW, N side	11/03/22	Peristaltic	125	220	512	1.66	1.12	0.273 U
MW-338	Lake Union Park, N end	11/02/22	Peristaltic	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
MW-340	Lake Union Park, S end	11/02/22	Peristaltic	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
MW-345	SDOT Mercer Parcels, NW quadrant	11/18/22	Bladder	0.0280 U	0.0770	2.12	0.0650 J	0.0200 U	18.3
MW-346	SDOT Mercer Parcels, NW quadrant	11/10/22	Bladder	0.0280 U	0.570	2.68	0.0572 U	0.0200 U	1.54
(duplicate)		02/23/23	Bladder	0.0280 U	0.624	3.10	0.0572 U	0.0200 U	2.04
		02/23/23	Bladder	0.0280 U	0.794	3.25	0.0572 U	0.0200 U	2.12
MW-347	SDOT Mercer Parcels, NW quadrant	11/10/22	Bladder	0.0280 U	0.0160 U	15.8	0.134 J	0.0200 U	28.7
		02/23/23	Bladder	0.0280 U	0.0160 U	3.78	0.0572 U	0.0200 U	9.64
MW-348	SDOT Mercer Parcels, SW quadrant	11/10/22	Bladder	0.560 U	0.320 U	49.4	1.14 U	0.400 U	13.9
		03/13/23	Bladder	0.560 U	0.320 U	166	1.14 U	1.42 J	145
MW-349	SDOT Mercer Parcels, SW quadrant	11/08/22	Bladder	0.0430 J	0.240 J+	4.95 J	0.0572 UJ	0.227 J	9.84 J
		02/23/23	Bladder	0.0280 U	0.0160 U	2.57	0.0572 U	0.0200 U	8.66
MW-350	SDOT Mercer Parcels, NW quadrant	11/11/22	Bladder	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.672 J-
		02/24/23	Bladder	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	1.06
W-MW-01	8th Ave N ROW, W side	10/31/22	Bladder	0.0280 U	0.0870	0.405	0.0572 U	0.0200 U	1.61
		02/24/23	Bladder	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	1.59
Deep Water-Bearing Zone									
FMW-129	SDOT Mercer Parcels, NE quadrant	11/11/22	Bladder	1.17	4.01	16.7	0.0920 J	0.0200 U	0.0273 UJ
FMW-131	Block 37, SE quadrant	11/01/22	Peristaltic	0.0650 J	0.0160 UJ	18.3 J	0.0572 U	0.0200 U	0.103
FMW-137	Alley E of Block 38 West	11/01/22	Peristaltic	0.146	0.0160 U	9.81	0.0572 U	0.0200 U	0.0273 U
FMW-140	900 Roy St, S end	11/02/22	Peristaltic	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
GEI-2	Block 37, SW quadrant	11/01/22	Peristaltic	0.0980 J	0.0160 U	0.181 J	0.0572 U	0.0200 U	8.19
MW102	Valley St ROW, S side	10/31/22	Bladder	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
MW103	Alley E of Seattle Roy Aloha Shops	11/01/22	Peristaltic	0.0280 U	1.29	98.5	0.144 J	0.968	55.1
MW104	8th Ave N ROW, W side	11/02/22	Bladder	0.0280 U	0.437	20.8	0.625	0.964	30.3
MW105	Roy St ROW, S side	11/09/22	Bladder	0.0420 J	0.173	0.102	0.0572 U	0.0200 U	0.0273 UJ
MW106	SDOT Mercer Parcels, NW quadrant	11/18/22	Bladder	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
MW113	9th Ave N ROW, W side	11/03/22	Peristaltic	20.8	43.9	5,530	15.0	7.74	24.6

Table 5

**Groundwater Analytical Data, October 2022 through February 2023  
American Linene Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Sampling Method	PCE	TCE	cDCE	tDCE	1,1-DCE	VC
<b>Proposed Cleanup Levels</b>				<b>5.0</b>	<b>4.0</b>	<b>16</b>	<b>100</b>	<b>7.0</b>	<b>0.29</b>
MW122	Alley E of Seattle Roy Aloha Shops	11/01/22	Peristaltic	0.0280 U	0.0160 U	<b>0.0810 J</b>	0.0572 U	0.0200 U	0.0273 U
MW123	Westlake Ave N ROW, W side	11/03/22	Peristaltic	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
MW124	Valley St ROW, S side	10/31/22	Bladder	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U
MW128	Westlake Ave N ROW, E side	11/01/22	Peristaltic	0.0280 U	0.0160 U	<b>0.222</b>	0.0572 U	0.0200 U	<b>2.99</b>
MW-138	Dexter Ave N ROW, E side	11/08/22	Bladder	0.0280 UJ	0.0160 UJ	0.0276 UJ	0.0572 UJ	0.0200 UJ	0.0273 UJ
MW-153	Roy St ROW, S side	11/03/22	Bladder	0.0280 U	0.0160 U	<b>0.292</b>	0.0572 U	0.0200 U	<b>1.14</b>
MW-158A	8th Ave N ROW, E side	11/01/22	Bladder	0.0280 U	<b>0.0940</b>	<b>0.107</b>	0.0572 U	0.0200 U	<b>0.250</b>
MW-160	8th Ave N ROW, W side	10/31/22	Bladder	<b>0.0990 J</b>	<b>0.0530</b>	<b>1.11</b>	0.0572 U	0.0200 U	<b>1.47</b>
MW-161 (duplicate)	8th Ave N ROW, W side	10/31/22	Bladder	<b>0.407</b>	<b>0.545</b>	<b>31.3</b>	<b>0.451</b>	<b>1.06</b>	<b>8.13</b>
		10/31/22	Bladder	<b>0.307</b>	<b>0.557</b>	<b>30.3</b>	<b>0.441</b>	<b>1.11</b>	<b>7.90</b>
MW-304	Dexter Ave N ROW, E side	11/09/22	Bladder	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 UJ
MW-319 (duplicate)	9th Ave N ROW, W side	11/02/22	Peristaltic	<b>0.0900 J</b>	<b>4.72</b>	<b>60.8</b>	<b>0.138 J</b>	<b>0.265</b>	<b>5.83</b>
		11/02/22	Peristaltic	<b>0.0890 J</b>	<b>5.11</b>	<b>59.8</b>	<b>0.136 J</b>	<b>0.266</b>	<b>5.60</b>
MW-323	9th Ave N ROW, W side	11/04/22	Peristaltic	0.0280 U	<b>0.0990</b>	<b>374</b>	<b>0.539</b>	<b>2.23</b>	<b>77.2</b>
MW-324	Roy St ROW, N side	11/03/22	Peristaltic	0.0280 U	<b>0.147</b>	<b>1,650</b>	<b>6.55</b>	<b>4.53</b>	<b>74.0</b>
MW-326 (duplicate)	Mercer St ROW, N side	11/02/22	Bladder	<b>0.114</b>	<b>0.774</b>	<b>8.75</b>	0.0572 U	0.0200 U	0.0273 U
	Mercer St ROW, N side	11/02/22	Bladder	<b>0.133</b>	<b>0.780</b>	<b>8.77</b>	0.0572 U	0.0200 U	0.0273 U
MW-328	Lake Union Park, S end	11/02/22	Peristaltic	0.0280 U	0.0160 U	<b>0.344</b>	0.0572 U	0.0200 U	<b>2.18</b>
MW-329	Westlake Ave N ROW, E side	11/01/22	Peristaltic	0.0280 U	0.0160 U	<b>8.51</b>	0.0572 U	0.0200 U	<b>23.6</b>
MW-336	Mercer St ROW, N side	11/03/22	Peristaltic	<b>0.0840 J</b>	<b>0.657</b>	<b>14.5</b>	<b>0.127 J</b>	0.0200 U	0.0273 U
MW-341	Lake Union Park, S end	11/02/22	Peristaltic	0.0280 U	0.0160 U	<b>6.29</b>	0.0572 U	0.0200 U	<b>26.5</b>
MW-342	Valley St ROW, S side	11/01/22	Peristaltic	0.0280 U	0.0160 U	<b>4.60</b>	<b>0.0930 J</b>	0.0200 U	<b>8.88</b>
MW-343	Valley St ROW, S side	11/01/22	Peristaltic	0.0280 U	0.0160 U	<b>2.90</b>	0.0572 U	0.0200 U	<b>4.58</b>
<b>Treatment Zone A Wells</b>									
MW-165	Property, NE quadrant	10/28/22	Flowing	0.140 U	0.0800 U	<b>858</b>	<b>14.9</b>	<b>0.815</b>	<b>797</b>
MW-169	Property, SW quadrant	10/27/22	Peristaltic	0.0280 U	<b>0.0560</b>	0.0276 U	<b>0.284</b>	0.0200 U	<b>1.12</b>
MW-173	Property, SE quadrant	10/27/22	Flowing	0.0280 U	<b>0.0460</b>	<b>0.0630 J</b>	<b>0.556</b>	0.0200 U	<b>0.629</b>
MW-177	Property, SW quadrant	10/26/22	Peristaltic	<b>5,450 J+</b>	<b>551</b>	<b>3,150</b>	<b>27.2 J</b>	4.00 U	<b>3,100</b>
MW-181	Property, SW quadrant	10/25/22	Peristaltic	5.60 U	3.20 U	<b>5,150</b>	<b>31.0 J</b>	<b>24.0</b>	<b>12,200</b>
MW-185	Property, SE quadrant	10/27/22	Peristaltic	0.140 U	0.0800 U	<b>0.225 J</b>	0.286 U	0.100 U	<b>1.48</b>
<b>Treatment Zone B Wells</b>									
MW-166	Property, NE quadrant	10/28/22	Peristaltic	0.140 U	0.0800 U	<b>12,000</b>	<b>49.7</b>	<b>13.9</b>	<b>4,810</b>
MW-170	Property, SW quadrant	10/27/22	Peristaltic	<b>31.0 J</b>	<b>3.99</b>	<b>2,980</b>	<b>180</b>	<b>16.1</b>	<b>11,700</b>
MW-174	Property, SE quadrant	10/27/22	Flowing	<b>2.38</b>	<b>0.997</b>	<b>22.3</b>	<b>1.25</b>	<b>0.108</b>	<b>157</b>

Table 5

**Groundwater Analytical Data, October 2022 through February 2023  
American Linene Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Sampling Method	PCE	TCE	cDCE	tDCE	1,1-DCE	VC
<b>Proposed Cleanup Levels</b>				<b>5.0</b>	<b>4.0</b>	<b>16</b>	<b>100</b>	<b>7.0</b>	<b>0.29</b>
MW-178	Property, SW quadrant	10/25/22	Peristaltic	5.60 U	3.20 U	9,440	66.4	4.00 U	5,850
MW-182	Property, SW quadrant	10/25/22	Peristaltic	155 J+	180	36,600	81.0 J	20.0 U	24,200
MW-186	Property, SE quadrant	10/26/22	Peristaltic	0.0280 U	0.0630	0.207	0.682	0.0200 U	3.19
<b>Treatment Zone C Wells</b>									
MW-167	Property, NE quadrant	10/28/22	Peristaltic	0.192	0.0160 U	0.184	0.0572 U	0.0200 U	0.138
MW-171	Property, SW quadrant	10/26/22	Peristaltic	2.80 U	9.30	3,680	15.5 J	35.8	1,820
MW-175	Property, SE quadrant	10/27/22	Peristaltic	1.41	0.0220 J	0.0740 J	1.22	0.0200 U	0.0940 J
MW-183	Property, SW quadrant	10/25/22	Peristaltic	2.80 U	1.60 U	3,060	9.90 J	14.6	4,350
MW-187	Property, SE quadrant	10/26/22	Peristaltic	0.0280 U	0.0160 U	0.125	0.0572 U	0.0200 U	0.274
<b>Treatment Zone D Wells</b>									
MW-168 (duplicate)	Property, NE quadrant	10/28/22	Peristaltic	0.147	0.0160 U	2.93	0.0850 J	0.0200 U	6.68
		10/28/22	Peristaltic	0.0840 J	0.0160 U	2.68	0.0870 J	0.0200 U	6.56
MW-172	Property, SW quadrant	10/27/22	Flowing	3,390	1,880	309	27.4	46.3	8.28
MW-176	Property, SE quadrant	10/27/22	Flowing	0.0280 U	0.0200 J	0.211	1.07	0.0200 U	0.668
MW-180	Property, SW quadrant	10/26/22	Flowing	4.80 J+	7.70	948	4.50 J	2.65	743
MW-184	Property, SW quadrant	10/25/22	Flowing	319 J+	217	251	5.01	12.7	23.9
MW-188	Property, SE quadrant	10/26/22	Flowing	0.0280 U	0.0160 U	0.104	0.0572 U	0.0200 U	0.192
<b>Notes:</b> VOCs analyzed by EPA Method 8260D. Proposed cleanup levels from the Agency Review Draft RI Report (PES, 2022c). Vapor intrusion groundwater screening level from Ecology Cleanup Levels and Risk Calculation (CLARC) tables, July 2022. All groundwater sampling performed by PES Environmental, Inc. Detected results shown in <b>bold</b> . Detections above the groundwater screening level are highlighted in gray, above the vapor intrusion screening level (Shallow Zone only) are highlighted in orange. Results above the groundwater and vapor intrusions screening levels are highlighted in grayish-orange. (duplicate) = Field duplicate sample. U = Not detected at or above the laboratory method detection limit (MDL); detections above the MDL but below the laboratory reported detection limit (RDL) are qualified with a "J." J = The identification of the analyte is acceptable; the reported value is an estimate. J+ = The result is an estimated quantity, but the result may be biased high. J- = The result is an estimated quantity, but the result may be biased low.									



Table 6

**Groundwater Field Parameters, October 2022 through February 2023  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	pH	Specific Conductance (µS/cm)	Temperature (°C)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	ORP (mv)	Ferrous Iron (mg/L)
<b>Shallow Zone</b>									
MW121	8th Ave N ROW, E side	10/31/22	6.57	1,454	15.7	–	0.46	5	0.0
MW125	Valley St ROW, N side	10/31/22	6.51	587	15.0	–	0.88	25	3.0
MW-154	Roy St ROW, S side	11/03/22	7.61	620	15.7	–	1.77	211	0.0
MW-155	Roy St ROW, S side	11/04/22	7.18	995	14.8	–	0.28	181	0.0
MW-159	8th Ave N ROW, E side	10/31/22	6.58	511	15.1	–	0.42	-24	3.5
MW-301	Valley St ROW, S side	10/31/22	7.15	601	13.2	–	0.47	176	0.0
MW-310	Alley E of Seattle Roy Aloha Shops	11/01/22	6.34	1,024	15.0	–	0.77	5	4.0
MW-312	Alley E of Seattle Roy Aloha Shops	11/01/22	6.58	1,192	15.4	–	0.89	71	4.0
MW-313	Alley E of Seattle Roy Aloha Shops	11/01/22	7.01	1,507	15.3	–	0.21	261	0.0
MW-320	9th Ave N ROW, W side	11/04/22	6.10	989	16.3	–	0.53	179	0.0
MW-332	Roy St ROW, N side	11/04/22	6.65	1,364	15.1	–	0.83	-26	0.25
MW-337	Lake Union Park, N end	11/02/22	6.60	432	14.6	–	0.76	47	3.0
MW-339	Lake Union Park, S end	11/02/22	6.63	498	12.3	–	0.78	69	0.0
MW-9	8th Ave N ROW, E side	10/31/22	6.63	923	16.3	–	0.10	74	0.5
R-MW5	Dexter Ave N ROW, E side	11/08/22	6.47	303	15.9	–	1.23	83	2.5
R-MW6	8th Ave N ROW, W side	11/04/22	6.09	1,429	16.0	–	0.91	110	2.0
SCL-MW101	Alley E of Seattle Roy Aloha Shops	11/03/22	6.58	1,338	16.4	–	3.31	-17	1.8
<b>Intermediate A Zone</b>									
BB-8	Roy St ROW, S side	11/09/22	6.72	631	14.0	–	2.25	-15	0.0
FMW-142	9th Ave N ROW, E side	11/04/22	6.76	742	15.8	–	0.84	-161	–
GEI-MW-1	Block 79 East, N end	11/04/22	6.90	748	16.4	–	0.21	-9	3.8
MW107	8th Ave N ROW, W side	10/31/22	6.68	1,370	15.8	–	5.95	-13	6.75
		02/23/23	6.52	1,144	10.3	–	0.88	-44.2	–
MW108	Alley E of Seattle Roy Aloha Shops	11/01/22	6.32	835	15.0	–	0.68	7	0.0
MW109	Alley E of Seattle Roy Aloha Shops	11/01/22	6.41	759	15.6	–	0.78	30	4.5
MW110	Alley E of Seattle Roy Aloha Shops	11/01/22	7.52	873	14.7	–	0.24	199	0.0
MW115	9th Ave N ROW, W side	11/03/22	6.01	518	13.8	–	0.54	69	2
MW116	9th Ave N ROW, W side	11/04/22	6.24	541	15.5	–	1.08	146	2.0
MW119	9th Ave N ROW, W side	11/02/22	7.11	316	14.2	–	0.46	189	1.5
MW120	8th Ave N ROW, E side	10/31/22	6.86	473	15.9	–	0.83	15	0.0
MW127	8th Ave N ROW, E side	10/31/22	6.57	379	15.7	–	0.33	-7	0.0
MW-142	8th Ave N ROW, E side	10/31/22	6.78	1,511	16.3	–	1.24	7	4.5
MW-144R	8th Ave N ROW, E side	11/02/22	7.38	1,592	13.1	–	0.85	-136	0.8
MW-146	Roy St ROW, S side	11/03/22	6.78	1,076	15.1	–	0.33	245	3.5
MW-156	8th Ave N ROW, E side	10/31/22	6.76	697	15.5	–	1.10	14	2.25
MW-189	Valley St ROW, S side	10/31/22	7.29	670	14.7	–	0.34	182	0.0
MW-302	Dexter Ave N ROW, E side	11/08/22	6.92	494	13.5	–	0.54	56	0
MW-306	Roy St ROW, S side	11/04/22	7.10	567	15.5	–	0.21	180	1.5
MW-308	Alley E of Seattle Roy Aloha Shops	11/01/22	6.73	1,322	14.6	–	0.21	243	–
MW-315	Mercer St ROW, N side	11/02/22	7.15	235	13.9	–	1.00	180	0.0
MW-317	9th Ave N ROW, W side	11/01/22	6.12	614	14.6	–	0.58	48	4.0
MW-325	Mercer St ROW, N side	11/02/22	7.72	530	13.5	–	0.76	221	0.0
MW-327	Lake Union Park, S end	11/02/22	6.89	644	12.0	–	0.12	-30	4.5
MW-330	Valley St ROW, N side	10/31/22	7.11	472	14.9	–	0.52	172	0.0
MW-331	Alley E of Seattle Roy Aloha Shops	11/01/22	6.34	788	14.8	–	0.67	-11	4.5
MW-333	900 Roy St, S end	11/02/22	6.45	1,222	15.3	–	1.07	244	5.0
MW-344	SDOT Mercer Parcels, NW quadrant	11/18/22	7.24	890	16.0	–	0.32	-9	–
<b>Intermediate B Zone</b>									
FMW-141	Alley E of Seattle Roy Aloha Shops	11/03/22	7.14	206	13.0	–	0.34	-11	1.0
HMW-9IB	SDOT Mercer Parcels, SW quadrant	11/09/22	6.32	1,199	13.3	–	2.48	-23	>7.5
		02/23/23	6.42	770	10.7	–	0.88	-33.3	–

Table 6

**Groundwater Field Parameters, October 2022 through February 2023  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	pH	Specific Conductance (µS/cm)	Temperature (°C)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	ORP (mv)	Ferrous Iron (mg/L)
MW111	Alley E of Seattle Roy Aloha Shops	11/01/22	6.27	367	14.7	—	0.37	41	0.5
MW112	Dexter Ave N ROW, W side	11/08/22	6.34	147	16.6	—	0.18	104	0.5
MW126	Alley E of Seattle Roy Aloha Shops	11/01/22	6.32	316	12.6	—	0.26	-21	0.0
MW-143	8th Ave N ROW, E side	11/01/22	7.13	608	13.9	—	0.21	177	0.0
MW-145R	8th Ave N ROW, E side	11/02/22	7.55	632	11.0	—	0.72	-179	0.0
MW-147	Roy St ROW, S side	11/03/22	6.74	1,416	15.0	—	0.33	242	6.5
MW-148	Roy St ROW, S side	11/04/22	7.22	538	14.3	—	0.40	187	0.0
MW-190	Valley St ROW, S side	10/31/22	7.20	565	14.9	—	0.42	177	0.0
MW-303	Dexter Ave N ROW, E side	11/08/22	7.77	436	13.3	—	0.34	-7	0.0
MW-307	Roy St ROW, S side	11/04/22	6.79	708	15.6	—	0.22	257	0.0
MW-309	Alley E of Seattle Roy Aloha Shops	11/01/22	6.87	771	14.0	—	0.32	254	0.0
MW-311	Alley E of Seattle Roy Aloha Shops	11/01/22	6.35	664	14.9	—	0.67	19	2
MW-314	Alley E of Seattle Roy Aloha Shops	11/01/22	7.10	946	14.8	—	0.37	188	0.0
MW-316	Mercer St ROW, N side	11/02/22	7.32	137	13.9	—	0.86	196	0.0
MW-318	9th Ave N ROW, W side	11/01/22	6.76	1,067	14.3	—	0.21	245	0.0
MW-322	9th Ave N ROW, W side	11/03/22	6.78	372	14.0	—	0.20	212	4.5
MW-334	900 Roy St, S end	11/03/22	6.11	1,609	15.8	—	1.40	36	2.0
MW-335	Mercer St ROW, N side	11/03/22	6.16	626	16.6	—	0.45	16	0.0
MW-338	Lake Union Park, N end	11/02/22	6.50	806	11.3	—	0.80	91	3.25
MW-340	Lake Union Park, S end	11/02/22	6.70	886	12.3	—	4.15	-17	5.5
MW-345	SDOT Mercer Parcels, NW quadrant	11/18/22	8.05	699	15.7	—	0.60	-12	—
MW-346	SDOT Mercer Parcels, NW quadrant	11/10/22	8.00	595	13.4	—	2.50	-15	0.25
		02/23/23	8.18	579	9.8	—	0.80	-50.3	—
MW-347	SDOT Mercer Parcels, NW quadrant	11/10/22	7.66	555	12.5	—	1.60	-22	0.5
		02/23/23	7.98	532	5.0	—	2.29	-65.1	—
MW-348	SDOT Mercer Parcels, SW quadrant	11/10/22	6.78	4,271	11.8	—	1.85	-12	—
		03/13/23	8.20	641	9.8	—	0.99	65	—
MW-349	SDOT Mercer Parcels, SW quadrant	11/08/22	6.91	1,128	11.9	—	2.77	-32	5.25
		02/23/23	7.10	1,158	11.4	—	0.59	-37.5	—
MW-350	SDOT Mercer Parcels, NW quadrant	11/11/22	7.83	542	13.4	—	0.75	-10	0.5
		02/24/23	7.86	564	11.7	—	0.91	-30.8	—
W-MW-01	8th Ave N ROW, W side	10/31/22	6.76	2,082	14.8	—	5.14	-31	4.75
		02/24/23	6.74	945	9.0	—	0.63	-67.6	—
Deep Zone									
FMW-129	SDOT Mercer Parcels, NE quadrant	11/11/22	7.66	121	13.5	—	3.49	-3	0.0
FMW-131	Block 37, SE quadrant	11/01/22	6.70	389	14.7	—	0.40	-13	1.25
FMW-137	Alley E of Block 38 West	11/01/22	6.73	676	14.6	—	0.57	-21	1.25
FMW-140	900 Roy St, S end	11/02/22	6.91	379	15.1	—	0.18	-43	—
GEI-2	Block 37, SW quadrant	11/01/22	6.79	926	15.4	—	3.57	-22	7.0
MW102	Valley St ROW, S side	10/31/22	7.21	371	14.6	—	0.53	180	0.0
MW103	Alley E of Seattle Roy Aloha Shops	11/01/22	6.24	387	14.7	—	0.72	43	0.0
MW104	8th Ave N ROW, W side	11/02/22	7.48	389	17.1	—	0.73	-195	0.4
MW105	Roy St ROW, S side	11/09/22	7.24	439	12.2	—	1.34	70	0.0
MW106	SDOT Mercer Parcels, NW quadrant	11/18/22	7.77	428	15.0	—	1.89	-1	—
MW113	9th Ave N ROW, W side	11/03/22	6.51	955	13.4	—	1.48	31	0.25
MW122	Alley E of Seattle Roy Aloha Shops	11/01/22	6.68	416	14.3	—	0.23	240	0.0
MW123	Westlake Ave N ROW, W side	11/03/22	6.06	497	14.9	—	0.80	52	2.0
MW124	Valley St ROW, S side	10/31/22	7.63	356	15.2	—	0.34	208	0.0
MW128	Westlake Ave N ROW, E side	11/01/22	6.70	878	15.5	—	0.42	-126	2.8
MW-138	Dexter Ave N ROW, E side	11/08/22	6.65	283	14.7	—	0.49	82	1
MW-153	Roy St ROW, S side	11/03/22	6.98	418	10.6	—	1.34	235	0.0
MW-158A	8th Ave N ROW, E side	11/01/22	7.28	415	14.7	—	0.19	191	0.0

Table 6

**Groundwater Field Parameters, October 2022 through February 2023  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	pH	Specific Conductance (µS/cm)	Temperature (°C)	Turbidity (NTUs)	Dissolved Oxygen (mg/L)	ORP (mv)	Ferrous Iron (mg/L)
MW-160	8th Ave N ROW, W side	10/31/22	7.30	333	17.0	–	0.63	-163	0.8
MW-161	8th Ave N ROW, W side	10/31/22	7.32	484	17.2	–	0.52	-157	0.4
MW-304	Dexter Ave N ROW, E side	11/09/22	6.50	249	11.1	–	1.66	26	0.0
MW-319	9th Ave N ROW, W side	11/02/22	6.91	817	11.8	–	0.31	264	2
MW-323	9th Ave N ROW, W side	11/04/22	6.04	592	15.8	–	0.50	184	2.0
MW-324	Roy St ROW, N side	11/03/22	6.07	999	15.1	–	1.00	45	1.0
MW-326	Mercer St ROW, N side	11/02/22	7.21	573	12.6	–	1.49	179	0.0
MW-328	Lake Union Park, S end	11/02/22	6.91	704	13.3	–	1.35	119	3.5
MW-329	Westlake Ave N ROW, E side	11/01/22	6.95	1,014	15.9	–	0.41	-142	3.2
MW-336	Mercer St ROW, N side	11/03/22	6.17	623	17.8	–	3.41	19	0.0
MW-341	Lake Union Park, S end	11/02/22	6.91	617	12.8	–	0.49	83	2.5
MW-342	Valley St ROW, S side	11/01/22	6.49	596	14.9	–	0.37	-134	2.8
MW-343	Valley St ROW, S side	11/01/22	6.74	757	15.2	–	0.40	-140	3.4
<b>Treatment Zone A</b>									
MW-165	Property, NE quadrant	10/28/22	6.51	1,247	17.3	–	0.35	-195	2.4
MW-169	Property, SW quadrant	10/27/22	7.64	1,025	18.1	–	0.30	–	1.4
MW-173	Property, SE quadrant	10/27/22	7.21	1,006	17.6	–	0.38	-207	1.9
MW-177	Property, SW quadrant	10/26/22	6.91	785	17.3	–	2.10	–	1.75
MW-181	Property, SW quadrant	10/25/22	7.03	1,240	17.8	–	2.59	–	3.0
MW-185	Property, SE quadrant	10/27/22	7.14	1,140	18.0	–	0.09	–	1.75
<b>Treatment Zone B</b>									
MW-166	Property, NE quadrant	10/28/22	6.64	1,543	17.6	–	0.28	0	3.8
MW-170	Property, SW quadrant	10/27/22	7.47	1,482	18.3	–	0.23	–	2.6
MW-174	Property, SE quadrant	10/27/22	6.88	1,952	17.8	–	0.34	-211	3.0
MW-178	Property, SW quadrant	10/25/22	6.39	1,681	17.5	–	5.10	–	4.6
MW-182	Property, SW quadrant	10/25/22	6.62	2,084	17.7	–	3.67	–	6.25
MW-186	Property, SE quadrant	10/26/22	6.85	1,586	18.0	–	0.44	-170	3.0
<b>Treatment Zone C</b>									
MW-167	Property, NE quadrant	10/28/22	7.80	818	18.1	–	0.10	–	0.3
MW-171	Property, SW quadrant	10/26/22	7.68	903	18.3	–	0.89	–	1.07
MW-175	Property, SE quadrant	10/27/22	6.90	1,830	18.2	–	0.32	-186	3.8
MW-179	Property, SW quadrant	10/25/22	6.34	2,078	17.9	–	0.26	-175	4.0
MW-183	Property, SW quadrant	10/25/22	7.42	1,020	17.8	–	0.29	-231	0.05
MW-187	Property, SE quadrant	10/26/22	7.34	1,384	18.1	–	0.48	-193	2.2
<b>Treatment Zone D</b>									
MW-168	Property, NE quadrant	10/28/22	7.55	867	18.2	–	0.14	–	0.6
MW-172	Property, SW quadrant	10/27/22	7.50	660	19.0	–	0.08	–	0.25
MW-176	Property, SE quadrant	10/26/22	6.99	1,570	18.7	–	0.37	-197	4.1
MW-180	Property, SW quadrant	10/26/22	6.48	2,096	18.1	–	6.77	–	5.75
MW-184	Property, SW quadrant	10/25/22	7.22	676	18.3	–	0.36	-191	0.02
MW-188	Property, SE quadrant	10/26/22	7.18	651	18.7	–	0.60	-165	0.09
Notes: ORP = Oxidation-reduction potential. µS/cm = microSiemens per centimeter. °C = Degrees Celsius. mg/L = milligrams per liter. mV = millivolts. – = not measured.									

Table 7

**Groundwater Geochemical Parameters, October 2022 through February 2023  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Description Location Description	Sample Date	Alkalinity (mg CaCO <sub>3</sub> /L)	Chloride (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	TOC (mg/L)	Iron (mg/L)			Total Manganese (mg/L)	Dissolved Gases (µg/L)		
								Total	Ferrous	Ferric		Methane	Ethane	Ethene
Shallow Zone														
MW121	8th Ave N ROW, E side	10/31/22	806	–	–	218	9.26	8.60	0.0	8.6	7.55	524	3.04	0.422 U
MW125	Valley St ROW, N side	10/31/22	366	18.6	0.0480 U	0.594 U	7.92	9.34	3.0	6.3	3.22	5,620	1.70	0.422 U
MW-154	Roy St ROW, S side	11/03/22	115	44.3	6.87	59.7	1.67	0.189	0.0	0.2	0.0301	0.287 U	0.296 U	0.422 U
MW-155	Roy St ROW, S side	11/04/22	256	14.9	2.73	138	2.11	1.54	0.0	1.5	0.491	414	1.66	0.422 U
MW-159	8th Ave N ROW, E side	10/31/22	325	11.6	0.0480 U	0.594 U	5.26	6.81	3.5	3.3	3.70	12,800	21.1	0.422 U
MW-301 (dup)	Valley St ROW, S side	10/31/22	143	75.6	1.45	24.2	3.62	0.777	0.0	0.8	0.216	62.9 J	0.296 U	0.422 U
		10/31/22	142	76.7	1.45	24.6	3.53	0.445	0.0	0.4	0.184	97.0 J	0.296 U	0.422 U
MW-310	Alley E of Seattle Roy Aloha Shops	11/01/22	665	8.19	0.0480 U	45.9	5.88	14.2	4.0	10.2	1.37	538	0.296 U	0.422 U
MW-312	Alley E of Seattle Roy Aloha Shops	11/01/22	870	9.86	0.0480 U	0.612 J	6.42	4.74	4.0	0.7	0.516	2,430	0.296 U	0.422 U
MW-313	Alley E of Seattle Roy Aloha Shops	11/01/22	482	17.9	26.4	164	1.75	1.87	0.0	1.9	2.29	934	0.296 U	0.422 U
MW-320	9th Ave N ROW, W side	11/04/22	277	32.1	0.0480 U	369	4.58	0.177	0.0	0.2	0.568	29.4	0.296 U	0.422 U
MW-332	Roy St ROW, N side	11/04/22	197	301	0.129	38.9	1.22	1.08	0.3	0.8	0.866	40.1	0.296 U	0.422 U
MW-337	Lake Union Park, N end	11/02/22	217	34.1	0.108 J	4.92 J	2.50	12.0	3.0	9.0	1.07	4,260	0.296 U	0.422 U
MW-339	Lake Union Park, S end	11/02/22	317	25.5	0.518 J	35.0	3.92	1.66	0.0	1.7	0.605	22.9	0.296 U	0.422 U
MW-9	8th Ave N ROW, E side	10/31/22	557	32.6	1.04	9.08	4.25	12.8	0.5	12.3	2.81	187	1.67	0.422 U
R-MW5	Dexter Ave N ROW, E side	11/08/22	156	41.5	0.0480 U	15.0	5.88	7.53	2.5	5.0	4.06	332	0.296 U	0.422 U
R-MW6	8th Ave N ROW, W side	11/04/22	751	48.7	0.0480 U	194	10.9	22.6	2.0	20.6	8.09	7,870	8.85	0.422 U
SCL-MW101	Alley E of Seattle Roy Aloha Shops	11/03/22	598	5.74	0.0480 U	194	7.48	9.56	1.8	7.8	1.05	33.5	0.296 U	0.422 U
Intermediate A Zone														
BB-8	Roy St ROW, S side	11/09/22	207	34.1	1.05	78.7	2.37	0.228	0.0	0.2	0.0763	297	0.296 U	0.422 U
FMW-142	9th Ave N ROW, E side	11/04/22	261	83.5	0.0480 U	9.82	4.21	3.48	–	–	0.907	3,270	1.31	0.422 U
GEI-MW-1	Block 79 East, N end	11/04/22	308	24.9	0.127	57.9	4.38	4.41	3.8	0.6	2.53	428	2.41	0.422 U
MW107	8th Ave N ROW, W side	10/31/22	674	79.1	0.0480 U	0.594 U	11.4	0.589	6.8	0.0	0.171	27,500	314	0.422 U
MW108	Alley E of Seattle Roy Aloha Shops	11/01/22	518	22.4	0.0480 U	35.0	4.22	12.1	0.0	12.1	1.56	3,350	34.2	7.87
MW109	Alley E of Seattle Roy Aloha Shops	11/01/22	497	7.52	0.105	5.22	4.29	12.3	4.5	7.8	3.18	2,190	8.63	0.422 U
MW110	Alley E of Seattle Roy Aloha Shops	11/01/22	356	14.1	0.142	75.0	2.48	0.161	0.0	0.2	2.83	6,950	8.24	0.422 U
MW115	9th Ave N ROW, W side	11/03/22	302	24.3	0.0480 U	21.6	4.51	4.05	2.0	2.1	1.03	523 J	6.06	0.422 U
MW116	9th Ave N ROW, W side	11/04/22	311	32.1	0.0480 U	8.71	5.21	3.11	2.0	1.1	0.777	3,210	0.296 U	0.422 U
		11/02/22	265	22.2	0.0480 U	108	1.22	3.21	1.5	1.7	1.07	166	2.09	0.422 U
MW119 (dup)	9th Ave N ROW, W side	11/02/22	265	22.2	0.0480 U	108	1.34	2.98	1.5	1.5	1.02	169	1.61	0.422 U
		11/02/22	265	22.2	0.0480 U	108	1.34	2.98	1.5	1.5	1.02	169	1.61	0.422 U
MW120	8th Ave N ROW, E side	10/31/22	189	20.7	1.42	79.6	1.58	5.00	0.0	5.0	0.407	117	1.35	0.422 U
MW127	8th Ave N ROW, E side	10/31/22	144	26.9	0.870	53.0	1.18	0.0910 J	0.0	0.1	0.158	7.97	0.296 U	0.422 U
MW-142 (dup)	8th Ave N ROW, E side	10/31/22	1010	30.9	0.0480 U	15.5	16.0	9.36	4.5	4.9	5.10	9,630	37.3	13.1
		10/31/22	1020	31.2	0.0480 U	16.0	15.7	9.21	4.5	4.7	5.13	9,280	37.1	12.8
MW-144R	8th Ave N ROW, E side	11/02/22	823	101	0.0480 U	1.01 J	4.09	2.81	0.8	2.0	1.42	27,900	50.4	2.45
MW-146	Roy St ROW, S side	11/03/22	470	38.9	0.0480 U	7.54	4.03	4.65	3.5	1.2	1.57	14,200	437	333
MW-156	8th Ave N ROW, E side	10/31/22	354	43.6	0.0480 U	49.5	8.45	4.32	2.3	2.1	3.63	19,900	65.1	3.63
MW-189	Valley St ROW, S side	10/31/22	252	20.7	0.0480 U	46.8	6.06	1.66	0.0	1.7	1.17	3,830	7.34	59.3
MW-302	Dexter Ave N ROW, E side	11/08/22	307	26.6	0.0480 U	21.2	1.80	2.86	0.0	2.9	0.498	207	1.30	14.5
MW-306	Roy St ROW, S side	11/04/22	178	38.8	0.369	34.3	1.02	2.49	1.5	1.0	0.460	136	0.296 U	0.422 U
MW-308	Alley E of Seattle Roy Aloha Shops	11/01/22	651	15.3	0.0480 U	38.0	6.85	13.8	–	–	2.75	2,600	16.5	0.422 U
MW-315	Mercer St ROW, N side	11/02/22	119	5.99	0.373	32.4	0.643 U	0.909	0.0	0.9	0.165	10.2	0.296 U	0.422 U
MW-317	9th Ave N ROW, W side	11/01/22	330	36.1	0.0868 J	40.3	12.0	12.9	4.0	8.9	3.48	3,200	0.296 U	0.422 U
MW-325	Mercer St ROW, N side	11/02/22	181	14.5	1.38 J	61.0	1.12	1.01	0.0	1.0	0.613	1.77	0.296 U	0.422 U
MW-327	Lake Union Park, S end	11/02/22	224	72.0	0.0480 U	0.594 U	3.11	11.9	4.5	7.4	0.786	12,900	0.296 U	0.422 U



Table 7

**Groundwater Geochemical Parameters, October 2022 through February 2023**  
**American Linen Supply Co Dexter Ave Site**  
**700 Dexter Avenue North, Seattle, Washington**

Sample Location	Description Location Description	Sample Date	Alkalinity (mg CaCO <sub>3</sub> /L)	Chloride (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	TOC (mg/L)	Iron (mg/L)			Total Manganese (mg/L)	Dissolved Gases (µg/L)		
								Total	Ferrous	Ferric		Methane	Ethane	Ethene
MW-330	Valley St ROW, N side	10/31/22	148	24.7	0.0516 J	51.4	1.83	1.37	0.0	1.4	1.86	22.5	0.296 U	0.422 U
MW-331	Alley E of Seattle Roy Aloha Shops	11/01/22	275	34.3	0.0480 U	227	1.83	10.4	4.5	5.9	0.640	88.9	0.296 U	0.422 U
MW-333	900 Roy St, S end	11/02/22	828	33.7	0.0480 U	0.594 U	12.5	21.7	5.0	16.7	1.94	22,000	6.07	0.422 U
MW-344	SDOT Mercer Parcels, NW quadrant	11/18/22	436	37.7	0.0480 U	8.43	2.99	2.81	–	–	1.75	12,500	660	1,520
<b>Intermediate B Zone</b>														
FMW-141	Alley E of Seattle Roy Aloha Shops	11/03/22	97.7	9.45	0.115	4.40 J	4.17	0.997	1.0	0.0	0.279	620	14.1	34.8
HMW-9IB	SDOT Mercer Parcels, SW quadrant	11/09/22	442	33.8	0.0480 U	0.594 U	40.5	41.2	33	8.2	2.99	19,300	7.24	559
		02/23/23	–	37.8	0.0543 J	0.698 J	247	–	–	–	–	32,500	1.85	471
MW111	Alley E of Seattle Roy Aloha Shops	11/01/22	190	26.9	0.0817 J	15.7	0.677 U	0.655	0.5	0.2	0.257	182	14.4	3.63
MW112	Dexter Ave N ROW, W side	11/08/22	32.6	17.5	0.488	0.898 J	4.55	0.672	0.5	0.2	0.0799	49.6	0.296 U	2.37
MW126	Alley E of Seattle Roy Aloha Shops	11/01/22	203	6.77	0.0879 J	2.69 J	1.51	0.208	0.0	0.2	0.0559	115	0.296 U	0.422 U
MW-143	8th Ave N ROW, E side	11/01/22	339	25.4	2.80	15.7	2.63	2.48	0.0	2.5	0.398	1,280	3.10	3.06
MW-145R	8th Ave N ROW, E side	11/02/22	279	27.7	0.0480 U	26.5	2.05	0.451	0.0	0.5	0.317	1,610	4.52	1.81
MW-147	Roy St ROW, S side	11/03/22	656	44.2	0.0480 U	1.48 J	6.17	6.37	6.5	0	1.70	18,000	427	275
MW-148	Roy St ROW, S side	11/04/22	157	16.4	0.186	80.8	1.67	0.421	0.0	0.4	0.325	427	2.49	22.3
MW-190	Valley St ROW, S side	10/31/22	174	17.3	0.0480 U	40.2	5.82	1.75	0.0	1.8	0.861	6,190	8.53	26.9
MW-303	Dexter Ave N ROW, E side	11/08/22	142	15.7	0.151	60.0	1.40	1.97	0.0	2.0	0.328	67.6	0.296 U	0.422 U
MW-307	Roy St ROW, S side	11/04/22	272	13.1	0.158	25.5	8.03	0.163	0.0	0.2	0.137	14.3	1.71	8.25
MW-309	Alley E of Seattle Roy Aloha Shops	11/01/22	294	16.0	0.547	49.2	2.04	0.699	0.0	0.7	0.659	435	1.65	0.422 U
MW-311	Alley E of Seattle Roy Aloha Shops	11/01/22	367	48.7	0.107	27.7	1.70	0.543	2.0	0.0	0.310	111	7.11	3.79
MW-314	Alley E of Seattle Roy Aloha Shops	11/01/22	210	17.7	0.0480 U	270	2.02	1.26	0.0	1.3	0.660	848	7.60	3.90
MW-316	Mercer St ROW, N side	11/02/22	193	8.98	0.362	25.0	0.931 U	1.23	0.0	1.2	0.160	36.2	0.296 U	0.422 U
MW-318	9th Ave N ROW, W side	11/01/22	394	20.4	0.185	105	3.35	10.6	0.0	10.6	2.83	850	8.88	2.62
MW-322	9th Ave N ROW, W side	11/03/22	730	22.7	0.0480 U	18.0	13.5	19.2	4.5	14.7	3.28	3,540	71.5	53.9
MW-334	900 Roy St, S end	11/03/22	1,240	26.2	0.0480 U	0.594 U	8.91	10.3	2.0	8.3	0.612	22,300	4.35	0.422 U
MW-335	Mercer St ROW, N side	11/03/22	280	24.3	0.0480 U	86.7	2.52	0.135	0.0	0.1	1.17	338	3.60	0.422 U
MW-338	Lake Union Park, N end	11/02/22	607	13.1	0.0480 UJ	0.594 U	8.20	24.4	3.3	21.2	1.72	25,800	6.02	0.422 U
MW-340	Lake Union Park, S end	11/02/22	467	14.6	0.724 J	2.57 J	5.10	14.7	5.5	9.2	1.72	16,000	3.62	0.422 U
MW-345	SDOT Mercer Parcels, NW quadrant	11/18/22	289	44.3	0.0480 U	41.0	1.81	1.40	–	–	0.215	1,710	20.3	289
MW-346 (dup)	SDOT Mercer Parcels, NW quadrant	11/10/22	193	35.0	0.0677 J	81.3	1.17	8.20	0.3	8.0	0.301	96.6	0.296 U	2.21
		02/23/23	–	35.1	0.133	73.3	1.76	–	–	–	–	86.3	0.296 U	3.83
		02/23/23	–	35.3	0.138	73.9	1.60	–	–	–	–	88.8	0.296 U	4.24
MW-347	SDOT Mercer Parcels, NW quadrant	11/10/22	248	32.8	0.0480 U	4.72 J	11.6	1.38	0.5	0.9	0.153	7,090	1.50	11.5
		02/23/23	–	32.1	0.114	13.9	2.25	–	–	–	–	4,590	1.64	7.09
MW-348	SDOT Mercer Parcels, SW quadrant	11/10/22	1,440	117	0.593	0.649 J	2,180	465	–	–	4.71	5,390	3.80	3.01
		03/13/23	–	41.9	0.0480 U	32.6	4.18	–	–	–	–	237	1.71	23.4
MW-349	SDOT Mercer Parcels, SW quadrant	11/08/22	568	45.5	0.0480 U	2.28 J	63.8	9.41	5.3	4.2	1.08	27,100	0.296 U	3.25
		02/23/23	–	42.5	0.048 U	2.27 J	9.58	–	–	–	–	33,700	0.296 U	5.85
MW-350	SDOT Mercer Parcels, NW quadrant	11/11/22	250	14.8	0.0480 U	40.4	1.20	2.51	0.5	2.0	0.566	298	1.60	1.52
		02/24/23	–	15.2	0.048 U	41.2	1.95	–	–	–	–	1,370	0.296 U	5.23
W-MW-01	8th Ave N ROW, W side	10/31/22	1,440	28.1	0.0480 U	0.948 J	8.73	17.3	4.8	12.6	4.34	31,600	0.296 U	0.422 U
<b>Deep Zone</b>														
FMW-129	SDOT Mercer Parcels, NE quadrant	11/11/22	48.3	2.72	0.806	5.12	1.26	0.115	0.0	0.1	0.0152	0.287 U	0.296 U	0.422 U
FMW-131	Block 37, SE quadrant	11/01/22	198	10.3	0.0480 U	1.36 J	2.49	1.55	1.3	0.3	1.64	212	1.39	0.422 U
FMW-137	Alley E of Block 38 West	11/01/22	343	25.0	0.0656 J	10.3	2.70	1.29	1.3	0.0	2.77	186	1.37	0.422 U
FMW-140	900 Roy St, S end	11/02/22	182	7.96	0.0480 U	4.64 J	7.58	7.64	–	–	2.54	6,390	0.296 U	0.422 U

Table 7

**Groundwater Geochemical Parameters, October 2022 through February 2023**  
**American Linen Supply Co Dexter Ave Site**  
**700 Dexter Avenue North, Seattle, Washington**

Sample Location	Description Location Description	Sample Date	Alkalinity (mg CaCO <sub>3</sub> /L)	Chloride (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	TOC (mg/L)	Iron (mg/L)			Total Manganese (mg/L)	Dissolved Gases (µg/L)		
								Total	Ferrous	Ferric		Methane	Ethane	Ethene
GEI-2	Block 37, SW quadrant	11/01/22	502	18.8	0.0480 U	0.594 U	4.07	12.1	7.0	5.1	0.570	12,900	13.4	33.9
MW102	Valley St ROW, S side	10/31/22	142	5.07	0.0751 J	2.45 J	1.50	0.212	0.0	0.2	0.0402	2.66	0.296 U	0.422 U
MW103	Alley E of Seattle Roy Aloha Shops	11/01/22	311	36.1	0.107	27.9	0.960 U	0.881	0.0	0.9	1.01	277	20.6	28.1
MW104	8th Ave N ROW, W side	11/02/22	195	10.2	0.0480 UJ	5.45	2.96	3.83	0.4	3.4	0.679	114	0.296 U	8.68
MW105	Roy St ROW, S side	11/09/22	84.1	132	0.0480 U	1.09 J	9.09	0.269	0.0	0.3	0.0761	91.6	0.296 U	14.1
MW106	SDOT Mercer Parcels, NW quadrant	11/18/22	225	16.0	0.0480 U	14.3	1.18	11.5	–		1.02	50.1	0.296 U	0.422 U
MW113	9th Ave N ROW, W side	11/03/22	526	67.6	0.0480 U	68.6	14.0	8.94	0.3	8.7	0.898	1,360	46.5	10.8
MW122	Alley E of Seattle Roy Aloha Shops	11/01/22	187	7.61	0.0480 U	3.26 J	1.49	0.203	0.0	0.2	0.533	81.5	4.98	2.39
MW123	Westlake Ave N ROW, W side	11/03/22	346	22.3	0.0480 U	1.77 J	4.53	3.95	2.0	2.0	1.73	5,740	7.36	0.422 U
MW124	Valley St ROW, S side	10/31/22	165	4.64	0.0778 J	0.594 U	2.24	0.131	0.0	0.1	0.282	9.47	0.296 U	0.422 U
MW128	Westlake Ave N ROW, E side	11/01/22	480	18.2	0.0480 U	0.594 U	3.94	10.0	2.8	7.2	0.333	13,300	10.9	32.8
MW-138	Dexter Ave N ROW, E side	11/08/22	115	8.38	0.0480 U	6.81	1.81	0.971	1.0	0.0	0.331	321	1.73	0.422 U
MW-153	Roy St ROW, S side	11/03/22	159	10.4	0.0635 J	8.92	1.94	0.503	0.0	0.5	0.332	278	3.66	9.27
MW-158A	8th Ave N ROW, E side	11/01/22	327	24.8	0.0555 J	15.4	2.67	2.33	0.0	2.3	0.404	1,660	2.72	2.87
MW-160	8th Ave N ROW, W side	10/31/22	174	6.66	0.0480 U	1.96 J	1.03	3.91	0.8	3.1	0.420	408	0.296 U	0.422 U
MW-161 (dup)	8th Ave N ROW, W side	10/31/22	237	16.9	0.0480 U	8.05	1.86	1.37	0.4	1.0	0.779	369	1.50	2.01
		10/31/22	241	17.1	0.0480 U	8.12	1.81	1.08	0.4	0.7	0.777	416	1.81	2.50
MW-304	Dexter Ave N ROW, E side	11/09/22	147	11.6	0.0839 J	14.9	2.13	5.95	0.0	6.0	0.364	26.0	0.296 U	0.422 U
MW-319 (dup)	9th Ave N ROW, W side	11/02/22	263	22.2	0.0480 U	108	1.43	3.11	2.0	1.1	1.03	145	1.69	0.422 U
		11/02/22	265	22.2	0.0480 UJ	109	1.30	3.03	2.0	1.0	1.01	161	1.99	0.422 U
MW-323	9th Ave N ROW, W side	11/04/22	326	31.4	0.0480 U	29.3	2.09	2.66	2.0	0.7	0.951	189	39.8	9.80
MW-324	Roy St ROW, N side	11/03/22	611	19.8	0.0480 U	90.2	8.11	7.53	1.0	6.5	2.08	1,710	21.2	5.80
MW-326 (dup)	Mercer St ROW, N side	11/02/22	188	16.0	0.219 J	62.7	0.470 U	0.440	0.0	0.4	0.427	1.84	0.296 U	0.422 U
		11/02/22	194	15.9	0.0480 J	63.6	0.384 U	0.454	0.0	0.5	0.428	2.18	0.296 U	0.422 U
MW-328	Lake Union Park, S end	11/02/22	509	14.0	0.0480 UJ	0.594 U	4.42	9.31	3.5	5.8	0.253	22,600	17.0	15.1
MW-329	Westlake Ave N ROW, E side	11/01/22	499	48.3	0.0480 U	18.9	3.83	4.01	3.2	0.8	2.21	404	21.4	2.58
MW-336	Mercer St ROW, N side	11/03/22	256	39.6	0.830	60.4	1.70	0.0281 U	0.0	0.0	0.00101 J	1.56 J	0.296 U	0.422 U
MW-341	Lake Union Park, S end	11/02/22	387	21.1	0.162 J	31.5	2.70	7.61	2.5	5.1	0.552	872	6.26	10.5
MW-342	Valley St ROW, S side	11/01/22	302	18.4	0.0480 U	0.594 U	2.61	4.87	2.8	2.1	0.436	12,000	6.62	18.0
MW-343	Valley St ROW, S side	11/01/22	388	32.1	0.0480 U	0.594 U	2.94	5.82	3.4	2.4	2.11	2,130	4.33	0.422 U
<b>Treatment Zone A</b>														
MW-165	Property, NE quadrant	10/28/22	610	56.7	0.0480 U	5.35	25.4	18.4	2.4	16.0	3.41	33,300	712	446
MW-169	Property, SW quadrant	10/27/22	449	85.0	0.0480 U	0.596 J	15.2 J+	2.71	1.4	1.3	0.748	30,500	198	0.422 U
MW-173	Property, SE quadrant	10/27/22	515	46.0	0.0480 U	0.594 U	11.9	3.02	1.9	1.1	2.07	29,400	613	104
MW-177	Property, SW quadrant	10/26/22	320	69.0	0.0480 U	10.3	8.33	3.62	1.8	1.9	0.666	29,100	731	1,880
MW-181	Property, SW quadrant	10/25/22	553	95.7	0.234 J	1.36 J	28.8	12.1	3.0	9.1	1.66	25,300	282	3,550
MW-185	Property, SE quadrant	10/27/22	526	79.9	0.0480 U	0.721 J	11.3	4.85	1.8	3.1	0.767	30,400	198	22.1
<b>Treatment Zone B</b>														
MW-166	Property, NE quadrant	10/28/22	757	89.5	0.0480 U	18.1	46.7	33.9	3.8	30.1	1.58	30,100	480	1,930
MW-170	Property, SW quadrant	10/27/22	601	162	0.0480 U	3.03 J	16.5	4.09	2.6	1.5	1.19	21,800	146	2,160
MW-174	Property, SE quadrant	10/27/22	1,090	86.4	0.0480 U	3.69 J	29.1	14.7	3.0	11.7	3.68	28,200	196	57.6
MW-178	Property, SW quadrant	10/25/22	754	134	0.0480 U	3.92 J	20.1	16.2	4.6	11.6	2.82	20,200	472	1,220
MW-182	Property, SW quadrant	10/25/22	632	345	0.300	2.34 J	47.9	20.5	6.3	14.3	3.27	31,200	282	5,090
MW-186	Property, SE quadrant	10/26/22	781	94.6	0.0480 U	0.594 U	10.2	10.8	3.0	7.8	1.73	32,900	300	37.4



Table 7

Groundwater Geochemical Parameters, October 2022 through February 2023  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington

Sample Location	Description Location Description	Sample Date	Alkalinity (mg CaCO <sub>3</sub> /L)	Chloride (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)	TOC (mg/L)	Iron (mg/L)			Total Manganese (mg/L)	Dissolved Gases (µg/L)			
								Total	Ferrous	Ferric		Methane	Ethane	Ethene	
Treatment Zone C															
MW-167	Property, NE quadrant	10/28/22	392	33.8	0.0480 U	16.9	10.2	2.35	0.3	2.1	0.569	5,840	90.9	1.42	
MW-171	Property, SW quadrant	10/26/22	326	102	0.0480 U	12.0	7.08	2.66	1.1	1.6	0.548	4,890	26.4	424	
MW-175	Property, SE quadrant	10/27/22	1,000	82.8	0.0480 U	0.594 U	18.8	15.9	3.8	12.1	2.84	32,200	567	0.422	U
MW-179	Property, SW quadrant	10/25/22	886	228	0.0480 U	4.20 J	16.8	28.4	4.0	24.4	2.98	17,300	16.0	206	
MW-183	Property, SW quadrant	10/25/22	345	95.3	0.0480 U	20.1	9.81	3.49	0.1	3.4	1.51	29,100	8.44	469	
MW-187	Property, SE quadrant	10/26/22	696	80.8	0.0480 U	0.594 U	7.33	4.32	2.2	2.1	0.868	13,100	375	0.422	U
Treatment Zone D															
MW-168	Property, NE quadrant	10/28/22	434	35.9	0.206	4.28 J	10.3	2.82	0.6	2.2	1.18	12,800	276	32.7	
MW-168	Property, NE quadrant	10/28/22	439	36.4	0.171	4.26 J	10.3	2.71	0.6	2.1	1.16	13,100	264	31.8	
MW-172	Property, SW quadrant	10/27/22	294	25.9	0.0480 U	29.9	7.79 J+	0.514	0.3	0.3	2.22	5,210	0.296 U	0.422	U
MW-176	Property, SE quadrant	10/27/22	840	68.6	0.0480 U	0.594 U	16.4	11.4	4.1	7.3	2.29	28,900	590	30.1	
MW-180	Property, SW quadrant	10/26/22	1,150	74.6	0.0480 U	24.1	34.7	23.7	5.8	18.0	8.18	14,700	39.1	99.8	
MW-184	Property, SW quadrant	10/25/22	303	23.7	0.132	29.7	9.49	1.16	0.0	1.1	3.72	1,720	7.45	6.31	
MW-188	Property, SE quadrant	10/26/22	264	41.4	0.0480 U	24.4	1.97	1.19	0.1	1.1	0.579	927	24.1	0.422	U
Notes: Alkalinity analyzed by EPA Method 2320. Anions analyzed by EPA Method 9056A. Total Organic Carbon (TOC) analyzed by EPA Method 9060A. Metals Analyzed by EPA Method 6020B. Ferrous Iron measured during field sampling using a Hach field kit. Dissolved gases analyzed by EPA Method RSK175. Ferric iron = total iron minus ferrous iron; if total iron < ferrous iron, ferric iron is reported as zero ("0"). mgCaCO <sub>3</sub> /L= milligrams of calcium carbonate per liter. mg/L = milligrams per liter. ug/L = micrograms per liter. Samples prior to 2017 were collected by SoundEarth Strategies (SES). U = Not detected at or above the laboratory method detection limit (MDL). Detected results shown in bold. J = The identification of the analyte is acceptable; the reported value is an estimate. J+ = The identification of the analyte is acceptable; the reported value is an estimate, but the result may be biased high. R = The data is unusable. The sample result is rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample. – = Not sampled or results not available. Beginning October 2020, select locations were sampled for an abbreviated analyte list (Sulfate, TOC, Total Iron, Total Manganese, Methane, Ethane, and Ethene).															

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
Shallow Zone																		
FMW-143	9th Ave N ROW, E side	10/31/19	1	2	2	0	0	0	3	0	0	3	1	0	0	0	12	13
		01/22/20	1	2	2	0	0	3	3	0	0	3	1	0	0	0	15	
		05/14/20	1	2	2	0	0	3	0	0	0	0	1	0	0	0	9	
		07/22/20	1	2	2	0	0	3	3	0	0	3	1	0	0	0	15	
MW121	8th Ave N ROW, E side	12/26/13	1	2	2	0	0	3	0	0	0	0	1	0	0	2	11	15
		03/28/17	1	2	2	0	0	3	0	0	0	0	2	0	2	2	14	
		06/20/17	1	2	2	0	0	3	3	0	0	0	1	0	2	2	16	
		11/30/20	1	2	2	0	0	3	3	2	0	3	2	0	2	2	22	
		02/05/21	1	2	2	0	0	3	0	2	0	0	1	2	2	2	17	
		05/12/21	1	2	2	0	0	3	3	0	0	3	0	0	2	2	18	
		08/02/21	1	2	2	0	0	3	3	0	0	3	0	0	0	2	16	
		05/19/22	1	2	2	0	0	3	0	0	0	3	1	0	0	2	14	
		05/19/22	1	2	2	0	0	3	0	0	0	3	1	0	0	2	14	
		08/04/22	1	2	2	0	0	3	0	0	0	0	0	0	2	2	12	
		08/04/22	1	2	2	0	0	3	0	0	0	0	0	0	2	2	12	
		10/31/22	1	0	2	0	0	0	3	0	0	3	1	0	0	2	12	
MW125	Valley St ROW, N side	12/26/13	1	2	2	2	0	3	0	0	0	-3	1	0	0	0	8	15
		10/18/19	1	0	2	2	0	3	3	0	0	0	1	0	2	0	14	
		01/29/20	1	0	2	0	0	3	3	0	0	—	2	0	2	0	13	
		11/17/20	1	0	2	2	0	3	3	0	0	3	2	0	0	0	16	
		02/02/21	1	0	2	2	0	3	3	0	0	0	0	0	0	0	11	
		05/11/21	1	0	2	2	0	3	3	0	0	3	2	0	0	0	16	
		08/02/21	1	0	2	2	0	3	3	0	0	3	0	0	0	0	14	
		11/11/21	1	2	2	2	0	3	3	0	0	3	1	0	0	0	17	
		03/08/22	1	2	2	2	0	3	3	0	0	3	2	0	0	0	18	
		05/19/22	1	2	2	2	0	3	3	0	0	3	1	0	0	0	17	
		08/09/22	1	2	2	2	0	3	3	0	0	0	1	0	0	0	14	
		08/09/22	1	2	2	2	0	3	3	0	0	0	1	0	0	0	14	
		10/31/22	1	2	2	2	0	3	3	0	0	0	1	0	0	0	14	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-154	Roy St ROW, S side	10/14/19	0	2	0	0	0	0	0	0	0	0	0	2	2	0	6	6
		01/21/20	0	2	0	0	0	0	0	0	0	0	1	2	2	0	7	
		04/30/20	0	2	0	0	0	0	0	0	0	0	0	2	2	0	6	
		07/10/20	0	2	0	0	0	0	0	0	0	0	1	2	2	0	7	
		11/09/20	0	2	0	0	0	0	0	0	0	-3	1	2	2	0	4	
		02/08/21	0	2	0	0	0	0	0	0	0	-3	1	2	2	0	4	
		05/10/21	0	2	0	0	0	0	0	0	0	0	1	2	2	0	7	
		08/17/21	0	2	0	0	0	0	0	0	0	-3	1	2	2	2	6	
		11/10/21	0	2	0	0	0	0	0	0	0	0	0	2	2	0	6	
		02/18/22	0	2	0	0	0	0	0	0	0	0	2	2	2	0	8	
		05/02/22	0	2	0	0	0	0	0	0	0	—	0	2	2	0	6	
		08/02/22	0	2	0	0	0	0	0	0	0	0	1	2	2	0	7	
		11/03/22	0	2	0	0	0	0	0	0	0	0	0	2	2	0	6	
MW-155	Roy St ROW, S side	10/16/19	0	2	0	0	0	0	0	2	0	0	0	2	2	0	8	7
		01/20/20	0	2	0	0	0	0	0	0	0	0	1	2	2	0	7	
		05/05/20	0	2	0	0	0	0	0	0	0	0	0	2	2	0	6	
		08/03/20	0	2	0	0	0	0	0	0	0	0	0	2	2	0	6	
		11/11/20	0	2	0	0	0	0	0	0	0	0	1	2	2	2	9	
		08/13/21	0	2	0	0	0	0	0	0	0	0	0	2	2	0	6	
		12/02/21	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	
		03/01/22	0	0	0	0	0	0	0	0	0	0	2	2	2	2	8	
		05/05/22	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	
		08/03/22	0	0	0	0	0	0	0	0	0	0	1	2	2	0	5	
		11/04/22	0	2	0	0	0	0	0	0	0	3	0	2	2	2	11	
MW-159	8th Ave N ROW, E side	01/29/20	1	0	2	0	0	3	3	2	0	3	1	0	2	0	17	20
		11/11/20	1	0	2	2	0	3	3	2	0	0	2	0	2	2	19	
		02/08/21	1	0	2	2	0	3	3	2	0	0	2	2	2	2	21	
		05/11/21	1	0	2	2	0	3	3	2	0	3	2	2	2	2	24	
		08/05/21	1	0	2	2	0	3	3	2	0	3	0	0	2	2	20	
		12/02/21	0	0	2	2	0	3	3	2	0	3	2	0	2	0	19	
		03/03/22	0	0	2	2	0	3	3	0	0	3	2	0	2	2	19	
		05/11/22	0	0	2	2	0	3	3	2	0	3	2	2	2	0	21	
		08/03/22	0	0	2	2	0	3	3	2	0	0	1	2	2	0	17	
		10/31/22	1	0	2	2	0	3	3	2	0	3	1	0	2	2	21	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-301	Valley St ROW, S side	11/30/20	0	2	0	0	0	0	0	0	0	0	1	2	0	0	5	
		02/05/21	0	2	0	0	0	0	0	0	0	0	2	2	0	0	5	
		05/14/21	0	2	0	0	0	0	0	0	0	0	1	2	0	0	5	
		08/20/21	0	2	0	0	0	0	0	0	0	0	0	2	0	0	4	
		12/02/21	0	2	0	2	0	0	0	0	0	0	0	2	0	0	6	
		05/10/22	0	2	0	0	0	0	0	0	0	3	0	2	2	0	9	
		05/10/22	0	2	0	0	0	0	0	0	0	3	0	2	2	0	9	
		08/12/22	0	2	0	0	0	0	0	0	0	0	1	0	2	0	5	
		08/12/22	0	2	0	0	0	0	0	0	0	0	1	0	0	0	3	
		10/31/22	0	2	0	0	0	0	0	0	0	3	0	2	2	0	9	
		10/31/22	0	2	0	0	0	0	0	0	0	3	0	2	2	0	9	
MW-305	Roy St ROW, S side	10/15/19	0	2	0	0	0	0	0	0	0	0	1	0	0	0	3	2
		01/15/20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		04/28/20	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	
		07/27/20	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	
		12/03/21	0	2	0	0	0	0	0	0	0	-3	0	0	2	0	1	
MW-310	Alley E of Seattle Roy Aloha Shops	10/10/19	1	0	2	0	0	3	3	0	0	0	1	0	2	0	12	12
		01/14/20	1	0	2	0	0	3	3	0	0	3	1	0	0	0	13	
		04/08/20	1	0	2	0	0	3	3	0	0	3	2	0	2	0	16	
		08/04/20	1	0	2	0	0	3	3	0	0	3	0	0	0	0	12	
		11/03/21	1	0	2	0	0	3	0	0	0	0	0	0	2	0	8	
		11/01/22	1	0	2	0	0	3	3	0	0	0	1	0	2	0	12	
MW-312	Alley E of Seattle Roy Aloha Shops	10/11/19	1	0	2	2	0	3	3	0	0	3	1	0	0	0	15	12
		01/21/20	1	0	2	2	0	3	3	0	0	3	1	0	0	0	15	
		04/22/20	1	0	2	2	0	3	3	0	0	0	1	0	0	0	12	
		08/04/20	1	0	2	2	0	0	3	0	0	0	1	0	2	0	11	
		11/03/21	0	0	2	2	0	3	0	0	0	3	0	0	0	0	10	
		11/01/22	1	0	2	2	0	3	3	0	0	0	0	0	0	0	11	
MW-313	Alley E of Seattle Roy Aloha Shops	10/10/19	1	0	2	0	0	0	0	0	0	0	0	0	2	2	7	12
		01/14/20	0	2	2	2	0	3	3	0	0	3	0	0	2	0	17	
		11/09/21	1	2	2	0	0	0	0	0	0	0	1	0	2	2	10	
		11/01/22	1	2	0	0	0	0	3	0	0	3	0	0	2	2	13	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-320	9th Ave N ROW, W side	10/07/19	1	2	2	2	0	0	0	0	0	3	0	0	0	0	10	8
		01/20/20	0	2	2	0	0	3	3	0	0	0	2	0	0	0	12	
		04/29/20	0	2	2	0	0	3	0	0	0	3	0	0	0	0	10	
		07/28/20	0	2	2	0	0	3	0	0	0	0	1	0	0	0	8	
		11/16/21	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4	
		11/04/22	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4	
MW-332	Roy St ROW, N Side	05/04/20	0	2	2	0	0	3	3	0	0	0	1	0	2	0	13	9
		07/30/20	0	2	2	0	0	0	3	0	0	0	1	0	2	2	12	
		11/08/21	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4	
		11/04/22	0	2	2	0	0	0	0	0	0	0	1	0	2	0	7	
MW-337	Lake Union Park, N end	05/07/20	0	0	2	2	0	3	3	0	0	0	1	0	0	0	11	14
		07/23/20	0	0	2	2	0	3	3	0	0	3	1	2	2	0	18	
		11/17/21	0	2	0	0	0	0	3	0	0	3	0	2	0	0	10	
		11/02/22	0	2	2	2	0	3	3	0	0	0	1	0	2	0	15	
MW-339  (dup)	Lake Union Park, S end	05/14/20	0	2	2	0	0	3	3	0	0	3	1	0	0	0	14	9
		07/23/20	0	0	2	2	0	3	3	0	0	3	1	2	2	0	18	
		11/10/21	0	0	2	0	0	0	0	0	0	0	0	0	2	0	4	
		11/10/21	0	0	2	0	0	0	0	0	0	0	0	0	2	0	4	
		11/02/22	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4	
MW-9  (dup)	8th Ave N ROW, E side	12/16/13	0	0	2	2	2	3	0	0	0	3	0	0	0	0	12	17
		10/10/19	1	2	2	2	0	3	3	0	0	0	2	0	2	2	19	
		11/24/20	1	2	2	2	0	3	3	0	0	3	2	0	2	2	22	
		02/05/21	1	2	2	2	0	3	3	0	0	3	1	0	2	2	21	
		05/12/21	1	2	2	2	0	3	3	0	0	3	2	0	2	2	22	
		08/02/21	1	2	2	2	0	3	3	0	0	3	0	0	2	0	18	
		11/11/21	1	2	0	2	0	3	3	0	0	3	0	0	2	2	18	
		02/15/22	1	2	0	2	0	3	0	0	0	3	2	0	0	0	13	
		06/08/22	1	2	0	0	0	3	0	0	0	3	1	0	2	2	14	
		06/08/22	1	2	0	0	0	3	0	0	0	3	1	0	2	2	14	
		08/09/22	1	2	0	0	0	3	0	0	0	0	1	0	2	2	11	
		10/31/22	1	2	0	2	0	0	0	0	0	3	0	0	2	2	12	
N7	Property, SW quadrant	03/30/17	0	0	0	0	0	0	3	0	0	0	1	2	2	2	10	-
		06/27/17	0	0	0	0	0	0	3	0	0	0	1	2	2	2	10	
Decommissioned March 2019																		

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
R-MW5          (dup)	Dexter Ave N ROW, E side	03/23/17	0	2	2	0	0	3	0	0	0	0	1	2	0	0	10	16
		06/16/17	0	2	2	0	0	0	0	0	0	0	2	2	0	0	8	
		10/21/19	0	2	2	2	0	3	0	0	0	0	0	0	2	0	11	
		01/24/20	0	2	2	2	0	3	0	0	0	3	1	2	2	0	17	
		11/18/20	0	2	2	2	0	3	0	0	0	3	2	2	2	0	18	
		02/11/21	0	2	2	2	0	3	0	0	0	0	2	2	2	0	15	
		05/17/21	0	2	2	2	0	3	3	0	0	3	0	2	2	0	19	
		08/03/21	0	2	2	2	0	3	3	0	0	0	1	2	2	0	17	
		11/08/21	0	2	2	2	0	3	3	0	0	3	1	2	2	0	20	
		02/24/22	0	2	2	2	0	3	3	0	0	0	1	2	2	0	17	
		02/24/22	0	2	2	2	0	3	3	0	0	0	1	2	2	0	17	
		05/17/22	0	2	2	2	0	3	3	0	0	3	0	2	2	0	19	
		08/09/22	0	2	2	2	0	3	0	0	0	0	1	2	2	0	14	
		11/08/22	0	2	2	2	0	3	0	0	0	0	0	2	2	0	13	
R-MW6	8th Ave N ROW, W side	03/21/17	1	0	2	0	0	0	3	0	0	0	1	2	2	2	13	17
		06/20/17	1	0	2	0	0	3	3	2	0	0	1	2	2	2	18	
		12/01/20	1	0	2	0	0	3	3	0	0	0	1	2	2	2	16	
		02/03/21	1	0	2	0	0	3	3	0	0	3	1	2	2	2	19	
		05/17/21	1	0	2	0	0	3	3	0	0	0	0	2	2	2	15	
		08/03/21	1	0	2	0	0	3	3	0	0	0	0	2	2	2	15	
		11/29/21	1	2	2	0	0	3	3	0	0	3	2	2	2	0	20	
		02/23/22	1	2	2	0	0	3	3	0	0	0	1	2	2	2	18	
		05/11/22	1	2	2	0	0	3	3	0	0	3	1	2	2	2	21	
		08/03/22	1	2	2	0	0	3	3	0	0	-3	1	2	2	2	15	
		11/04/22	1	2	2	0	0	3	3	0	0	0	0	2	2	2	17	
SCL-MW101	Alley East of Seattle Roy Aloha Shops	11/11/21	1	0	2	0	0	3	0	0	0	3	1	0	0	0	10	9
		11/03/22	1	0	2	0	0	3	0	0	0	0	1	0	0	0	7	



N V 5

## N V 5

N V 5

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
GEI-MW-1	Block 79 East, N end	01/23/20	1	2	2	2	0	3	3	0	0	3	1	2	0	0	19	15
		04/29/20	1	2	2	0	0	3	3	0	0	3	1	0	0	0	15	
		08/07/20	1	2	2	2	0	3	3	0	0	0	1	0	0	0	14	
		11/04/22	0	2	2	0	0	3	0	0	0	3	1	0	2	0	13	
HMW-9IA	SDOT Mercer Parcels, SW quadrant	06/02/21	0	2	2	0	0	0	0	2	0	3	2	2	2	2	17	16
		08/18/21	0	2	2	0	0	0	0	0	0	3	2	2	2	2	15	
		08/18/21	0	2	2	0	0	–	0	0	0	3	2	2	2	2	15	
HMW-20IA	SDOT Mercer Parcels, NW quadrant	06/02/21	1	2	2	0	0	0	3	3	0	3	1	2	2	2	21	21
		08/18/21	1	2	2	0	0	0	3	3	0	3	1	2	2	2	21	
		08/18/21	1	2	2	0	0	–	3	3	0	3	1	2	2	2	21	
MW107	8th Ave N ROW, W side	12/16/13	1	2	2	0	0	0	0	0	0	0	1	2	2	2	12	21
		03/27/17	1	2	2	2	2	3	0	3	0	0	0	2	0	2	19	
		06/19/17	1	2	2	2	2	3	3	3	0	0	1	2	0	2	23	
		04/09/18	1	2	2	2	2	3	3	2	0	3	1	2	2	2	27	
		01/30/19	1	2	2	0	0	0	3	2	0	0	0	2	2	2	16	
		05/01/19	1	2	2	0	0	3	3	3	0	3	1	2	2	2	24	
		07/22/19	1	2	2	0	0	3	3	3	0	0	1	2	2	2	21	
		10/15/19	1	2	2	0	0	3	3	2	0	3	1	2	2	2	23	
		01/28/20	1	2	2	0	0	3	3	3	0	–	1	2	2	2	21	
		04/03/20	1	2	2	0	0	3	3	2	0	0	1	2	2	2	20	
		07/31/20	0	2	2	0	0	3	3	3	0	0	0	2	2	2	19	
		12/01/20	0	2	2	2	2	3	3	3	0	0	1	0	0	0	18	
		02/02/21	0	2	2	2	0	3	3	0	0	0	1	2	0	2	17	
		06/02/21	0	2	2	2	0	3	3	2	0	3	1	2	0	2	22	
		08/16/21	0	2	2	2	0	3	3	2	0	3	1	2	0	2	22	
		11/29/21	1	2	2	2	0	3	3	3	0	3	1	2	0	2	24	
		02/23/22	1	2	2	2	0	3	3	3	0	0	1	2	0	2	21	
		05/11/22	1	2	2	2	0	3	3	2	0	3	1	2	0	2	23	
		08/03/22	1	2	2	2	0	3	3	3	0	-3	1	2	0	2	18	
		10/31/22	1	2	2	2	0	3	3	3	0	-3	1	2	0	2	18	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW108	Alley E of Seattle Roy Aloha Shops	12/17/13	1	2	2	2	0	3	3	2	0	3	1	2	2	2	25	22
		03/28/17	1	2	2	0	0	3	3	2	0	0	1	2	2	2	20	
		06/27/17	1	2	2	0	0	3	3	2	0	—	2	2	2	2	21	
		10/10/19	1	2	2	0	0	3	3	2	0	0	1	2	2	2	20	
		01/14/20	1	2	2	0	0	3	3	2	0	3	1	2	2	2	23	
		04/22/20	1	2	2	2	0	3	3	2	0	0	1	2	2	2	22	
		07/16/20	1	2	2	0	0	3	3	2	0	0	2	2	2	2	21	
		11/04/20	1	2	2	2	0	3	3	3	0	3	2	2	2	2	27	
		02/09/21	1	2	2	0	0	3	3	2	0	0	2	2	2	2	21	
		05/03/21	1	2	2	0	0	3	3	2	0	3	0	2	2	2	22	
		08/04/21	1	2	2	0	0	3	3	2	0	3	0	2	2	2	22	
		11/04/21	1	2	2	0	0	3	3	2	0	0	0	2	2	2	19	
		02/15/22	1	2	2	0	0	3	3	2	0	3	2	2	2	2	24	
		05/18/22	1	2	2	0	0	3	3	2	0	3	1	2	2	2	23	
		08/10/22	1	2	2	0	0	3	3	2	0	0	1	2	2	2	20	
		11/01/22	1	2	2	0	0	0	3	2	0	0	1	2	2	2	17	
MW109	Alley E of Seattle Roy Aloha Shops	12/17/13	1	2	2	0	0	3	3	0	0	3	1	2	2	2	21	19
		03/29/17	1	0	2	0	0	3	3	0	0	0	2	2	2	2	17	
		06/17/17	1	2	2	0	0	3	3	0	0	—	2	2	2	2	19	
		10/15/19	1	2	2	2	0	3	3	2	0	3	1	2	2	2	25	
		01/21/20	0	0	2	2	0	0	3	0	0	0	0	2	2	2	13	
		04/22/20	1	0	2	2	0	3	3	2	0	3	0	0	2	2	20	
		07/06/20	1	0	2	2	0	3	3	2	0	3	1	2	2	2	23	
		11/02/20	1	0	2	2	0	3	3	2	0	0	1	2	2	2	20	
		02/09/21	1	0	2	2	0	3	3	2	0	0	2	2	2	2	21	
		05/03/21	1	0	2	2	0	3	3	2	0	0	0	2	2	2	19	
		08/04/21	1	0	2	2	0	3	3	0	0	3	0	2	2	2	20	
		11/03/21	1	0	2	2	0	3	3	2	0	0	0	2	2	2	19	
		02/15/22	1	0	2	2	0	3	3	0	0	0	0	2	2	2	17	
		05/09/22	1	0	2	2	0	3	3	2	0	3	1	0	2	2	21	
		08/10/22	1	0	2	2	0	3	0	0	0	0	0	2	2	2	14	
		11/01/22	1	0	2	2	0	3	3	0	0	0	1	0	2	2	16	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW110	Alley E of Seattle Roy Aloha Shops	12/19/13	1	2	2	0	0	0	0	0	0	0	0	2	2	2	11	16
		03/23/17	1	2	2	0	0	0	0	0	0	0	1	2	2	2	12	
		06/27/17	1	2	2	0	0	0	0	2	0	—	0	2	2	2	13	
		10/15/19	1	2	2	0	0	0	3	0	0	3	1	2	2	2	18	
		01/16/20	1	2	2	0	0	0	3	0	0	3	1	2	2	2	18	
		04/22/20	1	2	2	0	0	0	3	0	0	0	1	2	2	2	15	
		07/16/20	1	2	2	0	0	0	3	0	0	3	1	2	2	2	18	
		11/04/20	1	2	2	0	0	0	3	0	0	3	1	2	2	2	18	
		02/09/21	1	2	2	0	0	0	3	0	0	0	2	2	2	2	16	
		05/04/21	1	2	2	0	0	0	3	0	0	3	1	2	2	0	16	
		08/12/21	1	2	2	0	0	0	3	0	0	3	0	2	2	0	15	
		11/09/21	1	2	2	0	0	0	3	2	0	0	1	2	2	2	17	
		02/25/22	1	2	2	0	0	0	3	0	0	0	2	2	2	0	14	
		05/18/22	1	2	2	0	0	0	3	0	0	3	1	2	2	0	16	
		08/11/22	1	2	2	0	0	0	3	0	0	0	0	2	2	0	12	
		11/01/22	1	2	2	0	0	0	3	0	0	3	0	2	2	2	17	
MW115	9th Ave N ROW, W side	12/19/13	1	2	2	2	0	3	3	0	0	0	1	0	0	2	16	18
		03/22/17	1	2	2	0	0	3	0	0	0	0	0	0	2	2	12	
		06/22/17	1	2	2	0	0	3	3	0	0	3	2	0	2	2	20	
		10/22/19	1	2	2	0	0	3	3	0	0	0	2	0	2	2	17	
		01/20/20	1	2	2	2	0	3	3	0	0	3	1	0	2	2	21	
		05/05/20	1	2	2	0	0	3	3	0	0	0	2	0	2	2	17	
		07/28/20	1	2	2	0	0	3	3	0	0	0	1	0	2	2	16	
		11/12/20	1	2	2	0	0	3	3	0	0	3	2	0	2	2	20	
		02/12/21	1	2	2	0	0	3	3	0	0	3	1	0	2	2	19	
		05/25/21	1	2	2	0	0	3	3	0	0	3	2	0	2	2	20	
		08/11/21	1	2	2	0	0	3	3	0	0	3	0	2	2	2	20	
		11/18/21	1	2	2	0	0	3	3	0	0	3	0	2	2	2	20	
		02/15/22	1	2	2	0	0	3	0	0	0	3	2	2	2	2	19	
		06/03/22	1	2	2	0	0	3	0	0	0	3	1	0	2	2	16	
		08/10/22	1	2	2	0	0	3	3	0	0	0	1	0	2	2	16	
		11/03/22	0	2	2	0	0	3	3	0	0	0	0	0	2	2	14	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW116	9th Ave N ROW, W side	12/19/13	0	2	2	2	0	3	3	0	0	0	0	0	0	0	12	15
		03/21/17	1	2	2	0	0	3	3	0	0	0	2	0	0	0	13	
		06/16/17	1	2	2	2	0	3	3	0	0	3	2	2	0	0	20	
		10/22/19	1	2	2	2	0	3	3	0	0	3	0	0	0	0	16	
		01/21/20	1	2	2	2	0	3	3	0	0	0	1	0	0	0	14	
		04/29/20	1	2	2	2	0	3	3	0	—	3	0	0	0	0	16	
		07/28/20	0	2	2	2	0	3	3	0	0	0	1	0	0	0	13	
		11/12/20	0	2	2	2	0	3	3	0	0	3	2	0	0	0	17	
		02/11/21	0	2	2	2	0	3	3	0	0	3	1	0	0	0	16	
		05/25/21	0	2	2	2	0	3	3	0	0	3	2	0	0	0	17	
		08/11/21	0	2	2	2	0	3	3	0	0	3	0	0	0	0	15	
		11/18/21	0	2	2	2	0	3	3	0	0	3	0	0	0	0	15	
		03/07/22	0	2	2	2	0	3	3	0	0	3	2	0	0	0	17	
		06/08/22	0	2	2	2	0	3	3	0	0	3	2	0	0	0	17	
		08/10/22	0	2	2	2	0	3	3	0	0	0	2	0	0	0	14	
		11/04/22	0	2	2	2	0	3	3	0	0	0	0	0	0	0	12	
MW119  (dup)	9th Ave N ROW, W side	12/19/13	0	2	2	2	0	3	3	0	-2	3	0	0	2	2	17	19
		03/29/17	0	2	2	2	0	3	3	0	0	0	1	2	2	0	17	
		06/28/17	1	2	2	0	0	3	0	0	0	—	1	2	2	0	13	
		10/10/19	0	2	2	0	0	3	0	0	0	3	1	2	2	0	15	
		01/14/20	0	2	2	0	0	0	0	0	0	3	2	2	2	0	13	
		04/27/20	0	2	2	2	0	3	0	0	0	3	1	2	2	0	17	
		07/08/20	0	2	2	0	0	3	3	0	0	3	1	2	2	2	20	
		11/11/20	0	2	2	0	0	3	3	0	0	3	2	2	2	2	21	
		02/10/21	0	2	2	2	0	3	3	0	0	0	1	2	2	2	19	
		05/20/21	0	2	2	2	0	3	3	0	0	3	2	2	2	2	23	
		08/13/21	0	2	2	2	0	3	3	0	0	3	1	2	2	2	22	
		08/13/21	0	2	2	2	0	3	3	0	0	3	1	2	2	2	22	
		12/03/21	0	2	2	2	0	3	3	0	0	3	1	2	2	2	22	
		03/02/22	0	2	2	2	0	3	3	0	0	0	1	2	2	2	19	
		05/05/22	0	2	2	2	0	3	3	0	0	0	1	2	2	0	17	
		08/11/22	0	2	2	2	0	3	3	0	0	0	1	2	2	2	19	
		11/02/22	0	2	2	0	0	3	0	0	0	3	0	2	2	2	16	
		11/02/22	0	2	2	0	0	3	0	0	0	3	0	2	2	2	16	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW120	8th Ave N ROW, E side	12/19/13	0	2	2	0	0	0	0	0	0	0	1	2	2	2	11	11
		04/09/18	0	2	2	0	0	0	0	0	0	3	1	0	2	0	10	
		01/24/19	0	2	0	0	0	0	0	0	0	0	0	2	2	2	8	
		05/03/19	0	2	0	0	0	0	0	0	0	3	0	2	2	2	11	
		07/16/19	0	2	0	0	0	0	0	0	0	0	0	2	2	2	8	
		10/17/19	0	2	2	0	0	0	0	0	0	0	1	2	2	2	11	
		01/17/20	0	2	2	0	0	0	0	0	0	3	1	2	2	2	14	
		04/23/20	0	2	2	0	0	3	0	0	0	0	0	2	2	2	13	
		07/14/20	0	2	2	0	0	0	0	0	0	0	1	2	2	2	11	
		11/30/20	0	2	2	0	0	0	0	0	0	0	1	2	2	2	11	
		02/05/21	0	2	2	0	0	0	0	0	0	0	1	2	2	2	11	
		05/12/21	0	2	2	0	0	0	0	0	0	3	2	2	2	2	15	
		08/03/21	0	2	2	0	0	0	0	0	0	3	0	2	2	2	13	
		11/11/21	0	2	0	0	0	0	0	0	0	3	0	2	2	2	11	
		02/15/22	0	2	0	0	0	0	0	0	0	3	2	2	2	2	13	
		05/11/22	0	2	0	0	0	0	0	0	0	3	1	2	2	2	12	
		08/04/22	0	2	0	0	0	0	0	0	0	0	1	2	2	2	9	
		10/31/22	0	2	0	0	0	0	0	0	0	0	1	2	2	2	9	
MW127	8th Ave N ROW, E side	10/17/19	0	2	2	0	0	0	0	0	0	3	1	0	2	0	10	10
		01/17/20	0	2	2	0	0	0	0	0	0	3	1	0	2	0	10	
		04/23/20	0	2	0	0	0	0	0	0	0	0	0	0	2	0	4	
		07/14/20	0	2	0	0	0	0	0	0	0	3	1	0	2	2	10	
		11/17/21	0	2	2	0	0	0	0	0	0	3	0	0	2	2	11	
		10/31/22	0	2	2	0	0	0	0	0	0	3	1	0	2	2	12	



Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-142	8th Ave N ROW, E side	04/27/18	1	2	2	2	2	3	3	2	0	0	0	2	2	2	23	22
		01/28/19	1	0	2	2	2	3	3	2	0	0	0	0	2	2	19	
		04/24/19	1	0	2	0	2	3	3	2	0	0	0	2	2	2	19	
		07/25/19	1	0	2	0	2	3	3	2	0	0	1	2	2	2	20	
		10/16/19	1	2	2	2	0	3	3	2	0	0	1	2	2	2	22	
		01/22/20	1	2	2	2	0	3	0	2	0	3	1	2	2	2	22	
		04/24/20	1	2	2	0	0	3	0	2	0	0	2	2	2	2	18	
		07/30/20	1	2	2	0	0	3	0	2	0	0	1	2	2	2	17	
		11/24/20	1	2	2	0	0	3	3	2	0	3	2	2	2	2	24	
		02/08/21	1	2	2	2	2	3	3	2	0	3	1	2	2	2	27	
		05/19/21	1	2	2	2	2	3	3	2	0	3	2	2	2	2	28	
		08/05/21	1	2	2	0	0	3	3	2	0	3	0	2	2	2	22	
		11/30/21	1	0	2	0	0	3	3	2	0	3	2	2	2	2	22	
		02/18/22	1	0	2	0	0	3	3	2	0	0	2	2	2	2	19	
		05/26/22	1	0	2	0	0	3	3	2	0	3	2	2	2	2	22	
		08/03/22	1	0	2	2	0	3	3	2	0	0	1	2	2	2	20	
		10/31/22	1	2	2	2	0	3	3	2	0	0	1	2	2	2	22	
		10/31/22	1	2	2	2	0	3	3	2	0	0	1	0	2	2	20	
	(dup)																	
MW-144	8th Ave N ROW, E side	04/27/18	1	2	2	2	2	0	3	3	0	3	0	2	2	2	24	25
		01/28/19	1	2	2	2	0	0	3	3	0	0	0	2	2	2	19	
		04/23/19	1	2	2	2	0	3	3	3	0	3	0	2	2	2	25	
MW-144R	8th Ave N ROW, E side	12/16/19	1	2	2	2	2	3	3	3	0	3	2	2	2	2	29	24
		01/21/20	1	2	2	2	2	3	3	3	0	3	2	0	2	2	27	
		04/02/20	1	2	2	2	2	3	3	3	0	3	1	0	2	2	26	
		08/03/20	1	2	2	2	0	3	3	3	0	3	2	2	2	2	27	
		11/23/20	1	2	2	2	0	3	3	3	0	0	2	2	2	2	24	
		02/02/21	1	2	2	2	0	3	3	3	0	3	1	2	2	2	26	
		05/12/21	1	2	2	2	0	3	3	3	0	0	2	2	2	2	24	
		08/03/21	1	2	2	2	0	3	3	3	0	3	0	2	2	0	23	
		11/29/21	1	2	2	2	0	3	3	3	0	3	2	0	2	0	23	
		02/23/22	1	2	2	2	0	3	3	3	0	0	2	2	2	0	22	
		05/11/22	1	2	2	2	0	3	3	2	0	3	1	2	2	0	23	
		08/23/22	1	2	2	2	0	3	3	3	0	3	1	2	2	2	26	
		11/02/22	1	2	2	2	0	0	3	2	-2	0	2	2	2	2	18	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-146	Roy St ROW, S side	04/30/18	1	2	2	0	0	3	3	3	0	3	0	2	2	2	23	23
		01/28/19	0	2	2	0	0	3	3	3	0	3	0	2	2	2	22	
		04/24/19	0	2	2	0	0	3	3	3	0	0	1	2	2	2	20	
		07/25/19	0	2	2	0	0	3	3	3	0	0	0	2	2	2	19	
		10/14/19	1	2	2	0	0	3	3	3	0	3	0	2	2	2	23	
		01/24/20	1	2	2	2	0	3	3	3	0	3	1	0	2	2	24	
		04/30/20	1	2	2	2	0	3	3	3	0	3	1	0	2	2	24	
		07/09/20	1	2	2	2	0	3	3	3	0	3	1	2	2	2	26	
		11/10/20	0	2	2	0	0	3	3	3	0	3	2	2	2	2	24	
		02/08/21	0	2	2	0	0	3	3	3	0	-3	1	2	2	2	17	
		05/04/21	0	2	2	2	0	3	3	3	0	3	2	0	2	2	24	
		08/17/21	0	2	2	2	0	3	3	3	0	3	1	2	2	2	25	
		08/17/21	0	2	2	2	0	3	3	3	0	3	1	2	2	2	25	
		11/10/21	1	2	2	2	0	3	3	3	0	3	0	0	2	2	23	
		02/18/22	1	2	2	2	0	3	3	3	0	3	2	0	2	2	25	
		05/03/22	1	2	2	2	0	3	3	3	0	0	2	0	2	2	22	
		08/03/22	1	2	2	2	0	3	3	3	0	-3	1	0	2	2	18	
		11/03/22	1	2	2	2	0	3	3	3	0	3	0	2	2	2	25	
MW-156  (dup)	8th Ave N ROW, E side	04/26/18	1	2	2	0	0	0	3	2	0	0	0	2	2	2	16	20
		01/24/19	1	2	2	0	2	0	3	2	0	0	0	2	2	0	16	
		04/24/19	1	2	2	0	2	0	3	2	0	0	0	2	2	2	18	
		07/22/19	1	2	2	0	2	0	3	2	0	3	1	2	2	2	22	
		10/17/19	1	2	2	0	0	3	3	3	0	3	1	2	2	2	24	
		01/20/20	1	2	2	0	2	3	3	3	0	0	1	2	2	2	23	
		04/24/20	1	2	2	0	0	0	3	3	0	0	0	2	2	2	17	
		07/15/20	1	2	2	0	0	3	3	3	0	0	1	2	2	2	21	
		11/11/20	1	2	2	0	0	3	3	2	0	0	1	2	2	2	20	
		02/08/21	1	2	2	0	0	3	3	0	0	0	2	2	2	0	17	
		05/10/21	1	2	2	0	0	3	3	2	0	3	2	2	2	0	22	
		08/20/21	1	2	2	0	0	3	3	2	0	3	0	2	2	2	22	
		11/18/21	0	2	2	0	0	3	3	2	0	3	0	2	2	0	19	
		03/03/22	0	2	2	0	0	3	3	2	0	3	2	2	2	0	21	
		03/03/22	0	2	2	0	0	3	3	0	0	3	2	2	2	2	21	
		05/26/22	0	2	2	0	0	3	3	2	0	3	1	2	2	2	22	
		08/04/22	0	2	2	0	0	3	3	2	0	0	1	2	2	0	17	
		10/31/22	1	2	2	0	0	3	3	2	0	0	1	2	2	2	20	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-189	Valley St ROW, S side	10/14/19	0	2	2	0	0	0	0	2	0	3	2	0	2	2	15	16
		01/23/20	0	2	2	0	0	0	0	2	0	3	2	0	2	2	15	
		04/03/20	0	2	2	0	0	0	0	2	0	3	0	0	0	2	11	
		08/04/20	0	2	2	0	0	0	0	0	0	3	1	0	2	2	12	
		11/17/20	0	2	2	0	0	0	0	2	0	3	2	0	2	2	15	
		02/03/21	0	2	2	0	0	0	3	2	0	0	2	0	2	2	15	
		05/14/21	0	2	2	0	0	0	3	3	0	3	2	0	2	2	19	
		08/20/21	0	2	2	0	0	0	3	3	0	3	1	0	2	2	18	
		11/30/21	0	2	2	0	0	0	3	3	0	3	0	0	2	2	17	
		03/04/22	0	2	2	0	0	0	3	2	0	3	2	0	2	2	18	
		05/12/22	0	2	2	0	0	0	3	2	0	0	2	0	2	2	15	
		08/11/22	0	2	2	0	0	0	3	2	0	0	1	2	2	2	16	
		10/31/22	0	2	2	0	0	0	3	2	0	3	0	0	2	2	16	
MW-302	Dexter Ave N ROW, E side	10/21/19	0	2	2	0	0	0	0	0	0	0	2	0	0	0	6	8
		01/24/20	1	2	2	0	0	3	3	0	0	0	2	2	0	0	15	
		05/07/20	1	2	2	0	0	0	0	0	0	0	0	0	0	0	5	
		07/28/20	1	2	2	0	0	0	0	0	0	3	1	0	0	0	9	
		11/09/21	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4	
		11/08/22	0	2	2	0	0	0	0	2	0	0	0	0	0	2	8	
MW-306	Roy St ROW, S side	10/15/19	0	0	2	0	0	3	0	0	0	3	0	0	0	0	8	9
		01/16/20	0	0	2	0	0	3	0	0	0	3	1	0	0	0	9	
		04/28/20	0	0	2	0	0	3	0	0	0	3	1	0	0	0	9	
		07/29/20	0	0	2	0	0	3	0	0	0	0	1	0	0	0	6	
		12/03/21	0	0	2	0	0	3	0	0	0	3	1	0	0	0	9	
		11/04/22	0	2	2	0	0	3	0	0	0	3	0	0	0	0	10	
MW-308	Alley E of Seattle Roy Aloha Shops	10/11/19	1	2	2	0	0	3	3	2	0	3	1	0	2	2	21	20
		01/16/20	1	2	2	0	0	3	3	2	0	3	2	0	2	2	22	
		04/08/20	1	2	2	0	0	3	3	2	0	3	1	0	2	2	21	
		07/06/20	1	2	2	0	0	3	3	2	0	0	2	0	2	2	19	
		11/11/21	1	2	2	0	0	3	3	2	0	3	1	0	2	2	21	
		11/01/22	1	2	2	0	0	—	3	2	0	3	0	0	2	2	17	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-315  (dup)	Mercer St ROW, N side	10/03/19	1	0	2	0	0	0	0	0	0	0	0	0	0	0	3	4
		01/16/20	0	0	2	0	0	0	0	0	0	0	2	0	0	0	4	
		04/24/20	0	0	2	0	0	0	0	0	0	0	2	0	0	0	4	
		07/24/20	0	0	2	0	0	0	0	0	0	0	1	0	0	0	3	
		11/05/21	0	0	2	0	0	0	0	0	0	3	2	0	0	0	7	
		11/05/21	0	0	2	0	0	0	0	0	0	3	2	0	0	0	7	
		11/02/22	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	
MW-317	9th Ave N ROW, W side	10/09/19	1	2	2	2	0	3	3	0	0	3	1	0	0	0	17	15
		01/16/20	1	0	2	2	0	3	3	0	0	3	1	0	0	0	15	
		04/27/20	1	2	2	2	0	3	3	0	0	3	0	0	0	0	16	
		07/30/20	1	2	2	2	0	3	3	0	0	3	0	0	2	0	18	
		11/12/21	1	2	2	2	0	3	3	0	0	0	0	0	0	0	13	
		11/01/22	1	2	2	0	0	3	3	0	0	0	1	0	0	0	12	
MW-325	Mercer St ROW, N side	10/03/19	0	2	2	0	0	0	0	0	0	3	0	0	2	0	9	6
		01/17/20	0	2	0	0	0	0	0	0	0	3	1	0	0	0	6	
		04/21/20	0	2	0	0	0	0	0	0	0	3	0	0	2	0	7	
		07/23/20	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	
		11/04/21	0	0	2	0	0	0	0	0	0	3	2	0	2	0	9	
		11/02/22	0	2	0	0	0	0	0	0	0	0	0	0	2	0	4	
MW-327	Lake Union Park, S end	10/02/19	0	2	2	2	0	3	3	0	0	0	1	0	0	0	13	16
		01/17/20	0	2	2	2	0	3	3	0	0	3	1	0	0	0	16	
		04/09/20	0	2	2	2	0	3	3	0	0	3	0	0	0	0	15	
		07/07/20	0	2	2	2	0	3	3	0	0	—	2	2	2	0	18	
		11/10/21	0	2	2	2	0	3	3	0	0	3	1	0	0	0	16	
		11/02/22	0	2	2	2	0	3	3	0	0	3	1	0	0	0	16	
MW-330	Valley St ROW, N side	05/14/20	0	0	2	0	0	0	0	0	0	0	1	0	0	0	3	5
		07/16/20	0	0	2	0	0	3	0	0	0	0	1	2	2	0	10	
		11/11/21	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4	
		10/31/22	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4	
MW-331	Alley E of Seattle Roy Aloha Shops	04/24/20	0	2	2	0	0	3	0	0	0	0	2	0	0	2	11	12
		07/06/20	1	2	2	0	0	3	0	0	0	0	2	0	2	2	14	
		11/11/21	0	2	2	0	0	3	0	0	0	3	0	0	0	2	12	
		11/01/22	0	2	2	0	0	3	0	0	0	0	1	0	0	2	10	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-333	900 Roy St, S end	04/29/20	1	2	2	2	0	3	3	0	0	0	2	0	0	0	15	15
		07/24/20	1	2	2	2	0	3	3	0	0	3	0	0	0	0	16	
		11/05/21	1	2	2	2	0	3	3	0	0	3	0	0	0	0	16	
		11/02/22	1	2	2	2	0	3	3	0	0	0	0	0	0	0	13	
MW-344	SDOT Mercer Parcel, NW quadrant	06/01/21	0	2	2	0	0	3	0	0	0	3	2	2	2	2	18	18
		08/18/21	0	2	2	0	0	3	0	0	0	3	0	0	2	2	14	
		11/18/22	1	2	2	2	0	—	3	3	0	3	1	2	2	2	23	
Intermediate "B" Water-Bearing Zone																		
FMW-141	Alley E of Seattle Roy Aloha Shops	10/30/19	1	2	2	2	2	0	3	3	0	3	0	2	2	2	24	22
		01/14/20	0	0	2	2	0	3	3	3	0	-3	1	2	2	2	17	
		04/28/20	0	2	2	2	0	3	3	3	0	3	1	2	2	2	25	
		07/22/20	0	2	2	2	0	0	3	3	0	0	2	2	2	2	20	
		11/03/22	0	0	2	2	0	3	3	2	0	3	1	2	2	2	22	
HMW-9IB  (dup)	SDOT Mercer Parcels, SW quadrant	01/26/21	0	2	2	0	0	0	3	3	0	0	2	2	2	2	18	19
		06/02/21	0	2	2	0	0	0	3	2	0	0	2	2	2	2	17	
		08/18/21	0	2	2	0	0	0	3	3	0	3	2	2	2	2	21	
		05/24/22	0	2	2	2	2	0	0	2	0	0	1	2	2	2	17	
		05/24/22	0	2	2	2	2	0	0	2	0	0	1	2	2	2	17	
		08/01/22	0	2	2	2	2	0	3	3	0	-3	1	2	2	2	18	
		11/09/22	1	2	2	2	2	—	3	3	0	0	1	0	2	2	20	
		02/23/23	1	2	2	2	2	0	3	3	0	0	1	0	2	2	20	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW111	Alley E of Seattle Roy Aloha Shops	12/17/13	0	2	2	2	0	0	0	0	0	0	1	0	2	2	11	16
		03/23/17	0	2	2	2	0	0	0	0	0	0	2	0	2	2	12	
		06/14/17	0	2	2	2	0	0	0	0	0	0	1	2	2	2	13	
		10/14/19	0	2	2	2	0	0	0	2	0	0	1	0	2	2	13	
		01/16/20	0	2	2	2	0	0	0	2	0	3	2	0	2	2	17	
		04/23/20	0	2	2	0	0	0	0	2	0	3	2	0	2	2	15	
		07/06/20	0	2	2	0	0	0	3	2	0	0	1	2	2	2	16	
		11/02/20	0	2	2	0	0	0	0	2	0	0	1	2	2	2	13	
		02/09/21	0	2	2	0	0	0	0	2	0	0	2	0	2	2	12	
		05/03/21	0	2	2	2	0	0	0	2	0	0	2	2	2	2	16	
		08/04/21	0	2	2	2	0	0	0	2	0	3	0	2	2	2	17	
		11/03/21	0	2	2	2	0	0	0	2	0	3	0	2	2	2	17	
		02/15/22	0	2	2	2	0	0	0	0	0	3	2	2	2	2	17	
		05/18/22	0	2	2	2	0	0	0	2	0	3	1	2	2	2	18	
		08/09/22	0	2	2	2	0	0	0	2	0	0	2	2	2	2	16	
		11/01/22	0	2	2	2	0	0	0	2	0	3	1	0	2	2	16	
MW112	Dexter Ave N ROW	12/26/13	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4	8
		03/22/17	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	
		06/16/17	0	0	2	2	0	0	0	0	0	0	2	0	0	0	6	
		04/12/18	0	0	2	2	0	0	0	0	0	0	1	0	0	0	5	
		12/22/18	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4	
		04/22/19	0	0	2	2	0	3	0	0	0	3	1	0	0	0	11	
		07/16/19	0	0	2	2	0	0	0	0	0	3	2	0	0	0	9	
		10/21/19	0	0	2	2	0	0	0	0	0	0	2	0	0	0	6	
		01/24/20	0	0	2	2	0	3	3	2	0	0	1	0	0	0	13	
		05/07/20	0	0	2	2	0	3	3	0	0	0	1	0	0	0	11	
		07/27/20	0	0	2	2	0	3	3	0	0	3	2	0	0	0	15	
		11/17/20	0	0	2	0	0	3	0	0	0	0	2	0	0	0	7	
		02/11/21	0	0	2	0	0	3	0	0	0	0	2	0	0	0	7	
		05/14/21	0	0	2	0	0	3	0	0	0	3	0	0	0	0	8	
		08/17/21	0	0	2	0	0	3	0	0	0	0	0	0	0	0	5	
		11/08/21	0	0	2	0	0	0	0	0	0	0	2	0	0	0	4	
		02/24/22	0	0	2	0	0	0	0	0	0	0	2	0	0	0	4	
		05/13/22	0	0	2	0	0	0	0	0	0	0	1	0	0	0	3	
		08/09/22	0	0	2	2	0	0	0	0	0	0	2	0	0	0	6	
		11/08/22	0	2	2	2	0	0	0	0	0	3	0	0	0	0	9	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW126	Alley E of Seattle Roy Aloha Shops	10/15/19	0	0	2	2	0	0	0	0	0	3	2	0	0	0	9	8
		01/14/20	0	0	2	2	0	0	0	0	0	0	2	0	0	0	6	
		04/09/20	0	0	2	2	0	0	3	0	0	3	1	0	0	0	11	
		07/24/20	0	0	2	2	0	0	0	0	0	3	1	0	0	0	8	
		11/09/20	0	0	2	2	0	0	0	0	0	3	1	0	0	0	8	
		02/10/21	0	0	2	2	0	0	0	0	0	0	2	0	0	0	6	
		05/04/21	0	0	2	2	0	0	0	0	0	3	0	0	0	0	7	
		08/04/21	0	0	2	2	0	0	0	0	0	3	0	0	0	0	7	
		11/11/21	0	0	2	2	0	0	0	0	0	3	0	0	0	0	7	
		02/15/22	0	0	2	2	0	0	0	0	0	3	2	0	0	0	9	
		05/20/22	0	0	2	2	0	0	0	0	0	0	1	0	0	0	5	
		08/10/22	0	0	2	2	0	0	0	0	0	0	1	0	2	0	7	
		11/01/22	0	0	2	2	0	0	0	0	0	3	1	0	0	0	8	
MW-143	8th Ave N ROW, E side	04/30/18	1	2	2	2	0	0	3	3	0	0	0	0	2	2	17	21
		01/29/19	1	2	2	2	0	0	3	3	0	3	2	0	2	0	20	
		04/24/19	1	2	2	2	0	0	3	3	0	0	0	0	0	0	13	
		07/19/19	1	2	2	2	0	3	3	2	0	3	2	0	2	0	22	
		10/16/19	1	2	2	0	2	0	3	3	0	0	1	2	2	2	20	
		01/22/20	1	2	2	2	0	0	3	2	0	3	2	0	2	2	21	
		04/24/20	1	2	2	2	0	3	3	2	0	0	2	0	2	0	19	
		07/29/20	1	2	2	2	0	0	3	2	0	0	1	2	2	0	17	
		11/24/20	1	2	2	2	0	0	3	3	0	3	2	2	2	2	24	
		02/08/21	1	2	2	0	2	0	3	3	0	0	1	0	2	2	18	
		05/19/21	1	2	2	2	2	0	3	3	0	3	2	0	2	2	24	
		08/20/21	1	2	2	2	2	0	3	3	0	3	0	2	2	2	24	
		12/08/21	1	2	0	2	2	3	3	3	0	3	2	2	2	2	27	
		03/08/22	1	2	0	2	2	3	3	3	0	3	2	2	2	2	27	
		05/26/22	1	2	0	2	2	3	3	3	0	3	2	0	2	2	25	
		08/12/22	1	2	0	2	2	3	3	3	0	0	2	0	2	2	22	
		11/01/22	1	2	0	2	0	0	3	0	0	3	0	0	2	2	15	



Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-145	8th Ave N ROW, E side	04/27/18	0	2	2	0	0	0	3	2	0	3	0	2	2	2	18	10
		01/29/19	0	2	2	0	0	0	0	0	0	0	2	0	2	2	10	
		04/26/19	0	2	2	0	0	0	0	0	0	3	1	0	0	2	10	
		Damaged June 2019 and Decommissioned December 2019																
MW-145R	8th Ave N ROW, E side	12/16/19	0	2	2	2	0	0	0	0	0	3	2	0	2	0	13	12
		01/21/20	0	2	2	2	0	0	0	0	0	3	2	0	2	0	13	
		04/02/20	0	2	2	2	0	0	3	0	0	3	1	0	2	0	15	
		08/03/20	0	2	2	2	0	3	3	0	0	0	0	2	2	0	16	
		11/23/20	0	2	2	0	0	3	3	0	0	0	2	0	2	0	14	
		02/05/21	0	2	2	0	0	3	3	0	0	0	1	0	2	0	13	
		05/12/21	0	2	2	0	0	3	3	0	0	0	2	0	2	0	14	
		08/23/21	0	2	2	0	0	3	3	0	0	3	0	0	0	0	13	
		11/30/21	0	2	2	0	0	0	3	0	0	0	2	0	0	0	9	
		03/08/22	0	2	2	0	0	0	3	0	0	3	2	0	0	0	12	
		05/11/22	0	2	2	0	0	0	3	0	0	0	1	0	2	0	10	
		08/10/22	0	2	2	0	0	0	3	0	0	0	1	0	0	0	8	
		11/02/22	0	2	2	0	0	0	3	0	0	0	2	0	0	0	9	
MW-147	Roy St ROW, S side	05/01/18	0	2	2	0	2	0	3	3	0	3	0	2	2	2	21	23
		01/22/19	0	2	2	0	0	3	3	3	0	0	0	2	2	2	19	
		04/23/19	1	2	2	0	0	3	3	3	0	3	2	2	2	2	25	
		07/18/19	0	2	2	0	0	3	3	3	0	3	0	2	2	2	22	
		10/14/19	1	2	2	0	0	0	3	3	0	3	0	2	2	2	20	
		01/24/20	1	2	2	0	0	0	3	3	0	—	1	2	2	2	18	
		04/29/20	1	2	2	0	0	3	3	3	0	0	1	2	2	2	21	
		07/09/20	1	2	2	2	0	3	3	3	0	0	1	2	2	2	23	
		11/10/20	1	2	2	2	0	3	3	3	0	0	2	2	2	2	24	
		02/09/21	1	2	2	0	0	3	3	3	0	-3	1	2	2	2	18	
		05/04/21	1	2	2	2	0	3	3	3	0	3	2	2	2	2	27	
		08/20/21	1	2	2	2	2	3	3	3	0	3	0	2	2	2	27	
		08/20/21	1	2	2	2	2	3	3	3	0	3	0	2	2	2	27	
		11/09/21	1	2	2	2	0	3	3	3	0	0	0	2	2	2	22	
		02/18/22	1	2	2	2	0	3	3	3	0	0	2	2	2	2	24	
		05/03/22	1	2	2	2	0	3	3	3	0	0	2	2	2	2	24	
		08/10/22	1	2	2	2	0	3	3	3	0	-3	1	2	2	2	20	
11/03/22	1	2	2	2	0	3	3	3	0	3	0	2	2	2	25			

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-148	Roy St ROW, S side	05/01/18	0	2	2	0	0	0	3	0	0	3	0	0	0	0	10	12
		01/23/19	0	2	2	0	0	0	3	0	0	0	0	2	0	0	9	
		04/26/19	0	2	2	0	0	0	3	0	0	3	0	0	0	2	12	
		07/22/19	0	2	2	0	0	0	3	0	0	3	2	0	0	2	14	
		10/16/19	0	2	2	0	0	0	3	0	0	3	0	0	0	2	12	
		01/20/20	0	2	2	0	0	0	3	0	0	3	2	2	0	2	16	
		04/30/20	0	2	2	0	0	0	3	0	0	0	2	0	0	0	9	
		07/15/20	0	2	2	0	0	0	3	2	0	3	1	0	0	2	15	
		11/11/20	0	2	2	0	0	0	3	0	0	3	2	0	0	0	12	
		08/13/21	0	2	2	0	0	0	3	0	0	3	2	0	0	2	14	
		12/07/21	0	2	2	0	0	0	3	0	0	0	2	0	0	2	11	
		02/25/22	0	2	2	0	0	0	3	0	0	0	2	0	0	2	11	
		05/05/22	0	2	2	0	0	0	3	0	-2	0	2	0	0	2	9	
		08/10/22	0	2	2	0	0	0	3	0	0	0	1	0	0	2	10	
		11/04/22	0	2	2	0	0	0	0	2	0	3	0	2	2	2	15	
MW-157	8th Ave N ROW, E side	04/26/18	0	2	2	2	0	0	0	2	0	0	0	2	2	2	14	23
		01/24/19	1	2	2	0	0	3	3	3	0	0	1	2	2	2	21	
		04/24/19	1	2	2	0	2	3	3	3	0	3	0	2	2	2	25	
		07/22/19	1	2	2	0	0	3	3	2	0	3	2	2	2	2	24	
		10/16/19	1	2	2	2	0	0	3	2	0	3	1	0	2	0	18	
		01/20/20	1	2	2	0	2	3	3	2	0	3	0	2	2	2	24	
		04/24/20	1	2	2	0	0	3	3	3	0	3	0	0	2	2	21	
		07/15/20	1	2	2	0	0	3	3	3	0	3	2	2	2	2	25	
		11/23/20	1	2	2	0	2	3	3	2	0	0	2	2	2	2	23	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-190	Valley St ROW, S side	10/14/19	0	2	2	0	0	0	0	0	0	0	1	0	2	2	9	#NAME?
		01/23/20	0	0	2	2	0	0	3	0	0	0	2	0	2	0	11	
		04/02/20	0	2	2	0	0	0	0	0	0	3	0	0	2	2	11	
		08/04/20	0	2	2	0	0	0	0	0	0	0	0	0	2	2	8	
		11/18/20	0	2	2	0	0	0	0	2	0	0	2	0	2	2	12	
		02/03/21	0	2	2	0	0	0	3	2	0	0	2	0	2	2	15	
		05/14/21	0	2	2	0	0	0	3	2	0	—	0	0	2	2	13	
		08/11/21	0	2	2	0	0	0	3	2	0	3	1	0	2	2	17	
		11/30/21	0	0	2	0	0	0	3	2	0	0	1	0	2	2	12	
		03/04/22	0	0	2	0	0	0	3	2	0	3	2	0	2	2	16	
		05/10/22	0	0	2	0	0	0	3	0	0	0	1	0	2	2	10	
		08/11/22	0	0	2	0	0	0	3	2	0	0	1	2	2	2	14	
		10/31/22	0	2	2	0	0	0	3	2	0	3	0	0	2	2	16	
MW-303	Dexter Ave N ROW, E side	10/21/19	0	2	2	0	0	0	0	0	0	3	2	0	0	0	9	7
		01/24/20	0	2	2	0	0	0	0	0	—	—	2	2	0	0	8	
		05/07/20	0	2	2	0	0	0	0	0	0	0	2	0	0	0	6	
		07/27/20	0	2	2	0	0	0	0	0	0	0	1	0	0	0	5	
		11/09/21	0	2	2	0	0	0	0	0	0	0	1	0	0	0	5	
		11/08/22	0	2	2	0	0	0	0	0	0	3	1	0	0	0	8	
MW-307	Roy St ROW, S side	10/11/19	0	2	2	0	0	0	0	2	0	3	2	0	2	2	15	8
		01/15/20	0	2	2	0	0	0	0	0	0	3	2	0	2	0	11	
		04/28/20	0	2	2	0	0	0	0	0	0	0	2	0	0	0	6	
		07/29/20	0	2	0	0	0	0	0	0	0	0	1	0	0	0	3	
		12/03/21	0	0	2	0	0	0	0	0	0	0	2	0	0	0	4	
		11/04/22	0	2	2	0	0	0	0	0	0	3	0	2	2	0	11	
MW-309	Alley E of Seattle Roy Aloha Shops	10/14/19	0	2	2	0	0	0	0	0	0	0	0	2	2	2	10	12
		01/16/20	0	2	2	0	0	0	0	0	0	3	2	0	2	2	13	
		04/08/20	0	2	2	0	0	0	0	0	0	3	2	0	2	2	13	
		07/06/20	0	2	2	0	0	0	0	0	0	3	2	0	2	2	13	
		11/11/21	0	2	2	0	0	0	0	0	0	3	1	0	2	2	12	
		11/01/22	0	2	2	0	0	0	0	0	0	3	0	0	2	2	11	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-311	Alley E of Seattle Roy Aloha Shops	10/10/19	1	2	2	0	0	0	3	2	0	3	1	2	2	2	20	19
		01/14/20	1	2	2	2	0	0	3	2	0	3	2	2	2	2	23	
		04/23/20	1	2	2	2	0	0	0	2	0	0	1	2	2	2	16	
		07/16/20	1	2	2	2	0	3	3	2	0	3	2	2	2	2	26	
		11/04/21	1	2	2	2	0	0	0	0	0	3	0	2	2	2	16	
		11/01/22	1	2	2	0	0	3	0	0	0	0	1	2	2	2	15	
MW-314	Alley E of Seattle Roy Aloha Shops	10/10/19	0	2	2	0	0	3	0	2	0	3	0	2	2	2	18	18
		01/15/20	0	2	2	0	0	0	0	0	0	3	1	2	2	2	14	
		04/22/20	1	2	2	0	0	3	3	3	0	3	1	2	2	2	24	
		07/16/20	1	2	2	0	0	3	3	3	0	3	1	2	2	2	24	
		12/03/21	0	2	2	0	0	3	0	0	0	0	2	2	2	2	15	
		12/03/21	0	2	2	0	0	3	0	0	0	0	2	2	2	2	15	
		11/01/22	0	2	2	0	0	0	3	0	0	3	0	2	2	2	16	
MW-316	Mercer St ROW, N side	10/02/19	1	2	2	0	0	3	0	0	0	3	0	0	0	0	11	8
		01/16/20	1	2	2	0	0	0	0	0	0	3	1	0	0	0	9	
		04/21/20	1	2	2	0	0	0	0	0	0	3	0	0	0	0	8	
		07/24/20	1	2	2	0	0	0	0	0	0	3	0	0	0	0	8	
		11/05/21	1	2	2	0	0	0	0	0	0	0	2	0	0	0	7	
		11/02/22	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	
MW-318	9th Ave N ROW, W side	10/08/19	1	2	2	0	0	3	0	2	0	3	1	0	2	2	18	19
		01/16/20	1	2	2	0	0	3	3	2	0	0	1	0	2	2	18	
		04/27/20	1	2	2	2	0	3	3	2	0	3	1	0	2	2	23	
		07/30/20	1	2	2	2	0	3	3	0	0	0	1	0	2	2	18	
		11/12/21	1	2	2	0	0	3	3	2	0	3	0	0	2	2	20	
		11/01/22	1	2	2	0	0	0	3	0	0	3	0	0	2	2	15	
MW-322	9th Ave N ROW, W side	10/07/19	1	2	2	0	0	0	3	2	0	3	1	2	2	2	20	23
		01/21/20	1	2	2	2	0	3	3	3	0	3	1	2	2	2	26	
		04/29/20	1	2	2	0	0	3	3	2	—	0	0	2	2	2	19	
		07/07/20	1	2	2	0	0	3	3	2	0	3	2	2	2	2	24	
		11/09/21	1	2	2	2	0	3	3	2	0	3	2	2	2	2	26	
		11/03/22	1	2	2	2	0	3	3	2	0	3	0	2	2	2	24	
MW-334	900 Roy St, S end	04/24/20	1	2	2	2	0	3	3	0	0	0	1	0	0	0	14	15
		07/07/20	1	2	2	2	0	3	3	0	0	3	1	0	0	0	17	
		11/05/21	1	2	2	2	0	3	3	0	0	3	0	0	0	0	16	
		11/03/22	1	2	2	2	0	3	3	0	0	0	1	0	0	0	14	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-335	Mercer St ROW, N side	05/01/20	0	2	2	0	0	0	0	0	0	3	0	2	2	0	11	13
		07/08/20	0	2	2	0	0	0	0	0	0	3	1	2	2	0	12	
		11/17/21	1	2	2	0	0	0	3	2	0	3	0	2	2	0	17	
		11/03/22	0	2	2	0	0	0	0	0	0	3	1	2	2	0	12	
MW-338	Lake Union Park, N end	05/07/20	1	2	2	2	0	3	3	0	0	3	2	0	0	0	18	15
		07/23/20	1	0	2	2	0	3	3	0	0	0	1	0	0	0	12	
		11/17/21	1	2	2	2	0	3	3	0	0	3	0	0	0	0	16	
		11/02/22	1	2	2	2	0	3	3	0	0	0	0	0	0	0	13	
MW-340	Lake Union Park, S end	05/12/20	1	2	2	2	0	3	3	0	0	0	2	0	0	0	15	15
		07/17/20	1	2	2	2	0	3	3	0	0	0	1	0	0	0	14	
		11/10/21	1	2	2	2	0	3	3	0	0	3	1	0	0	0	17	
		11/02/22	1	2	2	2	0	3	3	0	0	0	1	0	0	0	14	
MW-345	SDOT Mercer Parcels, NW quadrant	06/01/21	0	2	2	0	0	0	0	0	0	0	2	2	2	2	12	14
		08/18/21	0	2	2	0	0	0	0	0	0	3	0	2	2	2	13	
		11/18/22	0	2	2	0	0	–	3	3	0	0	1	2	2	2	17	
MW-346  (dup)	SDOT Mercer Parcels, NW quadrant	06/02/21	0	2	2	0	0	0	0	2	0	0	2	2	2	2	14	12
		08/18/21	0	2	2	0	0	0	0	0	0	3	0	2	2	2	13	
		05/24/22	0	2	2	0	0	0	0	0	0	0	1	2	2	2	11	
		08/02/22	0	2	2	0	0	0	0	0	0	0	1	2	2	2	11	
		11/10/22	0	2	2	0	0	0	0	0	0	0	1	2	2	2	11	
		02/23/23	0	2	2	0	0	0	0	0	0	0	1	2	2	2	11	
		02/23/23	0	2	2	0	0	0	0	0	0	0	1	2	2	2	11	
MW-347	SDOT Mercer Parcels, NW quadrant	06/01/21	0	2	2	0	0	0	0	2	0	3	1	2	2	2	16	16
		08/19/21	0	2	2	0	0	0	0	2	0	3	0	2	2	2	15	
		05/26/22	0	2	2	2	2	0	0	2	0	0	2	2	2	2	18	
		08/02/22	0	2	2	2	2	0	3	2	0	0	1	0	2	2	18	
		11/10/22	0	2	2	2	0	0	3	2	0	0	1	0	2	2	16	
		02/23/23	0	2	2	2	0	0	3	0	0	0	1	0	2	2	14	
MW-348	SDOT Mercer Parcels, SW quadrant	06/01/21	0	2	2	0	0	0	0	2	0	0	1	2	2	2	13	14
		08/19/21	0	2	2	0	0	0	0	0	0	3	0	2	2	2	13	
		05/26/22	0	2	2	0	0	0	0	2	0	0	1	2	2	2	13	
		08/01/22	0	2	2	0	0	0	0	2	0	3	1	2	2	2	16	
		11/10/22	1	2	2	2	2	–	3	0	0	0	1	0	2	2	17	
		03/13/23	1	2	2	0	0	0	0	2	0	0	0	0	2	2	11	

NV5

## NV5

NV5

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
W-MW-02	8th Ave N ROW, W side	12/16/13	0	2	2	0	0	0	0	0	0	3	1	2	2	2	14	22
		03/27/17	1	2	2	2	2	3	3	0	0	3	0	2	2	2	24	
		06/19/17	1	2	2	2	2	3	3	0	0	0	1	0	2	2	20	
		06/12/18	1	2	2	2	2	3	3	2	0	0	1	0	2	2	22	
		01/25/19	1	2	2	2	2	3	3	0	0	0	1	0	2	2	20	
		04/23/19	1	2	2	2	2	0	3	2	0	0	1	2	2	2	21	
		07/23/19	1	2	2	2	2	3	3	2	0	0	0	0	2	2	21	
		10/18/19	1	2	2	2	2	3	3	2	0	3	1	0	2	2	25	
		01/28/20	1	2	2	2	2	3	3	2	0	—	1	0	2	2	22	
		04/01/20	1	2	2	2	2	3	3	2	0	3	0	0	2	2	24	
		07/31/20	1	2	2	2	2	0	3	2	0	0	1	2	2	2	21	
Deep Water-Bearing Zone																		
FMW-129	SDOT Mercer Parcels, NE quadrant	04/10/17	0	2	2	0	0	0	0	2	0	0	2	2	2	0	12	15
		06/23/17	0	2	2	0	0	3	0	2	0	0	1	2	2	2	16	
		07/16/19	0	2	2	0	0	0	0	0	0	3	0	2	2	2	13	
		10/21/19	0	2	2	0	0	0	0	0	0	3	0	2	2	2	13	
		01/14/20	0	2	2	0	0	0	0	0	0	3	0	2	2	0	11	
		05/06/20	0	2	2	0	0	0	0	2	0	3	1	2	2	2	16	
		07/10/20	1	2	2	0	0	3	0	2	0	3	1	2	2	2	20	
		11/10/20	1	2	2	0	0	3	0	2	0	3	2	2	2	2	21	
		02/10/21	1	2	2	2	0	3	0	0	0	0	0	2	2	0	14	
		05/26/21	1	2	2	0	0	3	0	2	0	3	2	2	2	0	19	
		08/19/21	1	2	2	0	0	3	0	2	0	3	1	2	2	2	20	
		05/05/22	1	2	2	0	0	3	0	2	0	0	1	2	2	0	15	
		08/12/22	1	2	2	2	0	3	0	0	0	-3	0	2	2	0	11	
11/11/22	0	0	2	2	0	0	0	0	0	0	1	2	2	0	9			
FMW-131	Block 37, SE quadrant	03/24/17	0	0	2	2	0	0	0	0	0	0	1	0	2	0	7	15
		06/23/17	0	2	2	0	0	0	0	0	0	0	1	0	2	0	7	
		10/21/19	0	0	2	2	0	0	0	0	0	3	1	0	2	2	12	
		01/22/20	0	0	2	2	0	0	3	0	0	0	0	0	2	2	11	
		04/29/20	1	2	2	2	0	3	3	0	0	3	1	0	2	2	21	
		07/30/20	0	0	2	2	0	0	3	0	0	3	1	0	2	2	15	
		11/01/22	0	0	2	2	0	3	0	0	0	3	1	0	2	2	15	



Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
FMW-137	Alley E of Block 38 West	11/06/19	1	2	2	0	0	0	0	0	0	3	0	0	2	0	10	12
		01/22/20	0	2	2	0	0	0	0	0	0	3	0	0	2	0	9	
		05/06/20	1	2	2	2	0	3	0	0	0	3	1	0	0	0	14	
		07/31/20	1	2	2	2	0	3	0	0	0	0	1	0	2	0	13	
		11/01/22	1	2	2	2	0	3	0	0	0	0	1	0	2	0	13	
FMW-140	900 Roy St, S end	10/31/19	1	2	2	2	0	0	3	2	0	3	1	0	2	2	20	18
		01/22/20	1	2	2	0	0	3	3	3	0	3	1	0	2	2	22	
		04/28/20	1	2	2	0	0	3	3	2	0	0	0	0	2	2	17	
		07/07/20	1	2	2	0	0	3	3	2	0	3	1	0	2	2	21	
		11/02/22	0	0	2	2	0	—	3	0	0	3	1	0	0	0	11	
GEI-2	Block 37, NW quadrant	03/24/17	1	2	2	2	0	0	0	0	0	0	1	0	2	2	12	21
		06/23/17	1	2	2	2	0	3	3	2	0	3	1	0	2	2	23	
		07/16/19	1	2	2	0	0	3	3	2	0	3	1	0	2	2	21	
		10/21/19	1	2	2	0	2	3	3	2	0	3	1	0	2	2	23	
		01/22/20	1	2	2	0	0	3	3	0	0	3	1	2	2	0	19	
		04/29/20	1	2	2	2	0	3	0	0	0	3	2	0	2	2	19	
		07/30/20	1	2	2	2	0	3	3	2	0	3	1	0	2	2	23	
		11/01/22	1	2	2	2	0	3	3	2	0	0	1	0	2	2	20	
MW102  (dup)	Valley Street ROW, S side	04/25/18	0	0	2	2	0	3	0	0	0	3	0	0	0	0	10	7
		01/24/19	0	0	2	2	0	0	0	0	0	0	2	0	0	0	6	
		05/01/19	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4	
		07/18/19	0	0	2	2	0	0	0	0	0	3	1	0	0	0	8	
		11/14/19	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4	
		01/23/20	0	0	2	2	0	0	0	0	0	3	2	0	0	0	9	
		04/02/20	0	0	2	2	0	0	0	0	0	3	0	0	0	0	7	
		08/04/20	0	0	2	2	0	0	0	0	0	3	1	0	0	0	8	
		11/18/20	0	0	2	2	0	0	0	0	0	0	2	0	0	0	6	
		02/03/21	0	0	2	2	0	0	0	0	0	0	2	0	0	0	6	
		05/14/21	0	0	2	2	0	0	0	0	0	0	2	0	0	0	6	
		08/11/21	0	0	2	2	0	0	0	0	0	3	2	0	0	0	9	
		11/30/21	0	0	2	2	0	0	0	0	0	0	1	0	0	0	5	
		03/07/22	0	0	2	2	0	0	0	0	0	3	2	0	0	0	9	
		03/07/22	0	0	2	2	0	0	0	0	0	3	2	0	0	0	9	
		05/10/22	0	0	2	2	0	0	0	0	0	3	1	0	0	0	8	
		08/12/22	0	0	2	2	0	0	0	0	0	0	1	0	0	0	5	
		10/31/22	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW103	Alley E of Seattle Roy Aloha Shops	12/18/13	1	2	2	2	0	3	0	2	-2	3	0	2	2	2	19	16
		03/23/17	1	2	2	0	0	0	0	2	0	0	0	2	2	2	13	
		06/14/17	1	2	2	0	0	0	3	2	0	3	1	2	2	2	20	
		10/14/19	0	2	2	0	0	0	0	2	0	3	1	0	2	2	14	
		01/16/20	0	2	2	0	0	3	0	2	0	3	2	0	2	2	18	
		04/23/20	0	2	2	2	0	3	0	2	0	3	2	2	2	2	22	
		07/06/20	0	0	2	2	0	0	0	0	0	0	1	2	2	2	11	
		11/02/20	0	0	2	2	0	0	0	0	0	3	1	2	2	2	14	
		02/10/21	0	0	2	2	0	0	0	0	0	0	2	2	2	2	12	
		05/03/21	0	0	2	2	0	0	0	2	0	3	2	2	2	2	17	
		08/12/21	0	0	2	0	0	0	0	2	0	3	0	2	2	2	13	
		11/08/21	0	2	2	0	0	3	0	2	0	3	0	2	2	2	18	
		02/15/22	0	2	2	0	0	3	0	0	0	3	0	2	2	2	16	
		05/09/22	0	2	2	0	0	3	0	2	0	3	2	2	2	2	20	
		08/09/22	0	2	2	0	0	3	0	2	0	0	1	2	2	2	16	
		11/01/22	0	2	2	0	0	0	0	2	0	0	1	2	2	2	13	
MW104	8th Ave N ROW, W side	12/17/13	0	2	2	0	0	3	0	0	0	3	0	0	2	0	12	14
		03/30/17	0	2	2	2	0	0	0	0	0	0	0	0	2	0	8	
		06/30/17	0	0	2	2	0	0	0	0	0	3	2	2	2	0	13	
		04/09/18	0	2	2	2	0	0	0	0	0	3	1	2	2	2	16	
		02/01/19	0	0	2	2	0	0	3	2	-2	3	2	2	2	2	18	
		04/23/19	0	2	2	2	0	0	0	2	-2	3	0	2	2	2	15	
		07/22/19	0	2	2	2	0	0	0	2	-2	3	2	2	2	2	17	
		10/18/19	0	2	2	2	0	0	0	2	0	3	2	2	2	2	19	
		01/29/20	0	2	2	2	2	0	0	2	-2	—	2	2	2	2	16	
		04/01/20	0	0	2	2	0	0	0	0	0	3	1	2	2	2	14	
		07/31/20	0	0	2	2	0	—	0	0	0	3	1	2	2	2	14	
		11/17/20	0	0	2	2	0	0	0	0	0	3	2	2	2	2	15	
		02/10/21	0	0	2	2	0	0	0	0	0	0	1	2	2	2	11	
		08/23/21	0	0	2	2	0	0	0	0	0	3	1	2	2	2	14	
		11/29/21	0	0	2	2	0	0	0	0	0	0	0	2	2	2	10	
		02/23/22	0	0	2	2	0	0	0	0	0	3	2	2	2	2	15	
		05/12/22	0	0	2	2	0	0	0	0	0	0	2	2	2	2	12	
		08/23/22	0	0	2	2	0	0	0	0	0	0	1	0	2	2	9	
		11/02/22	0	0	2	2	0	0	0	0	0	0	2	2	2	2	12	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW105	Roy Street ROW, S side	12/29/13	1	2	2	0	0	3	0	0	0	0	0	0	0	2	10	16
		04/11/18	0	2	2	2	0	0	3	0	—	0	1	0	2	2	14	
		01/23/19	0	2	2	2	0	0	0	0	0	0	0	2	2	2	12	
		04/23/19	0	2	2	2	0	0	3	0	0	3	1	0	2	2	17	
		07/17/19	0	2	2	2	0	0	3	0	0	3	0	0	2	2	16	
		10/22/19	1	2	2	2	0	3	3	0	0	0	2	0	2	2	19	
		01/20/20	0	2	2	2	0	3	0	0	0	0	2	2	2	2	17	
		05/12/20	0	2	2	2	0	0	0	0	0	0	1	2	2	0	11	
		07/27/20	0	2	2	2	0	3	0	0	0	0	1	2	2	2	16	
		11/17/20	0	2	2	2	0	3	0	0	0	0	1	2	2	2	16	
		02/11/21	0	2	2	2	0	3	0	0	0	0	2	2	2	2	17	
		06/07/21	0	2	2	2	0	3	0	0	0	0	0	2	2	2	15	
		08/17/21	0	2	2	2	0	3	0	0	0	3	1	2	2	2	19	
		11/08/21	0	2	2	2	0	3	0	0	0	0	1	2	2	2	16	
		02/24/22	0	2	2	2	0	3	0	0	0	0	2	2	2	2	17	
		05/17/22	0	2	2	2	0	3	3	0	0	0	1	2	2	0	17	
		08/09/22	0	2	2	2	0	3	0	2	0	0	2	2	2	0	17	
		11/09/22	0	2	2	2	0	0	0	2	0	0	0	2	2	0	12	
MW106	SDOT Mercer Parcels, NW quadrant	04/14/17	0	2	2	2	0	0	0	0	-2	0	1	0	0	0	5	7
		06/30/17	0	2	2	2	0	0	0	0	0	3	2	0	0	0	11	
		05/04/18	0	2	2	2	0	0	0	2	0	0	0	0	0	0	8	
		04/26/19	0	2	2	2	0	0	0	0	0	0	1	0	0	0	7	
		07/19/19	0	2	2	2	0	0	0	0	0	0	0	0	0	0	6	
		10/18/19	0	2	2	2	0	0	0	0	0	3	1	0	0	0	10	
		01/14/20	0	2	2	2	0	0	0	0	0	0	1	0	0	0	7	
		05/06/20	0	2	2	2	0	0	0	0	0	0	1	0	0	0	7	
		07/10/20	0	2	2	2	0	0	0	0	0	0	1	0	0	0	7	
		11/10/20	0	2	2	2	0	0	0	0	0	3	2	0	0	0	11	
		02/12/21	0	2	2	2	0	0	0	0	0	0	1	0	0	0	7	
		05/13/21	0	2	2	2	0	0	0	0	—	0	2	0	0	0	8	
		08/19/21	0	2	2	2	0	0	0	0	0	0	0	0	2	0	8	
		12/06/21	0	0	2	2	0	0	0	0	0	0	1	0	0	0	5	
		02/18/22	0	0	2	2	0	0	0	0	0	0	2	0	0	0	6	
		05/06/22	0	0	2	2	0	0	0	0	0	3	1	0	0	0	8	
		08/02/22	0	0	2	2	0	0	0	0	0	0	1	0	0	0	5	
		11/18/22	0	2	2	2	0	—	0	0	0	0	1	0	0	0	7	

NV5

## NV5

NV5

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW128	Westlake Ave N ROW, E side	03/29/17	1	2	2	2	0	3	3	2	0	0	1	0	2	2	20	23
		06/21/17	1	2	2	2	0	0	3	2	0	3	1	0	2	2	20	
		07/18/19	1	2	2	2	0	0	3	2	0	3	2	0	2	2	21	
		10/11/19	1	2	2	0	0	3	3	2	0	3	1	0	2	2	21	
		01/20/20	1	2	2	2	0	3	3	2	0	3	1	0	2	2	23	
		04/27/20	1	2	2	2	0	3	3	2	0	3	1	0	2	2	23	
		06/29/20	1	2	2	2	0	3	3	2	0	3	2	0	2	2	24	
		11/01/22	1	2	2	2	0	3	3	2	0	3	2	0	2	2	24	
MW-138	Dexter Ave N ROW, E side	04/11/18	0	2	2	0	0	0	0	0	0	3	1	0	0	0	8	8
		01/03/19	0	2	2	0	0	0	0	0	0	0	1	0	0	0	5	
		04/22/19	0	2	2	0	0	0	0	0	0	3	1	0	0	0	8	
		07/19/19	0	2	2	0	0	0	0	0	0	3	2	0	0	0	9	
		10/21/19	0	2	2	0	0	0	0	0	0	0	2	0	0	0	6	
		01/27/20	0	2	2	0	0	0	3	0	0	3	2	0	0	0	12	
		05/08/20	0	0	2	0	0	0	0	0	0	0	1	0	0	0	3	
		07/27/20	0	2	2	0	0	3	0	0	0	3	0	0	0	0	10	
		11/18/20	0	2	2	0	0	3	0	0	0	3	1	0	0	0	11	
		02/11/21	0	2	2	0	0	3	0	0	0	3	1	0	0	0	11	
		06/07/21	0	2	2	0	0	3	0	0	0	0	2	0	2	2	13	
		08/03/21	0	2	2	0	0	3	0	0	0	0	2	0	0	0	9	
		11/10/21	0	0	2	0	0	0	0	0	0	3	0	0	0	0	5	
		02/24/22	0	0	2	0	0	0	0	0	0	0	2	0	0	0	4	
		05/25/22	0	0	2	0	0	0	0	0	0	3	1	0	0	0	6	
		08/09/22	0	0	2	2	0	0	0	0	0	0	0	0	0	0	4	
		11/08/22	0	0	2	2	0	3	0	0	0	3	0	0	0	0	10	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-153	Roy St ROW, S side	05/01/18	0	2	2	0	0	0	0	0	0	3	0	0	2	2	11	9
		01/22/19	0	0	2	2	0	0	0	0	0	0	0	0	2	2	8	
		04/24/19	0	0	2	2	0	0	0	0	0	3	0	0	2	2	11	
		07/22/19	0	0	2	2	0	0	0	0	0	0	1	2	2	2	11	
		10/15/19	0	0	2	2	0	0	0	0	0	3	0	0	0	0	7	
		01/21/20	0	0	2	2	0	0	0	0	0	3	2	0	0	0	9	
		04/30/20	0	0	2	2	0	0	0	0	0	3	1	0	0	0	8	
		07/15/20	0	0	2	2	0	0	0	0	0	0	1	0	0	0	5	
		11/09/20	0	0	2	2	0	0	0	0	0	0	2	0	0	2	8	
		02/09/21	0	0	2	2	0	0	0	0	0	0	1	0	2	2	9	
		05/10/21	0	0	2	2	0	0	0	0	0	0	2	0	2	2	10	
		08/20/21	0	0	2	2	0	0	0	0	0	3	1	0	2	2	12	
		12/07/21	0	0	2	2	0	0	0	0	0	0	2	0	2	2	10	
		02/25/22	0	0	2	2	0	0	0	0	0	0	2	0	2	2	10	
		05/02/22	0	0	2	2	0	0	0	0	0	0	0	0	2	2	8	
		08/02/22	0	0	2	2	0	0	0	0	0	0	1	0	2	2	9	
		11/03/22	0	0	2	2	0	0	0	0	0	0	0	0	2	2	8	
(dup)	8th Ave N ROW, E side	04/30/18	1	2	2	0	2	0	0	2	0	3	0	2	2	2	18	16
		01/24/19	1	2	2	0	0	0	0	0	0	0	2	2	2	2	13	
		04/25/19	1	2	2	0	0	0	0	0	0	3	1	2	2	2	15	
		07/19/19	1	2	2	2	0	0	0	0	0	3	2	2	2	2	18	
		10/16/19	1	2	2	0	0	0	0	2	0	0	1	2	2	2	14	
		01/21/20	0	2	2	2	0	0	0	0	0	3	2	0	0	2	13	
		04/24/20	1	2	2	2	0	0	0	0	0	0	0	2	2	2	13	
		07/15/20	1	2	2	2	0	0	0	0	0	3	2	2	2	2	18	
		11/23/20	1	2	2	2	0	0	3	0	0	0	2	2	2	2	18	
		02/02/21	1	2	2	2	0	0	3	0	0	0	2	2	2	2	18	
		05/10/21	1	2	2	2	0	0	3	0	0	0	2	2	2	2	18	
		08/17/21	1	2	2	2	0	0	3	0	0	0	0	2	2	2	16	
		12/08/21	0	2	2	2	0	0	3	0	0	0	2	2	2	2	17	
		12/08/21	0	2	2	2	0	0	3	0	0	0	2	2	2	2	17	
		03/04/22	0	2	2	2	0	0	0	0	0	3	2	2	2	2	17	
		05/17/22	0	2	2	2	0	0	3	0	0	0	1	2	2	2	16	
		08/12/22	0	2	2	2	0	0	0	0	0	0	0	2	2	2	12	
		11/01/22	1	2	2	2	0	0	3	0	0	3	0	2	2	2	19	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-160	8th Ave N ROW, W side	05/21/18	0	0	2	2	0	0	0	2	0	3	2	2	2	0	15	13
		01/25/19	0	0	2	2	0	0	3	2	0	3	0	2	2	0	16	
		05/01/19	0	0	2	2	0	0	3	0	0	3	2	2	2	0	16	
		07/23/19	0	0	2	2	0	0	3	0	0	0	0	0	2	2	11	
		10/17/19	0	0	2	2	0	0	3	0	0	0	2	0	2	0	11	
		01/29/20	0	0	2	2	0	0	0	0	0	—	2	2	2	2	12	
		04/01/20	0	0	2	2	0	0	3	0	0	3	0	2	2	0	14	
		08/03/20	0	0	2	2	0	0	3	0	0	0	0	2	2	2	13	
		11/30/20	0	0	2	2	0	0	0	0	0	3	1	2	2	2	14	
		02/05/21	0	0	2	2	0	0	0	0	0	0	2	2	2	2	12	
		05/12/21	0	0	2	2	0	0	0	0	0	3	0	2	2	2	13	
		08/23/21	0	0	2	2	0	0	0	0	0	3	1	2	2	2	14	
		11/29/21	0	0	2	2	0	0	0	0	0	3	2	2	2	2	15	
		02/23/22	0	0	2	2	0	0	0	0	0	3	2	2	2	2	15	
		05/25/22	0	0	2	2	0	0	0	0	0	0	1	2	2	2	11	
		08/12/22	0	0	2	2	0	0	0	0	0	0	1	2	2	2	11	
		10/31/22	0	0	2	2	0	0	0	0	0	0	2	2	2	2	12	
MW-161	8th Ave N ROW, W side	05/21/18	0	2	2	2	0	0	0	0	0	3	2	2	2	0	15	15
		01/25/19	0	2	2	2	0	0	0	0	0	0	0	2	2	0	10	
		05/01/19	0	2	2	2	0	0	0	0	0	3	1	2	2	0	14	
		07/18/19	0	2	2	2	0	0	0	0	0	3	1	2	2	0	14	
		10/14/19	0	2	2	2	0	0	0	0	0	3	2	2	2	0	15	
		01/28/20	0	2	2	2	0	0	0	0	0	0	2	2	2	2	14	
		04/03/20	0	2	2	2	0	0	3	0	0	3	2	2	2	2	20	
		07/31/20	0	2	2	2	0	0	0	0	0	3	1	2	2	2	16	
		12/01/20	0	2	2	2	0	0	0	0	0	3	1	2	2	2	16	
		02/05/21	0	2	2	2	0	0	0	0	0	0	2	2	2	2	14	
		05/25/21	0	2	2	2	0	0	0	0	0	3	0	2	2	2	15	
		08/23/21	0	2	2	2	0	0	0	0	0	3	0	2	2	2	15	
		11/29/21	0	2	2	2	0	0	0	0	0	3	0	2	2	2	15	
		02/23/22	0	2	2	2	0	0	0	0	0	3	2	2	2	2	17	
		02/23/22	0	2	2	2	0	0	0	0	0	3	2	2	2	2	17	
		05/11/22	0	2	2	2	0	0	0	0	0	3	1	2	2	2	16	
		08/12/22	0	2	2	2	0	0	0	0	0	0	1	2	2	2	13	
		10/31/22	0	2	2	2	0	0	0	0	0	0	2	2	2	2	14	
(dup)		10/31/22	0	2	2	2	0	0	0	0	0	0	2	2	2	2	14	



Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-304	Dexter Ave N ROW, E side	10/21/19	0	2	2	2	0	0	0	0	0	0	2	0	0	0	8	7
		01/27/20	0	0	2	2	0	0	0	0	0	0	2	0	0	0	6	
		05/07/20	0	0	2	2	0	0	0	0	0	0	2	0	0	0	6	
		07/27/20	0	0	2	2	0	0	0	0	0	0	1	0	0	0	5	
		11/08/21	0	0	2	2	0	0	0	0	0	3	2	0	0	0	9	
		11/09/22	0	0	2	2	0	0	0	0	0	0	1	0	0	0	5	
MW-319	9th Ave N ROW, W side	10/08/19	0	2	2	0	0	3	0	0	0	3	0	2	2	2	16	16
		01/16/20	0	2	2	0	0	3	0	0	0	3	1	2	2	2	17	
		04/27/20	0	2	2	0	0	0	0	0	0	3	0	2	2	2	13	
		07/27/20	0	2	2	0	0	3	0	0	0	3	0	2	2	2	16	
		11/08/21	0	2	2	0	0	3	0	0	0	3	0	2	2	2	16	
		11/02/22	0	2	2	0	0	3	0	0	0	3	0	2	2	2	16	
		(dup)	0	2	2	0	0	3	0	0	0	3	0	2	2	2	16	
		11/02/22	0	2	2	0	0	3	0	0	0	3	0	2	2	2	16	
MW-323	9th Ave N ROW, W side	10/09/19	0	0	0	2	0	0	0	2	0	3	2	2	2	2	15	16
		01/20/20	1	2	2	0	0	3	0	2	0	0	1	2	2	2	17	
		04/23/20	0	2	2	0	0	3	0	0	—	3	0	0	2	2	14	
		07/07/20	1	2	2	0	0	3	0	0	0	3	1	2	2	2	18	
		11/16/21	0	2	2	0	0	3	0	2	0	3	0	2	2	2	18	
		11/04/22	1	2	2	0	0	3	0	2	0	0	0	2	2	2	16	
MW-324	9th Ave N ROW, N side	10/02/19	1	2	2	0	0	3	3	2	0	3	0	2	2	2	22	20
		01/20/20	1	2	2	0	0	3	3	2	0	3	1	0	2	2	21	
		04/24/20	1	2	2	0	0	3	3	3	0	3	1	0	2	2	22	
		07/07/20	1	2	2	0	0	3	3	2	0	3	1	0	2	2	21	
		11/16/21	1	2	2	0	0	3	0	0	0	3	0	0	2	2	15	
		11/03/22	1	2	2	0	0	3	3	2	0	0	1	2	2	2	20	
MW-326	Mercer St ROW, N side	10/03/19	0	2	2	0	0	0	0	2	0	3	0	2	2	0	13	12
		01/17/20	0	2	2	0	0	0	0	0	0	3	1	2	2	0	12	
		04/21/20	0	2	2	0	0	3	0	0	0	3	0	0	2	2	14	
		07/23/20	0	2	2	0	0	3	0	0	0	3	1	2	2	2	17	
		11/04/21	0	2	2	0	0	0	0	0	-2	3	2	2	2	2	13	
		11/02/22	0	2	2	0	0	0	0	0	0	0	0	2	2	0	8	
		(dup)	0	2	2	0	0	0	0	0	0	0	0	2	2	0	8	
MW-328	Lake Union Park, S end	10/02/19	1	2	2	2	0	3	3	2	0	3	1	0	2	2	23	22
		01/17/20	1	2	2	2	0	3	3	2	0	3	1	0	2	2	23	
		04/08/20	1	2	2	2	0	3	3	2	0	3	1	0	2	2	23	
		07/07/20	1	2	2	2	0	3	3	2	0	3	2	0	2	2	24	
		11/10/21	1	0	2	2	0	3	3	0	0	3	1	0	2	2	19	
		11/02/22	1	2	2	2	0	3	3	2	0	0	0	0	2	2	19	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-329	Westlake Ave N ROW, E side	10/03/19	1	2	2	2	0	3	3	2	0	3	2	0	2	2	24	22
		01/20/20	1	2	2	2	0	3	3	2	0	3	1	0	2	2	23	
		04/27/20	1	2	2	2	0	3	3	2	0	0	1	0	2	2	20	
		08/03/20	1	2	2	2	0	3	3	2	0	3	1	0	2	2	23	
		11/01/22	1	2	2	2	0	3	0	2	0	3	2	0	2	2	21	
MW-336	Mercer St ROW, N side	05/05/20	1	2	2	0	0	3	0	0	0	0	1	2	2	2	15	15
		07/08/20	1	2	2	0	0	3	0	0	0	3	1	2	2	2	18	
		11/17/21	1	2	2	0	0	3	0	2	0	3	0	2	2	2	19	
		11/03/22	0	2	2	0	0	0	0	0	0	0	1	2	2	0	9	
MW-341	Lake Union Park, S end	05/12/20	1	2	2	2	0	3	3	2	0	0	2	0	2	2	21	22
		07/07/20	1	2	2	2	0	3	3	0	0	3	2	2	2	2	24	
		11/10/21	1	2	2	2	0	3	3	0	0	3	2	0	2	2	22	
		11/02/22	1	2	2	0	0	3	3	2	0	3	0	0	2	2	20	
MW-342	Valley St ROW, S side	05/04/20	0	2	2	2	0	0	3	0	0	3	1	0	2	2	17	19.5
		07/30/20	0	0	2	2	0	3	3	0	0	3	0	0	2	2	17	
		11/09/21	1	2	2	2	0	3	3	0	0	3	1	0	2	2	21	
		11/01/22	0	2	2	2	0	3	3	2	0	3	2	0	2	2	23	
MW-343	Valley St ROW, S side	05/04/20	1	2	2	2	0	3	0	0	0	0	2	0	0	0	12	16.5
		07/30/20	1	2	2	2	0	3	0	0	0	0	0	0	0	0	10	
		11/09/21	1	2	2	2	0	3	3	0	0	3	2	0	2	2	22	
		11/01/22	1	2	2	2	0	3	3	0	0	3	2	0	2	2	22	
Treatment Zone A																		
MW-165	Property, NE quadrant	11/04/19	1	2	2	0	2	3	3	3	0	3	2	2	2	2	27	27
		01/30/20	1	2	2	2	2	3	3	3	0	0	2	0	0	2	22	
		05/01/20	1	2	2	2	2	3	3	2	0	0	1	2	2	2	24	
		07/09/20	1	2	2	2	2	3	3	3	0	3	2	2	2	2	29	
		11/05/20	1	2	2	2	2	3	3	3	0	3	2	2	2	2	29	
		05/06/21	1	2	2	2	2	3	3	3	0	3	2	0	2	2	27	
		12/02/21	1	2	2	2	2	3	3	3	0	0	2	2	2	2	26	
		05/13/22	1	2	2	2	2	3	3	3	0	3	1	2	2	2	28	
		10/28/22	1	2	2	2	2	3	3	3	0	3	2	0	2	2	27	
MW-169	Property, SW quadrant	11/05/19	1	2	2	2	0	3	3	3	0	3	1	2	2	2	26	24
		01/23/20	1	2	2	2	0	3	3	3	0	3	2	2	0	2	25	
		05/05/20	1	2	2	2	0	3	3	3	0	3	2	0	0	2	23	
		07/10/20	1	2	2	2	0	3	3	3	0	3	2	2	0	2	25	
		11/03/20	1	2	2	0	2	3	3	3	0	3	2	2	0	2	25	
		05/07/21	1	2	2	2	0	3	3	2	0	0	2	2	0	2	21	
		11/19/21	1	2	2	2	0	3	3	2	0	0	0	2	0	2	19	
		05/12/22	1	2	2	2	0	3	3	3	0	3	2	2	0	2	25	
		10/27/22	1	2	2	2	0	3	3	3	0	3	1	2	0	2	24	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-173	Property, SE quadrant	11/01/19	1	2	2	0	0	3	3	3	0	3	2	2	2	2	25	23
		01/28/20	1	2	2	0	0	3	0	3	—	0	2	2	0	2	17	
		05/01/20	1	2	2	2	2	3	3	3	0	3	2	0	0	2	25	
		07/09/20	1	2	2	2	0	3	3	3	0	3	1	2	0	2	24	
		12/02/21	1	2	2	2	0	3	3	3	0	0	0	2	0	2	20	
		10/27/22	1	2	2	2	0	3	3	3	0	3	2	2	0	2	25	
MW-177	Property, SW quadrant	11/06/19	1	2	2	0	2	3	3	3	0	3	1	2	2	2	26	23
		01/24/20	1	2	2	0	0	0	3	3	0	0	1	2	2	2	18	
		04/01/20	1	2	2	0	2	3	3	3	0	0	2	2	2	2	24	
		07/10/20	1	2	2	0	2	3	3	3	0	3	1	2	2	2	26	
		11/03/20	1	2	2	0	0	3	3	3	0	3	1	2	2	2	24	
		05/06/21	1	2	2	0	0	3	3	3	0	0	2	2	2	2	22	
		12/03/21	0	2	2	2	0	3	3	3	0	0	0	2	2	2	21	
		05/10/22	0	2	2	2	0	3	3	3	0	3	2	2	2	2	26	
		10/26/22	0	2	2	2	0	3	3	3	0	0	1	2	2	2	22	
MW-181	Property, SW quadrant	11/08/19	1	2	2	2	2	3	3	3	0	3	0	0	2	2	25	26
		01/27/20	1	2	2	2	2	3	3	3	0	3	2	0	2	2	27	
		04/01/20	1	2	2	2	2	3	3	3	0	3	1	0	2	2	26	
		07/08/20	1	2	2	2	2	3	3	3	0	0	2	0	2	2	24	
		11/04/20	1	2	2	2	2	3	3	3	0	3	2	2	2	2	29	
		05/06/21	1	2	2	2	2	3	3	3	0	3	0	0	2	2	25	
		11/18/21	1	2	2	2	2	3	3	3	0	0	0	2	2	2	24	
		05/10/22	1	2	2	2	2	3	3	3	0	3	2	2	2	2	29	
		10/25/22	1	2	2	2	2	3	3	3	0	0	1	0	2	2	23	
MW-185	Property, SE quadrant	10/31/19	1	2	2	0	2	3	3	3	0	3	2	2	2	2	27	24
		01/29/20	1	2	2	2	2	3	3	3	0	3	2	0	0	2	25	
		04/02/20	1	2	2	2	2	3	3	3	0	3	2	0	0	2	25	
		07/08/20	1	2	2	2	0	3	3	3	0	0	2	2	0	2	22	
		11/18/21	1	2	2	2	0	3	3	3	0	0	1	2	2	2	23	
		10/27/22	1	2	2	2	0	3	3	3	0	3	1	0	2	2	24	
Treatment Zone B																		
MW-166	Property, NE quadrant	11/04/19	1	2	2	2	2	3	3	3	0	3	2	2	2	2	29	26
		01/30/20	1	2	2	2	2	3	3	3	0	—	2	0	2	2	24	
		05/01/20	1	2	2	2	2	3	3	3	0	3	2	0	2	2	27	
		07/09/20	1	2	2	2	0	3	3	3	0	3	2	2	2	2	27	
		11/05/20	1	2	2	2	2	3	3	3	0	3	2	2	2	2	29	
		05/05/21	1	2	2	2	2	3	3	3	0	3	2	0	2	2	27	
		12/02/21	1	2	0	2	2	3	3	3	0	0	1	2	2	2	23	
		05/13/22	1	2	0	2	2	3	3	3	0	3	2	0	2	2	25	
		10/28/22	1	2	2	2	2	3	3	3	0	3	1	0	2	2	26	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-170	Property, SW quadrant	11/05/19	1	2	2	0	2	3	3	3	0	3	1	2	2	2	26	25
		01/23/20	1	2	2	0	0	3	3	3	0	3	2	2	2	2	25	
		04/02/20	1	2	2	0	0	3	3	3	0	3	2	2	2	2	25	
		07/09/20	1	2	2	2	0	3	3	3	0	3	2	2	2	2	27	
		11/03/20	1	2	2	0	0	3	3	3	0	3	2	2	2	2	25	
		05/07/21	1	2	2	2	0	3	3	3	0	3	2	0	2	2	25	
		11/19/21	1	2	0	2	0	3	3	3	0	3	0	0	2	2	21	
		05/12/22	1	2	0	2	0	3	3	3	0	0	1	2	2	2	21	
		10/27/22	1	2	2	2	0	3	3	3	0	3	1	2	2	2	26	
MW-174	Property, SE quadrant	11/01/19	1	2	2	2	0	3	3	3	0	3	2	0	0	2	23	23
		01/28/20	1	2	2	2	0	3	3	3	0	0	2	0	0	2	20	
		05/01/20	1	2	2	2	0	3	3	2	0	3	2	0	0	2	22	
		07/09/20	1	2	2	2	0	3	3	2	0	3	1	2	0	2	23	
		12/02/21	1	2	2	2	0	3	3	2	0	0	0	2	0	2	19	
		10/27/22	1	2	2	2	2	3	3	3	0	3	2	2	2	2	29	
MW-178  (dup)	Property, SW quadrant	11/06/19	1	2	2	2	2	3	3	3	0	3	1	0	0	2	24	25
		01/24/20	1	2	2	2	2	3	3	3	0	0	2	0	0	2	22	
		04/02/20	1	2	2	2	2	3	3	3	0	0	2	0	0	2	22	
		07/10/20	1	2	2	2	2	3	3	3	0	3	2	2	0	2	27	
		11/03/20	1	2	2	2	2	3	3	3	0	0	1	2	0	2	23	
		05/06/21	1	2	2	2	2	3	3	3	0	3	0	0	2	2	25	
		12/06/21	1	2	2	2	2	3	3	3	0	0	0	2	2	2	24	
		05/10/22	1	2	2	2	2	3	3	3	0	3	2	2	2	2	29	
		05/10/22	1	2	2	2	2	3	3	3	0	3	2	2	2	2	29	
		10/25/22	1	2	2	2	2	3	3	3	0	-3	1	0	2	2	20	
MW-182	Property, SW quadrant	11/08/19	1	2	2	2	2	3	3	3	0	3	2	2	2	2	29	28
		01/27/20	1	2	2	0	2	3	3	3	0	3	2	2	2	2	27	
		04/01/20	1	2	2	0	2	3	3	3	0	3	2	2	2	2	27	
		07/08/20	1	2	2	2	2	3	3	3	0	3	1	2	2	2	28	
		11/04/20	1	2	2	2	2	3	3	3	0	3	2	2	2	2	29	
		05/06/21	1	2	2	2	2	3	3	3	0	3	2	2	2	2	29	
		11/18/21	1	2	2	2	2	3	3	3	0	3	0	2	2	2	27	
		05/10/22	1	2	2	2	2	3	3	3	0	3	1	2	2	2	28	
		10/25/22	1	2	2	2	2	3	3	3	0	0	1	2	2	2	25	
MW-186	Property, SE quadrant	10/31/19	0	2	2	0	0	0	3	2	0	0	1	0	2	2	14	21
		01/29/20	0	2	2	0	0	3	3	2	0	0	2	0	2	2	18	
		04/02/20	1	2	2	2	0	3	3	2	0	3	2	0	2	2	24	
		07/08/20	0	2	2	2	0	3	3	2	0	3	2	2	2	2	25	
		11/18/21	1	2	2	2	0	3	3	3	0	0	1	2	0	2	21	
		10/26/22	1	2	2	2	0	3	3	3	0	3	2	2	0	2	25	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
Treatment Zone C																		
MW-167	Property, NE quadrant	11/04/19	1	2	2	0	0	0	3	3	0	3	2	2	2	2	22	21
		01/28/20	1	2	2	2	0	0	3	2	0	3	2	0	2	2	21	
		05/01/20	1	2	2	2	0	0	3	2	0	3	2	0	2	2	21	
		07/09/20	1	2	2	2	0	—	3	2	0	3	2	2	2	2	23	
		12/02/21	1	2	2	0	0	0	3	2	0	3	2	0	2	2	19	
		10/28/22	1	2	2	2	0	0	3	2	0	3	1	0	2	2	20	
MW-171	Property, SW quadrant	11/05/19	0	2	2	0	0	3	0	2	0	3	0	0	2	2	16	22
		01/23/20	0	2	2	2	0	0	3	2	0	0	2	2	2	2	19	
		04/02/20	0	2	2	2	0	3	3	2	0	3	2	0	2	2	23	
		07/09/20	0	2	2	2	0	3	3	2	0	3	2	2	2	2	25	
		11/03/20	0	2	2	2	0	3	3	3	0	3	2	2	2	2	26	
		05/07/21	0	2	2	0	0	3	3	3	0	3	2	0	2	2	22	
		11/19/21	0	2	2	2	0	3	3	3	0	3	0	0	2	2	22	
		05/12/22	0	2	2	2	0	3	3	3	0	3	2	0	2	2	24	
		10/26/22	1	2	2	2	0	3	3	3	0	0	1	2	2	2	23	
MW-175	Property, SE quadrant	11/01/19	1	2	2	0	2	0	3	3	0	3	2	2	2	2	24	20
		01/28/20	0	2	2	2	0	0	3	2	—	0	2	0	2	2	17	
		05/01/20	0	2	2	2	0	0	3	0	0	3	1	0	0	2	15	
		07/09/20	0	0	2	2	0	0	3	2	0	3	2	2	2	2	20	
		12/02/21	1	2	2	2	0	3	3	3	0	3	0	0	0	2	21	
		10/27/22	1	2	2	2	0	3	3	3	0	3	2	2	0	2	25	
MW-179	Property, SW quadrant	11/06/19	1	2	2	0	2	3	3	3	0	3	0	2	2	2	25	26
		01/27/20	1	2	2	2	2	3	3	2	0	—	2	2	2	2	25	
		04/02/20	1	2	2	2	2	3	3	2	0	0	2	2	2	2	25	
		07/10/20	1	2	2	0	2	3	3	0	0	3	1	2	2	2	23	
		11/03/20	1	2	2	2	2	3	3	3	0	0	1	2	2	2	25	
		05/06/21	1	2	2	2	2	3	3	3	0	3	0	2	2	2	27	
		12/03/21	1	2	2	2	2	3	3	3	0	3	0	2	2	2	27	
		05/10/22	1	2	2	2	2	3	3	2	0	3	2	2	2	2	28	
		10/25/22	1	2	2	2	0	3	3	3	0	3	2	2	2	2	27	
MW-183	Property, SW quadrant	11/08/19	0	2	2	2	0	0	3	0	0	3	0	2	2	2	18	19
		01/27/20	0	2	2	2	0	0	3	2	0	3	2	0	2	2	20	
		04/02/20	0	0	2	2	0	0	3	2	0	3	2	0	2	2	18	
		07/08/20	0	0	2	2	0	0	3	2	0	3	2	2	2	2	20	
		11/04/20	0	0	2	0	0	0	3	2	0	3	1	2	2	2	17	
		05/06/21	0	0	2	0	0	0	3	3	0	3	2	0	2	2	17	
		11/18/21	1	2	2	0	0	0	3	3	0	3	0	0	2	2	18	
		05/10/22	1	2	2	0	0	0	3	3	0	3	2	2	2	2	22	
		10/25/22	1	2	2	0	0	0	3	3	0	3	2	0	2	2	20	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC		
MW-187	Property, SE quadrant	11/01/19	0	2	2	0	2	3	0	0	0	3	2	0	2	2	18	17
		01/29/20	0	2	2	2	0	0	0	0	0	2	0	2	2	12		
		04/02/20	0	2	2	2	0	0	0	0	0	3	2	0	2	0	13	
		07/08/20	0	2	2	2	0	0	0	0	0	3	1	0	2	0	12	
		11/18/21	1	2	2	2	0	3	3	3	0	0	2	0	2	2	22	
		10/26/22	1	2	2	2	0	3	3	3	0	3	2	0	2	2	25	
Treatment Zone D																		
MW-168	Property, NE quadrant	11/04/19	0	0	2	2	0	0	0	0	0	0	1	0	0	0	5	16
		01/31/20	0	0	2	2	0	0	0	0	0	—	2	0	0	0	6	
		05/01/20	0	2	2	2	0	0	3	0	0	3	2	0	0	0	14	
		07/09/20	0	0	2	2	0	3	3	2	0	3	2	0	2	0	19	
		12/02/21	1	2	2	2	0	0	3	3	0	3	2	2	2	2	24	
		10/28/22	1	2	2	2	0	0	3	3	0	3	1	0	2	2	21	
		10/28/22	1	2	2	2	0	0	3	3	0	3	1	0	2	2	21	
	(dup)																	
MW-172	Property, SW quadrant	11/05/19	0	2	2	0	0	0	0	0	0	0	0	2	2	2	10	14
		01/23/20	0	2	2	0	0	0	0	2	0	0	1	2	2	0	11	
		04/02/20	0	2	2	0	0	0	0	0	0	3	2	2	2	0	13	
		07/09/20	0	2	2	0	0	0	0	0	0	3	1	2	2	2	14	
		11/03/20	0	2	2	0	0	0	3	2	0	3	1	2	2	2	19	
		05/07/21	0	2	2	0	0	0	3	0	0	3	0	2	2	2	16	
		11/19/21	0	2	2	0	0	0	3	0	0	0	0	2	2	2	13	
		05/12/22	0	2	2	0	0	0	3	0	0	3	0	2	2	2	16	
		10/27/22	0	2	2	0	0	0	3	0	0	3	1	2	2	2	17	
MW-176	Property, SE quadrant	11/01/19	1	2	2	2	0	0	0	0	0	0	1	0	0	0	8	13
		01/28/20	0	0	2	2	0	0	0	0	—	0	1	0	0	0	5	
		05/01/20	0	0	2	2	0	0	0	0	0	3	1	0	0	0	8	
		07/09/20	0	0	2	2	0	3	0	0	0	3	2	0	2	0	14	
		12/02/21	1	2	2	2	0	3	3	3	0	0	0	0	0	2	18	
		10/27/22	1	2	2	2	0	3	3	3	0	3	2	2	0	2	25	
MW-180	Property, SW quadrant	11/06/19	1	2	2	0	2	3	3	2	0	3	1	2	2	2	25	23
		01/24/20	1	2	2	0	2	3	3	3	0	0	1	2	2	2	23	
		04/01/20	1	2	2	0	2	0	3	0	0	0	2	0	2	2	16	
		07/10/20	1	2	2	0	2	3	3	0	0	3	1	2	2	2	23	
		11/03/20	1	2	2	0	2	3	3	2	0	3	2	2	2	2	26	
		05/06/21	1	2	2	0	2	3	3	2	0	3	0	2	2	2	24	
		12/03/21	1	2	2	0	2	3	3	2	0	3	0	2	2	2	24	
		05/10/22	1	2	2	0	2	3	3	2	0	3	2	2	2	2	26	
		10/26/22	1	2	2	0	2	3	3	2	0	-3	1	2	2	2	19	

Table 7A

**Groundwater Natural Attenuation Screening Scores  
American Linen Supply Co–Dexter Avenue Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Property	Sample Date	Preliminary EPA Anaerobic Biodegradation Screening Score														Total Score	Post EVO Ave.							
			Alk	Cl <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	TOC	Fe <sup>2+</sup>	CH <sub>4</sub>	Ethane/ Ethene	pH	DO	ORP	TCE	cDCE	VC									
MW-184	Property, SW quadrant	11/08/19	0	0	2	2	0	0	0	0	0	0	0	2	2	0	8	15							
		01/27/20	0	0	2	2	0	0	0	0	0	1	2	2	2	11									
		04/01/20	0	0	2	2	0	3	0	0	3	2	0	2	0	14									
		07/08/20	0	0	2	2	0	0	3	0	3	1	2	2	2	17									
		11/04/20	0	0	2	0	0	0	3	0	0	3	1	2	2	15									
		05/06/21	0	0	2	2	0	0	3	2	0	3	0	2	2	2	18								
		11/18/21	0	2	2	0	0	0	3	0	0	0	0	2	2	2	13								
		05/10/22	0	2	2	0	0	0	3	0	0	3	1	2	2	2	17								
		10/25/22	0	2	2	0	0	0	3	0	0	3	2	2	2	2	18								
		MW-188	Property, SE quadrant	10/31/19	0	2	2	0	0	0	0	0	0	0	1	0	0		0	5	9				
01/29/20	0			2	2	0	0	0	0	0	0	1	0	0	0	5									
04/02/20	0			2	2	0	0	3	0	0	0	3	2	0	0	0	12								
07/08/20	0			2	2	0	0	0	0	0	0	3	1	0	0	0	8								
11/18/21	0			2	2	0	0	0	3	2	0	-3	1	0	2	2	11								
10/26/22	0			2	2	0	0	0	3	2	0	0	2	0	2	2	15								
<b>Notes:</b> Screening based on Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water (Publication EPA/600/R-98/128), September 1998. Alk = alkalinity; Cl <sup>-</sup> = chloride; NO <sub>3</sub> <sup>-</sup> = nitrate; SO <sub>4</sub> <sup>2-</sup> = sulfate; TOC = total organic carbon; Fe <sup>2+</sup> = ferrous iron; DO = dissolved oxygen; ORP = oxidation/reduction potential TCE = trichloroethene; cDCE = cis-1,2-dichloroethene; VC = vinyl chloride – = Data not available. Beginning October 2020, select locations were sampled for an abbreviated analyte list (Sulfate, TOC, Total Iron, Total Manganese, Methane, Ethane, and Ethene). Samples with an abbreviated list use the most recently available sample result to score for Alkalinity, Chloride, Nitrate, and Ferrous Iron. Grey shading indicates the compound was not analyzed. Numerical scoring result is from the most recently available analysis date. Evaluation of total screening score: <table><tr><td>0 - 5</td><td>Inadequate evidence for anaerobic biodegradation of CVOCs</td><td>15 - 20</td><td>Adequate evidence for anaerobic biodegradation of CVOCs</td></tr><tr><td>6 - 14</td><td>Limited evidence for anaerobic biodegradation of CVOCs</td><td>&gt;20</td><td>Strong evidence for anaerobic biodegradation of CVOCs</td></tr></table> Post EVO = Average score after completion of On-Property Injection (after March 2019).																		0 - 5	Inadequate evidence for anaerobic biodegradation of CVOCs	15 - 20		Adequate evidence for anaerobic biodegradation of CVOCs	6 - 14	Limited evidence for anaerobic biodegradation of CVOCs	>20
0 - 5	Inadequate evidence for anaerobic biodegradation of CVOCs	15 - 20	Adequate evidence for anaerobic biodegradation of CVOCs																						
6 - 14	Limited evidence for anaerobic biodegradation of CVOCs	>20	Strong evidence for anaerobic biodegradation of CVOCs																						



Table 8

**Groundwater CVOC Time-Trend Summary  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Location Description	Concentration	PCE	TCE	cDCE	tDCE	DCE	VC	CVOC µM Concentration	Notes
Proposed Cleanup Level			5	4	16	100	7	0.29		
Groundwater Screening Level for Soil Vapor (Shallow Zone Only)			24	1.4	–	77	130	0.35		
Shallow Zone										
FMW-143	9th Ave N ROW, E side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	All CVOCs non-detect.
		Max	0.30 U	0.20 U	0.20 U	0.20 U	0.188 U	0.234 U	0.0101	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
MW-8	800 Aloha Street Parcel	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.570	0.167 J	0.126 U	0.152 U	0.188 U	0.234 U	0.00902	
		Trend	No Trend	Stable	Stable	Stable	Stable	Stable	Stable	
MW-9	8th Ave N ROW, E side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	157	45.2	75.1	0.261 J	0.893	0.626	2.08	
		Trend	Decreasing	Decreasing	Prob Decreasing	Decreasing	Decreasing	Stable	Prob Decreasing	
MW121	8th Ave N ROW, E side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.954	0.0164	
		Max	2.93	0.0530	5.53	0.152 U	0.188 U	19.8	0.378	
		Trend	Decreasing	Decreasing	Decreasing	Stable	Stable	Decreasing	Decreasing	
MW125	Valley St ROW, N side	Min	0.0280 U	0.016 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.580	0.153 U	0.496	0.152 U	0.188 U	0.118 U	0.0110	
		Trend	Decreasing	Decreasing	Decreasing	Stable	Stable	Stable	Decreasing	
MW-154	Roy St ROW, S side	Min	1.02	0.214 J	0.0640 J	0.0572 U	0.0200 U	0.0273	0.0233	
		Max	88.8	6.84	2.58	0.152 U	0.188 U	7.48	0.592	
		Trend	No Trend	Prob Increasing	Decreasing	Stable	Stable	Decreasing	No Trend	
MW-155	Roy St ROW, S side	Min	3.48	0.334	0.274	0.0572 U	0.0200 U	0.0273 U	0.0331	
		Max	140	28.0	71.9	0.216	0.249	6.54	1.32	
		Trend	No Trend	No Trend	No Trend	No Trend	Stable	Prob Decreasing	Stable	
MW-159	8th Ave N ROW, E side	Min	0.0280 U	0.0160 U	0.175	0.0572 U	0.0200 U	0.0273 U	0.00384	
		Max	0.964	0.358 J	1.23	0.152	0.188 U	1.03 J	0.0331	
		Trend	Decreasing	Decreasing	Decreasing	Stable	Stable	Decreasing	Decreasing	
MW-210	Valley St ROW, N side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	All CVOCs non-detect.
		Max	0.199 U	0.153 U	0.0933 U	0.152 U	0.188 U	0.118 U	0.00678	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
MW-214	Valley St ROW, S side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	One detection of PCE in April 2018.
		Max	0.725	0.153 U	0.0933 U	0.152 U	0.188 U	0.118 U	0.00995	
		Trend	Prob Decreasing	Stable	Stable	Stable	Stable	Stable	Prob Decreasing	
MW-301	Valley St ROW, S side	Min	0.881	0.0390 J	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00800	
		Max	1.96	0.157	0.175	0.0572 U	0.0200 U	0.0273 U	0.0143	
		Trend	Decreasing	Stable	Increasing	Stable	Stable	Stable	Stable	
MW-305	Roy St ROW, S side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.300 U	0.190 U	0.107	0.152 U	0.188 U	0.234 U	0.00242	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
MW-310	Alley E of Seattle Roy Aloha Shops	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.199 U	0.0554	0.203	0.152 U	0.188 U	0.118 U	0.00781	
		Trend	Stable	Decreasing	Stable	Stable	Stable	Stable	Decreasing	
MW-312	Alley E of Seattle Roy Aloha Shops	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.137	0.0407	0.0820 J	0.152 U	0.188 U	0.234 U	0.00301	
		Trend	Prob Decreasing	Decreasing	Decreasing	Stable	Stable	Stable	Stable	

Table 8

**Groundwater CVOC Time-Trend Summary  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Location Description	Concentration	PCE	TCE	cDCE	tDCE	DCE	VC	CVOC µM Concentration	Notes
MW-313	Alley E of Seattle Roy Aloha Shops	Min	0.0280 U	0.0160 U	2.31	0.0572 U	0.0200 U	0.488	0.0331	
		Max	0.199	0.0250 J	9.77	0.152 U	0.188	2.59	0.112	
		Trend	Stable	No Trend	No Trend	Stable	Stable	Stable	Stable	
MW-320	9th Ave N ROW, W side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.391 J+	0.190 U	0.0350 J	0.152 U	0.188 U	0.234 U	0.00379	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
MW-332	Roy St ROW, N side	Min	0.0280	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.112	0.190 U	0.419 J	0.149 U	0.188 U	0.145	0.0129	
		Trend	Stable	Stable	Prob Decreasing	Stable	Stable	Decreasing	Prob Decreasing	
MW-337	Lake Union Park, N end	Min	0.0280 U	0.0160 U	0.0276	0.0572 U	0.0200 U	0.0273 U	0.00190	
		Max	0.118	0.0940	0.112	0.149 U	0.188 U	0.0670 J	0.00274	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
MW-339	Lake Union Park, S end	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.300 U	0.0280 J	0.238	0.149 U	0.188 U	0.234 U	0.00377	
		Trend	Stable	Stable	Prob Decreasing	Stable	Stable	Stable	Stable	
R-MW5	Dexter Ave N ROW, E side	Min	0.173	0.153 U	0.0933 U	0.0572 U	0.0200 U	0.0273 U	0.00469	
		Max	0.931	0.374	0.505	0.152 U	0.188 U	0.118 U	0.0146	
		Trend	Stable	No Trend	Prob Increasing	Stable	Stable	Stable	Stable	
R-MW6	8th Ave N ROW, W side	Min	0.0280 U	0.220	1.12	0.0572 U	0.0200 U	0.0273 UJ	0.0151	
		Max	1.85	2.24	19.4	0.277 J	0.347 J	26.9	0.662	
		Trend	Decreasing	Decreasing	Prob Decreasing	Stable	Prob Decreasing	Decreasing	Prob Decreasing	
SCL-MW101	Alley E of Seattle Roy Aloha Shops	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	All CVOCs non-detect.
Max	0.199 U	0.153 U	0.0933 U	0.152 U	0.188 U	0.118 U	0.00678			
Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable			
SCL-MW105	Alley E of Seattle Roy Aloha Shops	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	One detection of cDCE in April 2020.
Max	1.99 U	1.53 U	0.550	1.52 U	1.88 U	1.18 U	0.0115			
Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable			
SCS-2	Seattle Roy Aloha Shops, N end	Min	0.199 U	0.153 U	0.0933 U	0.152 U	0.188 U	0.118 U	0.00678	All CVOCs non-detect.
		Max	1.99 U	1.53 U	0.933 U	1.52 U	1.88 U	1.18 U	0.0678	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
Intermediate A Zone										
BB-8	Roy St ROW, S side	Min	20.1	3.83	2.19	0.0572 U	0.0200 U	0.0273 U	0.174	
		Max	215	107	101	0.802	0.553	0.618	3.17	
		Trend	Stable	No Trend	Prob Decreasing	Prob Decreasing	Decreasing	Decreasing	Stable	
FMW-142	9th Ave N ROW, E side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.271	0.38	0.36	0.200 U	0.188 U	0.234 U	0.0131	
		Trend	Stable	Decreasing	Decreasing	Stable	Stable	Stable	Decreasing	
GEI-1	Block 37, SW quadrant	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	All CVOCs non-detect.
		Max	0.300 U	0.190 U	0.126 U	0.152 U	0.188 U	0.234 U	0.00984	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
GEI-MW-1	Block 79 East, N end	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.147	0.230 J	0.119	0.152 U	0.188 U	0.910 J	0.00984	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
MW107	8th Ave N ROW, W side	Min	0.0280 U	0.0160 U	2.53	2.70	0.0200 U	0.682 U	0.0761	
		Max	63.8	700	3,590	22.2	22.1	674	49.3	
		Trend	Prob Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	

Table 8

**Groundwater CVOC Time-Trend Summary  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Location Description	Concentration	PCE	TCE	cDCE	tDCE	DCE	VC	CVOC µM Concentration	Notes
MW108	Alley E of Seattle Roy Aloha Shops	Min	10.2	32.6	178	1.43 U	0.500 U	11.3	3.24	
		Max	4,190	587	1,180	7.13	11.9	224	43.4	
		Trend	Decreasing	Decreasing	Decreasing	Stable	Decreasing	Stable	Decreasing	
MW109	Alley E of Seattle Roy Aloha Shops	Min	0.0280 U	0.0160 U	0.909	0.0572 U	0.0200 U	0.602	0.0204	
		Max	0.0580 J	210	629	3.34	1.21	109	8.81	
		Trend	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	
MW110	Alley E of Seattle Roy Aloha Shops	Min	375	176	187	1.43 U	0.500 U	0.273 U	6.07	
		Max	1,500	613	894	7.79	8.44	29.6	21.1	
		Trend	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	
MW115	9th Ave N ROW, W side	Min	0.0280 U	0.0160 U	0.103	0.0572 U	0.0200 U	0.174	0.00567	
		Max	0.0950 J	0.650	0.880	0.152 U	0.188 U	26.9	0.443	
		Trend	Prob Decreasing	Decreasing	Decreasing	Stable	Stable	Decreasing	Decreasing	
MW116	9th Ave N ROW, W side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.0480 J	0.190 U	0.655	0.152 U	0.188 U	0.234 U	0.0126	
		Trend	Decreasing	Stable	Decreasing	Stable	Stable	Stable	Decreasing	
MW119	9th Ave N ROW, W side	Min	0.0410	0.153 U	0.0933 U	0.0572 U	0.0200 U	0.0273 U	0.00995	
		Max	5.90	9.5	64.0	0.203	0.267	5.65	0.793	
		Trend	Decreasing	Stable	No Trend	Stable	Decreasing	Increasing	No Trend	
MW120	8th Ave N ROW, E side	Min	0.199 U	0.153 U	0.811	0.0690 J	0.188 U	0.118 U	0.0142	
		Max	155	46.9	87.2	0.258 J	0.883	2.92	2.21	
		Trend	Stable	Prob Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	
MW127	8th Ave N ROW, E side	Min	0.0280 U	0.0160 U	0.489 J	0.0572 U	0.0200 U	0.0273 U	0.00892	
		Max	0.0780 J	0.190 U	0.898	0.152 U	0.0620 J	0.175	0.0174	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
MW-142	8th Ave N ROW, E side	Min	0.0280 U	0.153 U	2.18	0.152 U	0.0200 U	3.45	0.117	
		Max	3.34	24.5	136	0.734	0.905	40.0	2.15	
		Trend	Decreasing	Decreasing	No Trend	Stable	Prob Decreasing	No Trend	Stable	
MW-144/ MW-144R	8th Ave N ROW, E side	Min	0.0280 U	0.0160 U	0.131	0.0572 U	0.0200 U	0.0273 U	0.00323	
		Max	11.0	11.5	662	4.65	1.15	888	21.1	
		Trend	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	
MW-146	Roy St ROW, S side	Min	0.0280 U	0.160 U	11.3	1.17 J	0.0200 U	173	2.92	
		Max	30.0	48.4	3,900	15.5	5.58 J-	8,610	166	
		Trend	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Prob Decreasing	Prob Decreasing	
MW-156	8th Ave N ROW, E side	Min	9.95 UJ	184	499	2.86 U	1.94 J	0.273 U	9.17	
		Max	1,720	1,270	2,850	14.5	20.7	407	40.5	
		Trend	No Trend	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	
MW-189	Valley St ROW, S side	Min	0.0280 U	0.0160 U	0.435 U	0.0572 U	0.0200 U	0.879 J	0.0161	
		Max	1.66	0.544	6.63	0.152 U	0.0790 J	45.0	0.789	
		Trend	No Trend	No Trend	Prob Increasing	Stable	Prob Decreasing	Prob Increasing	Prob Increasing	
MW-302	Dexter Ave N ROW, E side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.353 J	0.164 J	0.126 U	0.152 U	0.188 U	0.0540 J	0.00984	
		Trend	Decreasing	Decreasing	Stable	Stable	Stable	Stable	Stable	
MW-306	Roy St ROW, S side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.0770 J	0.190 U	0.0418 J	0.152 U	0.188 U	0.234 U	0.00984	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	

Table 8

**Groundwater CVOC Time-Trend Summary  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Location Description	Concentration	PCE	TCE	cDCE	tDCE	DCE	VC	CVOC µM Concentration	Notes
MW-308	Alley E of Seattle Roy Aloha Shops	Min	0.0280 U	0.016 U	3.98	0.219	0.0200 U	2.73	0.112	
		Max	0.0324 J	0.153 U	72.7	1.28	0.152	31.1	1.26	
		Trend	Stable	Stable	No Trend	No Trend	Stable	Stable	Stable	
MW-315	Mercer St ROW, N side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	All CVOCs non-detect.
Max	0.300 U	0.190 U	0.126 U	0.152 U	0.188 U	0.234 U	0.00984			
Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable			
MW-317	9th Ave N ROW, W side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
Max	0.300 U	0.190 U	0.0545 J	0.286 U	0.188 U	0.234 U	0.00984			
Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable			
MW-325	Mercer St ROW, N side	Min	0.0280 U	0.0160 U	0.0933 U	0.0572 U	0.0200 U	0.0273 U	0.00402	
Max	1.22	0.284	2.41	0.152 U	0.188 U	0.234 U	0.0262			
Trend	No Trend	No Trend	Increasing	Stable	Stable	Stable	Prob Increasing			
MW-327	Lake Union Park, S end	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
Max	0.260	0.267	0.0580 J	0.152 U	0.188 U	0.118 U	0.00678			
Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable			
MW-330	Valley St ROW, N side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
Max	0.0625 J	0.0646	0.0583 J	0.149 U	0.188 U	0.234 U	0.00250			
Trend	Prob Decreasing	Prob Decreasing	Prob Decreasing	Stable	Stable	Stable	Prob Decreasing			
MW-331	Alley E of Seattle Roy Aloha Shops	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
Max	0.300 U	0.190 U	0.0728 J	0.149 U	0.188 U	0.339	0.0101			
Trend	Stable	Stable	Stable	Stable	Stable	Stable	Decreasing			
MW-333	900 Roy St, S end	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	All CVOCs non-detect.
Max	0.300 U	0.190 U	0.276 U	0.572 U	0.200 U	0.273 U	0.0160			
Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable			
Intermediate B Zone										
FMW-141	Alley E of Seattle Roy Aloha Shops	Min	0.199 U	1.0 U	5.41	0.0572 U	0.0200 U	0.218	0.0643	
		Max	0.316	2,800	8,100	4.62	2.51	2,900	98.9	
		Trend	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	
HMF-9IB	SDOT Mercer Parcels, SW quadrant	Min	0.140 U	0.0800 U	36.7	3.28	0.100 U	116	2.27	
		Max	660	420	9,100	11.2	13	1,900	132	
		Trend	Decreasing	Decreasing	Decreasing	Stable	Decreasing	Decreasing	Decreasing	
MW111	Alley E of Seattle Roy Aloha Shops	Min	0.0280 U	0.0160 U	0.413 J	0.0572 U	0.0200 U	6.52	0.115	
		Max	0.618	0.176 J	56.2	0.0720 J	0.358	121	2.47	
		Trend	Decreasing	Prob Decreasing	No Trend	Decreasing	Decreasing	Prob Decreasing	Stable	
MW112	Dexter Ave N ROW, W side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
Max	0.248 J	0.190 U	0.126 U	0.152 U	0.166	0.234 U	0.00708			
Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable			
MW126	Alley E of Seattle Roy Aloha Shops	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	All CVOCs non-detect.
Max	0.199 U	0.153 U	0.0933 U	0.152 U	0.188 U	0.118 U	0.00678			
Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable			
MW-143	8th Ave N ROW, E side	Min	0.0280 U	0.0160 U	0.0933 U	0.0572 U	0.0200 U	0.0273 U	0.00212	CVOCs increased at the start and end of Property dewatering.
		Max	2.35	28.0	4,240	21.6	8.47	1,240	63.2	
		Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	
MW-145/ MW-145R	8th Ave N ROW, E side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.305 J	0.212 J	2.29	0.152 U	0.188 U	3.88	0.0907	
		Trend	Decreasing	Decreasing	Decreasing	Stable	Stable	Decreasing	Decreasing	

Table 8

**Groundwater CVOC Time-Trend Summary  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Location Description	Concentration	PCE	TCE	cDCE	tDCE	DCE	VC	CVOC µM Concentration	Notes
MW-147	Roy St ROW, S side	Min	0.0280 U	0.0320 J	24.0	1.47	0.0970 J	146	3.11	cDCE and CVOC µM Concentration decreasing since November 2021.
		Max	98.2	179	3,740	11.9	6.83	7,290	155	
		Trend	Decreasing	Decreasing	No Trend	Stable	Decreasing	Prob Decreasing	No Trend	
MW-148	Roy St ROW, S side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	1.24	0.347 J	0.0720 J	0.152 U	0.188 U	0.841	0.0146	
		Trend	Decreasing	Decreasing	Prob Decreasing	Stable	Stable	Increasing	No Trend	
MW-157	8th Ave N ROW, E side	Min	0.199 U	0.153 U	0.188 J	0.152 U	0.188 U	0.118 U	0.00776	
		Max	39.4	109	4,530	18.4	17.5	980	57.9	
		Trend	No Trend	No Trend	Stable	Stable	No Trend	No Trend	Stable	
MW-190	Valley St ROW, S side	Min	0.0280 U	0.0160 U	0.389 J	0.0572 U	0.0200 U	0.118 U	0.00983	
		Max	0.982	0.202	78.7	0.0980 J	0.188 U	74.3	1.84	
		Trend	Stable	Stable	Increasing	Stable	Stable	Increasing	Increasing	
MW-303	Dexter Ave N ROW, E side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.313 J	0.153 J	0.126 U	0.152 U	0.188 U	0.234 U	0.00984	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
MW-307	Roy St ROW, S side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.274	0.0490	0.935	0.152 U	0.188 U	0.289 J	0.0182	
		Trend	Stable	Stable	Prob Decreasing	Stable	Stable	Decreasing	Decreasing	
MW-309	Alley E of Seattle Roy Aloha Shops	Min	0.0280 U	0.0160 U	0.115	0.0572 U	0.0200 U	6.37	0.129	
		Max	1.11	0.497 J	1.47	0.152 U	0.188 U	16.0	0.259	
		Trend	Decreasing	Decreasing	No Trend	Stable	Stable	Stable	Stable	
MW-311	Alley E of Seattle Roy Aloha Shops	Min	0.0280 U	0.162	0.267	0.0572 U	0.0200 U	0.346	0.0116	
		Max	20.4	46.1	173	0.221 J	0.665	25.1	2.66	
		Trend	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	
MW-314	Alley E of Seattle Roy Aloha Shops	Min	1.40 U	44.7	491	1.63	1.00 U	17.9	6.74	
		Max	26.1	807	4,240	22.3	13.6	442	55.9	
		Trend	Prob Decreasing	No Trend	Stable	No Trend	No Trend	No Trend	Stable	
MW-316	Mercer St ROW, N side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.0340 J	0.190 U	0.126 U	0.152 U	0.188 U	0.234 U	0.00164	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
MW-318	9th Ave N ROW, W side	Min	0.0280 U	0.0160 U	0.489	0.0572 U	0.0200 U	0.865 J+	0.0199	cDCE and VC increasing since May 2021
		Max	0.300 U	0.190 U	9.86	0.152 U	0.188 U	46.1	0.795	
		Trend	Stable	Stable	No Trend	Stable	Stable	No Trend	No Trend	
MW-322	9th Ave N ROW, W side	Min	0.280 U	0.892	257	1.17	0.640 J	41.2	3.88	CVOCs generally decreasing since July 2020.
		Max	117	661	2,740	6.06	9.85	280	31.9	
		Trend	No Trend	No Trend	Stable	Stable	Stable	Stable	Stable	
MW-334	900 Roy St, S end	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	All CVOCs non-detect.
		Max	0.300 U	0.190 U	0.126 U	0.149 U	0.188 U	0.234 U	0.00984	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
MW-335	Mercer St ROW, N side	Min	58.2	131 J+	89.2	0.572 U	0.200 U	0.234 U	3.79	
		Max	295	302	2,770	6.34	3.63	5.08	30.8	
		Trend	Prob Decreasing	Stable	No Trend	Stable	No Trend	No Trend	No Trend	
MW-338	Lake Union Park, N end	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	All CVOCs non-detect.
		Max	0.300 U	0.190 U	0.126 U	0.149 U	0.188 U	0.234 U	0.00984	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	



Table 8

**Groundwater CVOC Time-Trend Summary  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Location Description	Concentration	PCE	TCE	cDCE	tDCE	DCE	VC	CVOC µM Concentration	Notes
MW-340	Lake Union Park, S end	Min Max Trend	0.0280 U 0.300 U Stable	0.0160 U 0.190 U Stable	0.0276 U 0.126 U Stable	0.0572 U 0.149 U Stable	0.0200 U 0.188 U Stable	0.0273 U 0.234 U Stable	0.00160 0.00984 Stable	All CVOCs non-detect.
MW-346	SDOT Mercer Parcels, NW quadrant	Min Max Trend	0.0280 U 25.3 Decreasing	0.498 6.09 Prob Decreasing	2.68 24.7 Decreasing	0.0572 U 0.0880 J Stable	0.0200 U 0.0750 J Stable	1.04 2.47 Stable	0.0574 0.417 Decreasing	
MW-347	SDOT Mercer Parcels, NW quadrant	Min Max Trend	0.0280 U 25.8 J+ Prob Decreasing	0.0160 U 50.3 Prob Decreasing	3.78 290 Decreasing	0.0572 U 0.998 Decreasing	0.0200 U 0.945 Prob Decreasing	9.64 130 Stable	0.194 5.62 Decreasing	
MW-348	SDOT Mercer Parcels, SW quadrant	Min Max Trend	0.280 U 14.4 J+ Stable	0.320 U 19.6 Stable	49.4 318 Stable	0.0572 U 1.15 J Prob Increasing	0.400 U 2.06 Stable	13.9 252 Stable	0.750 7.55 Stable	CVOCs decreasing since May 2022.
MW-349	SDOT Mercer Parcels, SW quadrant	Min Max Trend	0.0280 U 0.611 Prob Decreasing	0.0160 U 0.474 Decreasing	2.57 47.1 No Trend	0.0572 U 0.0572 U Stable	0.0200 U 0.227 J Stable	8.66 68.0 Stable	0.166 1.58 Stable	cDCE and VC decreasing since May 2022.
MW-350	SDOT Mercer Parcels, NW quadrant	Min Max Trend	0.0280 U 0.0280 U Stable	0.0160 U 0.0160 U Stable	0.0276 U 0.149 Stable	0.0572 U 0.0572 U Stable	0.0200 U 0.0200 U Stable	0.0273 U 1.06 Increasing	0.00160 0.0181 Increasing	
W-MW-01	8th Ave N ROW, W side	Min Max Trend	0.0280 U 5.33 Decreasing	0.0160 U 1.77 Decreasing	0.0276 U 1.31 Decreasing	0.0572 U 0.152 U Stable	0.0200 U 0.0630 J Stable	1.46 J+ 9.41 Decreasing	0.0266 0.201 Decreasing	
W-MW-02	8th Ave N ROW, W side	Min Max Trend	0.0280 U 0.199 U Stable	0.153 U 40.1 No Trend	1.39 J 672 Decreasing	0.166 J 2.35 Decreasing	0.0200 UJ 1.96 No Trend	1.08 81.0 J No Trend	0.0349 8.56 No Trend	
<b>Deep Zone</b>										
FMW-129	SDOT Mercer Parcels, NE quadrant	Min Max Trend	1.17 197 Decreasing	3.45 290 Decreasing	14.4 940 Decreasing	0.0920 J 2.12 Decreasing	0.0200 U 3.81 Stable	0.0273 U 14.2 Prob Decreasing	0.185 13.1 Decreasing	
FMW-131	Block 37, SE quadrant	Min Max Trend	0.0280 U 0.0650 J Decreasing	0.0160 U 0.200 U Stable	0.0276 U 20.2 No Trend	0.0572 U 0.20 U Stable	0.0200 U 0.188 U Stable	0.0273 U 0.428 Prob Decreasing	0.00160 0.211 No Trend	cDCE increasing since February 2021.
FMW-137	Alley E of Block 38 West	Min Max Trend	0.0280 U 0.146 Stable	0.0160 U 0.20 U Stable	0.126 U 10.0 Increasing	0.0572 U 0.20 U Stable	0.0200 U 0.188 U Stable	0.0273 U 0.339 J- Stable	0.00167 0.109 Increasing	
FMW-138	Alley E of Block 38 West	Min Max Trend	0.20 U 0.20 U Stable	0.20 U 0.20 U Stable	0.29 0.38 Stable	0.20 U 0.20 U Stable	– – –	0.20 U 0.20 U Stable	0.0110 0.0119 Stable	
FMW-140	900 Roy St, S end	Min Max Trend	0.0280 U 4.0 U Stable	0.0160 U 4.0 U Stable	0.0276 U 406 Decreasing	0.0572 U 0.729 Stable	0.020 U 1.19 Decreasing	0.0273 U 530 Decreasing	0.00160 12.6 Decreasing	
GEI-2	Block 37, SW quadrant	Min Max Trend	0.0280 U 0.0980 J Decreasing	0.0160 U 0.192 J Decreasing	0.20 U 20.1 Decreasing	0.0572 U 1.0 U Stable	0.020 U 0.188 U Stable	0.118 U 92 Decreasing	0.00929 1.68 Decreasing	
MW102	Valley St ROW, S side	Min Max Trend	0.0280 U 0.352 U Stable	0.0160 U 0.153 U Stable	0.0276 U 0.0933 U Stable	0.0572 U 0.152 U Stable	0.0200 U 0.188 U Stable	0.0273 U 0.118 U Stable	0.00160 0.00771 Stable	All CVOCs non-detect.

Table 8

Groundwater CVOC Time-Trend Summary  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington

Sample Location	Location Description	Concentration	PCE	TCE	cDCE	tDCE	DCE	VC	CVOC µM Concentration	Notes
MW103	Alley E of Seattle Roy Aloha Shops	Min	0.0280 U	0.153 U	2.75	0.0572 U	0.111	2.18	0.0653	TCE decreasing since August 2021.
		Max	0.569	8.73	232	0.480 J	2.49	77.9	3.50	
		Trend	Prob Decreasing	No Trend	Increasing	No Trend	Increasing	Prob Increasing	Increasing	
MW104	8th Ave N ROW, W side	Min	0.0280 U	0.0160 U	4.66	0.234	0.293	2.68	0.281	
		Max	53.1	108	176	2.50	6.47	57.1	2.80	
		Trend	Decreasing	Prob Decreasing	Decreasing	Stable	Prob Decreasing	Decreasing	Decreasing	
MW105	Roy St ROW, S side	Min	0.0280 U	0.153 U	0.102	0.0572 U	0.0200 U	0.0273 U	0.00365	
		Max	0.790	4.95 J+	11.5	0.403	1.50	0.568	0.139	
		Trend	Prob Decreasing	No Trend	No Trend	Stable	No Trend	Stable	No Trend	
MW106	SDOT Mercer Parcels, NW quadrant	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.300 U	0.190 U	0.0550 J	0.152 U	0.188 U	0.234 U	0.00188	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
MW113	9th Ave N ROW, W side	Min	0.199 U	1.53 U	39.1	4.0 U	0.0630 J	0.0710 J	0.455	PCE and TCE decreasing since August 2021.
		Max	706	1,540	10,300	32.9	15.0	1,800	129	
		Trend	Increasing	Prob Increasing	Stable	Stable	Stable	Decreasing	Stable	
MW122	Alley E of Seattle Roy Aloha Shops	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.223 J	0.153 U	0.0810 J	0.152 U	0.188 U	0.118 U	0.00693	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
MW123	Westlake Ave N ROW, W side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.284 J	0.190 U	0.126 U	0.152 U	0.188 U	0.234 U	0.00730	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
MW124	Valley St ROW, S side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.0750 J	0.153 U	0.0933 U	0.152 U	0.188 U	0.118 U	0.00189	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
MW128	Westlake Ave N ROW, E side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	2.99	0.0510	
		Max	1.0 U	1.0 U	5.0	1.0 U	0.188 U	110	1.84	
		Trend	Stable	Stable	Decreasing	Stable	Stable	Decreasing	Decreasing	
MW-138	Dexter Ave N ROW, E side	Min	0.0280 U	0.0160 U	0.027 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	1.49	0.167 J	0.262 J	0.304 U	0.376 U	0.169 J	0.0164	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	
MW-153	Roy St ROW, S side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	cDCE and VC relatively stable since February 2021.
		Max	0.756	0.190 J	1.41	0.152 U	0.188 U	15.9	0.273	
		Trend	Decreasing	Decreasing	No Trend	Stable	Stable	No Trend	No Trend	
MW-158A	8th Ave N ROW, E side	Min	0.0280 U	0.153 U	0.0933 U	0.0572 U	0.0200 U	0.195 J	0.00638	
		Max	17.7	18.7	59.6 J	0.205 J	0.189 J	8.91	1.01	
		Trend	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	
MW-160	8th Ave N ROW, W side	Min	0.0280 U	0.153 U	0.176 J	0.0572 U	0.0200 U	0.118 U	0.0104	
		Max	0.828	10.2	43.2	0.228	0.483	17.1 J	0.588	
		Trend	Decreasing	Prob Decreasing	No Trend	Decreasing	Decreasing	Increasing	No Trend	
MW-161	8th Ave N ROW, W side	Min	0.199 U	0.545	1.15	0.152 U	0.451 J	0.118 U	0.0255	PCE, TCE, cDCE decreasing since February 2021.
		Max	49.0	55.8	85.8	2.32	5.03 J	9.28 J	1.65	
		Trend	No Trend	No Trend	Increasing	No Trend	No Trend	Increasing	No Trend	
MW-304	Dexter Ave N ROW, E side	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	All CVOCs non-detect.
		Max	0.300 U	0.190 U	0.126 U	0.152 U	0.188 U	0.234 U	0.00984	
		Trend	Stable	Stable	Stable	Stable	Stable	Stable	Stable	



Table 8

**Groundwater CVOC Time-Trend Summary  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Location Description	Concentration	PCE	TCE	cDCE	tDCE	DCE	VC	CVOC µM Concentration	Notes
MW-319	9th Ave N ROW, W side	Min Max Trend	0.300 U <b>0.609</b> Decreasing	<b>4.72</b> <b>13.9</b> Prob Decreasing	<b>37.0</b> <b>63.7</b> Prob Decreasing	0.0572 U <b>0.138 J</b> Stable	0.188 U <b>0.292</b> Stable	<b>4.16</b> <b>6.78</b> Stable	<b>0.502</b> <b>0.856</b> Prob Decreasing	cDCE, tDCE, DCE, and VC increasing since November 2020.
MW-323	9th Ave N ROW, W side	Min Max Trend	0.0280 U 0.700 U Stable	0.190 U <b>0.891</b> Stable	<b>2.55</b> <b>384</b> Prob Increasing	0.0572 U <b>0.539</b> Prob Increasing	0.188 U <b>2.23</b> Prob Increasing	<b>4.14</b> <b>77.2</b> Prob Increasing	<b>0.101</b> <b>5.10</b> Prob Decreasing	
MW-324	Roy St ROW, N side	Min Max Trend	0.0280 U 15.0 U Stable	0.800 U <b>1.95 J</b> Stable	<b>1,550</b> <b>8,520</b> Stable	<b>3.21</b> <b>16.8</b> No Trend	<b>1.53</b> <b>8.80</b> No Trend	<b>29.2</b> <b>362</b> Stable	<b>17.0</b> <b>94.0</b> Stable	
MW-326	Mercer St ROW, N side	Min Max Trend	0.0280 U <b>2.26</b> No Trend	0.190 U <b>1.74</b> Increasing	<b>0.224</b> <b>9.38</b> Prob Increasing	0.0572 U 0.152 U Stable	0.0200 U 0.188 U Stable	0.0273 U <b>0.515 J</b> Prob Decreasing	<b>0.00716</b> <b>0.109</b> Increasing	
MW-328	Lake Union Park, S end	Min Max Trend	0.0280 U <b>1.66</b> Decreasing	0.0160 U 0.153 U Decreasing	0.0276 U <b>1.26</b> Decreasing	0.0572 U 0.152 U Stable	0.0200 U 0.188 U Stable	<b>2.03</b> <b>23.3</b> Decreasing	<b>0.0360</b> <b>0.390</b> Decreasing	
MW-329	Westlake Ave N ROW, E side	Min Max Trend	0.0280 U 0.300 U Stable	0.0160 U 0.190 U Stable	<b>8.51</b> <b>21.0</b> Stable	0.0572 U 0.152 U Stable	0.0200 U <b>0.0440 J</b> Stable	<b>21.8</b> <b>32.2</b> Decreasing	<b>0.454</b> <b>0.668</b> Prob Decreasing	
MW-336	Mercer St ROW, N side	Min Max Trend	0.0280 U <b>0.630 J</b> No Trend	<b>0.304 J</b> <b>6.08</b> Prob Decreasing	<b>14.5</b> <b>263</b> No Trend	0.0572 U <b>1.03 J</b> Prob Increasing	0.0200 U <b>0.390</b> Stable	0.0273 U <b>20.7</b> Stable	<b>0.157</b> <b>2.85</b> No Trend	
MW-341	Lake Union Park, S end	Min Max Trend	0.0280 U <b>0.0740 J</b> Stable	0.0160 U <b>0.102</b> Prob Decreasing	<b>2.43</b> <b>41.4</b> Decreasing	0.0572 U 0.149 U Stable	0.0200 U <b>0.0840 J</b> Decreasing	<b>5.99</b> <b>26.7</b> No Trend	<b>0.317</b> <b>0.598</b> Stable	
MW-342	Valley St ROW, S side	Min Max Trend	0.0280 U 0.300 U Stable	0.0160 U 0.190 U Stable	<b>1.22</b> <b>6.45</b> No Trend	0.0572 U <b>0.0930 J</b> Stable	0.0200 U 0.188 U Stable	<b>1.51</b> <b>10.2</b> No Trend	<b>0.0428</b> <b>0.217</b> Prob Decreasing	
MW-343	Valley St ROW, S side	Min Max Trend	0.0280 U <b>0.0370 J</b> Stable	0.0160 U 0.190 U Stable	0.0276 U <b>3.17</b> No Trend	0.0572 U 0.149 U Stable	0.0200 U 0.188 U Stable	0.0273 U <b>4.58</b> Prob Increasing	0.00160 <b>0.104</b> Prob Decreasing	
Treatment Zone A Wells										
MW-165	Property, NE quadrant	Min Max Trend	0.0280 U <b>3.95</b> No Trend	0.0800 U <b>20.2</b> No Trend	<b>6.89</b> <b>4,180</b> No Trend	<b>2.19</b> <b>91.1</b> No Trend	0.188 U <b>8.92</b> No Trend	<b>9.64</b> <b>1,690</b> Prob Increasing	<b>0.254</b> <b>54.5</b> No Trend	
MW-169	Property, SW quadrant	Min Max Trend	0.0280 U <b>6.26</b> Decreasing	0.0160 U <b>1.78</b> Decreasing	0.0276 U <b>48.8</b> Decreasing	<b>0.284</b> <b>11.9</b> Decreasing	0.0200 U <b>0.197 J</b> No Trend	0.680 <b>1,500</b> Decreasing	<b>0.0168</b> <b>24.7</b> Decreasing	
MW-173	Property, SE quadrant	Min Max Trend	0.0280 U <b>0.704</b> Decreasing	0.190 U <b>0.484 J</b> Decreasing	0.142 U <b>15.6</b> Decreasing	<b>0.370</b> <b>3.85</b> Decreasing	0.0200 U 0.188 U Stable	<b>0.143</b> <b>116</b> Decreasing	<b>0.00739</b> <b>1.94</b> Decreasing	
MW-177	Property, SW quadrant	Min Max Trend	<b>3,180</b> <b>29,400</b> Prob Decreasing	<b>551</b> <b>7,440</b> Decreasing	<b>3,150</b> <b>131,000</b> Decreasing	11.4 U <b>760</b> Decreasing	4.00 U <b>940</b> Decreasing	<b>2,920</b> <b>11,000</b> Decreasing	<b>119</b> <b>1,656</b> Decreasing	
MW-181	Property, SW quadrant	Min Max Trend	0.0280 U <b>23.8</b> Decreasing	<b>0.0940</b> <b>2.26</b> Prob Decreasing	<b>381</b> <b>30,800</b> No Trend	<b>23.2</b> <b>237</b> Decreasing	<b>6.12</b> <b>116</b> No Trend	<b>2,170</b> <b>12,200</b> No Trend	<b>43.2</b> <b>493</b> Stable	

Table 8

**Groundwater CVOC Time-Trend Summary  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Location Description	Concentration	PCE	TCE	cDCE	tDCE	DCE	VC	CVOC μM Concentration	Notes
MW-185	Property, SE quadrant	Min	0.0280 U	0.0800 U	0.257 U	0.0572 U	0.0200 U	0.512	0.0159	
		Max	2.57	3.51	547	5.47	0.897	179	8.60	
		Trend	Decreasing	Prob Decreasing	Decreasing	Decreasing	No Trend	No Trend	No Trend	
Treatment Zone B Wells										
MW-166	Property, NE quadrant	Min	0.0280 U	0.0800 U	20.4	1.41	0.188 U	29.5	0.707	
		Max	0.0880 J	1.24	12,000	70.3	32.8	4,810	201	
		Trend	Stable	No Trend	Increasing	Increasing	Increasing	Increasing	Increasing	
MW-170	Property, SW quadrant	Min	0.730 J	8.00 U	2,630	136	13.7	5,920	161	
		Max	7,070	5,780	32,700	236	82.9	14,400	497	
		Trend	No Trend	Decreasing	Decreasing	Increasing	Decreasing	Increasing	Decreasing	
MW-174	Property, SE quadrant	Min	0.0280 U	0.153 U	0.245	0.557	0.0200 U	0.529	0.0267	
		Max	2.38	0.997	22.3	2.05	0.108	157	2.78	
		Trend	No Trend	Increasing	Increasing	Stable	No Trend	Increasing	Increasing	
MW-178	Property, SW quadrant	Min	0.0280 U	0.153 U	0.0276 U	3.35	0.0200 U	0.562	0.0446	
		Max	46.9 J+	52.6	15,600	94.4	34.3	12,700	365	
		Trend	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	
MW-182	Property, SW quadrant	Min	70.0 U	40.0 U	715	16.2	2.45 J	1,350	30.1	
		Max	6,650	865	87,400	281	163	46,000	1,404	
		Trend	No Trend	No Trend	No Trend	Stable	No Trend	Increasing	No Trend	
MW-186	Property, SE quadrant	Min	0.0280 U	0.153 U	0.101	0.0572 U	0.0200 U	2.26	0.0543	
		Max	0.498	0.177	4.15	1.26	0.188 U	28.2	0.463	
		Trend	No Trend	Stable	Decreasing	No Trend	Stable	Stable	Stable	
Treatment Zone C Wells										
MW-167	Property, NE quadrant	Min	0.0280 U	0.0160 U	0.184	0.0572 U	0.0200 U	0.138	0.00545	
		Max	0.326 J	0.297 J	14.6	0.599	0.188 U	17.3	0.438	
		Trend	No Trend	Decreasing	Decreasing	Decreasing	Stable	Decreasing	Decreasing	
MW-171	Property, SW quadrant	Min	0.0280 U	0.257 U	1.53	0.0572 U	0.0200 U	8.43	0.154	
		Max	26.5	9.30	3,680	15.5 J	39.5	1,970	69.5	
		Trend	No Trend	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	
MW-175	Property, SE quadrant	Min	0.0280 U	0.0160 U	0.0740 J	0.0572 U	0.0200 U	0.0940 J	0.0235	
		Max	1.41	1.73	258	6.03	0.661	41.5	3.41	
		Trend	No Trend	Decreasing	Decreasing	Stable	Decreasing	Decreasing	Decreasing	
MW-179	Property, SW quadrant	Min	7.00 U	4.00 U	654	5.71	3.76 U	105	11.6	
		Max	489	110	17,700	279	170	31,300	679	
		Trend	Decreasing	Decreasing	No Trend	No Trend	No Trend	Prob Increasing	No Trend	
MW-183	Property, SW quadrant	Min	0.0280 U	0.153 U	0.893	0.0572 U	0.0200 U	4.24	0.0786	
		Max	123	34.7	5,430	14.3	16.3	8,160	169	
		Trend	No Trend	No Trend	Prob Increasing	Increasing	Increasing	Increasing	Increasing	
MW-187	Property, SE quadrant	Min	0.0280 U	0.0160 U	0.185 U	0.0572 U	0.0200 U	0.0273 U	0.00259	
		Max	0.0780 J	0.153 U	2.34	0.152 U	0.188 U	2.80	0.0729	
		Trend	Decreasing	Stable	Decreasing	Stable	Stable	Stable	Stable	
Treatment Zone D Wells										
MW-168	Property, NE quadrant	Min	0.0280 U	0.0160 U	0.0933 U	0.0572 U	0.0200 U	0.0273 U	0.00384	
		Max	0.147	0.500	285	3.36	0.413	43.8	3.68	
		Trend	No Trend	No Trend	Increasing	No Trend	No Trend	Increasing	Increasing	

Table 8

**Groundwater CVOC Time-Trend Summary  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Sample Location	Location Description	Concentration	PCE	TCE	cDCE	tDCE	DCE	VC	CVOC μM Concentration	Notes
MW-172	Property, SW quadrant	Min	203	576	309	14.3	22.1	2.64	10.8	
		Max	31,100	10,100	955	56.9	89.8	179	272	
		Trend	Decreasing	Decreasing	Stable	Stable	Stable	No Trend	Decreasing	
MW-176	Property, SE quadrant	Min	0.0280 U	0.0160 U	0.0933 U	0.0572 U	0.0200 U	0.0273 U	0.00163	
		Max	0.138	0.0510	1.28	3.64	0.188 U	4.37	0.0896	
		Trend	Prob Decreasing	Stable	No Trend	No Trend	Stable	Increasing	Increasing	
MW-180	Property, SW quadrant	Min	0.140 U	0.765 U	50.7	0.760 U	0.100 U	17.8	0.830	
		Max	46.8	17.6 J+	1,750	12.0	4.60 J+	994	34.2	
		Trend	No Trend	Prob Increasing	Increasing	Increasing	Prob Increasing	Increasing	Increasing	
MW-184	Property, SW quadrant	Min	1.99 U	1.53 U	22.3	0.646	1.82	1.18 U	2.19	
		Max	1,590	733	432	6.69	20.3	55.5	16.2	
		Trend	No Trend	No Trend	Prob Increasing	Prob Increasing	No Trend	Increasing	Stable	
MW-188	Property, SE quadrant	Min	0.0280 U	0.0160 U	0.0276 U	0.0572 U	0.0200 U	0.0273 U	0.00160	
		Max	0.104	0.0310 J	0.589	0.152 U	0.188 U	5.14 J+	0.0894	
		Trend	Stable	Stable	No Trend	Stable	Stable	No Trend	Stable	
<b>Notes:</b> CVOCs = Chlorinated volatile organic compounds. PCE = Tetrachloroethene (perchloroethylene).      tDCE = trans-1,2,-Dichloroethene. TCE = Trichloroethene.      DCE = 1,1-Dichloroethene. cDCE = cis-1,2-Dichloroethene.      VC = Vinyl chloride. Proposed cleanup levels from the Agency Review Draft RI Report (PES, 2022c). Analytical concentrations shown in micrograms per liter (μg/L). CVOC μM Concentration = Combined CVOC micromolar (μM) concentration of PCE, TCE, cDCE, plus VC for each sampling event. Micromolar concentration of each constituent calculated by dividing the reported result in μg/L by the individual molar weight (g/mole). min/max = Minimum or maximum concentration available for Quarter 2 2018 through Quarter 1, 2023. Concentration trend descriptions are not evaluated when a sample location has fewer than four sampling events (n < 4). Concentration trends shown in <b>bold</b> were determined quantitatively using the Mann-Kendall statistical method (GSI Mann-Kendall Toolkit, GSI Environmental Inc., 2012). Detected results are shown in <b>bold</b> . Detections above the proposed cleanup level are shown in <b>bold and shaded</b> . For trends determined using the Mann-Kendall (MK) analysis, one-half of the non-detect value was used for compounds indicated as not detected. Concentration trends not shown in bold were determined qualitatively from the time-trend plots provided in Appendix J. When all results for a given location are non-detect, the concentration trend is reported as Stable. U = Not detected at a concentration exceeding laboratory reporting limit. J = The reported concentration is an estimate based on detectable results between the method detection limit and reporting limit, laboratory QA/QC, or data validation review. J+ = The result is an estimated quantity, but the result may be biased high.										

Table 9

**Soil Vapor Analytical Data, November 2022 through February 2023  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North Seattle, Washington**

Sample Probe	Location Description	Sample Name	Sample Date	Analytical Results (micrograms per cubic meter)							
				PCE		TCE		cDCE		tDCE	
Screening Level				320	11		–		610		9.5
SV01 (30.4 to 29.9)	8th Ave N	SV01-111022 SV01-022323	11/10/22 02/23/23	5.90 3.22	1.07 1.07	U U	21.8 0.793	U U	1.72 0.793	U U	28.6 0.511
SV-18 (36.6 to 36.1)	8th Ave N	SV-18-110922 SV-18-022323	11/09/22 02/23/23	1.36 1.36	U U	1.07 1.07	U U	0.793 0.793	U U	0.793 0.793	85.9 53.4
Notes:											
Laboratory analyses conducted by Pace Analytical of Mount Juliet, TN.											
VOCs analyzed by U.S. Environmental Protection Agency Method TO-15.											
Screen Elevation is shown beneath Probe Location in parentheses. Screen Elevation is relative to NAVD88 Vertical Datum. Survey data is from 06/16/2020-07/31/2020.											
Screening levels based on CLARC, July 2021, Vapor Intrusion Method B table, Sub-Slab Soil Gas Screening Levels (if available), or Method B											
Indoor Air Cleanup Levels with a 10x vapor attenuation factor if a sub-slab cleanup level is not available.											
– = Screening level not established.											
U = Not detected at a concentration exceeding the laboratory reporting limit.											
Detected results shown in <b>bold</b> , detections exceeding MTCA Method B sub-slab screening levels shown in <b>bold</b> and highlighted in gray.											
PCE = Perchloroethylene (Tetrachloroethene).											
TCE = Trichloroethene.											
cDCE = cis-1,2-Dichloroethene.											
tDCE = trans-1,2-Dichloroethene.											
VC = Vinyl chloride.											

**Table 10**

**Property Interim Action Performance Monitoring Evaluation  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Monitoring Well	Treatment Zone	Constituent	Concentration (µg/L)					Meets Revised Benchmark?
			Average Baseline	Preliminary Benchmark	Nov/Jan Average	Revised Nov/Jan Benchmark	October 2022	
Well Cluster 1								
MW-165	A	PCE:	6.4	NSC	2.07	NSC	0.140 U	Y
		TCE:	3.8	NSC	10.2	NSC	0.0800 U	Y
		cDCE:	390	200	2,093	1050	858	Y
		VC:	180	90	326	160	797	N
MW-166	B	PCE:	4.3	NSC	0.199	NSC	0.140 U	Y
		TCE:	340	34	0.310	NSC	0.0800 U	Y
		cDCE:	5,800	2,900	2,624	1,310	12,000	N
		VC:	1,000	500	835	420	4,810	N
MW-167	C	PCE:	4.0	NSC	0.199	NSC	0.192	Y
		TCE:	92	9.2	0.153	NSC	0.0160 U	Y
		cDCE:	1,400	700	11.3	10	0.184	Y
		VC:	410	210	14.4	10	0.138	Y
MW-168	D	PCE:	0.9	NSC	0.199	NSC	0.147	Y
		TCE:	0.8	NSC	0.153	NSC	0.0160 U	Y
		cDCE:	14	7.0	0.0933	NSC	2.93	N
		VC:	45	23	0.118	NSC	6.68	N
Well Cluster 2								
MW-169	A	PCE:	5.2	NSC	1.86	NSC	0.0280 U	Y
		TCE:	1.5	NSC	1.33	NSC	0.0560	Y
		cDCE:	360	180	24.7	10	0.0276 U	Y
		VC:	230	120	888	440	1.12	Y
MW-170	B	PCE:	140	14	3,588	359	31.0 J	Y
		TCE:	38	3.8	2,953	295.0	3.99	Y
		cDCE:	6,700	3,400	24,750	12,380	2,980	Y
		VC:	2,600	1,300	6,315	3,160	11,700	N
MW-171	C	PCE:	330	33	0.407	NSC	2.80 U	NA
		TCE:	140	14	0.687	NSC	9.30	N
		cDCE:	1,300	650	295	150	3,680	N
		VC:	110	55	17.0	10	1,820	N

**Table 10**

**Property Interim Action Performance Monitoring Evaluation  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Monitoring Well	Treatment Zone	Constituent	Concentration (µg/L)					Meets Revised Benchmark?
			Average Baseline	Preliminary Benchmark	Nov/Jan Average	Revised Nov/Jan Benchmark	October 2022	
MW-172	D	PCE:	3,000	300	19,955	1,996	3,390	N
		TCE:	950	100	6,690	669	1,880	N
		cDCE:	2,100	1,100	633	320	309	Y
		VC:	120	60	30.8	20	8.28	Y
Well Cluster 3								
MW-173	A	PCE:	57	5.7	0.452	NSC	0.0280 U	Y
		TCE:	0.9	NSC	0.393	NSC	0.0460	Y
		cDCE:	26	13	10.5	10	0.0630 J	Y
		VC:	13	6.5	91.6	50.0	0.629	Y
MW-174	B	PCE:	1.7	NSC	0.199	NSC	2.38	N
		TCE:	5.0	NSC	0.153	NSC	0.997	N
		cDCE:	180	90	0.484	NSC	22.3	N
		VC:	68	34	3.69	NSC	157	N
MW-175	C	PCE:	0.6	NSC	0.730	NSC	1.41	N
		TCE:	5.2	NSC	0.942	NSC	0.0220 J	Y
		cDCE:	120	60	133	70	0.0740 J	Y
		VC:	22	11	25.9	10	0.0940 J	Y
MW-176	D	PCE:	2.1	NSC	0.199	NSC	0.0280 U	Y
		TCE:	5.7	NSC	0.153	NSC	0.0200 J	Y
		cDCE:	80	40	0.0933	NSC	0.211	Y
		VC:	7.3	NSC	0.118	NSC	0.668	Y
Well Cluster 4								
MW-177	A	PCE:	500	50	14,790	1,479	5,450 J+	N
		TCE:	86	8.6	4,575	458.0	551	Y
		cDCE:	2,400	1,200	115,400	57,700	3,150	Y
		VC:	310	160	9,720	4,860	3,100	Y
MW-178	B	PCE:	12,000	1,200	0.199	NSC	5.60 U	NA
		TCE:	2,100	210	0.153	NSC	3.20 U	NA
		cDCE:	36,000	18,000	2.92	NSC	9,440	N
		VC:	3,400	1,700	440	220	5,850	N

Table 10

**Property Interim Action Performance Monitoring Evaluation  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Monitoring Well	Treatment Zone	Constituent	Concentration (µg/L)					Meets Revised Benchmark?
			Average Baseline	Preliminary Benchmark	Nov/Jan Average	Revised Nov/Jan Benchmark	October 2022	
MW-179	C	PCE:	730	73	44.7	4.0	10.4 J+	Y
		TCE:	280	28	33.3	3.0	5.10	Y
		cDCE:	17,000	8,500	2,361	1,180	1,120	Y
		VC:	2,600	1,300	345	170	1,620	N
MW-180	D	PCE:	410	41	2.80	NSC	4.80 J+	Y
		TCE:	120	12	3.18	NSC	7.70	Y
		cDCE:	1,100	550	189	90	948	N
		VC:	59	30	111	60	743	N
Well Cluster 5								
MW-181	A	PCE:	35	3.5	99.5	10.0	5.60 U	Y
		TCE:	29	2.9	76.5	8.0	3.20 U	Y
		cDCE:	890	450	24,600	12,300	5,150	Y
		VC:	170	85	10,180	5,090	12,200	N
MW-182	B	PCE:	7.0	NSC	865	87	155 J+	N
		TCE:	6.0	NSC	455	45	180	N
		cDCE:	970	490	11,850	5,930	36,600	N
		VC:	440	220	1,555	780	24,200	N
MW-183	C	PCE:	4.0	NSC	0.237	NSC	2.80 U	NA
		TCE:	1.0	NSC	0.153	NSC	1.60 U	NA
		cDCE:	100	50	40.9	20	3,060	N
		VC:	80	40	9.90	NSC	4,350	N
MW-184	D	PCE:	1.7	NSC	1,238	124	319 J+	N
		TCE:	0.5	NSC	529	53	217	N
		cDCE:	11	5.5	50.7	30.0	251	N
		VC:	12	6.0	0.287	NSC	23.9	N
Well Cluster 6								
MW-185	A	PCE:	0.2	NSC	1.38	NSC	0.140 U	Y
		TCE:	0.2	NSC	1.83	NSC	0.0800 U	Y
		cDCE:	26	13	274	140	0.225 J	Y
		VC:	62	31	90.3	50	1.48	Y



Table 10

**Property Interim Action Performance Monitoring Evaluation  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Monitoring Well	Treatment Zone	Constituent	Concentration (µg/L)					Meets Revised Benchmark?
			Average Baseline	Preliminary Benchmark	Nov/Jan Average	Revised Nov/Jan Benchmark	October 2022	
MW-186	B	PCE:	0.3	NSC	0.199	NSC	0.0280 U	Y
		TCE:	0.5	NSC	0.153	NSC	0.0630	Y
		cDCE:	51	26	2.46	NSC	0.207	Y
		VC:	31	16	25.8	10	3.19	Y
MW-187	C	PCE:	0.0	NSC	0.199	NSC	0.0280 U	Y
		TCE:	0.1	NSC	0.153	NSC	0.0160 U	Y
		cDCE:	4.8	NSC	1.33	NSC	0.125	Y
		VC:	1.3	NSC	1.53	NSC	0.274	Y
MW-188	D	PCE:	0.1	NSC	0.199	NSC	0.0280 U	Y
		TCE:	0.1	NSC	0.153	NSC	0.0160 U	Y
		cDCE:	0.8	NSC	0.0933	NSC	0.104	Y
		VC:	0.2	NSC	0.118	NSC	0.192	Y

**Notes:**

Average baseline concentrations at each monitoring well location established by modeling the pre-excavation monitoring data and averaging the concentrations of PCE, TCE, cDCE, and VC across the screened interval, rounded to 2 significant figures.

Preliminary benchmark concentrations established in 2018 to provide a guideline for what was expected to be observed in specific wells approximately 18 months after the initial injection of EVO, assuming the following (all values rounded to 2 significant figures:

- For PCE and TCE, it was assumed that a 90 percent reduction of the average baseline concentration would be achieved.
- For cDCE and VC, it was assumed that a 50 percent reduction of the average baseline concentration would be achieved.
- For maximum estimated baseline concentrations at or below 10 µg/L, the preliminary benchmark was assigned "NSC" for no significant change, indicating no anticipated change over the initial 18 month timeframe.

The November 2019/January 2020 average concentrations were estimated from the initial CA monitoring well sampling in November 2019 and January 2020 and were used to determine the revised benchmarks.

PCE = perchloroethylene (tetrachloroethene).                      cDCE = cis-1,2-dichloroethene.  
TCE = trichloroethene.    VC = Vinyl Chloride.  
µg/L = micrograms per liter.  
U = not detected at or above the laboratory method detection limit (MDL).  
J = the identification of the analyte is acceptable; the reported value is an estimate.  
Gray highlighted cells indicate quarterly analytical result exceeding the preliminary benchmark concentration..  
NA = Not applicable. Cannot compare a detected value to a non-detected value with a higher MDL than the detection.

Table 11

**Off-Property Interim Action Performance Monitoring Evaluation  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North, Seattle, Washington**

Location	Performance Monitoring Wells	Range of 2017-2018 CVOC Concentrations (µg/L)	2022 Q4 CVOC Concentrations (µg/L)	Estimated Travel Time from Perimeter Injection Wells <sup>1, 2</sup>	Expected Change in CVOC Concentrations <sup>3</sup> 1 to 3 years Post Perimeter Injection	Performance Monitoring Data Evaluation	
						Did Results Meet Expected Changes?	Comments
Shallow Zone Monitoring Wells							
8th Avenue ROW	MW-9, MW121, MW159	PCE: 0.199U to 2.93 TCE: 0.153U to 0.358J cDCE: 0.1140J to 1.13 VC: 0.118U to 7.68	PCE: 0.0280U (all ND) TCE: 0.0160U (all ND) cDCE: 0.0276U to 0.448 VC: 0.0960J to 1.03	2 to 3 years	<1 order of magnitude decrease	MW-9: Yes MW121: Yes MW-159: Yes	CVOCs in MW-9, MW121, MW159 are each ≤ 1 order of magnitude from baseline concentrations.
Roy Street ROW	MW-154, MW-155	PCE: 3.48 to 4.46 TCE: 0.230J to 0.334J cDCE: 0.466J to 1.77 VC: 0.447J to 7.48	PCE: 47.5 to 88.8 TCE: 6.04 to 11.4 cDCE: 0.925 to 61.4 VC: 0.0273U to 0.270	4 to 6 years	<1 order of magnitude decrease. However, approximately 2.5 years after injections, it is unlikely to observe changes in specified timeframe due to interim action.	MW-154: NA MW-155: NA	PCE and TCE in MW-154 and PCE, TCE, and cDCE in MW-155: increased ≥ 1 order of magnitude. cDCE and VC in MW-154 and VC in MW-155 decreased ≤ 1 order of magnitude from the baseline.
Intermediate A Zone Monitoring Wells							
8th Avenue ROW	MW-142, MW-144, MW-156	PCE: 0.523 to 1.86 TCE: 1.40 to 581 cDCE: 46.1 to 2,850 VC: 17.2J to 888	PCE: 0.0280U to 648 TCE: 0.0800 U to 249 cDCE: 0.131 to 523 VC: 0.124 to 43.2	1 to 2 years	Approximately 1 order of magnitude decrease for PCE and TCE; stable or declining concentrations for cDCE and VC	MW-142: Yes MW-144/R: Yes MW-156: No	MW-142: PCE and TCE generally decreasing. cDCE and VC stable. MW-144: CVOCs ≤ 1 order of magnitude decrease. MW-156: CVOCs generally decreasing slowly.
Roy Street ROW	BB-8, MW-146	PCE: 3.56 to 46.8J TCE: 8.57 to 48.4 cDCE: 3.10 to 900 VC: 0.118U to 2,100	PCE: 0.0280U to 109J+ TCE: 0.101 to 32.2 cDCE: 13.8 to 23.5 VC: 0.0273U to 173	2 to 4 years	<1 order of magnitude decrease	BB-8: Yes MW-146: Yes	BB-8: CVOCs relatively stable. MW-146: CVOCs all ≥ 1 order of magnitude decrease since On Property/Block 38W pumping ended.
Intermediate B Zone Monitoring Wells							
8th Avenue ROW	MW-143, MW-145, MW-157	PCE: 0.199U to 0.950 TCE: 0.153U to 0.240J cDCE: 2.29 to 129 VC: 3.88J to 193	PCE: 0.0280U to 3.04 TCE: 0.0160U to 24.7 cDCE: 0.100J to 2,770 VC: 0.274 to 528	8 to 13 years	Unlikely to observe changes in specified timeframe due to interim action; effects of natural attenuation processes may be evident	MW-143: NA MW-145: NA MW-157: NA	MW-143: CVOCs variable, may have been impacted by dewatering. MW-145R: CVOCs all decreased to ND. MW-157: CVOCs variable.
Roy Street ROW	MW-147, MW-148	PCE: 0.199U to 19.8 TCE: 0.153U to 83.4 cDCE: 0.0933U to 399 VC: 0.118U to 1,150	PCE: 0.0280U (all ND) TCE: 0.0360J to 0.116 cDCE: 0.0720J to 72.7 VC: 0.480 to 146	15 to 25 years	Unlikely to observe changes in specified timeframe due to interim action; effects of natural attenuation processes may be evident	MW-147: NA MW-148: NA	MW-147: CVOCs all ≥ 1 order of magnitude decrease since On Property/Block 38W pumping ended. MW-148: CVOCs relatively stable at low/ND concentrations.

Table 11

Off-Property Interim Action Performance Monitoring Evaluation  
 American Linen Supply Co Dexter Ave Site  
 700 Dexter Avenue North, Seattle, Washington

Location	Performance Monitoring Wells	Range of 2017-2018 CVOC Concentrations (µg/L)	2022 Q4 CVOC Concentrations (µg/L)	Estimated Travel Time from Perimeter Injection Wells <sup>1, 2</sup>	Expected Change in CVOC Concentrations <sup>3</sup> 1 to 3 years Post Perimeter Injection	Performance Monitoring Data Evaluation	
						Did Results Meet Expected Changes?	Comments
Deep Zone Monitoring Wells							
8th Avenue ROW	MW104, MW-158A, MW-160, MW-161	PCE: 0.199U to 17.7 TCE: 0.153U to 18.7 cDCE: 41.54 to 176  VC: 0.118U to 32.3	PCE: 0.0280U to 0.307 TCE: 0.0940 to 0.557 cDCE: 0.107 to 30.3  VC: 0.250 to 30.3	0.5 to 2 years	Approximately 1 order of magnitude decrease for PCE and TCE; stable or declining concentrations for cDCE and VC	MW104: Yes MW-158A: Yes MW-160: Yes  MW-161: No	PCE and TCE decreased to below CULs in all wells. MW104, MW-158A, MW-160: stable and/or decreasing cDCE and VC. MW-161 increasing cDCE and VC.
Roy Street ROW	MW105, MW106, MW-140, MW-153	PCE: 0.199U to 0.756 TCE: 0.153U to 0.572J+ cDCE: 0.0933U to 2.47J+  VC: 0.118U to 9.56	PCE: 0.0280U to 0.0420J TCE: 0.0160U to 0.173 cDCE: 0.0276U to 0.292  VC: 0.0273U to 1.14	1 to 3 years	<1 order of magnitude decrease	MW105: Yes MW106: Yes MW-140: NA- decomissioned  MW-153: Yes	MW105: CVOCs started increasing in Jan 2020 but are now low/ND. MW106: consistently ND. MW-153: PCE/TCE: ND. cDCE below CUL, VC decreasing
<div>Notes:</div> <div>NA = Expectation not applicable at this time due to projected travel time from Property to monitoring wells.</div> <div>Estimates are based on hydraulic conductivities determined from slug tests and grain size analysis, limited groundwater flow directions and hydraulic gradients in 2017 and 2018 during periods when no groundwater extraction occurred in the area, no retardation, and best professional judgement. Future construction dewatering in the area could change the estimated travel times and expected concentration changes depending on location, pumping rate, and duration of the dewatering.</div> <div>Since groundwater does not appear to flow directly to the south from the Property, a longer flowpath to the south during the injection period along Roy Street was assumed.</div> <div>Cleanup levels proposed in the Agency Review Draft RI Report: PCE = 5 µg/L; TCE = 3.6 µg/L; cDCE = 16 µg/L; VC = 0.29 µg/L.</div>							

## ILLUSTRATIONS





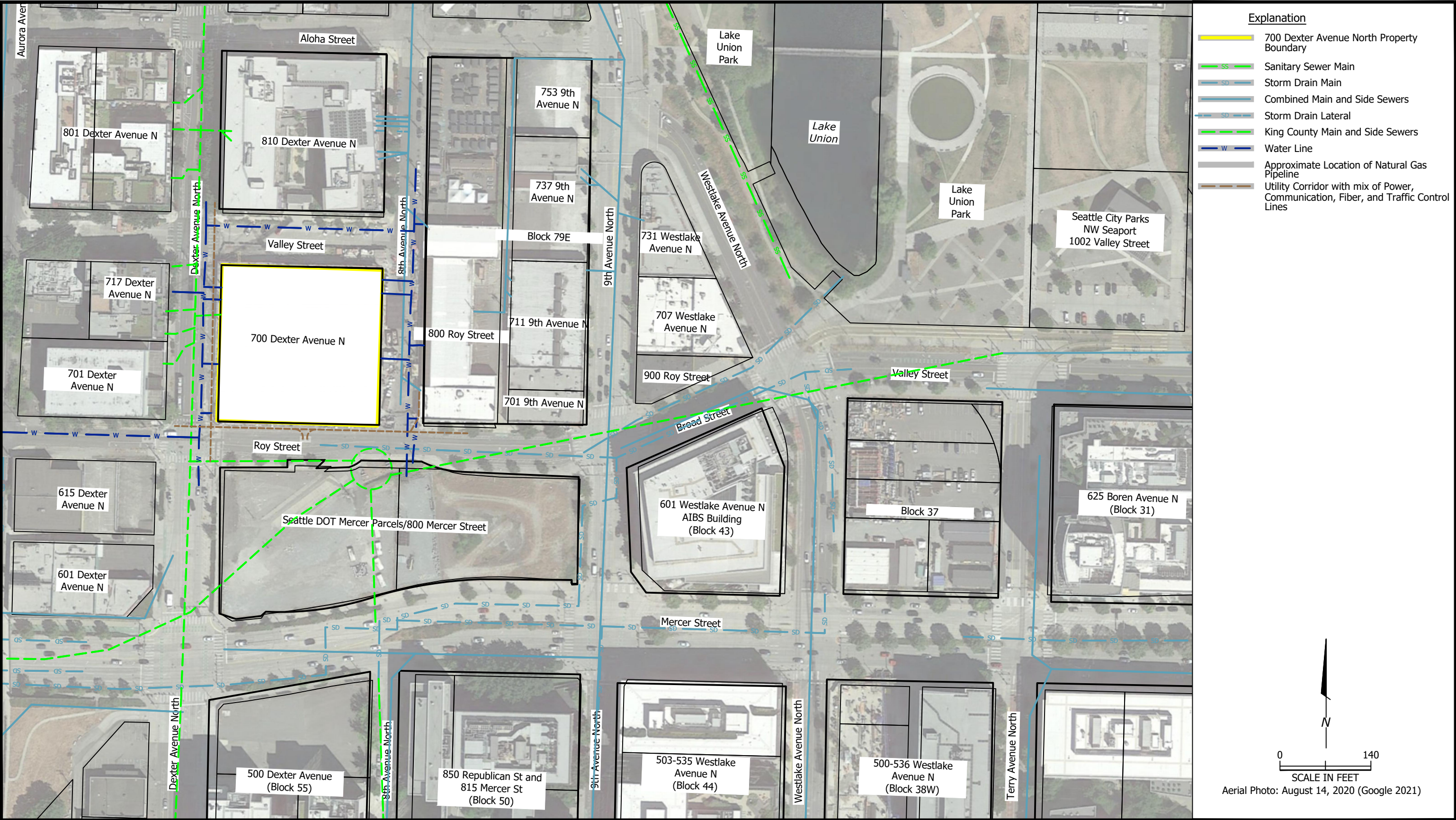
### Property Location

American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North  
Seattle, Washington

FIGURE

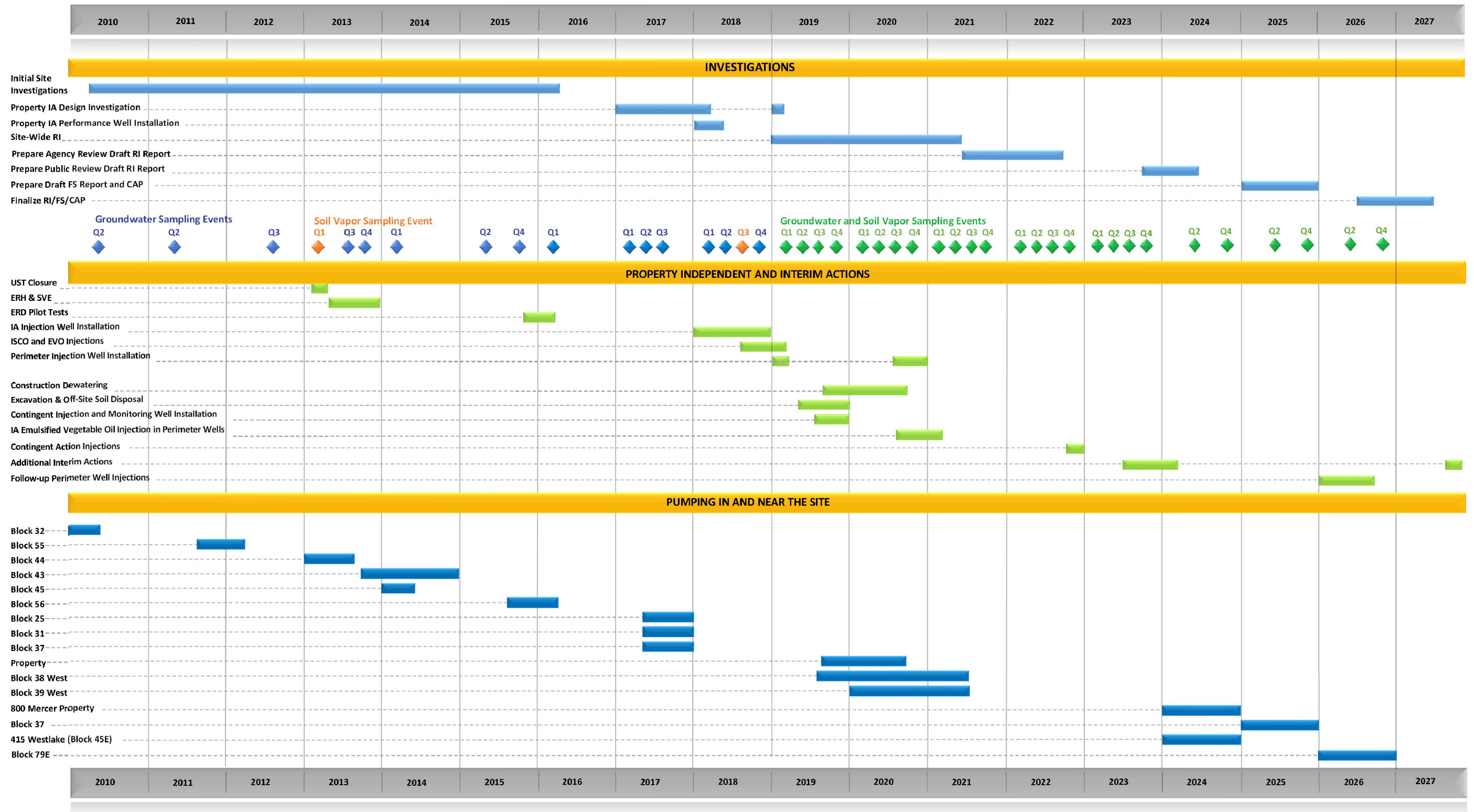
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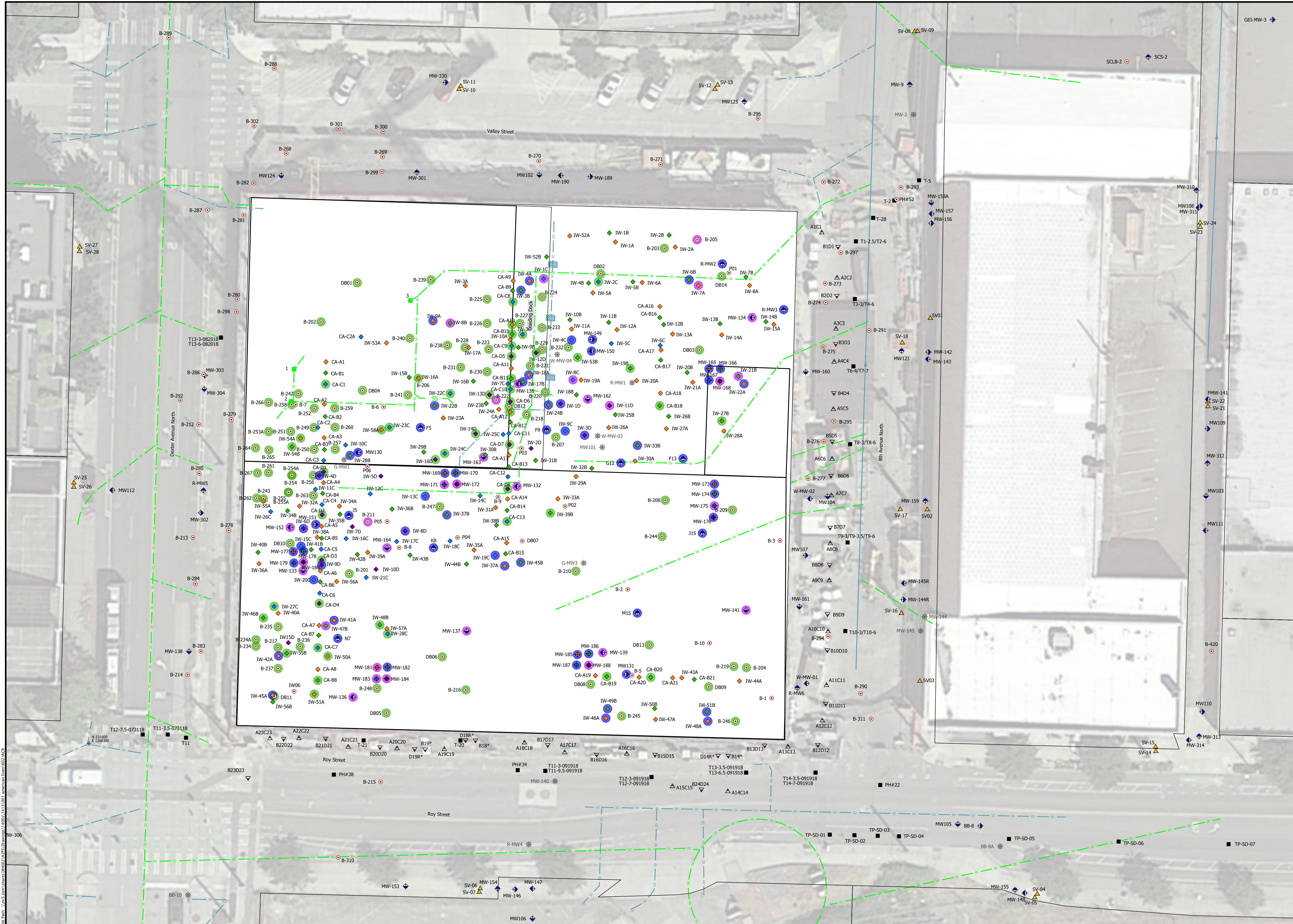


**Timeline of Investigations, Cleanup Action, and Dewatering at and near the Site**  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North  
Seattle, Washington

FIGURE

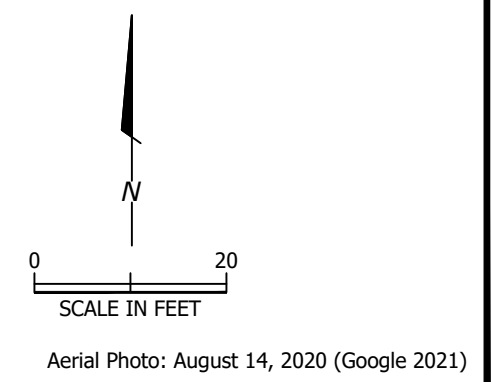
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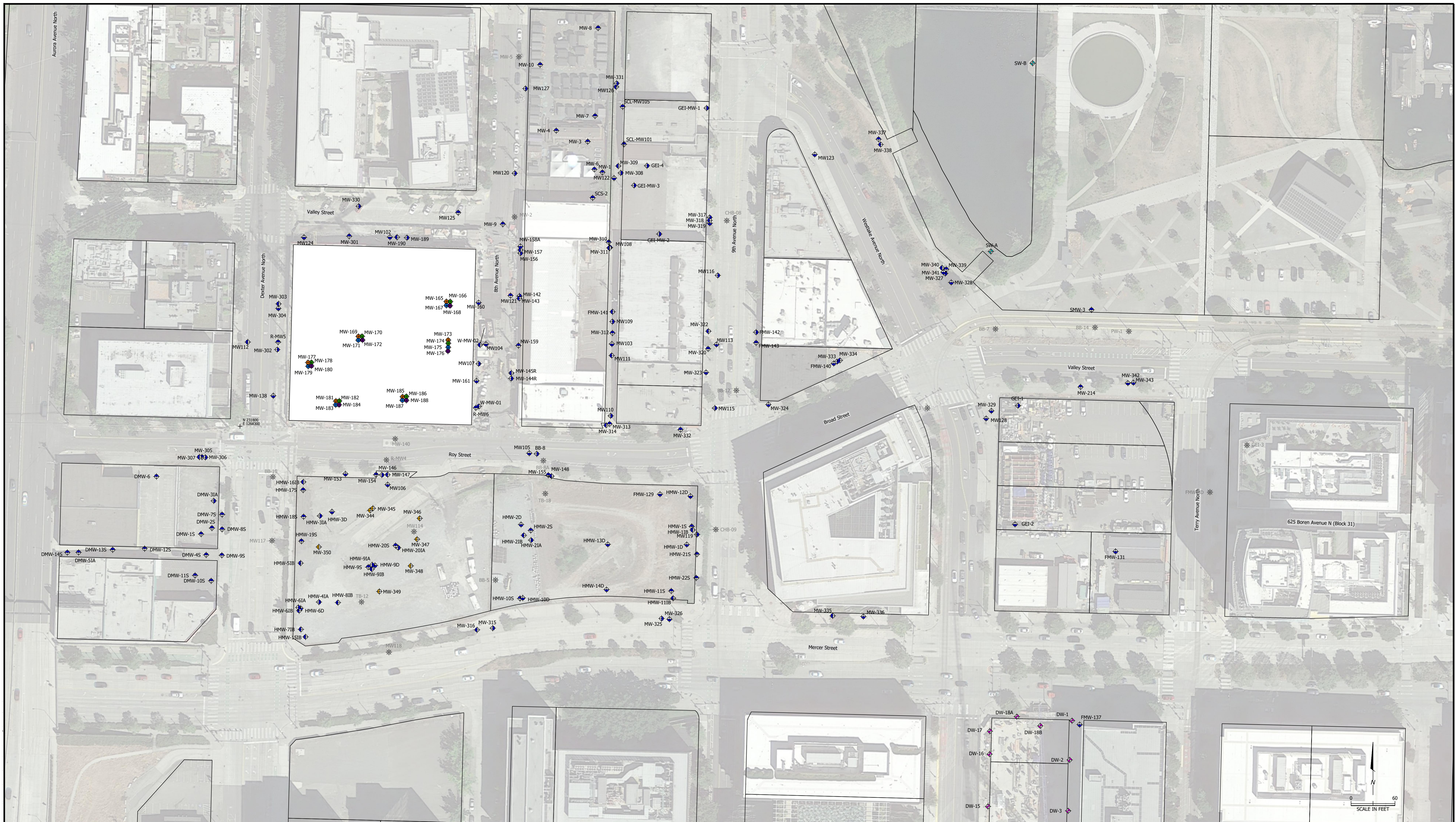
- Explanation**
- Approximate Property Boundary
  - Sanitary Sewer Line
  - Storm Drain Line
  - Combined Main
  - Coordinate Reference Point (NAD83, Washington State Plane North, US Feet)
  - N 231800 E 1368300 T
  - IW-1A Treatment Zone A Injection Well
  - IW-13B Treatment Zone B Injection Well
  - IW-6C Treatment Zone C Injection Well
  - IW-11D Treatment Zone D Injection Well
  - MW101 Shallow Zone Monitoring Well
  - GEI-4 Intermediate A Zone Monitoring Well
  - W-MW-02 Intermediate B Zone Monitoring Well
  - MW105 Deep Zone Monitoring Well
  - R-MW1 Decommissioned Monitoring Well
  - DB14 Soil Boring Location
  - SV03 Soil Vapor Monitoring Point
  - Soil Data Collected
  - Groundwater Data Collected
  - Soil and Groundwater Data Collected
  - Type 1 Perimeter Injection Well
  - Type 2 Perimeter Injection Well
  - T-5 Trench or Test Pit Sample Location

**Note:**  
All on-property exploration locations and utilities have been decommissioned except for monitoring wells MW-165 through MW-188 and wells identified with a CA prefix.



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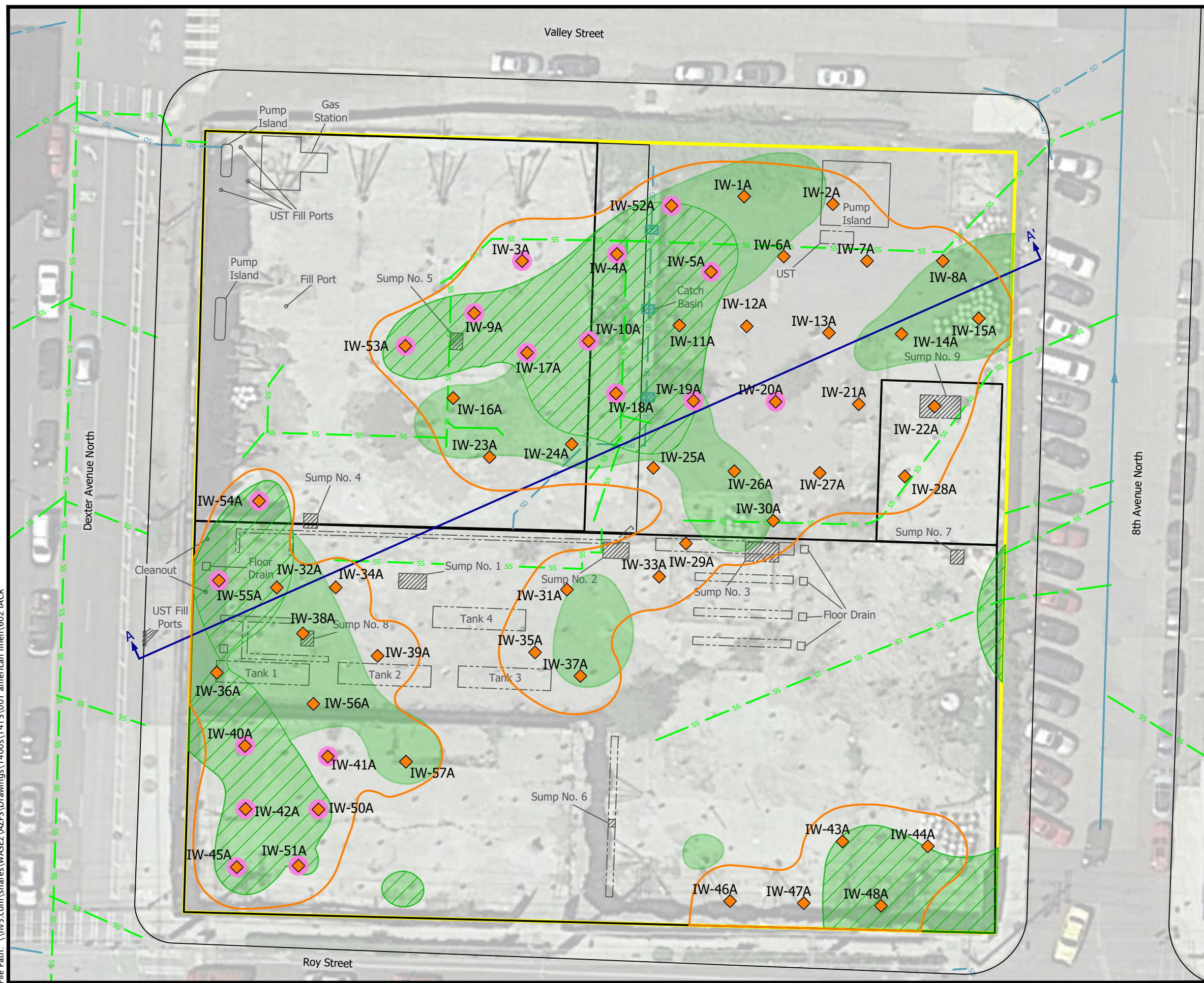




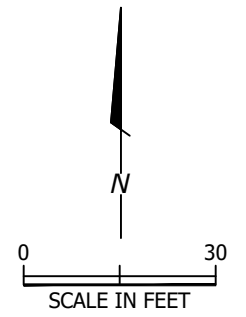
Explanation			
	Approximate Property Boundary	MW-165	Treatment Zone A Monitoring Well
SW-A	Lake Monitoring Location	MW-166	Treatment Zone B Monitoring Well
	Type 1 Perimeter Injection Well	MW-167	Treatment Zone C Monitoring Well
	Type 2 Perimeter Injection Well	MW-168	Treatment Zone D Monitoring Well
MW101	Shallow Zone Monitoring Well	R-MW1	Decommissioned Monitoring Well
GE1-A	Intermediate A Zone Monitoring Well	B-433	Soil Boring Location
W-MW-02	Intermediate B Zone Monitoring Well	SV03	Soil Vapor Monitoring Point
MW105	Deep Zone Monitoring Well	DW-1	Dewatering Well (Farallon)
MW-344	2021 Intermediate A Monitoring Well	N 23180E E 1268300T	Coordinate Reference Point (NAD83, Washington State Plane North, US Feet)
MW-345	2021 Intermediate B Monitoring Well		



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- Explanation**
- Approximate Property Boundary
  - Sanitary Sewer Line
  - Storm Drain Line
  - Combined Main
  - IW-8A Injection Well Location
  - A-zone Injection well with 20-foot screen (+10 to -10 foot elevation)
  - Coordinate Reference Point (NAD83, Washington State Plane North, US Feet)
  - Horizontal Extent of soil exceeding remediation level (11.1-ft to -10-ft Elevation)
  - Horizontal Extent of soil exceeding remediation level (11.1-ft to 5-ft Elevation)
  - Cross Section A-A' (Arrows show direction of view)
  - Approximate Treatment Zone Horizontal Extent



Aerial Photo: June 27, 2016 (Google 2017)

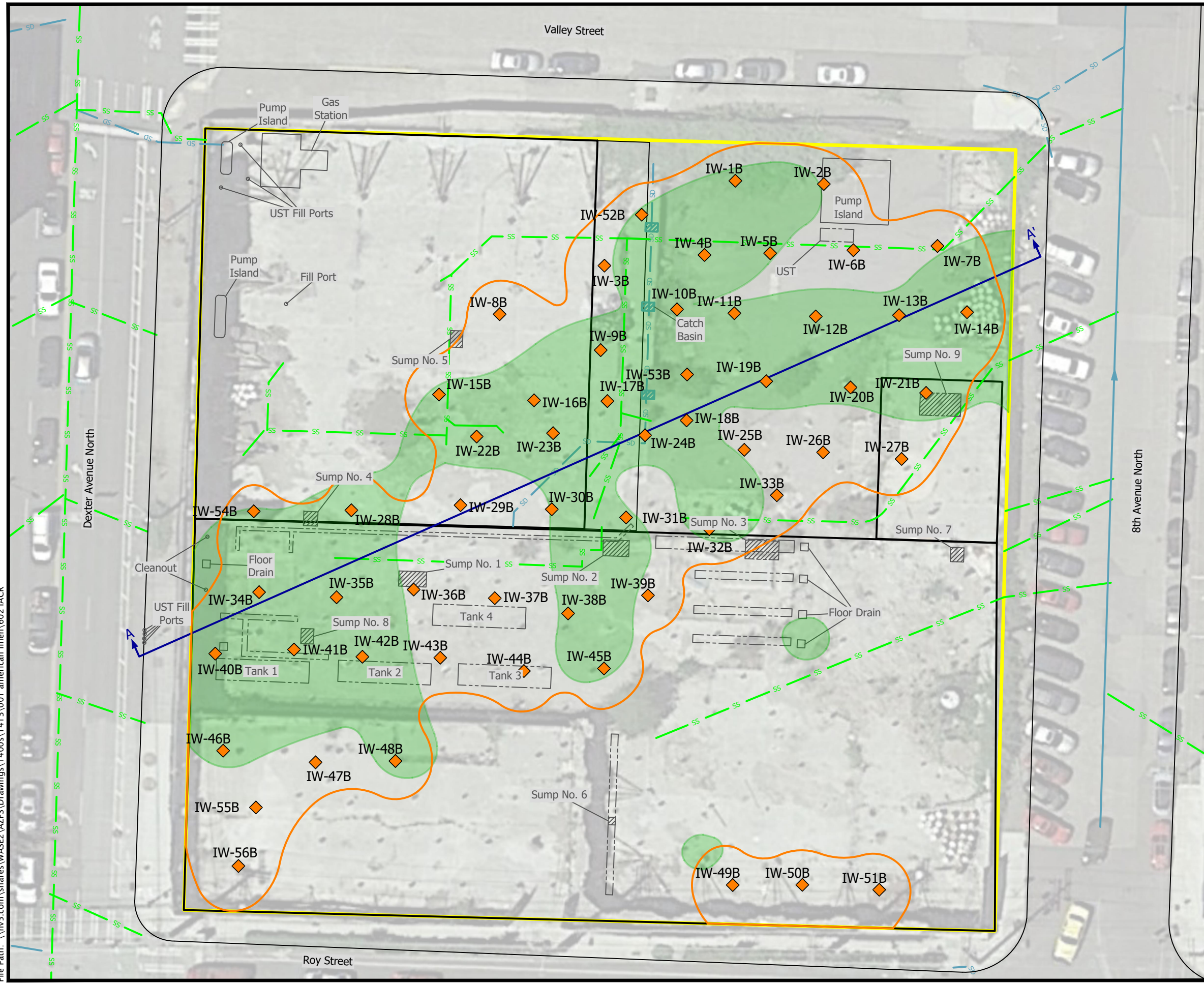


**Interim Action Treatment Zone A  
Injection Well Layout**  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North  
Seattle, Washington

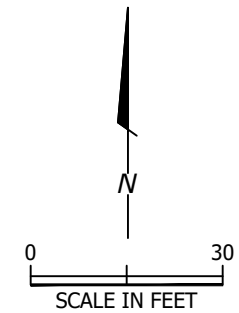
FIGURE  
**6**



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- Explanation**
- Approximate Property Boundary
  - Sanitary Sewer Line
  - Storm Drain Line
  - Combined Main
  - IW-7B** Injection Well Location
  - Coordinate Reference Point  
(NAD83, Washington State Plane North, US Feet)  
N 231800  
E 1268300
  - Horizontal Extent of soil exceeding remediation level (-10-ft to -25-ft Elevation)
  - Portion of Cross Section A-A'  
(Arrows show direction of view)
  - Approximate Treatment Zone Horizontal Extent



Aerial Photo: June 27, 2016 (Google 2017)

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**Interim Action Treatment Zone B  
Injection Well Layout**  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North  
Seattle, Washington

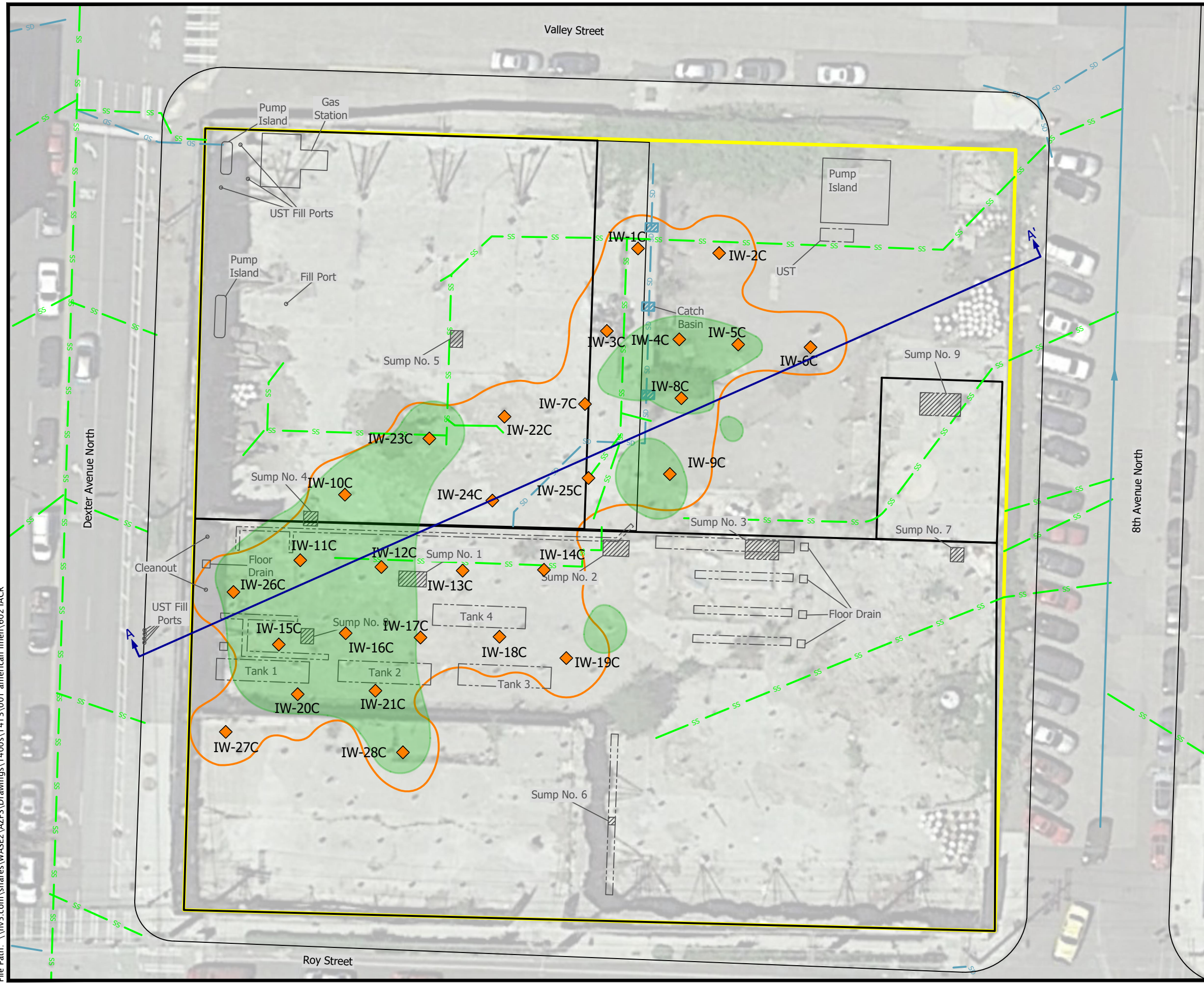
FIGURE

**7**

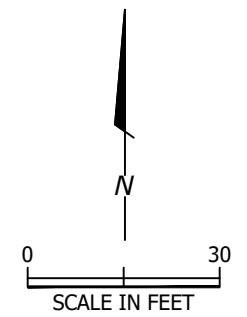
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- Explanation**
- Approximate Property Boundary
  - Sanitary Sewer Line
  - Storm Drain Line
  - Combined Main
  - Existing Injection Well Location
  - Coordinate Reference Point  
(NAD83, Washington State Plane North, US Feet)
  - Horizontal Extent of soil exceeding remediation level (-25-ft to -40-ft Elevation)
  - Portion of Cross Section A-A'  
(Arrows show direction of view)
  - Approximate Treatment Zone Horizontal Extent



Aerial Photo: June 27, 2016 (Google 2017)



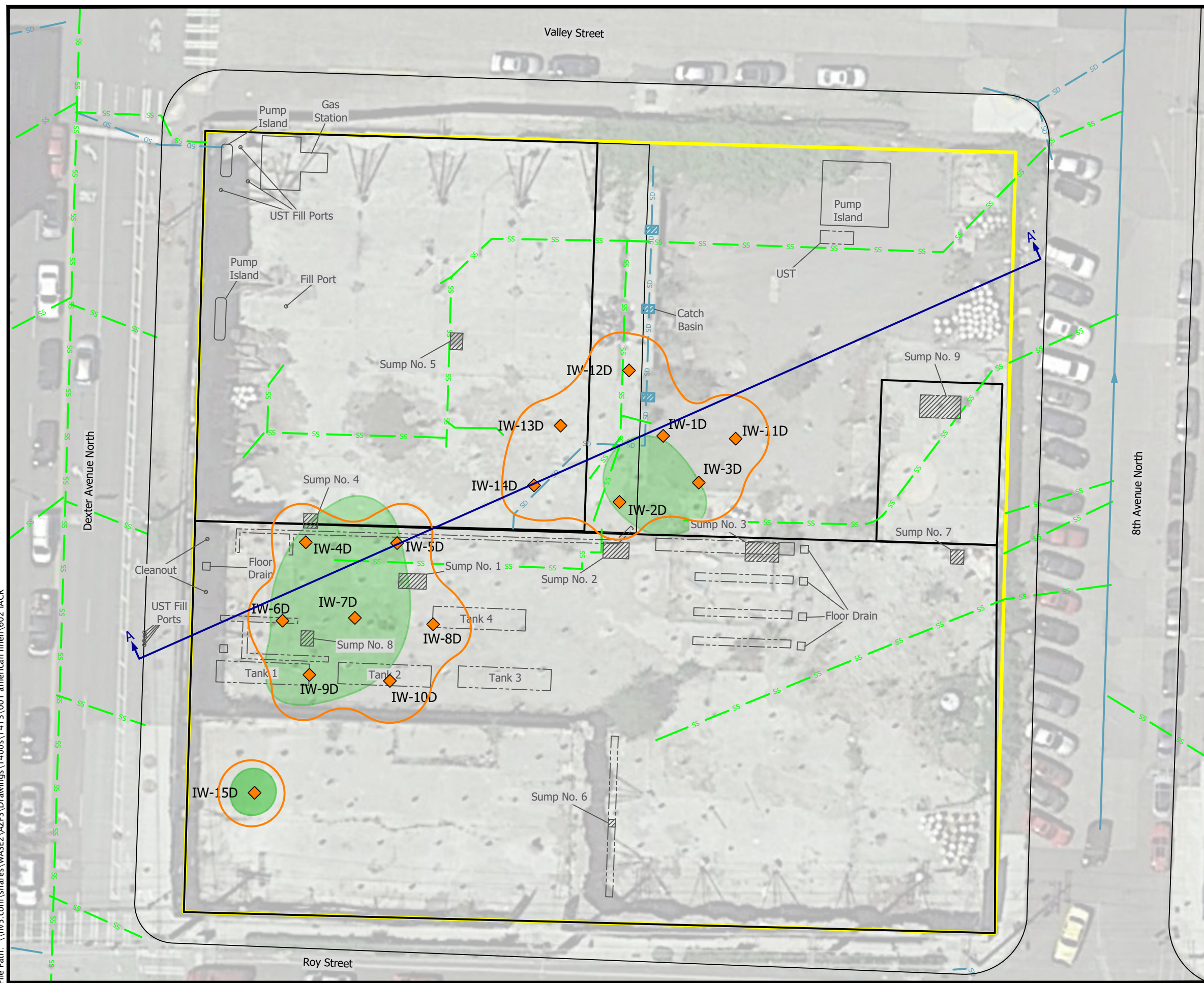
**Interim Action Treatment Zone C  
Injection Well Layout**  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North  
Seattle, Washington

FIGURE  
**8**

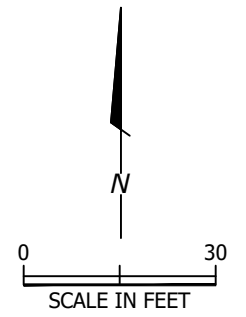
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- Explanation**
- Approximate Property Boundary
  - Sanitary Sewer Line
  - Storm Drain Line
  - Combined Main
  - Existing Injection Well Location
  - Coordinate Reference Point (NAD83, Washington State Plane North, US Feet)
  - Horizontal Extent of soil exceeding remediation level (-40-ft to -55-ft Elevation)
  - Portion of Cross Section A-A' (Arrows show direction of view)
  - Approximate Treatment Zone Horizontal Extent



Aerial Photo: June 27, 2016 (Google 2017)

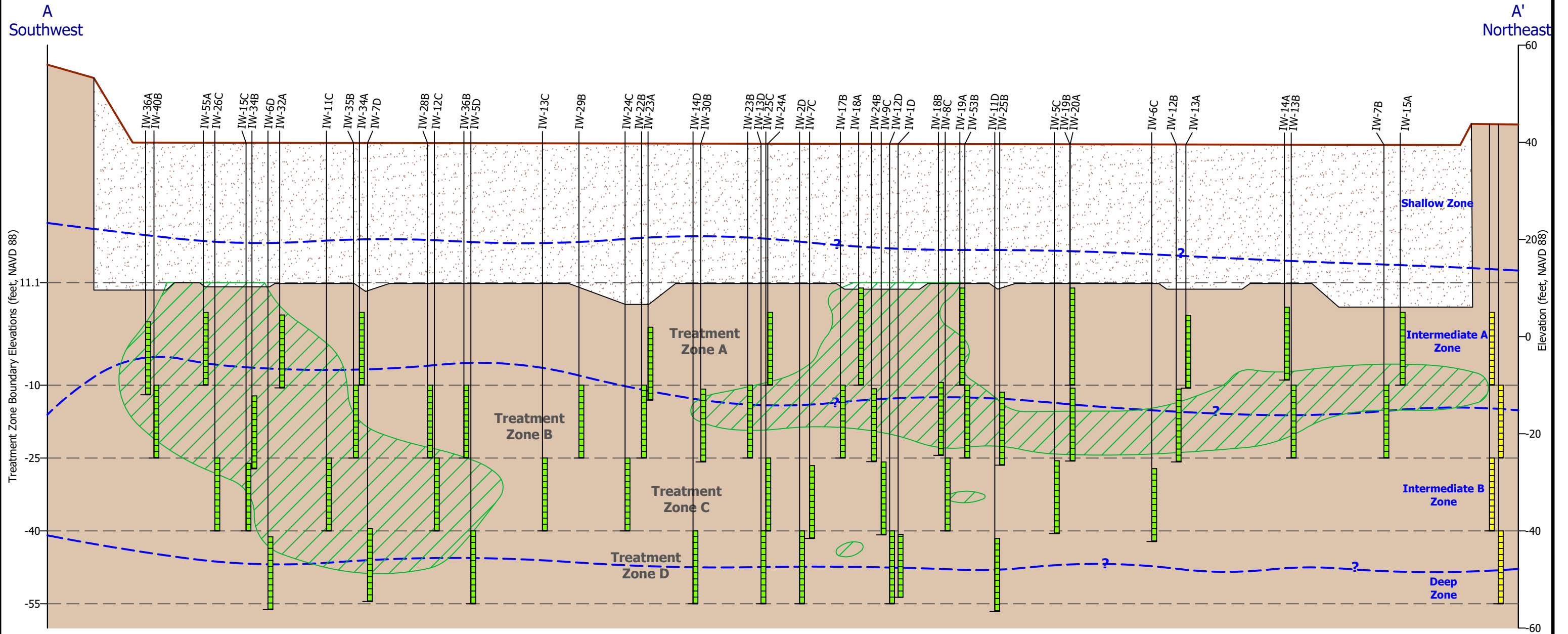


**Interim Action Treatment Zone D  
Injection Well Layout**  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North  
Seattle, Washington

FIGURE  
**9**

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#### Explanation

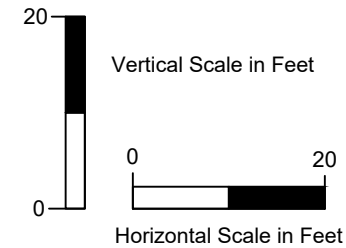
- Approximate Ground Surface Elevation
- Excavation Boundary (Per Foundation Plan)
- Approximate Water Bearing Zone Boundary (Queried Where Uncertain)
- Soil Excavated for Parking Garage
- Soil not Excavated
- Interpolated areas with tetrachloroethene (PCE) concentration greater than 0.5 milligram per kilogram



Select Injection Wells with Screen Interval



Perimeter Injection Well



**Injection Wells and Treatment Zones  
Cross Section A-A'**  
American Linen Supply Co Dexter Site  
700 Dexter Avenue North  
Seattle, Washington

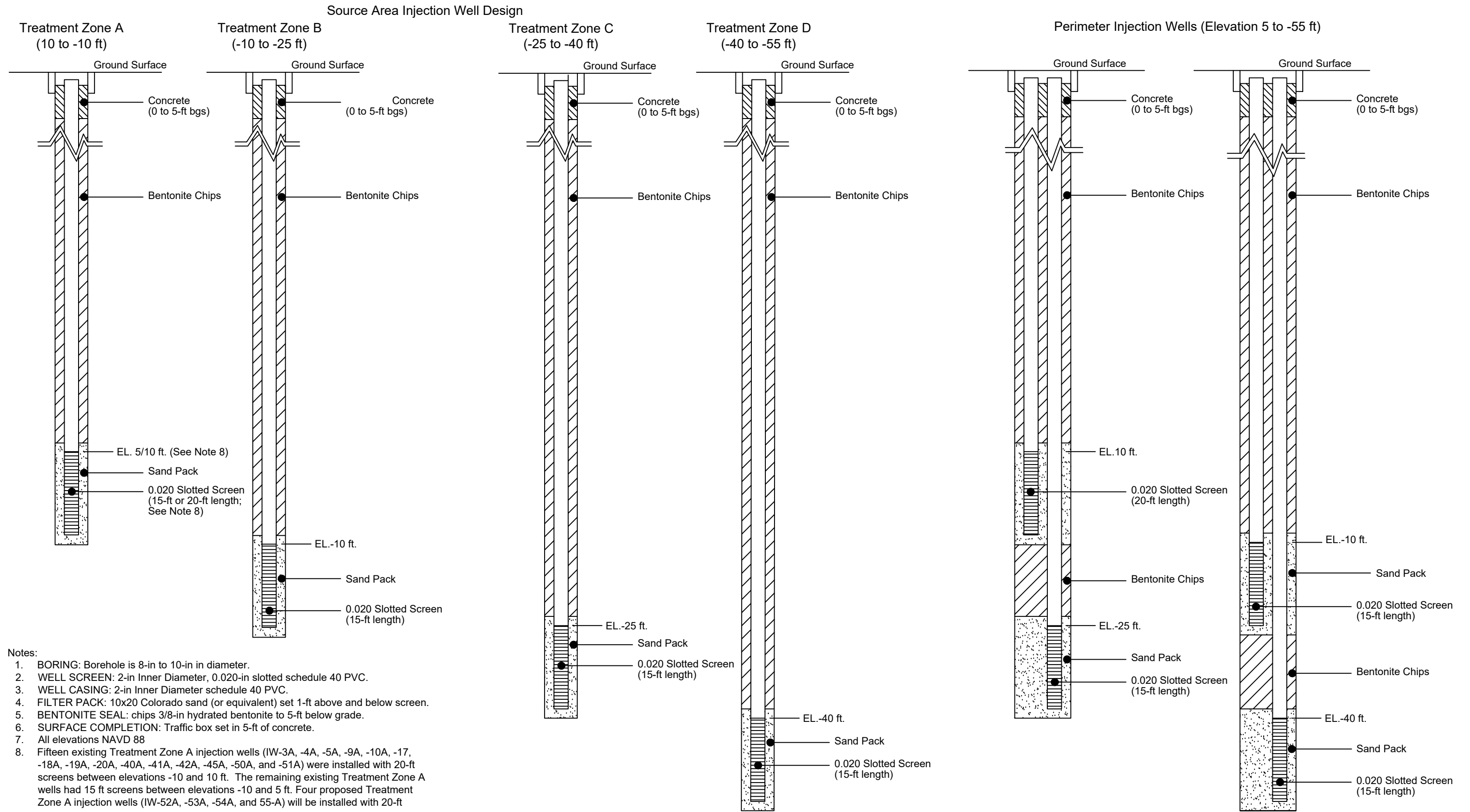
FIGURE

10

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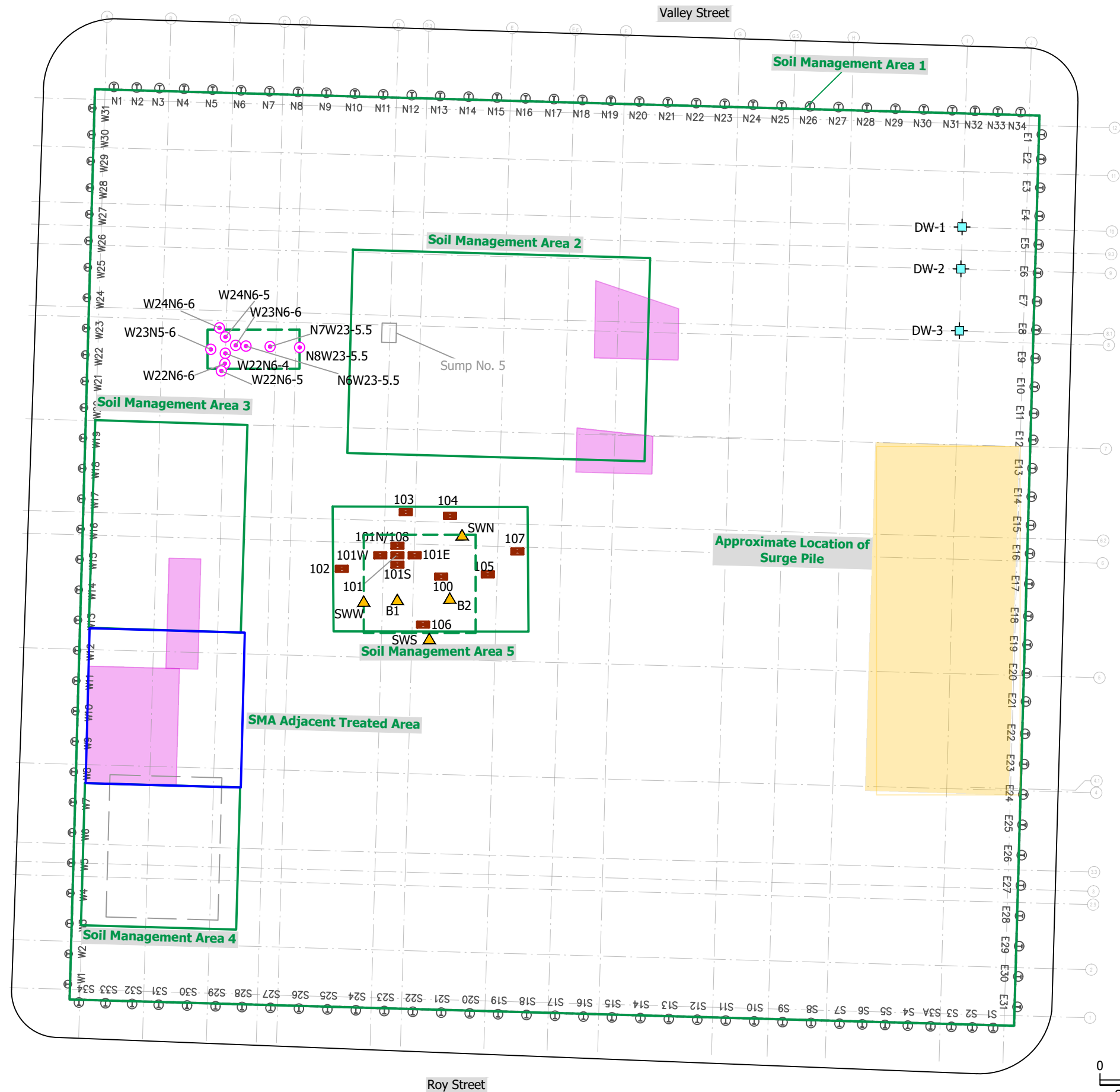
**Injection Well Construction Schematics**  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North  
Seattle, Washington

FIGURE

11

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Dexter Avenue North



8th Avenue North

- Explanation**
- Limits of Soil Management Areas
  - Treated Area Adjacent to SMA-3 and SMA-4
  - Area over-excavated below the minimum design elevation down to elevation 5 feet
  - Approximate Location of Surge Pile
  - 101 Soil Management Area 5 Test Pit Location
  - DW-1 Dewatering Well
  - W24N6-5 DNAPL Soil Sample Locations
  - SWS Area 5 Compliance Sample
  - Soldier Pile Location  
Note: Soldier Piles and other shoring system components (tie backs and soil nails) are included in Soil Management Area 1
  - Area 5 and DNAPL Excavation Extent

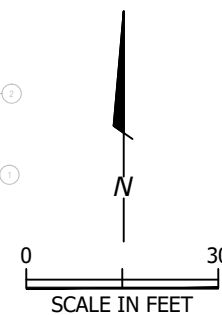
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prepared by Magnussen Klemencic Associates



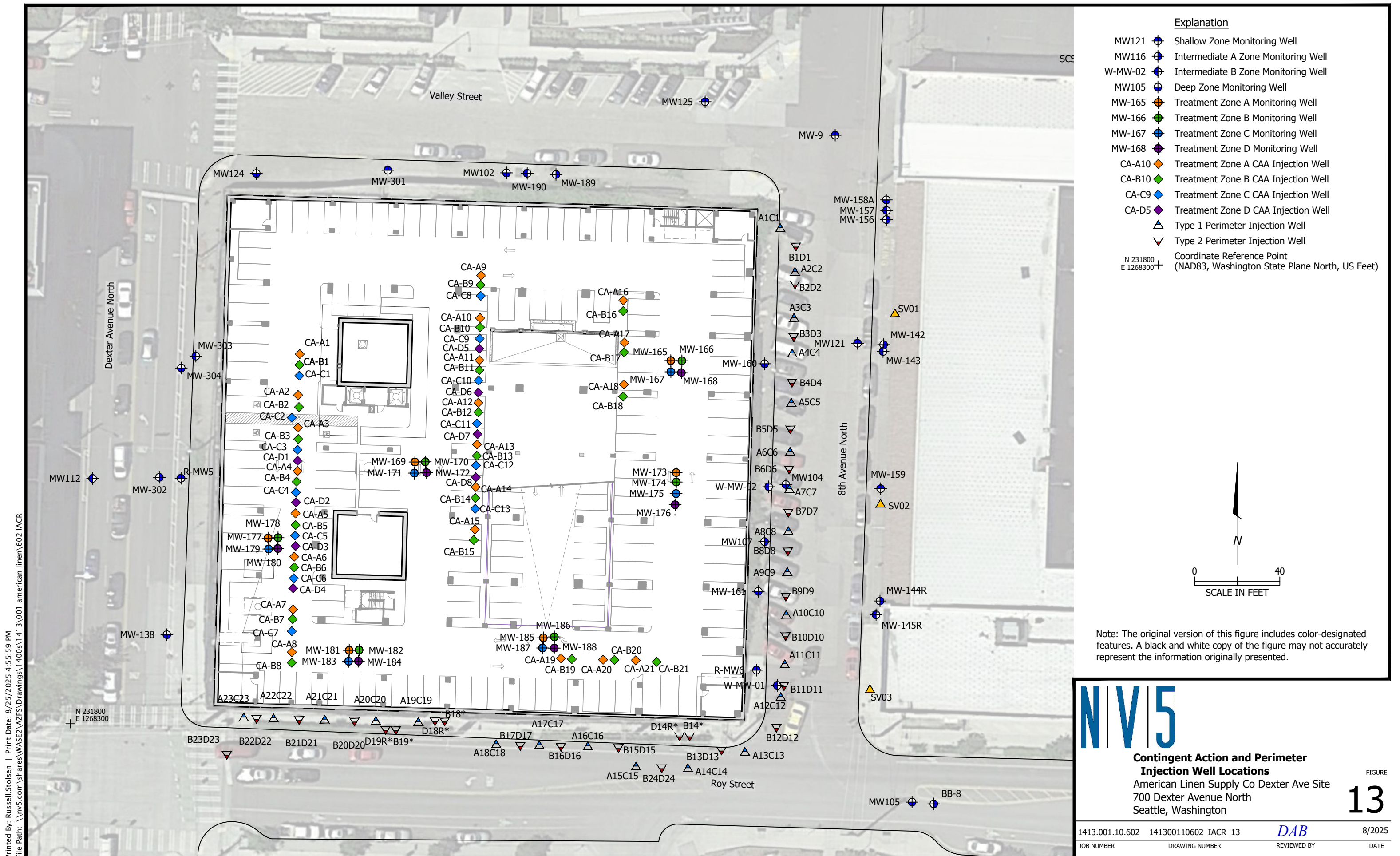
**Soil Management Areas**  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North  
Seattle, Washington

FIGURE

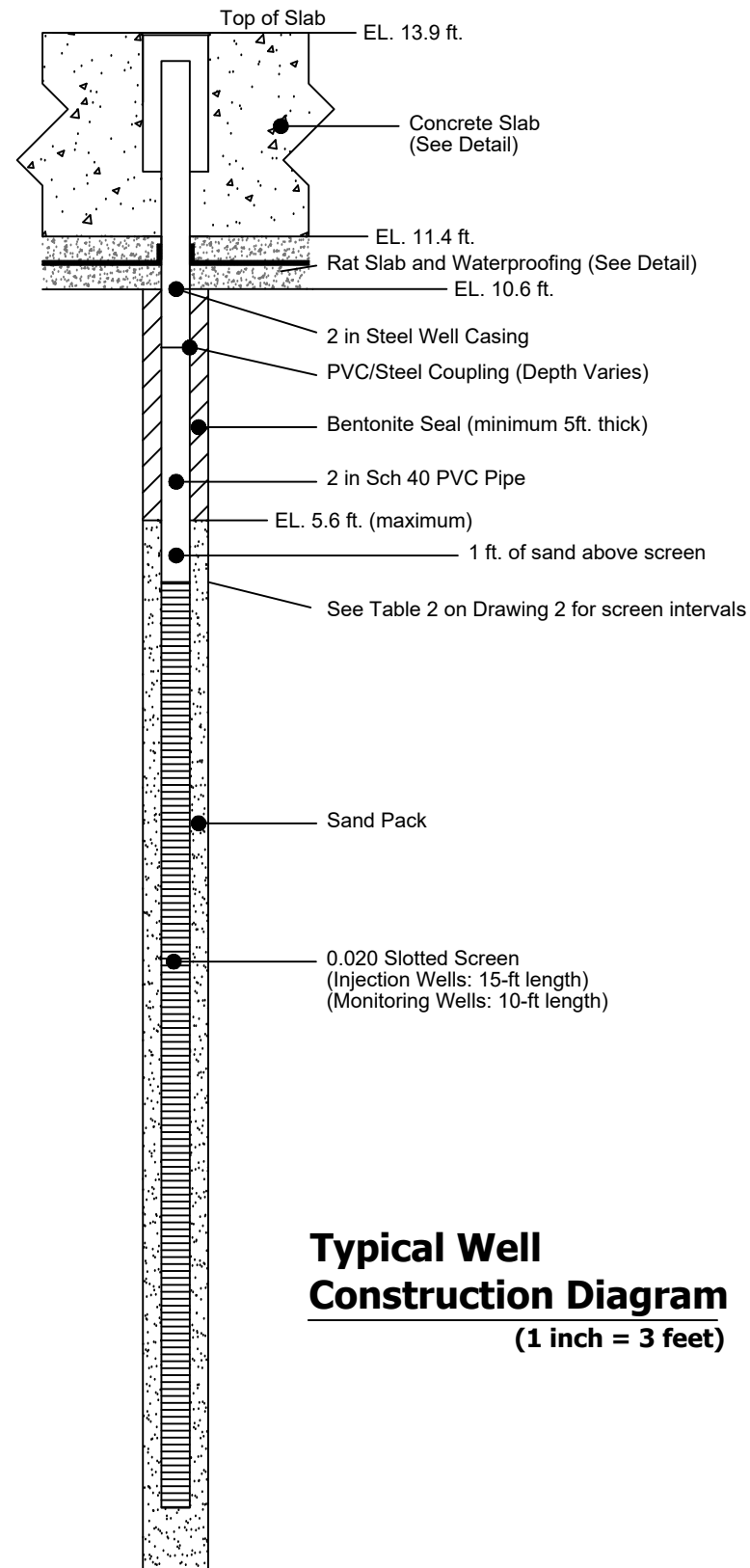
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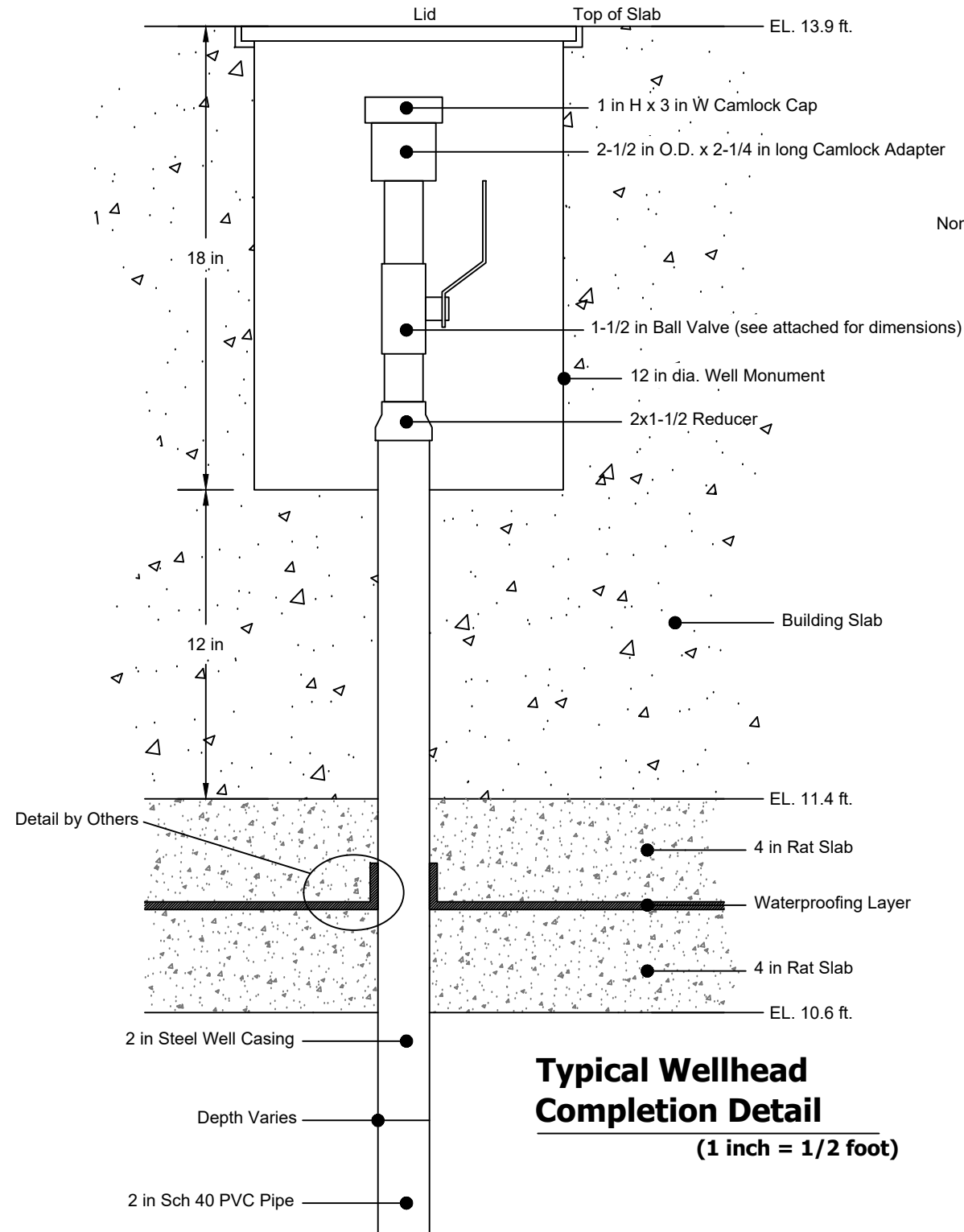




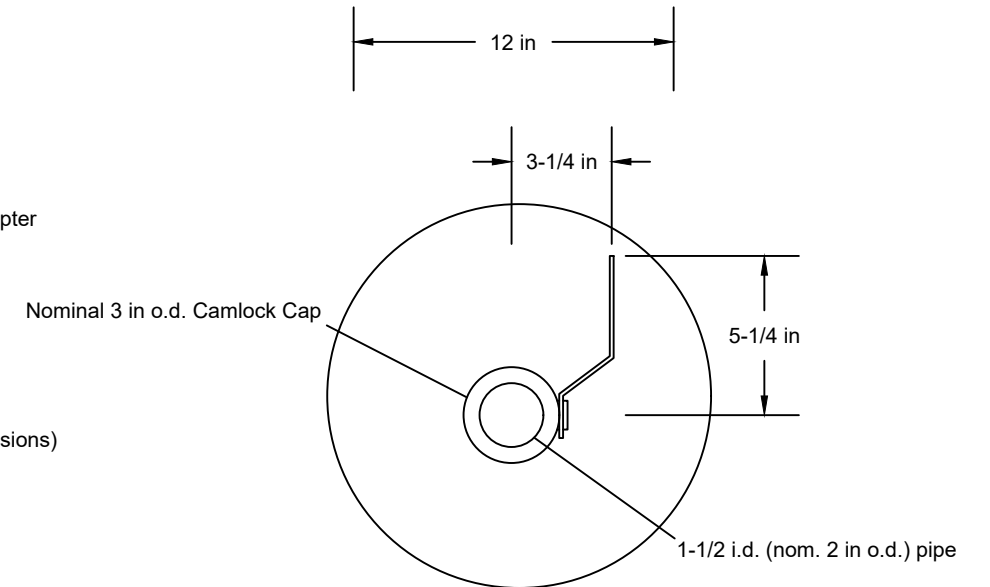
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**Typical Well Construction Diagram**  
(1 inch = 3 feet)



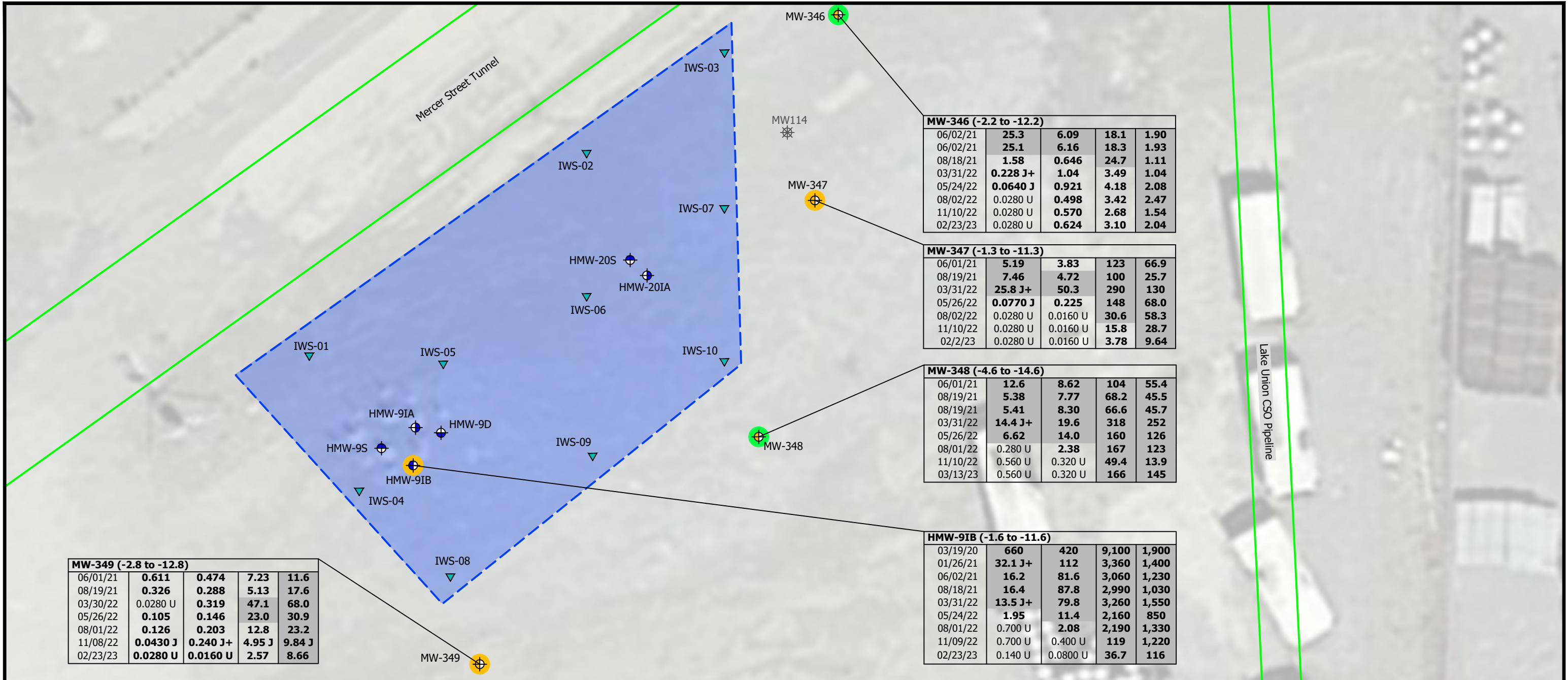
**Typical Wellhead Completion Detail**  
(1 inch = 1/2 foot)



**Monument Detail (Top)**  
(1 inch = 1/2 foot)



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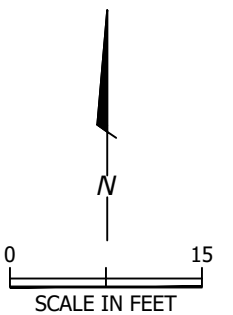
- Explanation**
- Approximate SDOT Mercer Parcels Property Boundary
  - Sanitary Sewer Pipe
  - MW-310 Shallow Zone Monitoring Well
  - MW116 Intermediate A Zone Monitoring Well
  - W-MW-02 Intermediate B Zone Monitoring Well
  - MW105 Deep Zone Monitoring Well
  - MW-140 Decommissioned Monitoring Well
  - MW-344 2021 Intermediate A Monitoring Well
  - MW-345 2021 Intermediate B Monitoring Well
  - IWS-08 Injection Well

**Notes:**  
PCE = tetrachloroethene  
TCE = trichloroethene  
cDCE = cis-1,2-dichloroethene  
VC = vinyl chloride  
Concentrations reported in micrograms per liter (µg/L)  
U = not detected at or above the reporting limit  
Concentrations detected above the reporting limit are shown in **bold**  
Concentrations detected above the preliminary cleanup level (PCUL) are shown in **bold** and highlighted  
J = The identification of the analyte is acceptable; the reported value is an estimate  
J+ = The identification of the analyte is acceptable; the reported value is an estimate. The reported value may be biased high.

**MNA Evaluation**

- Inadequate evidence for anaerobic biodegradation of CVOCs
- Limited evidence for anaerobic biodegradation of CVOCs
- Adequate evidence for anaerobic biodegradation of CVOCs
- Strong evidence for anaerobic biodegradation of CVOCs

Well Location (Screen Interval Elevation)	PCE	TCE	cDCE	VC
Analyte	5.0	4.0	16	0.29
GW Proposed CUL				



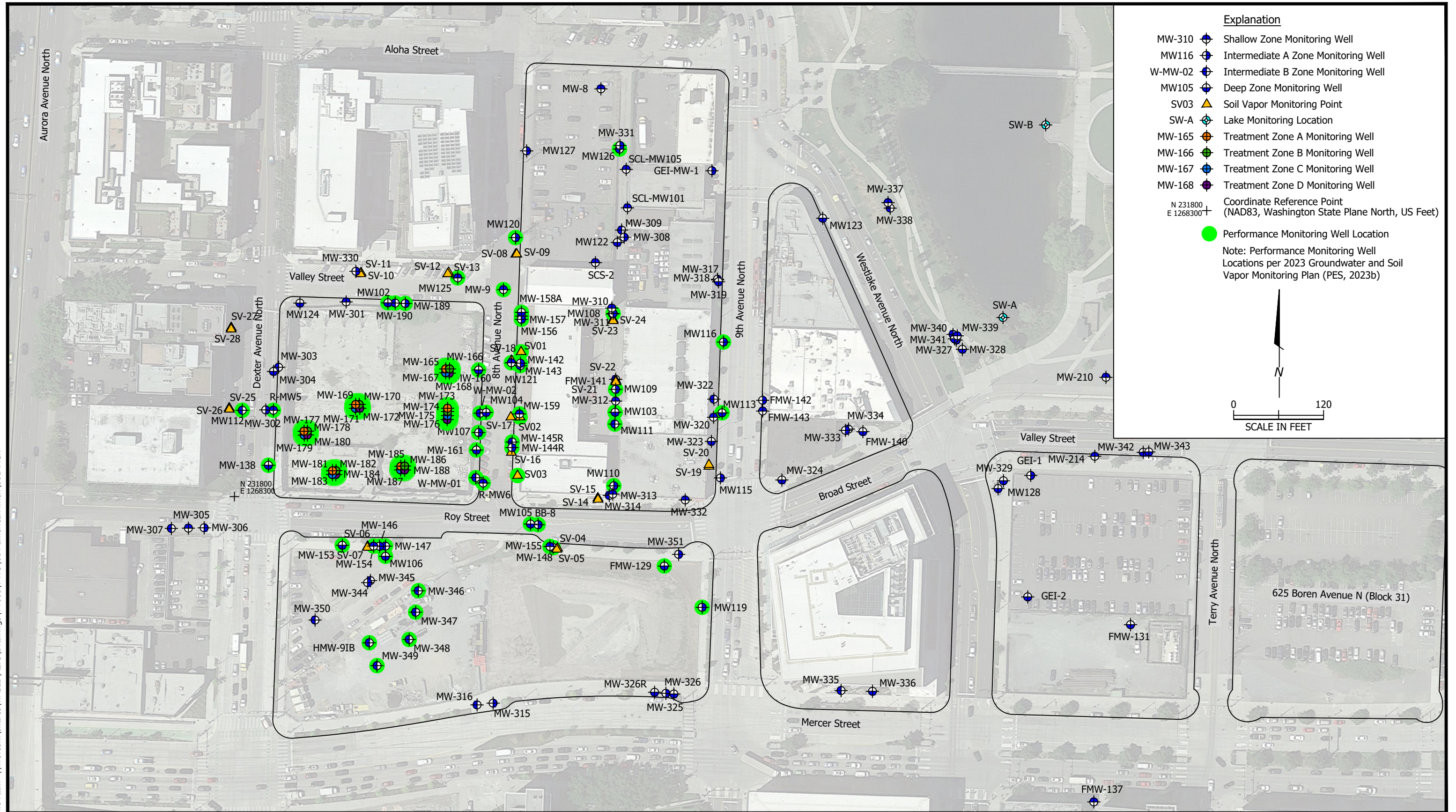
**HMW-9IB Area Interim Action Monitoring Results**  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North  
Seattle, Washington

FIGURE

15

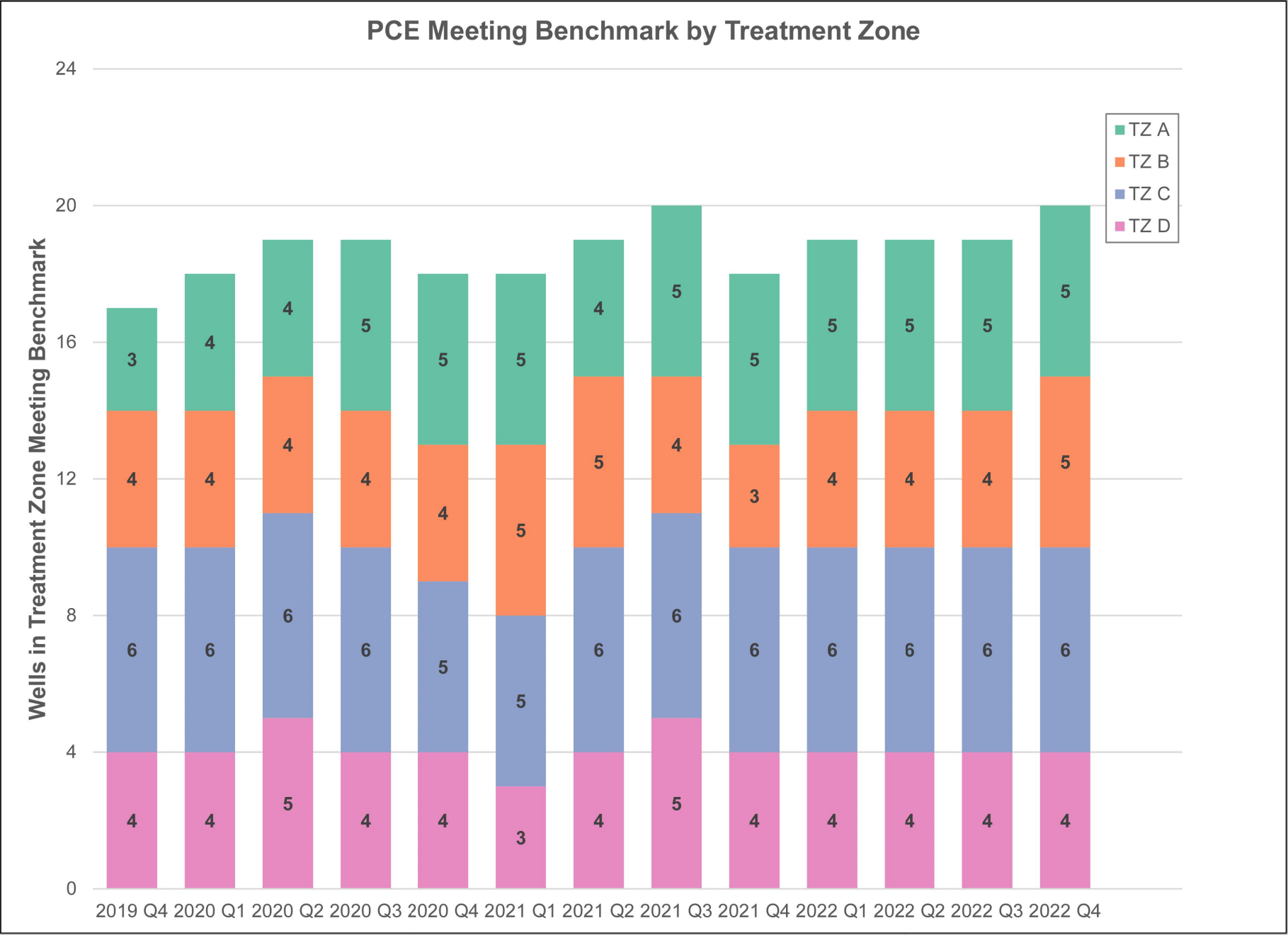


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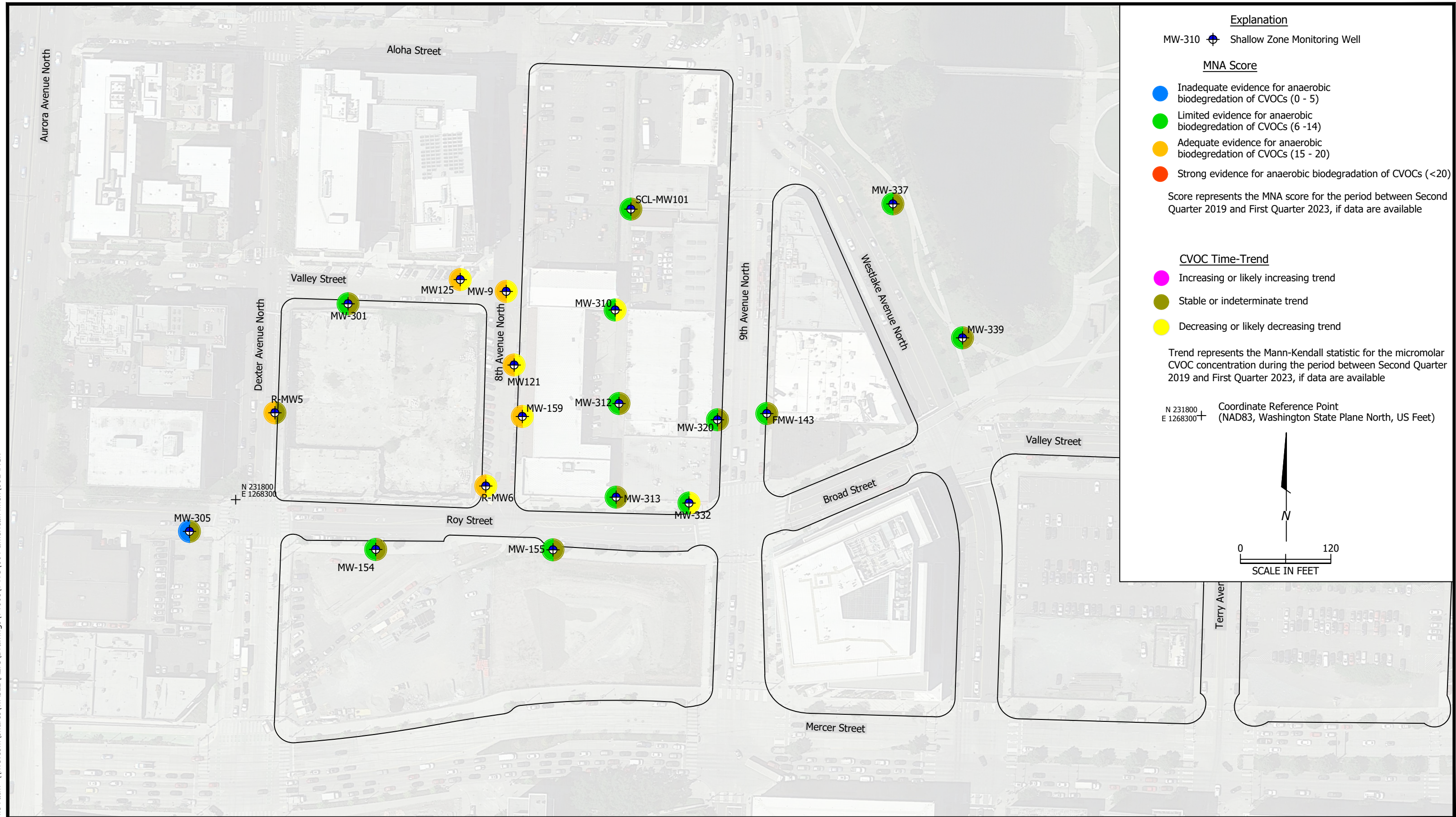


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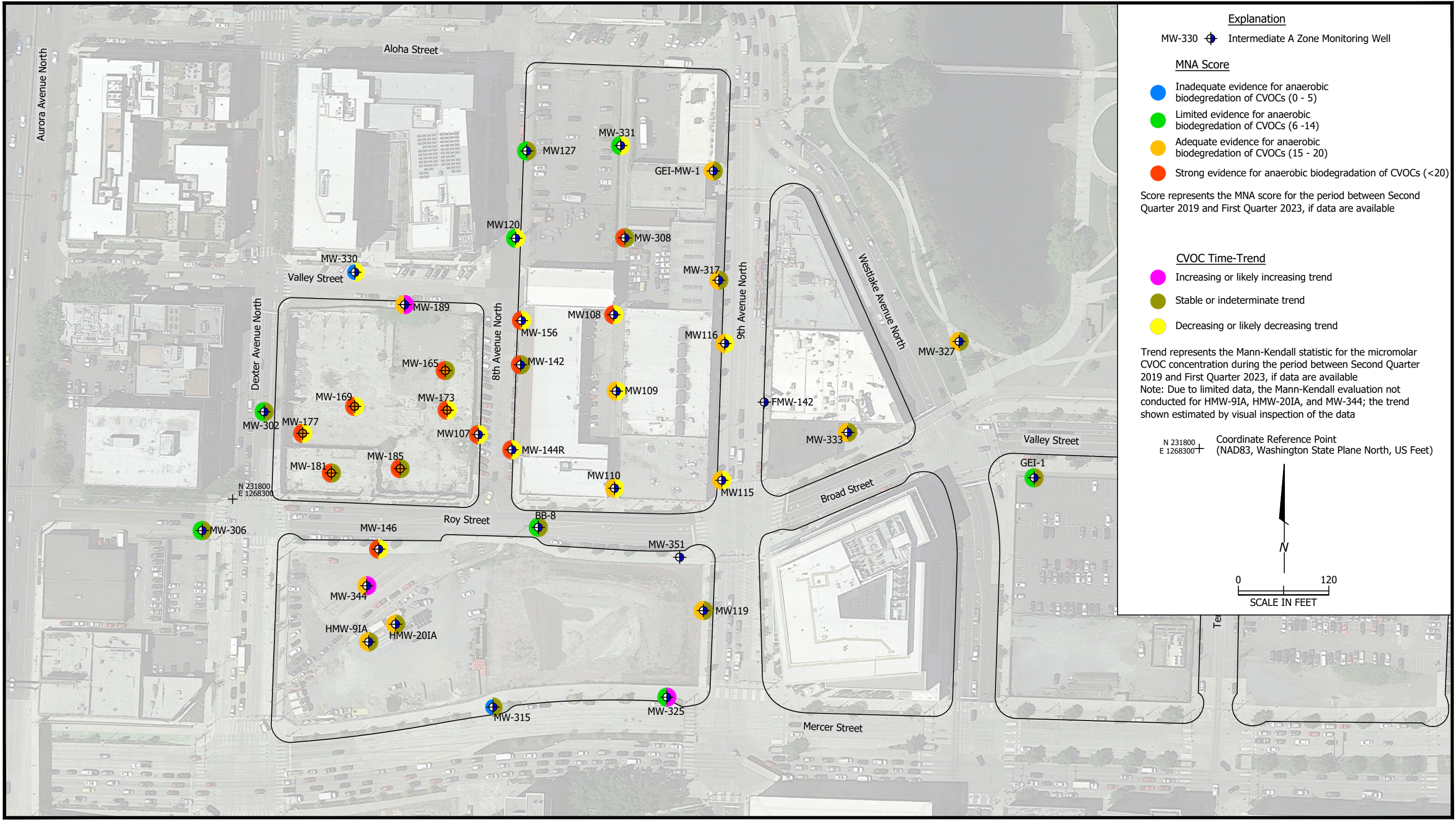
**Interim Action Effects on the Site Shallow Zone CVOC Plume**  
American Linen Supply Co Dexter Ave Site  
700 Dexter Avenue North  
Seattle, Washington

FIGURE

18








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


- Explanation**
- W-MW-02  Intermediate B Zone Monitoring Well
- MNA Score**
-  Inadequate evidence for anaerobic biodegradation of CVOCs (0 - 5)
  -  Limited evidence for anaerobic biodegradation of CVOCs (6 - 14)
  -  Adequate evidence for anaerobic biodegradation of CVOCs (15 - 20)
  -  Strong evidence for anaerobic biodegradation of CVOCs (<20)

Score represents the MNA score for the period between Second Quarter 2019 and First Quarter 2023, if data are available

- CVOC Time-Trend**
-  Increasing or likely increasing trend
  -  Stable or indeterminate trend
  -  Decreasing or likely decreasing trend

Trend represents the Mann-Kendall statistic for the micromolar CVOC concentration during the period between Second Quarter 2019 and First Quarter 2023, if data are available  
Note: Due to limited data, the Mann-Kendall evaluation not conducted for MW-345; the trend shown estimated by visual inspection of the data

N 231800  
E 1268300  Coordinate Reference Point  
(NAD83, Washington State Plane North, US Feet)

