
Feasibility Study

Voluntary Cleanup Program ID: NW2009

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Former Cherry Street Cleaners

2510 East Cherry Street

Seattle, WA 98122

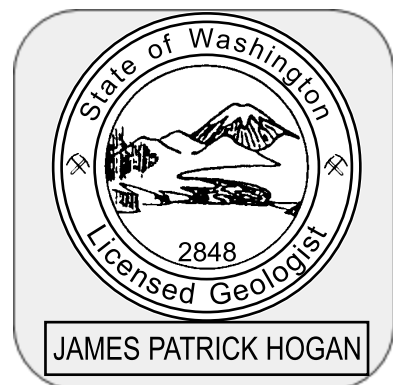
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Executive Summary

On behalf of Voluntary Cleanup Program (“VCP”) Customer Cherry Street Cleaners, The Environmental Liability & Asset Management Group, LLC (dba The ELAM Group) submits this *Feasibility Study* (“FS”) for the Former Cherry Street Cleaners located at 2510 E Cherry St in Seattle, Washington (“Facility”) to the State of Washington Department of Ecology (“Ecology”) in accordance with the reporting requirements of the Voluntary Cleanup Program (“VCP”). The FS details alternative remedial actions and their respective development to implement a feasible Cleanup Alternative in accordance with the Washington Administrative Code (“WAC”) Model Toxics Control Cleanup Act (“MTCA”) 173-340-350 through 173-340-390.

The Facility applied for the VCP after it discovered in June of 2007 during an environmental investigation that tetrachloroethene (“PCE”), a dry-cleaning solvent that the Facility used between 1968 and 2007 during its operations, was released to the environment. Since then, several investigations and interim remediation measures have been conducted, including delineation of the vertical and horizontal extent of PCE and associated daughter product impacts to soil, groundwater and soil gas/indoor air between 2007 and 2019; injection of emulsified oil substrate (“EOS”) into the groundwater to remediate the source area groundwater impacts in 2011; monitoring of the EOS between 2011 and 2017; and building demolition to allow for remediation of the soils overlying the groundwater in 2013.

This FS identifies a remedial alternative that will treat the primary source area and reduce COC concentrations in soil, groundwater and soil gas/indoor air to below the applicable cleanup levels at the proposed points of compliance. To facilitate selection of the Cleanup Alternative providing the highest degree of permanence to the maximum extent practicable, The ELAM Group prepared a disproportionate cost analysis (“DCA”). In the DCA, costs are considered disproportionate to benefits if the incremental costs of one alternative versus a less expensive alternative exceed the incremental benefit achieved by the more expensive alternative. Based on the results of the DCA, the recommended cleanup alternative is Shallow *in-situ* chemical oxidation (“ISCO”) (mixing) and Deep/Saturated ISCO. Details regarding implementation of the recommended Cleanup Alternative and the decision process used to evaluate whether modifications to the selected approach are warranted will be provided in a forthcoming *Cleanup Action Plan* (“CAP”).



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1 Introduction

The Environmental Liability & Asset Management Group, LLC (dba The ELAM Group) has prepared this *Feasibility Study* (“FS”) for the Former Cherry Street Cleaners (“Facility”) located at 2510 E Cherry St in Seattle, Washington. This FS is being furnished to the State of Washington Department of Ecology (“Ecology”) in accordance with the reporting requirements of the Voluntary Cleanup Program (“VCP”). The report details alternative remedial actions and their respective development to implement a feasible Cleanup Alternative in accordance with the Washington Administrative Code (“WAC”) Model Toxics Control Act-Cleanup (“MTCA”) under Part III-Site Reports and Cleanup Decisions, Chapters 173-340-350 through 173-340-390.

According to the historical investigation data documented in the *Remedial Investigation* (ECC 2014) and *Annual Report* (ELAM 2019), the Facility is defined by the full lateral and vertical extent of impacts resulting from the former operation of a dry cleaner. Based on investigations completed and monitoring conducted between 2007 and 2019, the Facility has been impacted by chemicals of concern (“COCs”) in the soil, groundwater and/or soil gas at the Facility that consist of chlorinated volatile organic compounds (“cVOCs”) such as PCE and its daughter products¹.

According to MTCA, a Cleanup Alternative must satisfy all threshold criteria specified in WAC 173-340-360(2) as listed below:

- ☐ Protect human health and the environmental
- ☐ Comply with cleanup standards
- ☐ Comply with applicable state and federal laws
- ☐ Provide compliance monitoring

In addition to the criteria listed above, WAC 173-340-360(2b) also recommends that the Cleanup Alternative:

- ☐ Use permanent solutions to the maximum extent practicable
- ☐ Provide for a reasonable restoration time frame
- ☐ Consider public concerns on the proposed Cleanup Alternative

¹ Daughter products resulting from degradation of PCE include trichloroethene (“TCE”), *cis*-1,2-dichloroethene (“c-DCE”) and vinyl chloride (“VC”).



1.1 Facility Location and Description

The former Cherry Street Cleaners facility is located at 2510 East Cherry Street, in Seattle, Washington, as shown on Figure 1. The former Cherry Street Cleaners business and property is owned by Cherry Street Cleaners, % Ms. Vera Benton. The Facility consists of a 4,000 square-foot lot formerly developed with a 2,440 square-foot building, as shown on Figure 2. Utilities connected to the facility were decommissioned when the building was razed in 2013. The former facility connections included:

- ☐ Electricity and telephone services provided through overhead lines
- ☐ Natural gas and water provided through underground piping located beneath E Cherry St
- ☐ Sanitary sewer provided through underground piping located in the eastern adjoining alleyway
- ☐ A heating oil underground storage tank (“HOT”) is currently located on the northern portion of the vacant lot, but has been out of service since natural gas was available

The Facility is located approximately two miles east of downtown Seattle, Washington, between E 25th Ave and E 27th Ave. The Facility adjoins the Islamic School of Seattle to the north and west, an alleyway to the east, and E Cherry St to the south. Beyond the adjoining properties are residential properties to the northeast, commercial properties to the east, and a mixture of residential and commercial properties to the south.

1.2 Facility and Surrounding area Land Use

1.2.1 Historical Land Use

During its operations, Cherry Street Cleaners used two dry cleaning machines (“DCMs”) of unknown makes and model numbers. The first DCM was used from 1968 to 1998, and the second DCM was used from 1998 to 2007. Both DCMs used PCE, which was released to the environment. Prior to 1968, the business operated as Accurate Cleaners, which used petroleum-based dry cleaning solvents instead of PCE. The Facility operated as a dry cleaner circa 1968 until 2007. Accurate Cleaners used petroleum-based dry cleaning solvents prior to 1968. From 1968 to 2007, the Facility operated as Cherry Street Cleaners and is currently owned by Ms. Vera Benton.



A delivery service parked on either E Cherry St or in the alleyway to dispense PCE directly into the DCM's PCE tank. The DCMs would recycle PCE through a cooker in a closed-loop system, then waste PCE sludge would be shoveled into waste containers, provided by Safety Kleen, Inc. The PCE waste containers were removed and disposed of off-site by Safety Kleen, Inc. According to the *Remedial Investigation* (ECC 2014), waste PCE sludge handling associated with the operation of the first DCM is unknown.

Historically, the surrounding area north, east, and west have been used for commercial purposes. The surrounding area to the south was historically utilized for residential with some scattered commercial properties.

1.2.2 Future Land Use

The Facility and surrounding area are anticipated to remain the same; however, the area to the east, beyond the alleyway, is being considered for redevelopment. The commercial properties beyond the alleyway are planned to be a multi-story tenant space with residential space above commercial. A subgrade parking garage is being considered (ECC 2014).

1.3 Regional Geology and Hydrogeology

The Facility and surrounding area elevation ranges between 280 and 285 feet above mean sea level ("amsl"). Based on a review of *The Geologic Map of Seattle* (USGS 2005), geology in the region of the Facility consists of Quaternary pre-Olympian landslide glacial deposits consisting of fine-grained silts and clays with interbedded sands, underlain by very dense fine-grained till deposits. The till generally ranges from gravelly, sandy silt to silty sand with varied quantities of clay and scattered cobbles and boulders (Galster and Laprade 1991).

Based on investigations completed at the Facility, noncohesive sandy silt is generally encountered from the ground surface to approximately 5 to 10 feet below ground surface ("bgs") followed by discontinuous interbedded silt, silty sand and sandy silt lenses within a non-cohesive sand unit with some gravel to the total depth drilled of 60 feet bgs.



The water table fluctuated approximately 3 feet between the third quarter of 2016 and third quarter of 2017 groundwater monitoring events. The groundwater appears to exist within an unconfined aquifer at depths ranging from 20 to 30 feet bgs to at least 60 feet bgs. The upper portion of the aquifer terminates to the east and southeast beneath E 26th Ave and E 27th Ave.

The shape of the water table surface consistently reflects an approximately 100-feet wide “valley” shape with a north-south trending axis located between the Facility and E 26th Ave as shown on Figure 3A. The Facility is located on the west side of this valley shape and so groundwater generally flows eastward from the Facility.

Groundwater also flows east from the Facility in the deeper part of the aquifer, but the deeper portion does not terminate to the east like the shallow portion does. Consequently, there is no groundwater flow termination point in this deeper part as shown on Figure 3B. Monitoring well gauging data is provided in Table 1. Lake Washington is the nearest surface water body to the east of the Facility, located approximately 1 mile away. There are no surface streams in the vicinity of the Facility.

1.4 Site Investigation History

PCE was first discovered in soil and groundwater during an initial site characterization conducted by Adapt Engineering, Inc. (“Adapt”) in June of 2007. The release was subsequently reported to Ecology and entered into the VCP. Details of the prior work is publicly available through Ecology’s website and web pages dedicated to Cherry Street Cleaners.² Several phases of investigation have been conducted to delineate the extent of chlorinated volatile organic compounds (“cVOCs”) in soil, groundwater and soil vapor/indoor air as summarized in the table on the following page.

² ECY, 2019, Cherry Street Cleaners , <https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=4175> (URL last verified 6/8/2020).



Year	Investigation Activity	Report Reference
2007	☐ Advanced soil boring B-1	ECC 2013
2008	☐ Advanced soil borings FB-1 through FB-10 ☐ Installed monitoring wells MW-1 through MW-10 and MW-10D	ECC 2013
2010	☐ Installed monitoring well MW-11 ☐ Installed additional SVE pilot study wells SVE-2 and VP-1 through VP-3	ECC 2013
2012	☐ Advanced soil borings SB-1 through SB-11 ☐ Installed monitoring wells MW-12 through MW-17 ☐ Conducted vapor intrusion assessments ("VIAs") at the following addresses: ☐ 2503 E. Cherry St. ☐ 2509 E. Cherry St. ☐ 2510 E. Cherry St. ☐ 2511 E. Cherry St. ☐ 2515 E. Cherry St. ☐ 2516 E. Cherry St. ☐ 2517 E. Cherry St. ☐ 2518 E. Cherry St. ☐ 720 E. 25th Ave. ☐ 711A E. 25th Ave.	ECC 2013
2013	☐ Advanced soil boring SB-21 ☐ Installed monitoring wells MW-15D, MW-17D, MW-18, MW-18D, MW-19, MW-19D, and MW-20D ☐ Conducted VIA at 720 E. 25th Ave.	ECC 2014
2014	☐ Advanced soil borings SB-12 through SB-20 and SB-22 through SB-37 ☐ Installed monitoring wells MW-21D, MW-22D, and MW-23	ECC 2014
2017	☐ Conducted VIAs at the following addresses: ☐ 720 E. 25th Ave. ☐ 2516 E. Cherry St. ☐ 2518 E. Cherry St.	ELAM 2017a ELAM 2017b
2018	☐ Conducted VIAs at the following addresses: ☐ 720 E. 25th Ave. ☐ 2516 E. Cherry St. ☐ 2518 E. Cherry St.	ELAM 2018a ELAM 2018b
2020	☐ Advance soil borings for collection of soil to be used in a bench test of Activated Persulfate ☐ Conducted VIAs at the following addresses: ☐ 720 E. 25th Ave. ☐ 2516 E. Cherry St. ☐ 2518 E. Cherry St.	Reported herein ELAM 2020a ELAM 2020b

Soil analytical data are summarized in Table 2, and on Figures 4A and 4B. Groundwater analytical data are summarized in Table 3. The most recent groundwater analytical data and interpreted extent of groundwater impacts are depicted on Figure 5. The VI analytical data are summarized in Table 4A through 4C and shown on Figure 6A through 6C. The data support the following conclusions:



1. The extent of cVOCs has been delineated to concentrations below Model Toxics Control Act Method A Cleanup Levels (“MTCA A CLs”) in unsaturated soil and groundwater
2. VIAs conducted for nearby commercial buildings suggest that the indoor air quality meets the requirements of ECY’s MTCA Method C Cleanup Levels (“MTCA C CLs”) as is applicable for commercial buildings
3. VIAs conducted for a nearby school building suggest that the indoor air quality meets the requirements of ECY’s MTCA Method B Cleanup Levels (“MTCA B CLs”) as is applicable for residential buildings

1.5 Site Remediation History

Remediation activities have included pilot testing to evaluate the efficacy of air sparge (“AS”) and soil vapor extraction (“SVE”) technologies, injection of emulsified oil substrate (“EOS”) to augment PCE bioremediation, and vacuum truck events to remove free-phase EOS that had sequestered PCE, as summarized in the table below.

Year	Remediation Activity	Report Reference
2008	❑ Completed AS/SVE pilot study testing using wells SVE-1 and MW-1D ❑ An AS/SVE system was not installed	ECC 2013
2010	❑ Completed an additional pilot study for SVE using SVE-2 and VP-1 through VP-3 ❑ Injected a total of 3,465 gallons of EOS into wells IW-1 through IW-28, MW-1, MW-2, MW-3, and MW-7 ❑ 2,310 gallons of EOS were injected into the wells within the property boundary ❑ 1,155 gallons of EOS were injected into the wells outside the property boundary	ECC 2013
2012	❑ Completed groundwater monitoring for four consecutive quarters in 2012 and 2013 as part of the EOS performance monitoring	ECC 2013
2013	❑ Demolished site building ❑ Used vacuum truck to remove 75 gallons of EOS from subsurface in 4Q	ECC 2014
2014	❑ Used vacuum truck to remove 75 gallons of EOS in 2Q and 120 gallons of EOS in 3Q	ECC 2014
2016	❑ Used vacuum truck to remove 25 gallons of EOS in 4Q ❑ 1st of four consecutive EOS performance monitoring events	ELAM 2019
2017	❑ Used vacuum truck to remove a total of 80 gallons of EOS during three events ❑ 2nd, 3rd and 4th of four consecutive EOS performance monitoring events	ELAM 2019
2018	❑ Used vacuum truck to remove 6 gallons of EOS in 1Q	ELAM 2019



Year	Remediation Activity	Report Reference
2020	☐ Used vacuum truck to remove 25 gallons of EOS in 1Q	Reported herein

EOS tracking data are summarized in Table 5. EOS analytical data are summarized in Table 6, and shown on Figure 7. The data support the following conclusions:

1. The above-referenced interim remedial measures have aided in reducing the cVOC mass
2. A *Cleanup Action Plan* ("CAP") should be prepared, which provides a permanent remedy for soil, groundwater and soil vapor impacts associated with the Facility



2 Conceptual Site Model

The Conceptual Site Model (“CSM”) section describes the conceptual understanding of the Facility from prior investigation activities and includes a discussion of the COCs identified, media of concern, exposure pathways and the proposed points of compliance. This CSM serves as the basis for determining Cleanup Alternatives, as presented on Figure 8.

2.1 Chemicals of Concern

Based on the information presented in the previous sections, the primary COCs for the Facility are cVOCs. More specifically, PCE, TCE, c-DCE and/or VC are present in the soil, groundwater and/or soil gas. The Ecology Cleanup Levels and Risk Calculation (“CLARC”) Unrestricted Land Use Table was utilized to determine MTCA Cleanup Levels Method B. Contaminant concentrations detected in soil, groundwater and soil vapor/indoor air at the Facility were compared to MTCA Cleanup Levels, as summarized below.

Medium	MTCA Cleanup Level	PCE	TCE	c-DCE	VC
Soil	Method A / Method B	0.05 / 476 (mg/kg)	0.03 / 12.0 (mg/kg)	NA / 160 (mg/kg)	NA / 0.67 (mg/kg)
Groundwater	Method A / Method B	5.0 / 20.8 (µg/L)	5.0 / 0.54 (µg/L)	NA / 16 (µg/L)	0.2 / 0.029 (µg/L)
Soil Gas	Method B	321 / 3,205 (µg/m ³)	12 / 210 (µg/m ³)	NA	9.33 / 93 (µg/m ³)
Indoor Air	Method B Carcinogenic / Method C Carcinogenic	9.62 / 96 (µg/m ³)	0.37 / 6.30 (µg/m ³)	NA	0.28 / 2.80 (µg/m ³)

NA = Not Applicable, since cleanup standard is not established

mg/kg = milligram per kilogram

µg/L = micrograms per liter

µg/m³ = micrograms per cubic meter



2.2 Media of Concern

Based on prior investigation completed at the Facility, soil, groundwater and soil vapor are the affected media of concern. Indoor air has been noted as a potential media of concern if the usages of the eastern adjoining properties change from commercial to residential.

2.3 Exposure Pathways

COCs from the Facility are being transported by soil impacts leaching to groundwater, then by groundwater flow, distributed by dispersive and advective transport within the saturated zone. Soil gas, located above the water table, is transported by diffusion and advection. The potential for human exposure to residual COCs present on the Facility were evaluated as explained in the following subsections.

2.3.1 Soil Exposure Pathway

Impacted soils typically present a potential to affect human health and the environment through ingestion and direct contact. The Facility is currently covered predominately in gravel and vegetation, which are enclosed within a perimeter fence. The surrounding area is predominantly covered in asphalt, concrete and building footprints. Impacted areas are observed within the shallow surface soil from less than one foot bgs to the deeper zones at 30 feet bgs, but, since the subsurface soil is not exposed, the soil direct contact pathway is currently incomplete. However, future development activities at the Facility could result in exposure to impacted soils; therefore, protection from the direct contact exposure to affected soil necessitates implementation of a remedy.

2.3.2 Groundwater Exposure Pathway

No groundwater supply wells at or in the vicinity of the Facility are used for potable water supply. Because of the availability of a municipal water supply in the area proximal to the Facility, there is a low probability that groundwater would be used as a potable water source. In the future, the Department of Public Health - Seattle and King County ("DPHSC") would prohibit construction of a new well within the area of the



plume because the DPHSKC requires that any future access to groundwater via a potable water well be a minimum 100 feet set back from several structures and survey markers, including public and private road easements.³ Because the site groundwater plume is all contained within 100 feet of this set back requirement, human health exposure via ingestion of groundwater from a potable drinking water supply is not considered to be a complete exposure pathway.

Because there is no practical use of groundwater in the area proximal to the Facility and the groundwater is present at depths greater than 15 feet bgs, excavation and/or redevelopment activities at the Facility are not likely to result in exposure to contaminated groundwater.

2.3.3 Vapor Exposure Pathway

Impacted soil vapor presents a potential risk to human health through potential vapor intrusion (“VI”) into an inhabited structure and subsequent inhalation of impacted indoor air. According to Ecology’s *Guidance for Evaluating Soil Vapor Intrusion in Washington State* (Ecology 2009), buildings within 100 lateral feet of contaminated soil and/or groundwater could experience VI.

The VIAs conducted to date reported that the VI exposure pathway remains incomplete for the COCs associated with the Cherry Street Cleaners. However, continued monitoring is necessary to ensure that compliance is maintained.

2.4 Proposed Point of Compliance

The point of compliance is described as the point where cleanup levels established in accordance with WAC 173-340-720 through 173-340-760 have been met. As defined in MTCA, point of compliance means *...the point or points where cleanup levels...shall be attained* (Ecology 2001, Revised 2013). The points of compliance for soil, groundwater, and soil gas are explained below.

³https://www.kingcounty.gov/depts/health/environmental-health/piping/drinking-water/~/_media/depts/health/environmental-health/documents/drinking-water/private-well-source-site-application.ashx



2.4.1 Points of Compliance for Soil

In accordance with WAC 173-340-740(6b-d), the point of compliance for direct contact exposure is throughout the Facility from the ground surface to 15 feet bgs, which is a reasonable estimate of the depth of soil that could be excavated and distributed at the soil surface as a result of potential development activities. Based on the analytical results collected between 0 and 15 feet bgs, a remedy is necessary to address the COCs that exceed the MTCA direct contact with soil exposure pathway Cleanup Levels.

Additionally, WAC 173-340-740(6b-d) states that the point of compliance should extend to all depths where soil may act as a source of continual groundwater impacts and where soil may act as a source of unacceptable levels of IA impacts. Because PCE is present in the vadose zone from surface soil to the top of the groundwater table, the point of compliance for the soil at the Facility has been identified to be from ground surface to the top of the groundwater table at approximately 30 feet bgs. This point of compliance is protective of human health and the environment. Remedy is necessary to address the soil migration to groundwater and soil migration to soil vapor/indoor air exposure pathways.

2.4.2 Points of Compliance for Groundwater

In accordance with WAC 173-340-720(8a-b), the point of compliance for groundwater is defined as the uppermost level of the saturated zone extending vertically to the lowest most depth that potentially could be impacted by the COCs throughout the Facility. Based on investigations completed at the Facility, the groundwater table is located at approximately 30 feet bgs and saturated conditions extend vertically to a total depth of at least 60 feet bgs. Based on these findings, the vertical point of compliance for groundwater shall extend from the upper level of the saturated zone to approximately 60 feet bgs.

Groundwater samples collected from two permanent groundwater-monitoring wells (MW-15 and MW-15D) have contained PCE at concentrations above applicable cleanup levels. Therefore, the lateral points of compliance for groundwater shall extend from the Facility out to monitoring wells MW-15 and MW-15D, which are the furthest downgradient wells.



2.4.3 Points of Compliance for Soil Gas and Indoor Air

Cleanup standards and points of compliance for soil gas have not been promulgated as of the date of this document, although soil gas and indoor air cleanup levels have been published in the 2009 draft *Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action* (Ecology 2009). The points of compliance for soil gas are identified in the referenced guidance for both sub-slab gas (soil gas encountered just beneath a building) and deeper soil gas (defined as equal to, or greater than, 15 feet bgs). The points of compliance for indoor air (“IA”) will be indoor air for a structure being assessed for potential VI as the standard point of compliance according to WAC 173-340-750(6). The current COC concentrations comply with Ecology’s respective Commercial SGCLs and IACLs, with the exception of PCE in a SGss sample collected from the 2516 E Cherry St sub-slab port SS-1. However, five consecutive data sets suggest that the corresponding IA concentrations within 2516 E Cherry St have remained in compliance with the IACLs. The SG/IA point of compliance is to monitor and maintain/minimize current soil vapor conditions. In the event that the usage of the commercial properties to the east of the Facility change to residential, additional actions may be warranted.

2.5 Areas of Remediation

Based on the available data, impacts to soil and groundwater are located throughout the entire Facility and also beyond the Facility with impacts to groundwater approximately 130 feet to the north, approximately 300 feet to the southeast, and approximately 90 feet to the south and west. This mappable cVOC plume represents the Site and is shown on Figure 9. The remedy is designed to decrease the cVOC mass within the Site.



3 Cleanup Alternatives

3.1 Remedial Action Objectives

The overall remedial action objective (“RAO”) for this FS is to identify a remedial alternative(s) that will treat the primary source area and reduce COC concentrations in soil, groundwater and soil gas/IA to below the applicable cleanup levels at the points of compliance defined in Section 2.4. Ecology also recognizes that institutional controls, such as land use restrictions, may be necessary where further treatment/cleanup within the Site is impracticable.

3.2 Cleanup Alternatives Identified

The object of this FS is to develop and evaluate Cleanup Alternatives in order to facilitate selection of a cleanup action at the Facility in accordance with WAC 173-340-350(7). According to WAC 340-360(3), the following subsections describe the remedial options, including a minimum of one permanent alternative, one alternative with a standard point of compliance and a no action alternative.

3.2.1 Monitored Natural Attenuation

Monitored Natural Attenuation (“MNA”) generally describes a range of physical and biological processes that can reduce the concentration, toxicity, or mobility of COCs. These processes can occur whether or not other active cleanup measures are implemented.

The mechanisms of natural attenuation can be classified as destructive and non-destructive. Destructive processes include biodegradation and hydrolysis. Biodegradation is a process in which naturally occurring microorganisms break down target substances. Non-destructive attenuation mechanisms include sorption, dispersion, dilution and volatilization.

Under favorable conditions, a reduction of mass, toxicity, mobility, volume and/or concentrations of COCs in soil and/or groundwater can be achieved via MNA. However,



long-term monitoring is typically required in order to ensure that COC concentrations continue to decrease and do not become a threat to human health or the environment.

3.2.2 Excavation and Disposal

The removal of accessible soil with elevated concentrations of COCs could be completed via excavation. The excavated soil can then be transported off-site for proper disposal at a permitted facility, in accordance with applicable federal, state and local regulations.

3.2.3 In-Situ Chemical Oxidation

In-situ chemical oxidation (“ISCO”) involves putting a chemical oxidant reagent into contact with impacted soil and/or groundwater in order to convert COCs into non hazardous or less toxic compounds. Some ISCO reagents include hydrogen peroxide, permanganate, persulfate and ozone. Delivery of liquid reagent solutions can be accomplished with gravity infiltration, injection and/or soil mixing techniques. Delivery of gaseous reagent can be accomplished via injection

3.2.4 Soil Vapor Extraction System

Soil vapor extraction (“SVE”) is accomplished by applying a vacuum to subsurface soil through extraction wells installed in impacted soil to remove COCs. Volatile COCs in the vadose zone are drawn toward the extraction wells and discharged to the atmosphere. Sometimes, the extracted soil vapor is treated via carbon adsorption, thermal destruction, catalytic conversion, etc. in order to reduce the mass of COCs being released into the atmosphere. Soil permeability affects the rate of air and vapor movement throughout the soil.

3.2.5 Air Sparging

Air sparge (“AS”) consists of injecting air into saturated soil below the water table. The injected air causes volatilization/stripping of dissolved COCs and allows for an upward



migration of volatile COCs into the vadose zone. AS is typically used in conjunction with SVE, in order to prevent unwanted migration of the COCs. Injecting air into the saturated zone can also enhance conditions and promote aerobic biodegradation.

3.2.6 Thermal Remediation

Thermal remediation consists of introducing heat into impacted soil and/or groundwater in order to promote volatilization of COCs. Heat can be introduced into the subsurface via conduction, electrical resistive heating and/or steam injection. Once COCs volatilize into soil vapor, they are removed from the subsurface via SVE in order to prevent unwanted migration of the COCs.

3.2.7 Institutional Control

Institutional controls can assist with minimizing exposure to COCs via administrative methods that prevent completion of exposure pathways. Certain restrictions can include, but are not limited to, fencing, signage, capping, barriers, activity and use limitations, and title/deed restrictions.

3.3 Cleanup Alternative Description

Eleven different Cleanup Alternatives were developed that consist of various combinations of the remedial components mentioned above. Common to all alternatives is the potential for land restriction(s), in the form of an Environmental Covenant ("EC"), to be recorded on the deed of the property and the periodic removal of EOS floating on the water table via vacuum extraction. The eleven Cleanup Alternatives are listed below and presented graphically relative to depth interval in Table 7.

- ❑ *Cleanup Alternative 1 - MNA*: Limited excavation of impacted surface soil and long-term groundwater monitoring, with potential for an Institutional Control and vapor mitigation measures, if needed
- ❑ *Cleanup Alternative 2 - Shallow ISCO (gravity) and MNA*: Limited excavation of impacted surface soil, gravity infiltration of permanganate reagent solution within



the shallow vadose zone soil, and groundwater monitoring, with potential for an Institutional Control and vapor mitigation measures, if needed

- ❑ *Cleanup Alternative 3 - Shallow ISCO (gravity), Deep/Saturated ISCO:* Limited excavation of impacted surface soil, gravity infiltration of permanganate reagent solution within the shallow vadose zone soil, followed by injection/sparging of ozone into the deep vadose and saturated zones, and groundwater monitoring, with potential for an Institutional Control, if needed
- ❑ *Cleanup Alternative 4 - Shallow ISCO (gravity), Deep SVE and Saturated AS:* Limited excavation of impacted surface soil, gravity infiltration of permanganate reagent solution within the shallow vadose zone soil, followed by SVE from the deep vadose zone, AS within the saturated zone, and groundwater monitoring, with potential for an Institutional Control, if needed
- ❑ *Cleanup Alternative 5 - Shallow SVE and MNA:* Limited excavation of impacted surface soil, SVE from the shallow vadose zone, and groundwater monitoring, with potential for an Institutional Control and vapor mitigation measures, if needed
- ❑ *Cleanup Alternative 6 - Shallow SVE and Deep/Saturated ISCO:* Limited excavation of impacted surface soil, SVE from the shallow vadose zone, followed by injection/sparging of ozone into the deep vadose and saturated zones, and groundwater monitoring, with potential for an Institutional Control and vapor mitigation measures, if needed
- ❑ *Cleanup Alternative 7 - Shallow SVE, Deep SVE and Saturated AS:* Limited excavation of impacted surface soil, SVE from the shallow vadose zone, SVE from the deep vadose zone, AS within the saturated zone, and groundwater monitoring, with potential for an Institutional Control, if needed
- ❑ *Cleanup Alternative 8 - Shallow ISCO (mixing) and MNA:* Limited excavation of impacted surface soil, mixing of activated persulfate reagent solution within the shallow vadose zone soil, and groundwater monitoring, with potential for an Institutional Control and vapor mitigation measures, if needed
- ❑ *Cleanup Alternative 9 - Shallow ISCO (mixing) and Deep/Saturated ISCO:* Limited excavation of impacted surface soil, mixing of activated persulfate reagent solution within the shallow vadose zone soil, followed by injection/sparging of ozone into the deep vadose and saturated zones, and groundwater monitoring, with potential for an Institutional Control and vapor mitigation measures, if needed



- ❑ *Cleanup Alternative 10 - Shallow ISCO (mixing), Deep SVE and Saturated AS:* Limited excavation of impacted surface soil, mixing of activated persulfate reagent solution within the shallow vadose zone soil, followed by SVE from the deep vadose zone, AS within the saturated zone, and groundwater monitoring, with potential for an Institutional Control, if needed
- ❑ *Cleanup Alternative 11 - Thermal Remediation:* Thermal remedy of shallow vadose, deep vadose, EOS product layer and saturated zone impacts in conjunction with SVE, and groundwater monitoring, with potential for an Institutional Control, if needed



4 DCA and Selection of Alternatives

4.1 Threshold and Other Requirements

Each Cleanup Alternative was chosen to effectively treat the COCs in the affected media and are conducive to the future land use of the Facility and surrounding area. The Applicable, Relevant and Appropriate Requirements (“ARARs”) is provided in Table 8. Any cleanup action implemented at the Facility will adhere to the following WAC 173-340-360(2) minimum requirements:

- ☐ Protect human health and the environment
- ☐ Comply with cleanup standards
- ☐ Comply with applicable state and federal laws
- ☐ Provide for compliance monitoring
- ☐ Use permanent solutions to the maximum extent practicable
- ☐ Provide a reasonable restoration time frame
- ☐ Consider public concerns

4.2 Evaluation Criteria

The purpose of the disproportionate cost analysis (“DCA”) is to facilitate selection of the Cleanup Alternative providing the highest degree of permanence to the maximum extent practicable. Costs are considered disproportionate to benefits if the incremental costs of one alternative versus a less expensive alternative exceed the incremental benefit achieved by the more expensive alternative. The DCA was conducted according to the methodology provided by Ecology (2009b) in accordance with WAC 173-340-360(3e) and is summarized in Table 9. The criteria used to evaluate the potentially feasible cleanup alternatives are listed below.

4.2.1 Protectiveness

According to MTCA 173-340-360(3,C,f,i), overall protectiveness of human health and the environment includes the degree to which existing risks are reduced, the time



required to reduce risk and attain cleanup standards, risks resulting from implementing the Cleanup Alternative and improvement of overall environmental quality.

4.2.2 Permanence

According to MTCA 173-340-360(3,C,f,ii), permanence is the degree to which the alternative permanently reduces the toxicity, mobility or volume of hazardous substances, the reduction or elimination of hazardous substance releases and sources of releases, the degree of irreversibility of waste treatment process and characteristics and quantity of treatment residuals generated.

4.2.3 Cost

According to MTCA 173-340-360(3,C,f,iii), the cost is the amount to implement the alternative, including the cost of construction, the net present value of any long-term costs and agency oversight costs that are cost recoverable. Long-term costs include operation and maintenance costs, monitoring costs, equipment replacement costs, and the cost of maintaining institutional controls. Cost estimates for treatment technologies shall describe pretreatment, analytical, labor, and waste management costs. The design life of the cleanup action shall be estimated and the cost of replacement or repair of major elements shall be included in the cost estimate. A Cost Estimates for Cleanup Alternatives is provided on Table 10.

4.2.4 Effectiveness over the Long-term

According to MTCA 173-340-360(3,C,f,iv), long-term effectiveness includes the degree of certainty that the Cleanup Alternative will be successful, the reliability of the Cleanup Alternative during the period of time hazardous substances are expected to remain on-site at concentrations that exceed cleanup levels, the magnitude of residual risk with the Cleanup Alternative in place and the effectiveness of controls required to manage treatment residues or remaining wastes.



4.2.5 Management of Short-term Risks

According to MTCA 173-340-360(3,C,f,v), management of short-term risks is to assess the risk to human health and the environment associated with the Cleanup Alternative during construction and implementation and the effectiveness of measures that will be taken to manage such risks.

4.2.6 Technical and Administrative Implementability

According to MTCA 173-340-360(3,C,f,vi), technical administrative implementability is the ability to be implemented including consideration of whether the Cleanup Alternative is technically possible, availability of necessary off-site facilities, services, and materials, administrative and regulatory requirements, scheduling, size, complexity, monitoring requirements, access for construction operations and monitoring and integrations with existing facility operations and other current or potential remedial actions.

4.2.7 Public Concern Considerations

According to MTCA 173-340-360(3,C,f,vi), consideration of public concerns includes concerns from individuals, community groups, local governments, tribes, federal and state agencies or any other organization that may have an interest in or knowledge of the Facility.

4.3 Weighting of Evaluation Criteria

Each evaluation criteria is provided a discretionary weighting factor, in percentage, in order to assess their respective benefits. Cost is not considered to be beneficial and is therefore not assigned a weighting percentage. The assigned weighting factors for this assessment are summarized below.



☐ Protectiveness	10%
☐ Permanence	10%
☐ Effectiveness (long-term)	30%
☐ Risk Management (short-term)	10%
☐ Implementability	10%
☐ Public Concerns	30%

Total	100%
--------------	-------------

4.4 Ranking of Evaluation Criteria

Each Cleanup Alternative is then assigned a ranking score for each evaluation criteria. The ranking scores for this assessment ranged from 1 to 11, since 11 Cleanup Alternatives were assessed. Cost is not considered to be beneficial and is therefore not assigned ranking scores. The assigned ranking scores for this assessment are explained in the following subsections.



4.4.1 Protectiveness

The ranking scores for protectiveness were assigned so that the least protective Cleanup Alternative was assigned the lowest score and the most protective Cleanup Alternative was assigned the highest score, using the following guiding rationale:

- ☐ Any Cleanup Alternatives with MNA will be least protective
- ☐ Thermal remediation is considered to be most protective
- ☐ Shallow ISCO (mixing) is below thermal remediation
- ☐ Deep/saturated ISCO is below shallow ISCO (mixing)
- ☐ Shallow SVE is more protective than shallow ISCO (gravity)

Using the above guiding rationale, the following ranking scores were assigned for protectiveness:

Ranking Score

Least Protective

-
1. *Cleanup Alternative 1 - MNA*
 2. *Cleanup Alternative 2 - Shallow ISCO (gravity) and MNA*
 3. *Cleanup Alternative 5 - Shallow SVE and MNA*
 4. *Cleanup Alternative 8 - Shallow ISCO (mixing) and MNA*
 5. *Cleanup Alternative 4 - Shallow ISCO (gravity), Deep SVE and Saturated AS*
 6. *Cleanup Alternative 7 - Shallow SVE, Deep SVE and Saturated AS*
 7. *Cleanup Alternative 3 - Shallow ISCO (gravity), Deep/Saturated ISCO*
 8. *Cleanup Alternative 6 - Shallow SVE and Deep/Saturated ISCO*
 9. *Cleanup Alternative 10 - Shallow ISCO (mixing), Deep SVE and Saturated AS*
 10. *Cleanup Alternative 9 - Shallow ISCO (mixing) and Deep/Saturated ISCO*
 11. *Cleanup Alternative 11 - Thermal Remediation*
-

Most Protective



4.4.2 Permanence

The ranking scores for permanence were assigned so that the least permanent Cleanup Alternative was assigned the lowest score and the most permanent Cleanup Alternative was assigned the highest score. The guiding rationale used to assign the protectiveness ranking scores was also used to assign ranking scores to permanence, and the following ranking scores were assigned for permanence:

Ranking Score

Least Permanent

-
1. *Cleanup Alternative 1 - MNA*
 2. *Cleanup Alternative 2 - Shallow ISCO (gravity) and MNA*
 3. *Cleanup Alternative 5 - Shallow SVE and MNA*
 4. *Cleanup Alternative 8 - Shallow ISCO (mixing) and MNA*
 5. *Cleanup Alternative 4 - Shallow ISCO (gravity), Deep SVE and Saturated AS*
 6. *Cleanup Alternative 7 - Shallow SVE, Deep SVE and Saturated AS*
 7. *Cleanup Alternative 3 - Shallow ISCO (gravity), Deep/Saturated ISCO*
 8. *Cleanup Alternative 6 - Shallow SVE and Deep/Saturated ISCO*
 9. *Cleanup Alternative 10 - Shallow ISCO (mixing), Deep SVE and Saturated AS*
 10. *Cleanup Alternative 9 - Shallow ISCO (mixing) and Deep/Saturated ISCO*
 11. *Cleanup Alternative 11 - Thermal Remediation*
-

Most Permanent



4.4.3 Effectiveness (long-term)

The ranking scores for effectiveness were assigned so that the least effective Cleanup Alternative was assigned the lowest score and the most effective Cleanup Alternative was assigned the highest score. The guiding rationale used to assign the protectiveness ranking scores was also used to assign ranking scores to effectiveness, and the following ranking scores were assigned for effectiveness:

Ranking Score

Least Effective

-
1. *Cleanup Alternative 1 - MNA*
 2. *Cleanup Alternative 2 - Shallow ISCO (gravity) and MNA*
 3. *Cleanup Alternative 5 - Shallow SVE and MNA*
 4. *Cleanup Alternative 8 - Shallow ISCO (mixing) and MNA*
 5. *Cleanup Alternative 4 - Shallow ISCO (gravity), Deep SVE and Saturated AS*
 6. *Cleanup Alternative 7 - Shallow SVE, Deep SVE and Saturated AS*
 7. *Cleanup Alternative 3 - Shallow ISCO (gravity), Deep/Saturated ISCO*
 8. *Cleanup Alternative 6 - Shallow SVE and Deep/Saturated ISCO*
 9. *Cleanup Alternative 10 - Shallow ISCO (mixing), Deep SVE and Saturated AS*
 10. *Cleanup Alternative 9 - Shallow ISCO (mixing) and Deep/Saturated ISCO*
 11. *Cleanup Alternative 11 - Thermal Remediation*
-

Most Effective



4.4.4 Risk Management (short-term)

The ranking scores for risk management were assigned so that the least effective for short-term risk management Cleanup Alternative was assigned the lowest score and the most effective for short-term risk management Cleanup Alternative was assigned the highest score, using the following guiding rationale:

- ☐ Any Cleanup Alternatives with MNA will be least effective for short-term risk management
- ☐ Cleanup Alternative with shorter vapor intrusion assessment periods will be considered to be most effective for managing short-term risks
- ☐ Deep/saturated ISCO is below thermal remediation
- ☐ Deep SVE and saturated AS is below deep/saturated ISCO

Using the above guiding rationale, the following ranking scores were assigned for short-term risk management:

Ranking Score	Least Effective Short-term Risk Management
----------------------	---

- | | |
|-----|--|
| 1. | <i>Cleanup Alternative 1 - MNA</i> |
| 2. | <i>Cleanup Alternative 2 - Shallow ISCO (gravity) and MNA</i> |
| 3. | <i>Cleanup Alternative 5 - Shallow SVE and MNA</i> |
| 4. | <i>Cleanup Alternative 8 - Shallow ISCO (mixing) and MNA</i> |
| 5. | <i>Cleanup Alternative 4 - Shallow ISCO (gravity), Deep SVE and Saturated AS</i> |
| 6. | <i>Cleanup Alternative 10 - Shallow ISCO (mixing), Deep SVE and Saturated AS</i> |
| 7. | <i>Cleanup Alternative 6 - Shallow SVE and Deep/Saturated ISCO</i> |
| 8. | <i>Cleanup Alternative 7 - Shallow SVE, Deep SVE and Saturated AS</i> |
| 9. | <i>Cleanup Alternative 3 - Shallow ISCO (gravity), Deep/Saturated ISCO</i> |
| 10. | <i>Cleanup Alternative 9 - Shallow ISCO (mixing) and Deep/Saturated ISCO</i> |
| 11. | <i>Cleanup Alternative 11 - Thermal Remediation</i> |
-

Most Effective Short-term Risk Management
--



4.4.5 Implementability

The ranking scores for implementability were assigned so that the most difficult Cleanup Alternative to implement was assigned the lowest score and the most easiest Cleanup Alternative to implement was assigned the highest score, using the following guiding rationale:

- ☐ Any Cleanup Alternatives with MNA will be easier to implement
- ☐ SVE is easier to implement than shallow ISCO and thermal remediation
- ☐ Thermal remediation is easier to implement than shallow ISCO
- ☐ Shallow ISCO (gravity) is easier to implement than shallow ISCO (mixing)

Using the above guiding rationale, the following ranking scores were assigned for implementability:

Ranking Score

Easiest to Implement

1. Cleanup Alternative 9 - Shallow ISCO (mixing) and Deep/Saturated ISCO
2. Cleanup Alternative 10 - Shallow ISCO (mixing), Deep SVE and Saturated AS
3. Cleanup Alternative 8 - Shallow ISCO (mixing) and MNA
4. Cleanup Alternative 3 - Shallow ISCO (gravity), Deep/Saturated ISCO
5. Cleanup Alternative 4 - Shallow ISCO (gravity), Deep SVE and Saturated AS
6. Cleanup Alternative 2 - Shallow ISCO (gravity) and MNA
7. Cleanup Alternative 11 - Thermal Remediation
8. Cleanup Alternative 6 - Shallow SVE and Deep/Saturated ISCO
9. Cleanup Alternative 7 - Shallow SVE, Deep SVE and Saturated AS
10. Cleanup Alternative 5 - Shallow SVE and MNA
11. Cleanup Alternative 1 - MNA

Most Difficult to Implement



4.4.6 Public Concern Considerations

The ranking scores for public concern were assigned so that the most concerning Cleanup Alternative was assigned the lowest score and the least concerning Cleanup Alternative was assigned the highest score, using the following guiding rationale:

- ☐ Any Cleanup Alternatives with SVE would be more concern, due to noise considerations
- ☐ Thermal remediation is more concerning than SVE alone
- ☐ MNA is more concerning than shallow ISCO
- ☐ Shallow ISCO (gravity) is more concerning than shallow ISCO (mixing)
- ☐ Deep/saturated ISCO is least concerning

Using the above guiding rationale, the following ranking scores were assigned for public concern:

Ranking Score

Most Concerning

1. *Cleanup Alternative 11 - Thermal Remediation*
2. *Cleanup Alternative 7 - Shallow SVE, Deep SVE and Saturated AS*
3. *Cleanup Alternative 5 - Shallow SVE and MNA*
4. *Cleanup Alternative 1 - MNA*
5. *Cleanup Alternative 4 - Shallow ISCO (gravity), Deep SVE and Saturated AS*
6. *Cleanup Alternative 6 - Shallow SVE and Deep/Saturated ISCO*
7. *Cleanup Alternative 10 - Shallow ISCO (mixing), Deep SVE and Saturated AS*
8. *Cleanup Alternative 2 - Shallow ISCO (gravity) and MNA*
9. *Cleanup Alternative 8 - Shallow ISCO (mixing) and MNA*
10. *Cleanup Alternative 3 - Shallow ISCO (gravity), Deep/Saturated ISCO*
11. *Cleanup Alternative 9 - Shallow ISCO (mixing) and Deep/Saturated ISCO*

Least Concerning



4.5 Benefit Score

The benefit score for each Cleanup Alternative is calculated first multiplying each ranking score by the weighting factor to generate a weighted score for each criterion, then summation of the weighted scores provides the benefit score for each Cleanup Alternative. If costs were not a factor of the assessment, then the Cleanup Alternative with the highest benefit score would be the best choice for implementation.

4.6 Cost

Cost estimates for each Cleanup Alternative were prepared, as summarized in Table 9.

4.7 Cost/Benefit Ratio

The cost/benefit ratio is calculated by dividing the cost of each Cleanup Alternative by the associated benefit score. The purpose of this calculation is to identify which Cleanup Alternative provides the most benefit for the least cost. As such, the smaller the cost/benefit ratio is, the better the cost is relative to the benefit of implementing the Cleanup Alternative.

Once the cost/benefit ratio is calculated, the cost/benefit ratio results can be normalized by dividing each of the calculated values by the minimum value, which results in the best Cleanup Alternative having a normalized cost/benefit ratio of 1.0.



5 Remedy Selection

Based on the results of the DCA, the three best remedies for the Facility are as follows:

1. *Cleanup Alternative 9 - Shallow ISCO (mixing) and Deep/Saturated ISCO*
2. *Cleanup Alternative 3 - Shallow ISCO (gravity), Deep/Saturated ISCO*
3. *Cleanup Alternative 11 - Thermal Remediation*

Details with implementation of the recommended Cleanup Alternative and the decision process used to evaluate whether modifications to the selected approach are warranted will be provided in a forthcoming CAP.



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VCP ID NW2009

Project No. WAKS2510C12.01

Date: 7/9/20

Tables

Table 1. Monitoring Well Gauging Data

Former Cherry Cleaners
2510 E. Cherry Street, Seattle, WA 98122
VCP ID: NW2009; Cleanup Site ID: 4175; Facility/Site ID: 476174

Location	Monitoring Well Construction Information					Gauging Data						
	Well Diameter (in)	Screened Interval (ft bgs)	Elevations (feet above mean sea level)			Date	Measurements (feet below top of casing)			Approximate EOS Thickness (feet)	Elevations (feet above mean sea level)	
			Top of Casing	Top of Screen	Bottom of Screen		Depth to EOS	Depth to Water	Depth to Bottom		Groundwater	Bottom of Well
MW-1	2.0	22.0 - 42.0	280.71	258.71	238.71	1/25/08	NM	29.83	NM	0.00	250.88	NM
MW-1	2.0	22.0 - 42.0	280.71	258.71	238.71	5/1/08	NM	29.11	NM	0.00	251.60	NM
MW-1	2.0	22.0 - 42.0	280.71	258.71	238.71	9/26/08	NM	29.97	NM	0.00	250.74	NM
MW-1	2.0	22.0 - 42.0	280.71	258.71	238.71	10/17/08	NM	30.12	NM	0.00	250.59	NM
MW-1	2.0	22.0 - 42.0	280.71	258.71	238.71	9/30/09	NM	30.59	NM	0.00	250.12	NM
MW-1	2.0	22.0 - 42.0	280.71	258.71	238.71	11/11/09	NM	30.90	NM	0.00	249.81	NM
MW-1	2.0	22.0 - 42.0	280.71	258.71	238.71	1/21/10	NM	29.98	NM	0.00	250.73	NM
MW-1	2.0	22.0 - 42.0	280.60	258.71	238.71	6/21/10	NM	28.31	NM	0.00	252.29	NM
MW-1	2.0	22.0 - 42.0	280.60	258.71	238.71	11/21/11	NM	30.31	NM	0.00	250.29	NM
MW-1	2.0	22.0 - 42.0	280.87	258.71	238.71	7/30/12	NM	30.03	NM	0.00	250.84	NM
MW-1	2.0	22.0 - 42.0	280.87	258.71	238.71	11/2/12	NM	31.25	NM	0.00	249.62	NM
MW-1	2.0	22.0 - 42.0	280.87	258.71	238.71	2/4/13	NM	29.90	NM	0.00	250.97	NM
MW-1	2.0	22.0 - 42.0	280.87	258.71	238.71	6/3/13	25.90	29.10	NM	3.20	251.77	NM
MW-1	2.0	22.0 - 42.0	280.87	258.71	238.71	11/12/13	NM	31.55	NM	0.00	249.32	NM
MW-1	2.0	22.0 - 42.0	280.87	258.71	238.71	5/21/14	NM	28.53	NM	0.00	252.34	NM
MW-1	2.0	22.0 - 42.0	280.87	258.71	238.71	7/24/14	NM	30.75	NM	0.00	250.12	NM
MW-1	2.0	22.0 - 42.0	280.87	258.71	238.71	12/6/16	No EOS	28.10	40.55	0.00	252.77	240.32
MW-1	2.0	22.0 - 42.0	280.87	258.71	238.71	3/13/17	No EOS	25.26	40.55	0.00	255.61	240.32
MW-1	2.0	22.0 - 42.0	280.87	258.71	238.71	6/26/17	No EOS	24.85	40.58	0.00	256.02	240.29
MW-1	2.0	22.0 - 42.0	280.87	258.71	238.71	9/18/17	No EOS	26.78	40.58	0.00	254.09	240.29
MW-1	2.0	22.0 - 42.0	280.87	258.71	238.71	2/27/18	No EOS	27.13	NM	0.00	253.74	NM
MW-1D	2.0	50.0 - 55.0	280.30	230.30	225.30	5/1/08	NM	28.72	NM	0.00	251.58	NM
MW-1D	2.0	50.0 - 55.0	280.30	230.30	225.30	9/26/08	NM	29.59	NM	0.00	250.71	NM
MW-1D	2.0	50.0 - 55.0	280.30	230.30	225.30	10/17/08	NM	29.70	NM	0.00	250.60	NM
MW-1D	2.0	50.0 - 55.0	280.30	230.30	225.30	9/30/09	NM	30.69	NM	0.00	249.61	NM
MW-1D	2.0	50.0 - 55.0	280.30	230.30	225.30	11/11/09	NM	30.59	NM	0.00	249.71	NM
MW-1D	2.0	50.0 - 55.0	280.30	230.30	225.30	1/21/10	NM	29.68	NM	0.00	250.62	NM
MW-1D	2.0	50.0 - 55.0	280.34	230.30	225.30	6/21/10	NM	28.07	NM	0.00	252.27	NM
MW-1D	2.0	50.0 - 55.0	280.34	230.30	225.30	11/21/11	NM	27.82	NM	0.00	252.52	NM
MW-1D	2.0	50.0 - 55.0	280.33	230.30	225.30	7/30/12	NM	26.85	NM	0.00	253.48	NM
MW-1D	2.0	50.0 - 55.0	280.33	230.30	225.30	2/4/13	NM	27.10	NM	0.00	253.23	NM
MW-1D	2.0	50.0 - 55.0	280.33	230.30	225.30	6/3/13	No EOS	25.66	NM	0.00	254.67	NM
MW-1D	2.0	50.0 - 55.0	280.33	230.30	225.30	11/12/13	No EOS	27.81	NM	0.00	252.52	NM
MW-1D	2.0	50.0 - 55.0	280.33	230.30	225.30	5/21/14	No EOS	26.78	NM	0.00	253.55	NM
MW-1D	2.0	50.0 - 55.0	280.33	230.30	225.30	7/24/14	No EOS	27.08	NM	0.00	253.25	NM
MW-1D	2.0	50.0 - 55.0	280.33	230.30	225.30	12/6/16	NM	27.53	52.91	0.00	252.80	227.42
MW-1D	2.0	50.0 - 55.0	280.33	230.30	225.30	3/13/17	NM	25.72	52.75	0.00	254.61	227.58
MW-1D	2.0	50.0 - 55.0	280.33	230.30	225.30	6/26/17	NM	24.35	52.91	0.00	255.98	227.42
MW-1D	2.0	50.0 - 55.0	280.33	230.30	225.30	9/18/17	NM	26.28	52.91	0.00	254.05	227.42
MW-2	4.0	20.0 - 40.0	278.97	258.97	238.97	1/25/08	NM	27.97	NM	0.00	251.00	NM
MW-2	4.0	20.0 - 40.0	278.97	258.97	238.97	5/1/08	NM	27.22	NM	0.00	251.75	NM
MW-2	4.0	20.0 - 40.0	278.97	258.97	238.97	10/17/08	NM	29.70	NM	0.00	249.27	NM
MW-2	4.0	20.0 - 40.0	278.97	258.97	238.97	9/30/09	NM	28.74	NM	0.00	250.23	NM
MW-2	4.0	20.0 - 40.0	278.97	258.97	238.97	11/11/09	NM	29.09	NM	0.00	249.88	NM
MW-2	4.0	20.0 - 40.0	278.97	258.97	238.97	1/21/10	NM	28.17	NM	0.00	250.80	NM
MW-2	4.0	20.0 - 40.0	278.97	258.97	238.97	6/21/10	NM	26.75	NM	0.00	252.22	NM
MW-2	4.0	20.0 - 40.0	278.97	258.97	238.97	7/30/12	NM	28.95	NM	0.00	250.02	NM
MW-2	4.0	20.0 - 40.0	278.97	258.97	238.97	11/2/12	NM	30.80	NM	0.00	248.17	NM
MW-2	4.0	20.0 - 40.0	278.97	258.97	238.97	2/4/13	NM	27.90	NM	0.00	251.07	NM
MW-2	4.0	20.0 - 40.0	278.97	258.97	238.97	6/3/13	23.84	28.60	NM	4.76	254.89	NM
MW-2	4.0	20.0 - 40.0	278.97	258.97	238.97	7/24/14	23.00	26.00	NM	3.00	255.82	NM
MW-2	4.0	20.0 - 40.0	278.97	258.97	238.97	12/6/16	Unable to find well; presumed missing					
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	1/25/08	NM	28.66	NM	0.00	250.97	NM
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	5/1/08	NM	27.90	NM	0.00	251.73	NM
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	9/26/08	NM	28.78	NM	0.00	250.85	NM
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	10/17/08	NM	28.92	NM	0.00	250.71	NM
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	9/30/09	NM	29.34	NM	0.00	250.29	NM
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	11/11/09	NM	29.70	NM	0.00	249.93	NM
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	1/21/10	NM	28.84	NM	0.00	250.79	NM
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	6/21/10	NM	27.20	NM	0.00	252.43	NM
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	7/30/12	NM	29.56	NM	0.00	250.07	NM
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	11/2/12	NM	30.70	NM	0.00	248.93	NM
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	2/4/13	NM	28.10	NM	0.00	251.53	NM
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	6/3/13	NM	27.30	NM	0.00	252.33	NM
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	7/24/14	23.00	26.00	NM	0.00	256.48	NM
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	12/8/16	25.31	NM	29.21	>3.0	NM	250.42
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	3/13/17	24.75	NM	NM	>3.0	NM	NM
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	6/27/17	23.48	NM	NM	>3.0	NM	NM
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	9/18/17	25.31	NM	NM	0.40	NM	NM
MW-3	4.0	20.0 - 30.0	279.63	259.63	249.63	2/27/18	25.72	NM	NM	0.20	NM	NM
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	5/1/08	NM	22.16	NM	0.00	251.78	NM

Table 1. Monitoring Well Gauging Data

Former Cherry Cleaners
2510 E. Cherry Street, Seattle, WA 98122
VCP ID: NW2009; Cleanup Site ID: 4175; Facility/Site ID: 476174

Location	Monitoring Well Construction Information					Gauging Data						
	Well Diameter (in)	Screened Interval (ft bgs)	Elevations (feet above mean sea level)			Date	Measurements (feet below top of casing)			Approximate EOS Thickness (feet)	Elevations (feet above mean sea level)	
			Top of Casing	Top of Screen	Bottom of Screen		Depth to EOS	Depth to Water	Depth to Bottom		Groundwater	Bottom of Well
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	9/26/08	NM	23.11	NM	0.00	250.83	NM
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	10/17/08	NM	23.31	NM	0.00	250.63	NM
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	9/30/09	NM	23.73	NM	0.00	250.21	NM
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	11/11/09	NM	24.01	NM	0.00	249.93	NM
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	1/21/10	NM	22.95	NM	0.00	250.99	NM
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	6/21/10	NM	22.47	NM	0.00	251.47	NM
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	11/21/11	NM	21.46	NM	0.00	252.48	NM
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	7/30/12	NM	20.36	NM	0.00	253.58	NM
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	11/2/12	NM	21.75	NM	0.00	252.19	NM
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	2/4/13	NM	21.10	NM	0.00	252.84	NM
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	6/3/13	No EOS	19.20	NM	0.00	254.74	NM
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	11/12/13	No EOS	21.24	NM	0.00	252.70	NM
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	5/21/14	No EOS	20.25	NM	0.00	253.69	NM
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	7/24/14	No EOS	20.72	NM	0.00	253.22	NM
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	12/6/16	NM	21.15	32.22	0.00	252.79	241.72
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	3/13/17	NM	19.23	32.07	0.00	254.71	241.87
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	6/26/17	NM	18.07	32.17	0.00	255.87	241.77
MW-4	2.0	25.0 - 35.0	273.94	248.94	238.94	9/18/17	NM	20.04	32.17	0.00	253.90	241.77
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	5/1/08	NM	28.21	NM	0.00	251.80	NM
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51		NM		NM	0.00		NM
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	9/26/08	NM	29.08	NM	0.00	250.93	NM
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	10/17/08	NM	29.22	NM	0.00	250.79	NM
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	9/30/09	NM	29.83	NM	0.00	250.18	NM
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	11/11/09	NM	30.00	NM	0.00	250.01	NM
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	1/21/10	NM	29.10	NM	0.00	250.91	NM
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	6/21/10	NM	27.49	NM	0.00	252.52	NM
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	11/21/11	NM	27.40	NM	0.00	252.61	NM
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	7/30/12	NM	26.50	NM	0.00	253.51	NM
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	11/2/12	NM	27.40	NM	0.00	252.61	NM
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	2/4/13	NM	26.25	NM	0.00	253.76	NM
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	6/3/13	No EOS	25.11	NM	0.00	254.90	NM
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	11/12/13	No EOS	27.27	NM	0.00	252.74	NM
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	5/21/14	No EOS	26.18	NM	0.00	253.83	NM
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	7/24/14	No EOS	26.52	NM	0.00	253.49	NM
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	12/6/16	NM	27.16	40.45	0.00	252.85	239.56
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	3/13/17	NM	25.70	40.27	0.00	254.31	239.74
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	6/26/17	NM	23.78	40.41	0.00	256.23	239.60
MW-5	2.0	31.5 - 41.5	280.01	248.51	238.51	9/18/17	NM	24.75	40.41	0.00	255.26	239.60
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	5/1/08	NM	29.96	NM	0.00	251.46	NM
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	10/17/08	NM	30.91	NM	0.00	250.51	NM
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	9/30/09	NM	31.42	NM	0.00	250.00	NM
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	11/11/09	NM	31.69	NM	0.00	249.73	NM
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	1/21/10	NM	30.75	NM	0.00	250.67	NM
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	6/21/10	NM	29.23	NM	0.00	252.19	NM
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	11/21/11	NM	28.91	NM	0.00	252.51	NM
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	7/30/12	NM	27.91	NM	0.00	253.51	NM
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	11/2/12	NM	29.25	NM	0.00	252.17	NM
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	2/4/13	NM	27.78	28.48	0.00	253.64	252.94
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	2/4/13	NM	26.74	NM	0.00	254.68	NM
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	6/3/13	No EOS	26.74	NM	0.00	254.68	NM
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	11/12/13	No EOS	28.91	NM	0.00	252.51	NM
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	5/21/14	No EOS	27.78	NM	0.00	253.64	NM
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	7/24/14	No EOS	28.25	NM	0.00	253.17	NM
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	12/6/16	NM	28.83	38.28	0.00	252.59	243.14
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	3/13/17	NM	26.86	40.70	0.00	254.56	240.72
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	6/26/17	NM	25.43	40.84	0.00	255.99	240.58
MW-6	2.0	21.5 - 31.5	281.42	259.92	249.92	9/18/17	NM	27.33	40.84	0.00	254.09	240.58
				0.00	0.00							
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	9/26/08	NM	29.37	NM	0.00	250.76	NM
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	10/17/08	NM	29.51	NM	0.00	250.62	NM
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	9/30/09	NM	29.96	NM	0.00	250.17	NM
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	11/11/09	NM	30.30	NM	0.00	249.83	NM
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	1/21/11	NM	29.43	NM	0.00	250.70	NM
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	6/21/10	NM	27.82	NM	0.00	252.31	NM
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	11/21/11	NM	28.38	NM	0.00	251.75	NM
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	7/30/12	NM	28.15	NM	0.00	251.98	NM
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	11/2/12	NM	30.25	NM	0.00	249.88	NM
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	2/4/13	NM	29.90	NM	0.00	250.23	NM
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	6/3/13	25.19	27.40	NM	2.21	254.82	NM
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	11/12/13	25.19	28.85	NM	3.66	254.75	NM
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	5/21/14	26.58	26.68	NM	0.10	253.54	NM
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	7/24/14	NM	27.00	NM	0.00	253.13	NM
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	12/6/16	28.02	NM	NM	0.01	NM	NM
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	3/13/17	No EOS	25.50	NM	0.00	254.63	NM

Table 1. Monitoring Well Gauging Data

Former Cherry Cleaners
2510 E. Cherry Street, Seattle, WA 98122
VCP ID: NW2009; Cleanup Site ID: 4175; Facility/Site ID: 476174

Location	Monitoring Well Construction Information					Gauging Data						
	Well Diameter (in)	Screened Interval (ft bgs)	Elevations (feet above mean sea level)			Date	Measurements (feet below top of casing)			Approximate EOS Thickness (feet)	Elevations (feet above mean sea level)	
			Top of Casing	Top of Screen	Bottom of Screen		Depth to EOS	Depth to Water	Depth to Bottom		Groundwater	Bottom of Well
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	6/26/17	No EOS	24.24	NM	0.00	255.89	NM
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	9/18/17	No EOS	27.02	40.00	0.00	253.11	240.13
MW-7	4.0	20.0 - 40.0	280.13	260.13	240.13	2/27/18	No EOS	26.39	NM	0.00	253.74	NM
MW-8	2.0	20.0 - 40.0	279.90	259.90	239.90	9/26/08	NM	28.85	NM	0.00	251.05	NM
MW-8	2.0	20.0 - 40.0	279.90	259.90	239.90	10/17/08	NM	29.00	NM	0.00	250.90	NM
MW-8	2.0	20.0 - 40.0	279.90	259.90	239.90	9/30/09	NM	29.48	NM	0.00	250.42	NM
MW-8	2.0	20.0 - 40.0	279.90	259.90	239.90	11/11/09	NM	29.80	NM	0.00	250.10	NM
MW-8	2.0	20.0 - 40.0	279.90	259.90	239.90	1/21/10	NM	28.96	NM	0.00	250.94	NM
MW-8	2.0	20.0 - 40.0	279.90	259.90	239.90	6/21/10	NM	27.25	NM	0.00	252.65	NM
MW-8	2.0	20.0 - 40.0	279.90	259.90	239.90	11/21/11	NM	27.02	NM	0.00	252.88	NM
MW-8	2.0	20.0 - 40.0	279.90	259.90	239.90	7/30/12	NM	25.95	NM	0.00	253.95	NM
MW-8	2.0	20.0 - 40.0	279.90	259.90	239.90	11/2/12	NM	27.34	NM	0.00	252.56	NM
MW-8	2.0	20.0 - 40.0	279.90	259.90	239.90	2/4/13	NM	25.91	NM	0.00	253.99	NM
MW-8	2.0	20.0 - 40.0	279.90	259.90	239.90	6/3/13	No EOS	24.74	NM	0.00	255.16	NM
MW-8	2.0	20.0 - 40.0	279.90	259.90	239.90	5/21/14	No EOS	25.98	NM	0.00	253.92	NM
MW-8	2.0	20.0 - 40.0	279.90	259.90	239.90	7/24/14	No EOS	26.30	NM	0.00	253.60	NM
MW-8	2.0	20.0 - 40.0	279.90	259.90	239.90	12/6/16	NM	26.92	37.52	0.00	252.98	242.38
MW-8	2.0	20.0 - 40.0	279.90	259.90	239.90	3/13/17	NM	25.99	37.98	0.00	253.91	241.92
MW-8	2.0	20.0 - 40.0	279.90	259.90	239.90	6/26/17	NM	23.47	39.55	0.00	256.43	240.35
MW-8	2.0	20.0 - 40.0	279.90	259.90	239.90	9/18/17	NM	25.44	39.55	0.00	254.46	240.35
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	9/26/08	NM	20.60	NM	0.00	258.41	NM
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01		NM		NM	0.00		NM
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	10/17/08	NM	28.70	NM	0.00	250.31	NM
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	9/30/09	NM	29.25	NM	0.00	249.76	NM
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	11/11/09	NM	29.49	NM	0.00	249.52	NM
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	1/21/10	NM	28.50	NM	0.00	250.51	NM
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	6/21/10	NM	27.02	NM	0.00	251.99	NM
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	11/21/11	NM	26.88	NM	0.00	252.13	NM
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	7/30/12	NM	25.83	NM	0.00	253.18	NM
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	11/2/12	NM	27.18	NM	0.00	251.83	NM
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	2/4/13	NM	25.65	NM	0.00	253.36	NM
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	6/3/13	No EOS	24.50	NM	0.00	254.51	NM
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	11/12/13	No EOS	26.82	NM	0.00	252.19	NM
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	5/21/14	No EOS	25.78	NM	0.00	253.23	NM
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	7/24/14	No EOS	26.16	NM	0.00	252.85	NM
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	12/6/16	NM	26.63	38.65	0.00	252.38	240.36
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	3/13/17	NM	24.79	38.65	0.00	254.22	240.36
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	6/26/17	NM	23.54	38.58	0.00	255.47	240.43
MW-9	2.0	20.0 - 40.0	279.01	259.01	239.01	9/18/17	NM	25.40	38.58	0.00	253.61	240.43
MW-10	2.0	10.0 - 30.0	283.28	273.28	253.28	9/26/08	NM	7.76	NM	0.00	275.52	NM
MW-10	2.0	10.0 - 30.0	283.28	273.28	253.28	10/17/08	NM	7.71	NM	0.00	275.57	NM
MW-10	2.0	10.0 - 30.0	283.28	273.28	253.28	9/30/09	NM	7.95	NM	0.00	275.33	NM
MW-10	2.0	10.0 - 30.0	283.28	273.28	253.28	11/11/09	NM	6.81	NM	0.00	276.47	NM
MW-10	2.0	10.0 - 30.0	283.28	273.28	253.28	1/21/10	NM	5.85	NM	0.00	277.43	NM
MW-10	2.0	10.0 - 30.0	283.28	273.28	253.28	6/21/10	NM	6.27	NM	0.00	277.01	NM
MW-10	2.0	10.0 - 30.0	283.28	273.28	253.28	11/21/11	NM	6.86	NM	0.00	276.42	NM
MW-10	2.0	10.0 - 30.0	283.28	273.28	253.28	7/30/12	NM	6.63	NM	0.00	276.65	NM
MW-10	2.0	10.0 - 30.0	283.28	273.28	253.28	11/2/12	NM	6.81	NM	0.00	276.47	NM
MW-10	2.0	10.0 - 30.0	283.28	273.28	253.28	2/4/13	NM	5.52	NM	0.00	277.76	NM
MW-10	2.0	10.0 - 30.0	283.28	273.28	253.28	6/3/13	No EOS	6.18	NM	0.00	277.10	NM
MW-10	2.0	10.0 - 30.0	283.28	273.28	253.28	11/12/13	No EOS	7.03	NM	0.00	276.25	NM
MW-10	2.0	10.0 - 30.0	283.28	273.28	253.28	7/24/14	NM	7.09	NM	0.00	276.19	NM
MW-10	2.0	10.0 - 30.0	283.28	273.28	253.28	12/6/16	NM	5.88	29.26	0.00	277.40	254.02
MW-10	2.0	10.0 - 30.0	283.28	273.28	253.28	3/13/17	NM	5.70	29.26	0.00	277.58	254.02
MW-10	2.0	10.0 - 30.0	283.28	273.28	253.28	6/26/17	NM	6.67	25.22	0.00	276.61	258.06
MW-10	2.0	10.0 - 30.0	283.28	273.28	253.28	9/18/17	NM	7.78	25.22	0.00	275.50	258.06
MW-11	2.0	20.0 - 40.0	281.44	261.44	241.44	6/21/10	NM	29.25	NM	0.00	252.19	NM
MW-11	2.0	20.0 - 40.0	281.44	261.44	241.44	11/21/11	NM	29.00	NM	0.00	252.44	NM
MW-11	2.0	20.0 - 40.0	281.44	261.44	241.44	7/30/12	NM	28.00	NM	0.00	253.44	NM
MW-11	2.0	20.0 - 40.0	281.44	261.44	241.44	11/2/12	NM	29.40	NM	0.00	252.04	NM
MW-11	2.0	20.0 - 40.0	281.44	261.44	241.44	2/4/13	NM	28.90	NM	0.00	252.54	NM
MW-11	2.0	20.0 - 40.0	281.44	261.44	241.44	6/3/13	No EOS	26.80	NM	0.00	254.64	NM
MW-11	2.0	20.0 - 40.0	281.44	261.44	241.44	11/12/13	No EOS	29.04	NM	0.00	252.40	NM
MW-11	2.0	20.0 - 40.0	281.44	261.44	241.44	5/21/14	No EOS	28.04	NM	0.00	253.40	NM
MW-11	2.0	20.0 - 40.0	281.44	261.44	241.44	12/6/16	NM	28.97	40.05	0.00	252.47	241.39
MW-11	2.0	20.0 - 40.0	281.44	261.44	241.44	3/13/17	NM	27.02	40.05	0.00	254.42	241.39
MW-11	2.0	20.0 - 40.0	281.44	261.44	241.44	6/26/17	NM	25.57	40.12	0.00	255.87	241.32
MW-11	2.0	20.0 - 40.0	281.44	261.44	241.44	9/18/17	NM	27.47	40.12	0.00	253.97	241.32
MW-12	2.0	18.0 - 33.0	278.03	260.03	245.03	7/30/12	NM	24.09	NM	0.00	253.94	NM
MW-12	2.0	18.0 - 33.0	278.03	260.03	245.03	11/2/12	NM	25.56	NM	0.00	252.47	NM
MW-12	2.0	18.0 - 33.0	278.03	260.03	245.03	2/4/13	NM	23.80	NM	0.00	254.23	NM

Table 1. Monitoring Well Gauging Data

Former Cherry Cleaners
2510 E. Cherry Street, Seattle, WA 98122
VCP ID: NW2009; Cleanup Site ID: 4175; Facility/Site ID: 476174

Location	Monitoring Well Construction Information					Gauging Data						
	Well Diameter (in)	Screened Interval (ft bgs)	Elevations (feet above mean sea level)			Date	Measurements (feet below top of casing)			Approximate EOS Thickness (feet)	Elevations (feet above mean sea level)	
			Top of Casing	Top of Screen	Bottom of Screen		Depth to EOS	Depth to Water	Depth to Bottom		Groundwater	Bottom of Well
MW-12	2.0	18.0 - 33.0	278.03	260.03	245.03	6/3/13	No EOS	22.90	NM	0.00	255.13	NM
MW-12	2.0	18.0 - 33.0	278.03	260.03	245.03	11/12/13	No EOS	25.20	NM	0.00	252.83	NM
MW-12	2.0	18.0 - 33.0	278.03	260.03	245.03	5/21/14	No EOS	24.03	NM	0.00	254.00	NM
MW-12	2.0	18.0 - 33.0	278.03	260.03	245.03	7/24/14	No EOS	24.48	NM	0.00	253.55	NM
MW-12	2.0	18.0 - 33.0	278.03	260.03	245.03	12/6/16	NM	25.04	32.58	0.00	252.99	245.45
MW-12	2.0	18.0 - 33.0	278.03	260.03	245.03	3/13/17	NM	23.05	32.37	0.00	254.98	245.66
MW-12	2.0	18.0 - 33.0	278.03	260.03	245.03	6/26/17	NM	21.76	32.57	0.00	256.27	245.46
MW-12	2.0	18.0 - 33.0	278.03	260.03	245.03	9/18/17	NM	23.75	32.57	0.00	254.28	245.46
MW-13	2.0	20.0 - 35.0	276.51	256.51	241.51	7/30/12	NM	22.81		0.00	253.70	
MW-13	2.0	20.0 - 35.0	276.51	256.51	241.51	11/2/12	NM	24.23		0.00	252.28	
MW-13	2.0	20.0 - 35.0	276.51	256.51	241.51	2/4/13	NM	22.74		0.00	253.77	
MW-13	2.0	20.0 - 35.0	276.51	256.51	241.51	6/3/13	No EOS	21.65		0.00	254.86	
MW-13	2.0	20.0 - 35.0	276.51	256.51	241.51	11/12/13	No EOS	23.89		0.00	252.62	
MW-13	2.0	20.0 - 35.0	276.51	256.51	241.51	5/21/14	No EOS	22.98		0.00	253.53	
MW-13	2.0	20.0 - 35.0	276.51	256.51	241.51	7/24/14	No EOS	23.19		0.00	253.32	
MW-13	2.0	20.0 - 35.0	276.51	256.51	241.51	12/6/16	NM	23.75	34.75	0.00	252.76	241.76
MW-13	2.0	20.0 - 35.0	276.51	256.51	241.51	3/13/17	NM	21.71	34.75	0.00	254.80	241.76
MW-13	2.0	20.0 - 35.0	276.51	256.51	241.51	6/26/17	NM	20.43	34.71	0.00	256.08	241.80
MW-13	2.0	20.0 - 35.0	276.51	256.51	241.51	9/18/17	NM	22.42	34.71	0.00	254.09	241.80
MW-14	2.0	25.0 - 40.0	284.91	259.91	244.91	7/30/12	NM	31.19	NM	0.00	253.72	NM
MW-14	2.0	25.0 - 40.0	284.91	259.91	244.91	11/2/12	NM	32.52	NM	0.00	252.39	NM
MW-14	2.0	25.0 - 40.0	284.91	259.91	244.91	2/4/13	NM	31.16	NM	0.00	253.75	NM
MW-14	2.0	25.0 - 40.0	284.91	259.91	244.91	6/3/13	No EOS	29.97	NM	0.00	254.94	NM
MW-14	2.0	25.0 - 40.0	284.91	259.91	244.91	11/12/13	No EOS	32.21	NM	0.00	252.70	NM
MW-14	2.0	25.0 - 40.0	284.91	259.91	244.91	5/21/14	No EOS	31.26	NM	0.00	253.65	NM
MW-14	2.0	25.0 - 40.0	284.91	259.91	244.91	7/24/14	No EOS	31.50	NM	0.00	253.41	NM
MW-14	2.0	25.0 - 40.0	284.91	259.91	244.91	12/6/16	NM	32.02	39.60	0.00	252.89	245.31
MW-14	2.0	25.0 - 40.0	284.91	259.91	244.91	3/13/17	NM	30.15	38.85	0.00	254.76	246.06
MW-14	2.0	25.0 - 40.0	284.91	259.91	244.91	6/26/17	NM	28.62	39.60	0.00	256.29	245.31
MW-14	2.0	25.0 - 40.0	284.91	259.91	244.91	9/18/17	NM	30.55	39.60	0.00	254.36	245.31
MW-15	2.0	23.0 - 38.0	281.92	258.92	243.92	7/30/12	NM	28.85	NM	0.00	253.07	NM
MW-15	2.0	23.0 - 38.0	281.92	258.92	243.92	11/2/12	NM	30.18	NM	0.00	251.74	NM
MW-15	2.0	23.0 - 38.0	281.92	258.92	243.92	2/4/13	NM	28.60	NM	0.00	253.32	NM
MW-15	2.0	23.0 - 38.0	281.92	258.92	243.92	6/3/13	No EOS	27.69	NM	0.00	254.23	NM
MW-15	2.0	23.0 - 38.0	281.92	258.92	243.92	11/12/13	No EOS	29.36	NM	0.00	252.56	NM
MW-15	2.0	23.0 - 38.0	281.92	258.92	243.92	5/21/14	No EOS	28.83	NM	0.00	253.09	NM
MW-15	2.0	23.0 - 38.0	281.92	258.92	243.92	7/24/14	No EOS	29.01	NM	0.00	252.91	NM
MW-15	2.0	23.0 - 38.0	281.92	258.92	243.92	12/6/16	NM	29.63	38.28	0.00	252.29	243.64
MW-15	2.0	23.0 - 38.0	281.92	258.92	243.92	3/13/17	NM	27.72	38.23	0.00	254.20	243.69
MW-15	2.0	23.0 - 38.0	281.92	258.92	243.92	6/26/17	NM	26.51	38.12	0.00	255.41	243.80
MW-15	2.0	23.0 - 38.0	281.92	258.92	243.92	9/18/17	NM	28.35	38.12	0.00	253.57	243.80
MW-15D	2.0	50.0 - 55.0	282.26	232.26	227.26	11/12/13	No EOS	30.21	NM	0.00	252.05	NM
MW-15D	2.0	50.0 - 55.0	282.26	232.26	227.26	5/21/14	No EOS	29.11	NM	0.00	253.15	NM
MW-15D	2.0	50.0 - 55.0	282.26	232.26	227.26	7/24/14	No EOS	29.50	NM	0.00	252.76	NM
MW-15D	2.0	50.0 - 55.0	282.26	232.26	227.26	12/6/16	NM	29.92	59.46	0.00	252.34	222.80
MW-15D	2.0	50.0 - 55.0	282.26	232.26	227.26	3/13/17	NM	28.05	60.15	0.00	254.21	222.11
MW-15D	2.0	50.0 - 55.0	282.26	232.26	227.26	6/26/17	NM	26.80	59.46	0.00	255.46	222.80
MW-15D	2.0	50.0 - 55.0	282.26	232.26	227.26	9/18/17	NM	28.61	59.46	0.00	253.65	222.80
MW-16	2.0	25.0 - 40.0	284.00	259.00	244.00	7/30/12	NM	30.80	NM	0.00	253.20	NM
MW-16	2.0	25.0 - 40.0	284.00	259.00	244.00	11/2/12	NM	32.19	NM	0.00	251.81	NM
MW-16	2.0	25.0 - 40.0	284.00	259.00	244.00	2/4/13	NM	30.62	NM	0.00	253.38	NM
MW-16	2.0	25.0 - 40.0	284.00	259.00	244.00	6/3/13	No EOS	29.64	NM	0.00	254.36	NM
MW-16	2.0	25.0 - 40.0	284.00	259.00	244.00	11/12/13	No EOS	31.80	NM	0.00	252.20	NM
MW-16	2.0	25.0 - 40.0	284.00	259.00	244.00	5/21/14	No EOS	30.82	NM	0.00	253.18	NM
MW-16	2.0	25.0 - 40.0	284.00	259.00	244.00	7/24/14	No EOS	31.10	NM	0.00	252.90	NM
MW-16	2.0	25.0 - 40.0	284.00	259.00	244.00	12/6/16	NM	31.60	39.76	0.00	252.40	244.24
MW-16	2.0	25.0 - 40.0	284.00	259.00	244.00	3/13/17	NM	29.75	39.16	0.00	254.25	244.84
MW-16	2.0	25.0 - 40.0	284.00	259.00	244.00	6/26/17	NM	28.28	39.74	0.00	255.72	244.26
MW-16	2.0	25.0 - 40.0	284.00	259.00	244.00	9/18/17	NM	30.15	39.74	0.00	253.85	244.26
MW-17	2.0	25.0 - 40.0	284.73	259.73	244.73	7/30/12	NM	31.27	NM	0.00	253.46	NM
MW-17	2.0	25.0 - 40.0	284.73	259.73	244.73	11/2/12	NM	32.68	NM	0.00	252.05	NM
MW-17	2.0	25.0 - 40.0	284.73	259.73	244.73	2/4/13	NM	31.28	NM	0.00	253.45	NM
MW-17	2.0	25.0 - 40.0	284.73	259.73	244.73	6/3/13	No EOS	30.11	NM	0.00	254.62	NM
MW-17	2.0	25.0 - 40.0	284.73	259.73	244.73	11/12/13	No EOS	32.11	NM	0.00	252.62	NM
MW-17	2.0	25.0 - 40.0	284.73	259.73	244.73	5/21/14	No EOS	31.36	NM	0.00	253.37	NM
MW-17	2.0	25.0 - 40.0	284.73	259.73	244.73	7/24/14	No EOS	31.59	NM	0.00	253.14	NM
MW-17	2.0	25.0 - 40.0	284.73	259.73	244.73	12/7/16	NM	32.30	38.73	0.00	252.43	246.00
MW-17	2.0	25.0 - 40.0	284.73	259.73	244.73	3/13/17	NM	30.27	38.73	0.00	254.46	246.00
MW-17	2.0	25.0 - 40.0	284.73	259.73	244.73	6/26/17	NM	28.78	39.08	0.00	255.95	245.65
MW-17	2.0	25.0 - 40.0	284.73	259.73	244.73	9/18/17	NM	30.67	39.08	0.00	254.06	245.65

Table 1. Monitoring Well Gauging Data

Former Cherry Cleaners
2510 E. Cherry Street, Seattle, WA 98122
VCP ID: NW2009; Cleanup Site ID: 4175; Facility/Site ID: 476174

Location	Monitoring Well Construction Information					Gauging Data						
	Well Diameter (in)	Screened Interval (ft bgs)	Elevations (feet above mean sea level)			Date	Measurements (feet below top of casing)			Approximate EOS Thickness (feet)	Elevations (feet above mean sea level)	
			Top of Casing	Top of Screen	Bottom of Screen		Depth to EOS	Depth to Water	Depth to Bottom		Groundwater	Bottom of Well
MW-17D	2.0	55.0 - 60.0	284.71	229.71	224.71	11/12/13	No EOS	32.09	NM	0.00	252.62	NM
MW-17D	2.0	55.0 - 60.0	284.71	229.71	224.71	5/21/14	No EOS	31.32	NM	0.00	253.39	NM
MW-17D	2.0	55.0 - 60.0	284.71	229.71	224.71	7/24/14	No EOS	31.55	NM	0.00	253.16	NM
MW-17D	2.0	55.0 - 60.0	284.71	229.71	224.71	12/7/16	NM	32.28	56.10	0.00	252.43	228.61
MW-17D	2.0	55.0 - 60.0	284.71	229.71	224.71	3/13/17	NM	30.25	56.10	0.00	254.46	228.61
MW-17D	2.0	55.0 - 60.0	284.71	229.71	224.71	6/26/17	NM	28.75	56.92	0.00	255.96	227.79
MW-17D	2.0	55.0 - 60.0	284.71	229.71	224.71	9/18/17	NM	30.66	56.92	0.00	254.05	227.79
MW-18	2.0	26.0 - 36.0	274.07	248.07	238.07	11/12/13	No EOS	22.15	NM	0.00	251.92	NM
MW-18	2.0	26.0 - 36.0	274.07	248.07	238.07	5/21/14	No EOS	20.95	NM	0.00	253.12	NM
MW-18	2.0	26.0 - 36.0	274.07	248.07	238.07	7/24/14	No EOS	21.52	NM	0.00	252.55	NM
MW-18	2.0	26.0 - 36.0	274.07	248.07	238.07	12/6/16	NM	21.79	29.09	0.00	252.28	244.98
MW-18	2.0	26.0 - 36.0	274.07	248.07	238.07	3/13/17	NM	20.84	28.80	0.00	253.23	245.27
MW-18	2.0	26.0 - 36.0	274.07	248.07	238.07	6/26/17	NM	18.91	28.98	0.00	255.16	245.09
MW-18	2.0	26.0 - 36.0	274.07	248.07	238.07	9/18/17	NM	20.80	28.98	0.00	253.27	245.09
MW-18D	2.0	55.0 - 60.0	274.41	219.41	214.41	11/12/13	No EOS	22.54	NM	0.00	251.87	NM
MW-18D	2.0	55.0 - 60.0	274.41	219.41	214.41	5/21/14	No EOS	21.36	NM	0.00	253.05	NM
MW-18D	2.0	55.0 - 60.0	274.41	219.41	214.41	7/24/14	No EOS	21.89	NM	0.00	252.52	NM
MW-18D	2.0	55.0 - 60.0	274.41	219.41	214.41	12/6/16	NM	22.14	57.47	0.00	252.27	216.94
MW-18D	2.0	55.0 - 60.0	274.41	219.41	214.41	3/13/17	NM	20.29	57.47	0.00	254.12	216.94
MW-18D	2.0	55.0 - 60.0	274.41	219.41	214.41	6/26/17	NM	19.32	58.51	0.00	255.09	215.90
MW-18D	2.0	55.0 - 60.0	274.41	219.41	214.41	9/18/17	NM	21.14	58.51	0.00	253.27	215.90
MW-19	2.0	25.0 - 35.0	279.76	254.76	244.76	11/12/13	No EOS	23.43	NM	0.00	256.33	NM
MW-19	2.0	25.0 - 35.0	279.76	254.76	244.76	5/21/14	No EOS	18.90	NM	0.00	260.86	NM
MW-19	2.0	25.0 - 35.0	279.76	254.76	244.76	7/24/14	No EOS	19.95	NM	0.00	259.81	NM
MW-19	2.0	25.0 - 35.0	279.76	254.76	244.76	12/6/16	NM	20.07	33.33	0.00	259.69	246.43
MW-19	2.0	25.0 - 35.0	279.76	254.76	244.76	3/13/17	NM	16.54	33.33	0.00	263.22	246.43
MW-19	2.0	25.0 - 35.0	279.76	254.76	244.76	6/26/17	NM	17.13	33.29	0.00	262.63	246.47
MW-19	2.0	25.0 - 35.0	279.76	254.76	244.76	9/18/17	NM	20.63	33.29	0.00	259.13	246.47
MW-19D	2.0	55.0 - 60.0	279.84	224.84	219.84	11/12/13	No EOS	28.11	NM	0.00	251.73	NM
MW-19D	2.0	55.0 - 60.0	279.84	224.84	219.84	5/21/14	No EOS	26.90	NM	0.00	252.94	NM
MW-19D	2.0	55.0 - 60.0	279.84	224.84	219.84	7/24/14	No EOS	27.49	NM	0.00	252.35	NM
MW-19D	2.0	55.0 - 60.0	279.84	224.84	219.84	12/6/16	NM	27.72	57.01	0.00	252.12	222.83
MW-19D	2.0	55.0 - 60.0	279.84	224.84	219.84	3/13/17	NM	25.85	57.01	0.00	253.99	222.83
MW-19D	2.0	55.0 - 60.0	279.84	224.84	219.84	6/26/17	NM	24.86	57.92	0.00	254.98	221.92
MW-19D	2.0	55.0 - 60.0	279.84	224.84	219.84	9/18/17	NM	26.72	57.92	0.00	253.12	221.92
MW-20D	2.0	55.0 - 60.0	282.61	227.61	222.61	11/12/13	No EOS	30.90	NM	0.00	251.71	NM
MW-20D	2.0	55.0 - 60.0	282.61	227.61	222.61	5/21/14	No EOS	26.69	NM	0.00	255.92	NM
MW-20D	2.0	55.0 - 60.0	282.61	227.61	222.61	7/24/14	No EOS	30.23	NM	0.00	252.38	NM
MW-20D	2.0	55.0 - 60.0	282.61	227.61	222.61	12/6/16	NM	30.47	58.75	0.00	252.14	223.86
MW-20D	2.0	55.0 - 60.0	282.61	227.61	222.61	3/13/17	NM	28.63	58.75	0.00	253.98	223.86
MW-20D	2.0	55.0 - 60.0	282.61	227.61	222.61	6/26/17	NM	27.59	59.51	0.00	255.02	223.10
MW-20D	2.0	55.0 - 60.0	282.61	227.61	222.61	9/18/17	NM	29.42	59.51	0.00	253.19	223.10
MW-21D	2.0	61.0 - 66.0	287.39	226.39	221.39	5/21/14	No EOS	34.90	NM	0.00	252.49	NM
MW-21D	2.0	61.0 - 66.0	287.39	226.39	221.39	7/24/14	No EOS	35.20	NM	0.00	252.19	NM
MW-21D	2.0	61.0 - 66.0	287.39	226.39	221.39	12/7/16	NM	35.68	64.47	0.00	251.71	222.92
MW-21D	2.0	61.0 - 66.0	287.39	226.39	221.39	3/13/17	NM	34.20	64.47	0.00	253.19	222.92
MW-21D	2.0	61.0 - 66.0	287.39	226.39	221.39	6/26/17	NM	32.13	65.31	0.00	255.26	222.08
MW-21D	2.0	61.0 - 66.0	287.39	226.39	221.39	9/18/17	NM	33.92	65.31	0.00	253.47	222.08
MW-22D	2.0	50.0 - 60.0	284.83	234.83	224.83	5/21/14	No EOS	32.44	NM	0.00	252.39	NM
MW-22D	2.0	50.0 - 60.0	284.83	234.83	224.83	7/24/14	No EOS	32.75	NM	0.00	252.08	NM
MW-22D	2.0	50.0 - 60.0	284.83	234.83	224.83	12/6/16	NM	33.01	59.32	0.00	251.82	225.51
MW-22D	2.0	50.0 - 60.0	284.83	234.83	224.83	3/13/17	NM	31.26	59.32	0.00	253.57	225.51
MW-22D	2.0	50.0 - 60.0	284.83	234.83	224.83	6/26/17	NM	29.74	59.85	0.00	255.09	224.98
MW-22D	2.0	50.0 - 60.0	284.83	234.83	224.83	9/18/17	NM	31.59	59.85	0.00	253.24	224.98
MW-23	2.0	25.0 - 30.0	281.09	256.09	251.09	7/24/14	No EOS	28.18	NM	0.00	252.91	NM
MW-23	2.0	25.0 - 30.0	281.09	256.09	251.09	12/6/16	NM	28.68	34.72	0.00	252.41	246.37
MW-23	2.0	25.0 - 30.0	281.09	256.09	251.09	3/13/17	NM	26.80	34.72	0.00	254.29	246.37
MW-23	2.0	25.0 - 30.0	281.09	256.09	251.09	6/26/17	NM	25.54	33.69	0.00	255.55	247.40
MW-23	2.0	25.0 - 30.0	281.09	256.09	251.09	9/18/17	NM	27.40	33.69	0.00	253.69	247.40
MW-101	2.0	20.0 - 30.0	279.57	259.57	249.57	7/24/14	No EOS	26.42	NM	0.00	253.15	NM
MW-101	2.0	20.0 - 30.0	279.57	259.57	249.57	12/7/16	NM	27.09	29.29	0.00	252.48	250.28
MW-101	2.0	20.0 - 30.0	279.57	259.57	249.57	3/13/17	NM	25.11	29.15	0.00	254.46	250.42
MW-101	2.0	20.0 - 30.0	279.57	259.57	249.57	6/26/17	NM	23.72	29.31	0.00	255.85	250.26
MW-101	2.0	20.0 - 30.0	279.57	259.57	249.57	9/18/17	NM	25.63	29.31	0.00	253.94	250.26

Table 1. Monitoring Well Gauging Data

Former Cherry Cleaners
2510 E. Cherry Street, Seattle, WA 98122
VCP ID: NW2009; Cleanup Site ID: 4175; Facility/Site ID: 476174

Location	Monitoring Well Construction Information					Gauging Data						
	Well Diameter (in)	Screened Interval (ft bgs)	Elevations (feet above mean sea level)			Date	Measurements (feet below top of casing)			Approximate EOS Thickness (feet)	Elevations (feet above mean sea level)	
			Top of Casing	Top of Screen	Bottom of Screen		Depth to EOS	Depth to Water	Depth to Bottom		Groundwater	Bottom of Well

- Notes:
- 1. NM = Not Measured
 - 2. Prior to 2017, EOS thicknesses were based solely on oil-water interface probe measurements, which have proven inaccurate for determining the precise depth of the EOS/water interface. Beginning in 2017, a bailer was used to retrieve an EOS sample for measurement of the EOS thickness.

Table 3. Summary of Groundwater Analytical Results

Former Cherry Cleaners

2510 E. Cherry Street, Seattle, WA 98122

VCP ID: NW2009; Cleanup Site ID: 4175; Facility/Site ID: 476174

Location	Sample Date	Sample Method	Pump Intake Elevation	Analytical Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
Chemical Abstracts Service (CAS) Registry Number					127-18-4	79-01-6	156-59-2	156-60-5	75-01-4
WA Dept. of Ecology Model Toxics Control Act (MTCA) Method A Cleanup Levels					5	5	--	--	0.20
WA Dept. of Ecology Model Toxics Control Act (MTCA) Method B Cleanup Levels (Cancer)					--	--	--	--	--
WA Dept. of Ecology Model Toxics Control Act (MTCA) Method B Cleanup Levels (Non Cancer)					--	--	16	160	--
MW-1	1/25/08	NA	NA	USEPA Method 8260	2300	42	32	<1.0	<10
MW-1	10/1/09	NA	NA	USEPA Method 8260	6200	120	240	<1.0	<61
MW-1	11/29/11	Low-Flow	NA	USEPA Method 8260	40.3	2.5	6.2	6.4	<1.0
MW-1	8/2/12	Low-Flow	NA	USEPA Method 8260	91.2	5.1	15.2	15.5	<1.0
MW-1	11/7/13	Low-Flow	NA	USEPA Method 8260	83.7	4.2	15.4	<1.0	<0.40
MW-1	2/7/13	Low-Flow	NA	USEPA Method 8260	136	6.8	19.8	<1.0	<0.40
MW-1	6/10/13	Low-Flow	NA	USEPA Method 8260	132	6.7	23.7	<1.0	<0.40
MW-1	11/15/13	Low-Flow	NA	USEPA Method 8260	81.3	3.7	19.7	19.7	0.44
MW-1	5/21/14	Low-Flow	NA	USEPA Method 8260	108	9.9	30.4	30.4	0.37
MW-1	12/8/16	Low-Flow	NA	USEPA Method 8260	472	51.5	312	<1.0	4.2
MW-1 DUP	12/8/16	Low-Flow	NA	USEPA Method 8260	419	48.2	293	<2.5	3.5
MW-1	3/17/17	Low-Flow	247.80	USEPA Method 8260	670	73.7	365	<0.50	3.2
MW-1 DUP	3/17/17	Low-Flow	247.80	USEPA Method 8260	681	73.1	404	<0.50	3.2
MW-1	6/29/17	Low-Flow	247.99	USEPA Method 8260	928	52.7	344	<5.0	3.1
MW-1 DUP	6/29/17	Low-Flow	247.99	USEPA Method 8260	928	56.6	337	<5.0	3.5
MW-1	9/22/17	Low-Flow	247.03	USEPA Method 8260	730	58.3	484	<5.0	3.3
MW-1 DUP	9/22/17	Low-Flow	247.03	USEPA Method 8260	784	60.3	499	<2.5	3.5
MW-1D	5/1/08	NA	NA	USEPA Method 8260	61	1.1	3.1	<1.0	<0.40
MW-1D	10/1/09	NA	NA	USEPA Method 8260	9.4	0.2	<0.2	<1.0	<0.2
MW-1D	11/11/09	NA	NA	USEPA Method 8260	4.6	<0.2	<0.2	<1.0	<0.2
MW-1D	11/29/11	Low-Flow	NA	USEPA Method 8260	5.4	<1.0	<1.0	<1.0	<1.0
MW-1D	8/2/12	Low-Flow	NA	USEPA Method 8260	13	<1.0	<1.0	<1.0	<1.0
MW-1D	11/7/12	Low-Flow	NA	USEPA Method 8260	6.6	<1.0	<1.0	<1.0	<0.40
MW-1D	2/7/13	Low-Flow	NA	USEPA Method 8260	3.2	<1.0	<1.0	<1.0	<0.40
MW-1D	6/5/13	Low-Flow	NA	USEPA Method 8260	2	<1.0	<1.0	<1.0	<0.40
MW-1D	11/14/13	Low-Flow	NA	USEPA Method 8260	1.7	<0.40	<1.0	<1.0	<0.40
MW-1D	5/17/14	Low-Flow	NA	USEPA Method 8260	1.3	<0.40	<0.10	<0.10	<0.020
MW-1D	12/8/16	Low-Flow	NA	USEPA Method 8260	3.9	<0.40	<0.50	<0.50	<0.20
MW-1D	3/16/17	Low-Flow	231.71	USEPA Method 8260	3.4	<0.40	<0.50	<0.50	<0.20
MW-1D	6/28/17	Low-Flow	230.71	USEPA Method 8260	1.3	<0.40	<0.50	<0.50	<0.20
MW-1D	9/20/17	Low-Flow	229.25	USEPA Method 8260	2.1	<0.40	<0.50	<0.50	<0.20
MW-2	1/25/08	NA	NA	USEPA Method 8260	1100	30	<10	<10	<10
MW-2	10/1/09	NA	NA	USEPA Method 8260	1200	33	9.6	<10	<4.0
MW-2	11/29/11	Low-Flow	NA	USEPA Method 8260	20.1	<1.0	<1.0	<1.0	<1.0
MW-2	8/1/12	Low-Flow	NA	USEPA Method 8260	16.8	1.1	<1.0	<1.0	<1.0
MW-2	11/6/12	Low-Flow	NA	USEPA Method 8260	13	<1.0	<0.40	<0.40	<0.40
MW-2	2/6/13	Low-Flow	NA	USEPA Method 8260	23.1	<1.0	<0.40	<0.40	<0.40
MW-2	6/10/13	Low-Flow	NA	USEPA Method 8260	18.4	0.75	<0.40	<0.40	<0.40
MW-3	1/25/08	NA	NA	USEPA Method 8260	1100	24	<10	<10	<10
MW-3	10/1/09	NA	NA	USEPA Method 8260	460	8.4	<3.0	<3.0	<3.0
MW-3	11/29/11	Low-Flow	NA	USEPA Method 8260	21.6	1	<1.0	<1.0	<1.0
MW-3	8/1/12	Low-Flow	NA	USEPA Method 8260	16.6	<1.0	<1.0	<1.0	<1.0
MW-3	11/6/12	Low-Flow	NA	USEPA Method 8260	21.8	<1.0	<1.0	<1.0	<0.40
MW-3	2/7/13	Low-Flow	NA	USEPA Method 8260	22.3	<1.0	<1.0	<1.0	<0.40
MW-3	6/10/13	Low-Flow	NA	USEPA Method 8260	17.4	0.65	<1.0	<1.0	<0.40
MW-4	5/1/08	NA	NA	USEPA Method 8260	3.9	<0.20	<0.20	<0.20	<0.20
MW-4	9/30/09	NA	NA	USEPA Method 8260	3.1	<0.2	<0.2	<0.2	<0.2
MW-4	11/22/11	Low-Flow	NA	USEPA Method 8260	5.1	<1.0	<1.0	<1.0	<1.0
MW-4	8/1/12	Low-Flow	NA	USEPA Method 8260	6.1	<1.0	<1.0	<1.0	<1.0
MW-4	11/5/12	Low-Flow	NA	USEPA Method 8260	6.1	<1.0	<1.0	<1.0	<0.40
MW-4	2/5/13	Low-Flow	NA	USEPA Method 8260	5.1	<1.0	<1.0	<1.0	<0.40
MW-4	6/5/13	Low-Flow	NA	USEPA Method 8260	6.1	<1.0	<1.0	<1.0	<0.40
MW-4	5/17/14	Low-Flow	NA	USEPA Method 8260	3.7	<0.10	<0.10	<0.10	<0.020
MW-4	12/8/16	Low-Flow	NA	USEPA Method 8260	4.2	<0.40	<0.50	<0.50	<0.20
MW-4	3/14/17	Low-Flow	252.17	USEPA Method 8260	5.6	<0.40	<0.50	<0.50	<0.20
MW-4	6/28/17	Low-Flow	252.12	USEPA Method 8260	4.6	<0.40	<0.50	<0.50	<0.20
MW-4	9/20/17	Low-Flow	252.12	USEPA Method 8260	3.8	<0.40	<0.50	<0.50	<0.20

Table 3. Summary of Groundwater Analytical Results

Former Cherry Cleaners

2510 E. Cherry Street, Seattle, WA 98122

VCP ID: NW2009; Cleanup Site ID: 4175; Facility/Site ID: 476174

Location	Sample Date	Sample Method	Pump Intake Elevation	Analytical Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
Chemical Abstracts Service (CAS) Registry Number					127-18-4	79-01-6	156-59-2	156-60-5	75-01-4
WA Dept. of Ecology Model Toxics Control Act (MTCA) Method A Cleanup Levels					5	5	--	--	0.20
WA Dept. of Ecology Model Toxics Control Act (MTCA) Method B Cleanup Levels (Cancer)					--	--	--	--	--
WA Dept. of Ecology Model Toxics Control Act (MTCA) Method B Cleanup Levels (Non Cancer)					--	--	16	160	--
MW-5	5/1/08	NA	NA	USEPA Method 8260	53	0.79	<0.20	<0.20	<0.20
MW-5	9/30/09	NA	NA	USEPA Method 8260	17	0.4	<0.2	<0.2	<0.2
MW-5	11/22/11	Low-Flow	NA	USEPA Method 8260	128	2.2	<1.0	<1.0	<1.0
MW-5	8/1/12	Low-Flow	NA	USEPA Method 8260	55.6	<1.0	<1.0	<1.0	<1.0
MW-5	11/5/2012	Low-Flow	NA	USEPA Method 8260	73.2	1.1	<1.0	<1.0	<0.40
MW-5	2/4/13	Low-Flow	NA	USEPA Method 8260	27.5	<1.0	<1.0	<1.0	<0.40
MW-5	6/6/13	Low-Flow	NA	USEPA Method 8260	21.7	<0.40	<1.0	<1.0	<0.40
MW-5	5/18/14	Low-Flow	NA	USEPA Method 8260	40	0.93	<0.10	<0.10	<0.020
MW-5	12/8/16	Low-Flow	NA	USEPA Method 8260	64.3	1.3	<0.50	<0.50	<0.20
MW-5	3/16/17	Low-Flow	244.82	USEPA Method 8260	21.1	0.48	<0.50	<0.50	<0.20
MW-5	6/29/17	Low-Flow	244.75	USEPA Method 8260	30.9	0.81	<0.50	<0.50	<0.20
MW-5	9/21/17	Low-Flow	244.75	USEPA Method 8260	126	2.6	<0.50	<0.50	<0.20
MW-6	5/1/08	NA	NA	USEPA Method 8260	140	1.2	<1.0	<1.0	<1.0
MW-6	10/1/09	NA	NA	USEPA Method 8260	65	0.6	<0.4	<0.4	<0.4
MW-6	11/29/11	Low-Flow	NA	USEPA Method 8260	48.5	<1.0	<1.0	<1.0	<1.0
MW-6	8/1/12	Low-Flow	NA	USEPA Method 8260	37.9	<1.0	<1.0	<1.0	<1.0
MW-6	11/6/12	Low-Flow	NA	USEPA Method 8260	30.7	<1.0	<1.0	<1.0	<0.40
MW-6	2/6/13	Low-Flow	NA	USEPA Method 8260	47.5	<1.0	<1.0	<1.0	<0.40
MW-6	6/7/13	Low-Flow	NA	USEPA Method 8260	37.1	<0.40	<1.0	<1.0	<0.40
MW-6	5/18/14	Low-Flow	NA	USEPA Method 8260	96	1.0	<0.10	<0.10	<0.020
MW-6	12/7/16	Low-Flow	244.71	USEPA Method 8260	39.3	<0.40	<0.50	<0.50	<0.20
MW-6	3/16/17	Low-Flow	244.61	USEPA Method 8260	44.2	<0.40	<0.50	<0.50	<0.20
MW-6	6/29/17	Low-Flow	244.54	USEPA Method 8260	7.5	<0.40	<0.50	<0.50	<0.20
MW-6	9/21/17	Low-Flow	246.62	USEPA Method 8260	46.8	<0.40	<0.50	<0.50	<0.20
MW-7	9/26/08	NA	NA	USEPA Method 8260	1500	33	76	<10	<10
MW-7	10/1/09	NA	NA	USEPA Method 8260	2000	35	100	<20	<20
MW-7	11/29/11	Low-Flow	NA	USEPA Method 8260	136	8.6	48.6	<1.0	<1.0
MW-7	8/2/12	Low-Flow	NA	USEPA Method 8260	190	8	36.6	<1.0	<1.0
MW-7	11/7/12	Low-Flow	NA	USEPA Method 8260	115	5.7	28.5	<0.40	<0.40
MW-7	2/7/13	Low-Flow	NA	USEPA Method 8260	133	6.5	37.5	<0.40	<0.40
MW-7	6/10/13	Low-Flow	NA	USEPA Method 8260	61.2	3.2	32.6	<0.40	0.46
MW-7	5/21/14	Low-Flow	NA	USEPA Method 8260	66	5.7	33	<0.40	0.38
MW-7	9/21/17	Bailer	NA	USEPA Method 8260	819	13.0	220	<0.50	1.6
MW-8	9/26/08	NA	NA	USEPA Method 8260	0.31	<0.2	<0.2	<0.2	<0.2
MW-8	9/30/09	NA	NA	USEPA Method 8260	<0.2	<0.2	<0.2	<0.2	<0.2
MW-8	11/21/11	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<1.0
MW-8	7/30/12	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<1.0
MW-8	11/2/2012	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<0.40
MW-8	2/4/13	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<0.40
MW-8	6/5/13	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<0.40
MW-8	5/15/14	Low-Flow	NA	USEPA Method 8260	0.079	<0.10	<0.10	<0.10	<0.020
MW-8	12/8/16	Low-Flow	NA	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-8	3/14/17	Low-Flow	248.73	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-8	6/28/17	Low-Flow	249.20	USEPA Method 8260	<0.5	<0.4	<0.5	<0.5	<0.2
MW-8	9/20/17	Low-Flow	248.21	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-9	9/26/08	NA	NA	USEPA Method 8260	18	0.58	<0.20	<0.2	<0.20
MW-9	10/1/09	NA	NA	USEPA Method 8260	62	1.7	<1.0	<0.2	<1.0
MW-9	11/22/11	Low-Flow	NA	USEPA Method 8260	2.1	<1.0	<1.0	<1.0	<1.0
MW-9	7/31/12	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<1.0
MW-9	11/5/12	Low-Flow	NA	USEPA Method 8260	3.5	<1.0	<1.0	<1.0	<0.40
MW-9	2/5/13	Low-Flow	NA	USEPA Method 8260	9.6	<1.0	<1.0	<1.0	<0.40
MW-9	6/5/13	Low-Flow	NA	USEPA Method 8260	43.6	1.3	<1.0	<1.0	<0.40
MW-9	5/18/14	Low-Flow	NA	USEPA Method 8260	1.6	0.072	<0.10	<0.10	<0.020
MW-9	12/6/16	Low-Flow	NA	USEPA Method 8260	6.1	<0.40	<0.50	<0.50	<0.20
MW-9	3/14/17	Low-Flow	248.99	USEPA Method 8260	69.2	2.0	1.2	<0.50	<0.20
MW-9	6/28/17	Low-Flow	249.65	USEPA Method 8260	6	<0.40	<0.50	<0.50	<0.20
MW-9	9/20/17	Low-Flow	248.72	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-10	9/26/08	NA	NA	USEPA Method 8260	0.69	<0.2	<0.2	<0.2	<0.2

Table 3. Summary of Groundwater Analytical Results

Former Cherry Cleaners

2510 E. Cherry Street, Seattle, WA 98122

VCP ID: NW2009; Cleanup Site ID: 4175; Facility/Site ID: 476174

Location	Sample Date	Sample Method	Pump Intake Elevation	Analytical Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
Chemical Abstracts Service (CAS) Registry Number					127-18-4	79-01-6	156-59-2	156-60-5	75-01-4
WA Dept. of Ecology Model Toxics Control Act (MTCA) Method A Cleanup Levels					5	5	--	--	0.20
WA Dept. of Ecology Model Toxics Control Act (MTCA) Method B Cleanup Levels (Cancer)					--	--	--	--	--
WA Dept. of Ecology Model Toxics Control Act (MTCA) Method B Cleanup Levels (Non Cancer)					--	--	16	160	--
MW-10	9/30/09	NA	NA	USEPA Method 8260	<0.2	<0.2	<0.2	<0.2	<0.2
MW-10	11/22/11	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<1.0
MW-10	7/31/12	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<1.0
MW-10	11/5/12	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<0.40
MW-10	2/5/13	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<0.40
MW-10	6/4/13	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<0.40
MW-10	12/6/16	Low-Flow	263.21	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-10	3/15/17	Low-Flow	261.08	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-10	6/25/17	Low-Flow	263.10	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-10	9/19/17	Low-Flow	263.10	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-11	6/21/10	Low-Flow	NA	USEPA Method 8260	2300	36	2.6	<10	<2.0
MW-11	11/29/11	Low-Flow	NA	USEPA Method 8260	2350	31.1	2.6	2.7	<1.0
MW-11	8/1/12	Low-Flow	NA	USEPA Method 8260	1700	49.5	3.4	3.6	<1.0
MW-11	11/6/12	Low-Flow	NA	USEPA Method 8260	1520	55.5	<10	<10	<4.0
MW-11	2/6/13	Low-Flow	NA	USEPA Method 8260	319	13.1	<5.0	<5.0	<2.0
MW-11	6/7/13	Low-Flow	NA	USEPA Method 8260	1800	53.8	<10	<10	<10.0
MW-11	11/15/13	Low-Flow	NA	USEPA Method 8260	910	47.9	<5.0	<5.0	<2.0
MW-11	5/19/14	Low-Flow	NA	USEPA Method 8260	510	34	12	12.12	<0.020
MW-11	12/6/16	Low-Flow	246.21	USEPA Method 8260	575	46.5	86.1	<0.50	<0.20
MW-11 DUP	12/6/16	Low-Flow	246.21	USEPA Method 8260	542	41.1	76.3	<2.5	<1.0
MW-11	3/14/17	Low-Flow	247.17	USEPA Method 8260	246	21.8	40.7	<0.50	<0.20
MW-11	6/29/17	Low-Flow	247.86	USEPA Method 8260	416	38.3	79.8	<2.5	<1.0
MW-11	9/22/17	Low-Flow	246.91	USEPA Method 8260	404	35.4	90.5	<1.0	<0.40
MW-12	7/30/12	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<1.0
MW-12	11/6/12	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<0.40
MW-12	2/6/13	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<0.40
MW-12	6/4/13	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<0.40
MW-12	5/17/14	Low-Flow	NA	USEPA Method 8260	0.067	<0.10	<0.10	<0.10	<0.020
MW-12	12/8/16	Low-Flow	NA	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-12	3/16/17	Low-Flow	253.00	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-12	6/28/17	Low-Flow	253.54	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-12	9/20/17	Low-Flow	252.55	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-13	7/30/12	Low-Flow	NA	USEPA Method 8260	110	1.5	<1.0	<1.0	<1.0
MW-13	11/6/12	Low-Flow	NA	USEPA Method 8260	90.6	1	<1.0	<1.0	<0.40
MW-13	2/6/13	Low-Flow	NA	USEPA Method 8260	92.4	1	<1.0	<1.0	<0.40
MW-13	6/6/13	Low-Flow	NA	USEPA Method 8260	101	1.3	<1.0	<1.0	<0.40
MW-13	5/18/14	Low-Flow	NA	USEPA Method 8260	57	0.62	<0.10	<0.10	<0.020
MW-13	12/8/16	Low-Flow	NA	USEPA Method 8260	57.9	0.55	<0.50	<0.50	<0.20
MW-13	3/17/17	Low-Flow	252.48	USEPA Method 8260	39.5	0.45	<0.50	<0.50	<0.20
MW-13	6/29/17	Low-Flow	253.14	USEPA Method 8260	45.2	0.45	<0.50	<0.50	<0.20
MW-13	9/21/17	Low-Flow	252.14	USEPA Method 8260	47.9	0.48	<0.50	<0.50	<0.20
MW-14	7/31/12	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<1.0
MW-14	11/2/12	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<0.40
MW-14	2/5/13	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<0.40
MW-14	6/5/13	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<0.40
MW-14	5/15/2014	Low-Flow	NA	USEPA Method 8260	0.071	<0.10	<0.10	<0.10	<0.020
MW-14	12/8/2016	Low-Flow	NA	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-14	3/15/2017	Low-Flow	246.21	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-14	6/28/17	Low-Flow	246.60	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-14	9/20/17	Low-Flow	245.63	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-15	8/1/2012	Low-Flow	NA	USEPA Method 8260	2760	36.4	4.5	4.6	<1.0
MW-15	11/7/12	Low-Flow	NA	USEPA Method 8260	1820	28.5	<10	<10	<4.0
MW-15	2/6/2013	Low-Flow	NA	USEPA Method 8260	1500	31	2.7	<1.0	<0.40
MW-15	6/7/2013	Low-Flow	NA	USEPA Method 8260	1560	25.9	<10.0	<10	<10.0
MW-15	5/19/14	Low-Flow	NA	USEPA Method 8260	770	20	1.0	1.083	<0.020
MW-15	12/9/16	Low-Flow	NA	USEPA Method 8260	434	12.1	<0.50	<0.50	<0.20
MW-15	3/16/17	Low-Flow	247.73	USEPA Method 8260	523	15.8	0.65	<0.50	<0.20

Table 3. Summary of Groundwater Analytical Results

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Location	Sample Date	Sample Method	Pump Intake Elevation	Analytical Method	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
Chemical Abstracts Service (CAS) Registry Number					127-18-4	79-01-6	156-59-2	156-60-5	75-01-4
WA Dept. of Ecology Model Toxics Control Act (MTCA) Method A Cleanup Levels					5	5	--	--	0.20
WA Dept. of Ecology Model Toxics Control Act (MTCA) Method B Cleanup Levels (Cancer)					--	--	--	--	--
WA Dept. of Ecology Model Toxics Control Act (MTCA) Method B Cleanup Levels (Non Cancer)					--	--	16	160	--
MW-15 DUP	3/16/17	Low-Flow	247.73	USEPA Method 8260	504	15.5	1.3	<0.50	<0.20
MW-15	6/30/17	Low-Flow	248.39	USEPA Method 8260	546	14.4	<2.5	<2.5	<1.0
MW-15 DUP	6/30/17	Low-Flow	248.39	USEPA Method 8260	540	15.0	<0.50	<0.50	<0.20
MW-15	9/21/17	Low-Flow	247.47	USEPA Method 8260	558	12.7	<2.5	<2.5	<1.0
MW-15 DUP	9/21/17	Low-Flow	247.47	USEPA Method 8260	494	12.5	<2.5	<2.5	<1.0
MW-15D	11/15/13	Low-Flow	NA	USEPA Method 8260	13.8	3.5	<1.0	<1.0	<0.40
MW-15D	5/17/14	Low-Flow	NA	USEPA Method 8260	12	2.5	<0.10	<0.10	<0.020
MW-15D	12/9/16	Low-Flow	NA	USEPA Method 8260	18.2	3.1	<0.50	<0.50	<0.20
MW-15D	3/16/17	Low-Flow	223.13	USEPA Method 8260	18.7	3.7	<0.50	<0.50	<0.20
MW-15D	6/29/17	Low-Flow	223.48	USEPA Method 8260	6.6	1.6	<0.50	<0.50	<0.20
MW-15D	9/21/17	Low-Flow	225.98	USEPA Method 8260	8.4	1.6	<0.50	<0.50	<0.20
MW-16	7/31/12	Low-Flow	NA	USEPA Method 8260	9.4	<1.0	<1.0	<1.0	<1.0
MW-16	11/5/12	Low-Flow	NA	USEPA Method 8260	14	<1.0	<1.0	<1.0	<0.40
MW-16	2/5/13	Low-Flow	NA	USEPA Method 8260	13.3	<1.0	<1.0	<1.0	<0.40
MW-16	6/6/13	Low-Flow	NA	USEPA Method 8260	12.2	<0.40	<1.0	<1.0	<0.40
MW-16	5/15/14	Low-Flow	NA	USEPA Method 8260	9	<0.10	<0.10	<0.10	<0.020
MW-16	12/6/16	Low-Flow	245.21	USEPA Method 8260	2.5	<0.40	<0.50	<0.50	<0.20
MW-16	3/15/17	Low-Flow	246.61	USEPA Method 8260	3.3	<0.40	<0.50	<0.50	<0.20
MW-16	6/29/17	Low-Flow	246.70	USEPA Method 8260	1.9	<0.40	<0.50	<0.50	<0.20
MW-16	9/19/17	Low-Flow	245.76	USEPA Method 8260	1.0	<0.40	<0.50	<0.50	<0.20
MW-17	7/31/12	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<1.0
MW-17	11/5/12	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<0.40
MW-17	2/5/13	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<0.40
MW-17	6/4/13	Low-Flow	NA	USEPA Method 8260	<1.0	<1.0	<1.0	<1.0	<0.40
MW-17	5/15/14	Low-Flow	NA	USEPA Method 8260	0.076	<0.10	<0.10	<0.10	<0.020
MW-17	12/7/16	Low-Flow	NA	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-17	3/15/17	Low-Flow	246.22	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-17	6/28/17	Low-Flow	246.78	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-17	9/20/17	Low-Flow	245.83	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-17D	11/14/13	Low-Flow	NA	USEPA Method 8260	<1.0	<0.40	<1.0	<1.0	<0.40
MW-17D	5/15/14	Low-Flow	NA	USEPA Method 8260	0.077	<0.10	<0.10	<0.10	<0.020
MW-17D	12/7/16	Low-Flow	NA	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-17D	3/15/17	Low-Flow	225.16	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-17D	6/28/17	Low-Flow	226.71	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-17D	9/20/17	Low-Flow	224.75	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-18	11/14/13	Low-Flow	NA	USEPA Method 8260	<1.0	<0.40	<1.0	<1.0	<0.40
MW-18	5/15/14	Low-Flow	NA	USEPA Method 8260	0.072	<0.10	<0.10	<0.10	<0.020
MW-18	12/6/16	Low-Flow	NA	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-18	3/14/17	Low-Flow	253.31	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-18	6/27/17	Low-Flow	253.22	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-18	9/19/17	Low-Flow	253.22	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-18D	11/14/13	Low-Flow	NA	USEPA Method 8260	<1.0	<0.40	<1.0	<1.0	<0.40
MW-18D	5/15/14	Low-Flow	NA	USEPA Method 8260	0.071	<0.10	<0.10	<0.10	<0.020
MW-18D	12/6/16	Low-Flow	NA	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-18D	3/14/17	Low-Flow	224.47	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-18D	6/27/17	Low-Flow	223.95	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-18D	9/19/17	Low-Flow	223.95	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-19	11/14/13	Low-Flow	NA	USEPA Method 8260	<1.0	<0.40	<1.0	<1.0	<0.40
MW-19	5/17/14	Low-Flow	NA	USEPA Method 8260	0.071	<0.10	<0.10	<0.10	<0.020
MW-19	12/7/16	Low-Flow	261.71	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-19	3/14/17	Low-Flow	251.54	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-19	6/27/17	Low-Flow	251.56	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-19	9/19/17	Low-Flow	251.56	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-19D	11/14/13	Low-Flow	NA	USEPA Method 8260	<1.0	<0.40	<1.0	<1.0	<0.40
MW-19D	5/17/14	Low-Flow	NA	USEPA Method 8260	0.074	<0.10	<0.10	<0.10	<0.020

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Chemical Abstracts Service (CAS) Registry Number					127-18-4	79-01-6	156-59-2	156-60-5	75-01-4
WA Dept. of Ecology Model Toxics Control Act (MTCA) Method A Cleanup Levels					5	5	--	--	0.20
WA Dept. of Ecology Model Toxics Control Act (MTCA) Method B Cleanup Levels (Cancer)					--	--	--	--	--
WA Dept. of Ecology Model Toxics Control Act (MTCA) Method B Cleanup Levels (Non Cancer)					--	--	16	160	--
MW-19D	12/7/16	Low-Flow	NA	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-19D	3/15/17	Low-Flow	224.70	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-19D	6/27/17	Low-Flow	226.21	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-19D	9/19/17	Low-Flow	224.25	USEPA Method 8260	0.59	<0.40	<0.50	<0.50	<0.20
MW-20D	11/14/13	Low-Flow	NA	USEPA Method 8260	<1.0	<0.40	<1.0	<1.0	<0.40
MW-20D	5/17/14	Low-Flow	NA	USEPA Method 8260	0.069	<0.10	<0.10	<0.10	<0.020
MW-20D	12/7/16	Low-Flow	NA	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-20D	3/14/17	Low-Flow	223.83	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-20D	6/27/17	Low-Flow	223.45	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-20D	9/19/17	Low-Flow	223.45	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-21D	5/17/14	Low-Flow	NA	USEPA Method 8260	0.075	<0.10	<0.10	<0.10	<0.020
MW-21D	12/7/16	Low-Flow	NA	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-21D	3/14/17	Low-Flow	217.97	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-21D	6/27/17	Low-Flow	217.56	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-21D	9/20/17	Low-Flow	217.55	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-22D	5/18/2014	Low-Flow	NA	USEPA Method 8260	0.079	<0.10	<0.10	<0.10	<0.020
MW-22D	12/7/2016	Low-Flow	NA	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-22D	3/14/2017	Low-Flow	226.05	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-22D	6/27/17	Low-Flow	225.78	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-22D	9/19/17	Low-Flow	223.45	USEPA Method 8260	<0.50	<0.40	<0.50	<0.50	<0.20
MW-23	5/25/2014	Low-Flow	NA	USEPA Method 8260	330	13	3.2	3.35	<0.020
MW-23	12/6/2016	Low-Flow	249.21	USEPA Method 8260	562	21.6	5.7	<0.50	<0.20
MW-23	3/16/2017	Low-Flow	249.95	USEPA Method 8260	572	20.9	5.6	<0.50	<0.20
MW-23	6/29/17	Low-Flow	251.09	USEPA Method 8260	344	12.0	4.7	<2.5	<1.0
MW-23	9/21/17	Low-Flow	250.16	USEPA Method 8260	462	12.7	7.8	<1.0	<0.40
MW-101	5/20/2014	Low-Flow	NA	USEPA Method 8260	260	32	33	33.13	<0.020
MW-101	12/7/2016	Low-Flow	NA	USEPA Method 8260	234	11.1	88.0	<1.0	<0.40
MW-101	3/16/2017	Low-Flow	253.58	USEPA Method 8260	204	11.7	116	<0.50	<0.20
MW-101	6/29/17	Low-Flow	254.19	USEPA Method 8260	69.7	2.6	5.5	<0.50	<0.20
MW-101	9/21/17	Low-Flow	253.24	USEPA Method 8260	223	9.4	98.8	<0.50	<0.20

Notes:

1. All water analytical results are presented in micrograms per liter (ug/L).
2. The applicable MTCA CLs are MTCA Method A CLs, and MTCA Method B CLs where MTCA Method A CLs are not listed.
3. A bold font style indicates that the concentration exceeds the applicable MTCA Cleanup Level.

Table 4A. Summary of Sub-Slab Soil Gas and Indoor Air VOC Results

Former Cherry Cleaners
2510 E. Cherry Street, Seattle, WA 98122
VCP ID No. NW2009

Sampling Event	Sample Location	Sample ID	Date	Sample Type	Sample Container	Sample Duration (hrs)	Initial Field Can P ("Hg)	Final Field Can P ("Hg)	Analytical Method	Tetrachloro-ethene	Trichloro-ethene	Vinyl Chloride	Benzene	1,2-Dichloro-ethane	Chloroform	Napthalene	1,2,4-Trimethyl-benzene	m&p-Xylene
Chemical Abstracts Service Registry Number ("CASRN")										127-18-4	79-01-6	75-01-4	71-43-2	107-06-2	67-66-3	91-20-3	95-63-6	108-38-3
2015 Indoor Air Cleanup Level, Method C										96.15	6.30	2.80	3.21	0.962	1.09	0.74	7.0	100
2015 Sub-Slab Soil Gas Screening Level, Method C										3,205	210	93.33	106.84	32.05	36.2	24.5	233	3,333
2516 Cherry Street																		
October 2012	SV-2	SV-2 Twilight	10/23/12	Subslab	6L Summa	NA	-28.5	-6	TO-15	36000	<94	<45	<56	<71	NT	NT	NT	<76
	IA-2	IA-2 Twilight	10/23/12	Indoor Air	6L Summa	NA	-29.5	-8	TO-15	6.9	<0.19	<0.046	1.0	<0.14	NT	NT	NT	1.2
	IA-3	IA-3 Twilight	10/23/12	Indoor Air	6L Summa	NA	-29	-8	TO-15	6.8	<0.20	<0.049	0.97	<0.15	NT	NT	NT	1.1
	SV-3	SV-3 Twilight	10/23/12	Subslab	6L Summa	NA	-30+	-7	TO-15	28000	<78	<37	<46	<59	NT	NT	NT	<63
	SV-4	SV-4 Twilight	10/23/12	Subslab	6L Summa	NA	-30+	-8	TO-15	110000	<240	<120	<140	<180	NT	NT	NT	<200
April 2013	IA-03	2516IA-03-20130410	4/10/13	Indoor Air	6L Summa	NA	NA	NA	TO-15	24	<0.17	<0.041	0.59	NA	NA	NA	NA	NA
	IA-02	2516IA-02-20130410	4/10/13	Indoor Air	6L Summa	NA	NA	NA	TO-15	12	<0.18	<0.042	0.61	NA	NA	NA	NA	NA
	Building Roof	2516INTAKE-20130410	4/10/13	Outdoor Air	6L Summa	NA	NA	NA	TO-15	0.24	<0.18	<0.042	0.40	NA	NA	NA	NA	NA
May 2013	IA-03	2516IA-03-20130530	5/30/13	Indoor Air	6L Summa	NA	NA	NA	TO-15	25	<0.88	<0.21	<1.3	NA	NA	NA	NA	NA
	IA-02	2516IA-02-20130530	5/30/13	Indoor Air	6L Summa	NA	NA	NA	TO-15	15	<0.36	<0.087	<0.54	NA	NA	NA	NA	NA
June 2017	IA-1	IA-1:A062917	6/29/17	Indoor Air	6L Summa	7.3	-30+	-4	TO-15	2.9	<0.22	<0.15	0.66	<0.16	0.40	2.7	0.94	2.0
	SS-1	SS-1:A062917	6/29/17	Subslab	6L Summa	7.5	-30+	-4	TO-15	1900	18.7	<0.15	1.5	0.80	6.2	2.4	2.9	12.2
	IA-2	IA-2:A062917	6/29/17	Indoor Air	6L Summa	7.4	-30+	-5	TO-15	2.2	<0.22	<0.15	0.57	<0.12	0.51	2.0	0.74	1.5
		FD:A062917	6/29/17	Indoor Air	6L Summa	7.4	-24.5	-4.5	TO-15	5.6	<0.21	<0.15	9.1	<0.15	0.51	132	25.3	49.8
	SS-2	SS-2:A062917	6/29/17	Subslab	6L Summa	7.5	-27	-4	TO-15	636	6.9	<0.15	1.3	0.63	84.7	2.4	2.5	11.4
	OA	OA:A062917	6/29/17	Outdoor Air	6L Summa	6.1	-27	-2	TO-15	1.2	<0.21	<0.15	0.44	<0.15	<0.14	5.1	0.80	1.6
2518 Cherry Street																		
October 2012	SV-5	SV-5 TANA MKT.	10/24/12	Subslab	6L Summa	NA	-30+	-7	TO-15	20	<0.18	<0.043	0.33	<0.14	NT	NT	NT	0.34
	SV-6	SV-6 TANA MKT.	10/24/12	Subslab	6L Summa	NA	-30+	-7	TO-15	0.9	<0.18	<0.043	0.41	<0.14	NT	NT	NT	0.68
	SV-7	SV-7 TANA MKT.	10/24/12	Subslab	6L Summa	NA	-28	-7	TO-15	1.8	<0.18	<0.043	0.50	<0.14	NT	NT	NT	1.2
April 2013	IA-01	2518IA-01-20130410	4/10/13	Indoor Air	6L Summa	NA	NA	NA	TO-15	15	<0.18	<0.042	1.1	NA	NA	NA	NA	NA
	IA-02	2518IA-02-20130410	4/10/13	Indoor Air	6L Summa	NA	NA	NA	TO-15	3	<0.36	<0.085	0.90	NA	NA	NA	NA	NA
	Building Roof	2518INTAKE-20130410	4/10/13	Outdoor Air	6L Summa	NA	NA	NA	TO-15	0.33	<0.18	<0.044	0.44	NA	NA	NA	NA	NA
May 2013	IA-01	2518IA-01-20130530	5/30/13	Indoor Air	6L Summa	NA	NA	NA	TO-15	20	<0.37	<0.087	0.88	NA	NA	NA	NA	NA
	IA-02	2518IA-02-20130530	5/30/13	Indoor Air	6L Summa	NA	NA	NA	TO-15	2.7	<0.45	<0.11	0.74	NA	NA	NA	NA	NA
June 2017	IA-3	IA-3:A062917	6/29/17	Indoor Air	6L Summa	7.3	-30	-4	TO-15	1.8	0.24	<0.15	0.79	0.62	0.73	<0.23	0.90	3.1
	CSA-3	CSA-3:A062917	6/29/17	Crawlspace	6L Summa	7.3	-30+	-4	TO-15	1.4	0.36	<0.15	1.7	<0.15	1.2	2.1	2.4	11.0
	IA-4	IA-4:A062917	6/29/17	Indoor Air	6L Summa	7.3	-30	-2	TO-15	5.7	1.5	<0.15	2.8	1.6	2.2	5.4	7.6	117
	SS-4	SS-4:A062917	6/29/17	Subslab	6L Summa	7.3	-30+	-4.5	TO-15	2020	2.5	<0.15	1.4	<0.15	3.9	2.3	2.9	12.1
Outdoor Air																		
October 2012	Outdoor	AMB-1	10/23/12	Outdoor Air	6L Summa	NA	-30+	-5	TO-15	0.68	<0.17	<0.040	0.25	<0.12	NT	NT	NT	1.5
April 2013	Outdoor	AMB-01-20130410	4/10/13	Outdoor Air	6L Summa	NA	NA	NA	TO-15	0.26	<0.17	<0.040	0.75	NA	NA	NA	NA	NA
May 2013	Outdoor	AMB-01-20130530	5/30/13	Outdoor Air	6L Summa	NA	NA	NA	TO-15	<0.22	<0.18	<0.042	0.30	NA	NA	NA	NA	NA

1. All air analytical results are presented in micrograms per cubic meter (ug/m3).
2. All results are displayed for PCE and its daughter compounds, TCE and vinyl chloride. The other compounds presented contain at least one sample that was detected at a concentration greater than the applicable screening level.
3. A bold font style indicates that the concentration exceeds the applicable Method C Screening Level. For carcinogens, the Cancer Screening Level is used. For non-carcinogens, the Noncancer Screening Level is used.
4. NT = Not Tested
5. NA = Not Available

Table 4B. Summary of Sub-Slab Soil Gas and Indoor Air VOC Results from 2516 E. Cherry Street, Seattle, WA

Former Cherry Cleaners
2510 E. Cherry Street, Seattle, WA 98122
VCP No. NW2009

Building Location	Building Floor	Sample Location	Sample ID	Date	Sample Type	Sample Container	Sample Duration (hrs)	Initial Field Can P ("Hg)	Final Field Can P ("Hg)	Analytical Method	Tetrachloro-ethene	Trichloro-ethene	Vinyl Chloride	Benzene	Carbon tetrachloride	Chloroform	Dichlorodifluoro-methane	1,2-Dichloro-ethane	Napthalene	m&p-Xylene
Chemical Abstracts Service Registry Number (CASRN)											127-18-4	79-01-6	75-01-4	71-43-2	56-23-5	67-66-3	75-71-8	107-06-2	91-20-3	108-38-3
2015 Indoor Air Cleanup Level, Method B											9.62	0.370	0.280	0.321	0.417	0.109	45.7	0.0962	0.0735	45.7
2015 Sub-Slab Soil Gas Screening Level, Method B											321	12.3	9.33	10.7	13.9	3.62	1,520	3.21	2.45	1,520
North-West	Basement	IA-14	IA-14 ISS 720 25th Ave	11/30/2012	Indoor Air	6L	8.0	-28.0	-11.0	TO-15 SIM	<0.23	<0.18	<0.044	1.20	NT	NT	NT		NT	
	Second Floor	IA-15	IA-15:A110713	11/7/2013	Indoor Air	6L	8.0	-30.0	-6.5	TO-15 SIM	<0.22	<0.18	<0.042		NT	NT	NT		NT	
	First Floor	IA-11	IA-11:A110713	11/7/2013	Indoor Air	6L	8.0	-30.0	-5.0	TO-15 SIM	<0.21	<0.17	<0.040	0.31	NT	NT	NT		NT	0.55
	Basement	IA-8	IA-8:A110713	11/7/2013	Indoor Air	6L	8.0	-29.5	-5.5	TO-15 SIM	<0.23	<0.18	<0.043	0.36	NT	NT	NT		NT	0.86
	Basement	SS-8	SS-8:A110713	11/7/2013	Sub-slab	6L	8.0	-30.0	-7.0	TO-15 SIM	1.9	<0.17	0.083		NT	NT	NT		NT	0.85
	Second Floor	IA-15	IA-15:A031617	3/16/2017	Indoor Air	6L	8.1	-35.0	-6.0	TO-15	<1.0	<0.82	<0.77	1.2			4.1			2.7
	First Floor	IA-11	IA-11:A031617	3/16/2017	Indoor Air	6L	8.0	-30.0	-5.0	TO-15	<1.0	<0.82	<0.77				3.4			
	Basement	IA-8	IA-8:A031617	3/16/2017	Indoor Air	6L	8.0	-30.0	-5.0	TO-15	<1.0	<0.82	<0.77				3.2			
	Basement	SS-8	SS-8:A031617	3/16/2017	Sub-slab	6L	8.0	-30.0	-5.0	TO-15	4.3	<0.85	<0.81				3.7	2.1	4.5	20.5
	Basement	IA-16	IA-16 ISS 720 25th Ave	11/30/2012	Indoor Air	6L	8.0	-27.5	-5.0	TO-15 SIM	<0.22	<0.18	<0.042	1.20	NT	NT	NT		NT	
North-Central	Second Floor	IA-14	IA-14:A110713	11/7/2013	Indoor Air	6L	8.0	-30.0	-6.0	TO-15 SIM	<0.22	<0.18	<0.042		NT	NT	NT		NT	
	First Floor	IA-10	IA-10:A110713	11/7/2013	Indoor Air	6L	8.0	-29.0	-5.0	TO-15 SIM	<0.21	<0.17	<0.040	0.29	NT	NT	NT		NT	0.51
	Basement	IA-9	IA-9:A110713	11/7/2013	Indoor Air	6L	8.0	-30.0	-7.0	TO-15 SIM	<0.23	<0.18	<0.043	0.44	NT	NT	NT		NT	0.63
	Basement	SS-9	SS-9:A110713	11/7/2013	Sub-slab	6L	8.0	-30.0	-5.5	TO-15 SIM	4.4	<0.17	0.11	0.47	NT	NT	NT		NT	1.6
	Second Floor	IA-14	IA-14:A031617	3/16/2017	Indoor Air	6L	8.1	-26.0	-4.0	TO-15	<1.1	<0.85	<0.81				3.2			
	First Floor	IA-10	IA-10:A031617	3/16/2017	Indoor Air	6L	8.0	-30.0	-5.0	TO-15	<1.0	<0.82	<0.77				3.5			
	Basement	IA-9	IA-9:A031617	3/16/2017	Indoor Air	6L	8.0	-26.5	-4.0	TO-15	<1.1	<0.85	<0.81				3.0		4.5	
	Basement	SS-9	SS-9:A031617	3/16/2017	Sub-slab	6L	8.0	-30.0	-6.5	TO-15	4.1	<0.85	<0.81			5.00	3.7	1.6		17.7
	First Floor	IA-7	IA-7:A031617	3/16/2017	Indoor Air	6L	8.1	-30.0	-4.0	TO-15	<0.99	<0.79	<0.75				3.5		4.4	
	First Floor	SS-7	SS-7:A031617	3/16/2017	Sub-slab	6L	8.1	-30.0	-7.0	TO-15	<1.1	<0.85	<0.81				3.4	1.7		20.3
Center	First Floor	IA-6	IA-6:A110713	11/7/2013	Indoor Air	6L	8.0	-30.0	-5.0	TO-15 SIM	<0.21	<0.16	<0.039	0.37	NT	NT	NT		NT	0.59
	First Floor	SS-6	SS-6:A110713	11/7/2013	Sub-slab	6L	8.0	-30.0	-5.0	TO-15 SIM	<0.21	<0.17	<0.040		NT	NT	NT		NT	0.76
	First Floor	IA-6	IA-6:A031617	3/16/2017	Indoor Air	6L	8.0	-29.0	-8.0	TO-15	<0.92	<0.74	<0.70				3.3			
	First Floor	SS-6	SS-6:A031617	3/16/2017	Sub-slab	6L	8.1	-30.0	-6.0	TO-15	<2.1	<0.85	<0.40	0.55			1.9	1.1		20.0
Central-South	First Floor	IA-4	IA-4:A110713	11/7/2013	Indoor Air	6L	8.0	-30.0	-6.0	TO-15 SIM	<0.22	<0.17	<0.040	0.63	NT	NT	NT		NT	1.0
	First Floor	IA-5	IA-5:A110703	11/7/2013	Indoor Air	6L	8.0	-30.0	-6.5	TO-15 SIM	<0.21	<0.17	<0.040	0.39	NT	NT	NT		NT	0.69
	First Floor	IA-4	IA-4:A031617	3/16/2017	Indoor Air	6L	8.0	-29.0	-6.0	TO-15	<2.1	<0.82	<0.39				1.8			
	First Floor	IA-5	IA-5:A031617	3/16/2017	Indoor Air	6L	8.1	-30.0	-5.5	TO-15	<2.1	<0.82	<0.39				2.1			
	First Floor	SS-4	SS-4:A110713	11/7/2013	Sub-slab	6L	8.0	-30.0	-6.5	TO-15 SIM	0.7	<0.17	<0.040		NT	NT	NT		NT	
	First Floor	SS-5	SS-5:A110713	11/7/2013	Sub-slab	6L	8.0	-30.0	-5.0	TO-15 SIM	0.29	<0.17	0.072		NT	NT	NT		NT	0.72
	First Floor	SS-4	SS-4:A031617	3/16/2017	Sub-slab	6L	8.0	-30.0	-5.0	TO-15	1.2	<0.82	<0.39	0.69			2.1	2.1	5.1	22.0
	First Floor	SS-5	SS-5:A031617	3/16/2017	Sub-slab	6L	8.0	-30.0	-6.0	TO-15	<1.8	<0.74	<0.35	0.55			2.1	1.4		21.3

Table 4B. Summary of Sub-Slab Soil Gas and Indoor Air VOC Results from 2516 E. Cherry Street, Seattle, WA

Former Cherry Cleaners
2510 E. Cherry Street, Seattle, WA 98122
VCP No. NW2009

Building Location	Building Floor	Sample Location	Sample ID	Date	Sample Type	Sample Container	Sample Duration (hrs)	Initial Field Can P ("Hg)	Final Field Can P ("Hg)	Analytical Method	Tetrachloro-ethene	Trichloro-ethene	Vinyl Chloride	Benzene	Carbon tetrachloride	Chloroform	Dichlorodifluoro-methane	1,2-Dichloro-ethane	Napthalene	m&p-Xylene
Chemical Abstracts Service Registry Number (CASRN)											127-18-4	79-01-6	75-01-4	71-43-2	56-23-5	67-66-3	75-71-8	107-06-2	91-20-3	108-38-3
2015 Indoor Air Cleanup Level, Method B											9.62	0.370	0.280	0.321	0.417	0.109	45.7	0.0962	0.0735	45.7
2015 Sub-Slab Soil Gas Screening Level, Method B											321	12.3	9.33	10.7	13.9	3.62	1,520	3.21	2.45	1,520
South-West	Basement	IA-17	IA-17 ISS 720 25th Ave	11/30/2012	Indoor Air	6L	8.0	-20.0	-0.7	TO-15 SIM	0.57	<0.18	<0.043	1.2	NT	NT	NT		NT	
	Basement	IA-13	IA-13 ISS 720 25th Ave	11/30/2012	Indoor Air	6L	8.0	-29.0	-8.0	TO-15 SIM	0.81	<0.20	<0.047	1.3	NT	NT	NT		NT	
	Basement	SV-23	SV-23 ISS 720 25th Ave	11/30/2012	Sub-slab	6L	8.0	-28.5	-7.0	TO-15 SIM	230	<0.19	<0.046		NT	NT	NT		NT	
	Basement	SV-24	SV-24 ISS 720 25th Ave	11/30/2012	Sub-slab	6L	8.0	-28.0	-11.0	TO-15 SIM	300	<0.26	<0.062	0.51	NT	NT	NT		NT	
	Second Floor	IA-17	IA-17:A110713	11/7/2013	Indoor Air	6L	8.0	-30.0	-5.0	TO-15 SIM	4.8	3.2	<0.033		NT	NT	NT		NT	
	First Floor	IA-13	IA-13:A110713	11/7/2013	Indoor Air	6L	8.0	-30.0	-6.0	TO-15 SIM	0.65	<0.17	<0.040		NT	NT	NT		NT	
	Basement	IA-3	IA-3:A110713	11/7/2013	Indoor Air	6L	8.0	-30.0	-6.5	TO-15 SIM	<0.22	<0.18	<0.042	0.31	NT	NT	NT		NT	0.64
	Basement	SS-3	SS-3:A110713	11/7/2013	Sub-slab	6L	8.0	-27.0	-13.5	TO-15 SIM	4.1	<0.24	0.49	0.95	NT	NT	NT		NT	1.0
	Second Floor	IA-17	IA-17:A031617	3/16/2017	Indoor Air	6L	7.7	-30.0	-6.0	TO-15	<2.1	<0.85	<0.40	0.62			1.7			
	First Floor	IA-13	IA-13:A031617	3/16/2017	Indoor Air	6L	8.2	-30.0	-4.0	TO-15	<2.3	<0.92	<0.44				2.4			
	Basement	IA-3	IA-3:A031617	3/16/2017	Indoor Air	6L	8.0	-30.0	-4.0	TO-15	1.0	<0.79	<0.37				2.3			
	Basement	SS-3	SS-3:A031617	3/16/2017	Sub-slab	6L	8.0	-30.0	-30.0	--	Sample not collected because of water in sample port									
	Second Floor	IA-17	IA-17:A022818	2/28/2018	Indoor Air	6L	8.0	-30.0	-2.0	TO-15	0.16	0.089	<0.036	0.77	0.63	0.28	2.4	0.094		
	First Floor	IA-13	IA-13:A022818	2/28/2018	Indoor Air	6L	8.0	-30.0	-2.0	TO-15	0.13	0.13	<0.037	0.75	0.58	2.0	2.2	0.099		
	Basement	IA-3	IA-3:A022818	2/28/2018	Indoor Air	6L	8.0	-28.0	-3.0	TO-15	0.22	0.11	<0.040	0.76	0.45	0.15	2.3	0.092		54.8
	Basement	SS-3	SS-3:A022818	2/28/2018	Sub-slab	6L	8.0	-30.0	-30.0	--	Sample not collected because of water in sample port									
	Second Floor	IA-17	IA-17:A012720	1/27/2020	Indoor Air	6L	8.0	-30.5	-15.0	TO-15	<0.16	<0.13	<0.060	0.54	0.25	0.49	2.9	0.10		
	First Floor	IA-13	IA-13:A012720	1/27/2020	Indoor Air	6L	8.0	-28.0	-6.0	TO-15	<0.12	<0.093	<0.044	0.53	0.56	1.6	2.8	0.14		4.3
	Basement	IA-3	IA-3:A012720	1/27/2020	Indoor Air	6L	8.0	-30.0	-10.0	TO-15	<0.12	<0.096	<0.046	0.63	0.88	0.30	2.8	0.092		
	Basement	SS-3	--	--	Sub-slab	6L	8.0	--	--	--	Sample not collected because of water in sample port									
South-Central	Basement	SV-21	SV-21 ISS 720 25th Ave	11/30/2012	Sub-slab	6L	8.0	-29.0	-8.0	TO-15 SIM	210	1.4	<0.048	28	NT	NT	NT		NT	
	Basement	SV-22	SV-22 ISS 720 25th Ave	11/30/2012	Sub-slab	6L	8.0	-29.5	-7.0	TO-15 SIM	240	<0.20	<0.047		NT	NT	NT		NT	
	Second Floor	IA-16	IA-16:A110713	11/7/2013	Indoor Air	6L	8.0	-30.0	-5.0	TO-15 SIM	<0.21	<0.17	<0.040		NT	NT	NT		NT	
	First Floor	IA-12	IA-12:A110713	11/7/2013	Indoor Air	6L	8.0	-30.0	-6.0	TO-15 SIM	<0.21	<0.17	<0.040		NT	NT	NT		NT	
	Basement	IA-2	IA-2:A110713	11/7/2013	Indoor Air	6L	8.0	-30.0	-5.5	TO-15 SIM	0.36	0.20	<0.040	0.31	NT	NT	NT		NT	0.29
	Basement	SS-2	SS-2:A110713	11/7/2013	Sub-slab	6L	8.0	-30.0	-6.5	TO-15 SIM	82	<0.17	0.10	0.33	NT	NT	NT		NT	1.5
	Second Floor	IA-16	IA-16:A031617	3/16/2017	Indoor Air	6L	8.1	-30.0	-6.0	TO-15	22.5	220	<0.40	0.62			2.2			3.0
	First Floor	IA-12	IA-12:A031617	3/16/2017	Indoor Air	6L	8.0	-29.0	-5.0	TO-15	<2.2	<0.89	<0.42				1.6			
	Basement	IA-2	IA-2:A031617	3/16/2017	Indoor Air	6L	8.0	-29.0	-5.0	TO-15	<2.1	<0.85	<0.40				4.7			
	Basement	SS-2	SS-2:A031617	3/16/2017	Sub-slab	6L	8.0	-30.0	-5.5	TO-15	445	<0.89	<0.42	0.63	220.00	2.60	4.1	1.5		26.2
	Basement	IA-2	FD:A031617	3/16/2017	Indoor Air	6L	8.0	-30.0	-5.0	TO-15	<1.1	<0.85	<0.40	0.55			5.2		15.9	6.7
	Second Floor	IA-16	IA-16:A022818	2/28/2018	Indoor Air	6L	8.0	-30.0	-3.0	TO-15	0.13	<0.079	<0.037	0.73	0.61	0.23	2.3	0.091		
	Second Floor	IA-16	FD:A022818	2/28/2018	Indoor Air	6L	8.0	-30.0	-5.0	TO-15	0.13	0.086	<0.036	0.72	0.61	0.22	2.3	0.090		
	First Floor	IA-12	IA-12:A022818	2/28/2018	Indoor Air	6L	8.0	-29.0	-10.0	TO-15	0.23	0.23	<0.048	0.73	0.62	0.18	2.4	0.10		
	Basement	IA-2	IA-2:A022818	2/28/2018	Indoor Air	6L	8.0	-30.0	-4.0	TO-15	0.29	0.20	<0.040	0.77	0.61	0.22	3.9	0.094		
	Basement	SS-2	SS-2:A022818	2/28/2018	Sub-slab	6L	8.0	-30.0	-2.0	TO-15	442	0.26	<0.037	0.24	205	2.0	5.7			
	Second Floor	IA-16	IA-16:A012720	1/27/2020	Indoor Air	6L	8.0	-30.0	-4.0	TO-15	0.20	<0.081	<0.039	0.50	0.56	0.44	2.9	0.096		
	Second Floor	IA-16	DuplicateIA:A012720	1/27/2020	Indoor Air	6L	8.0	-30.0	-5.0	TO-15	0.91	<0.085	<0.040	0.60	0.48	0.46	2.8	0.10	5.3	
	First Floor	IA-12	IA-12:A012720	1/27/2020	Indoor Air	6L	8.0	-30.0	-5.0	TO-15	0.13	<0.085	<0.040	0.66	0.56	0.31	2.8	0.096		
	Basement	IA-2	IA-2:A012720	1/27/2020	Indoor Air	6L	8.0	-30.0	-5.0	TO-15	0.71	<0.088	<0.042	0.57	0.50	1.1	2.7	0.11		
	Basement	SS-2	SS-2:A012720	1/27/2020	Sub-slab	6L	8.0	-30.0	-9.5	TO-15	412	0.48	<0.044	0.66	119	2.3	3.2	0.18	8.0	87.2

Table 4B. Summary of Sub-Slab Soil Gas and Indoor Air VOC Results from 2516 E. Cherry Street, Seattle, WA

Former Cherry Cleaners
2510 E. Cherry Street, Seattle, WA 98122
VCP No. NW2009

Building Location	Building Floor	Sample Location	Sample ID	Date	Sample Type	Sample Container	Sample Duration (hrs)	Initial Field Can P ("Hg)	Final Field Can P ("Hg)	Analytical Method	Tetrachloro-ethene	Trichloro-ethene	Vinyl Chloride	Benzene	Carbon tetrachloride	Chloroform	Dichlorodifluoro-methane	1,2-Dichloro-ethane	Napthalene	m&p-Xylene
Chemical Abstracts Service Registry Number (CASRN)											127-18-4	79-01-6	75-01-4	71-43-2	56-23-5	67-66-3	75-71-8	107-06-2	91-20-3	108-38-3
2015 Indoor Air Cleanup Level, Method B											9.62	0.370	0.280	0.321	0.417	0.109	45.7	0.0962	0.0735	45.7
2015 Sub-Slab Soil Gas Screening Level, Method B											321	12.3	9.33	10.7	13.9	3.62	1,520	3.21	2.45	1,520
South-East	Basement	SV-20	SV-20 ISS 720 25th Ave	11/30/2012	Sub-slab	6L	8.0	-30.0	-8.0	TO-15 SIM	67	<0.19	<0.046		NT	NT	NT		NT	
	Basement	SV-25	SV-25 ISS 720 25th Ave	11/30/2012	Sub-slab	6L	8.0	--	--	TO-15 SIM	75	1.7	<0.0046	30	NT	NT	NT		NT	
	Basement	IA-1	IA-1:A110713	11/7/2013	Indoor Air	6L	8.0	-30.0	-5.5	TO-15 SIM	0.38	<0.17	<0.040	0.320	NT	NT	NT		NT	
	Basement	SS-1	SS-1:A110713	11/7/2013	Sub-slab	6L	8.0	-30.0	-4.5	TO-15 SIM	26	<0.17	<0.041		NT	NT	NT		NT	0.57
	Basement	IA-1	IA-1:A031617	3/16/2017	Indoor Air	6L	8.0	-30.0	-5.0	TO-15	<2.1	<0.85	<0.40				66.3			
	Basement	SS-1	SS-1:A031617	3/16/2017	Sub-slab	6L	8.0	-28.0	-4.0	TO-15	62.7	<0.85	<0.40	0.58			1.9	1.3		21.2
	Basement	IA-1	IA-1:A022818	2/28/2018	Indoor Air	6L	8.0	-29.0	-3.0	TO-15	0.31	<0.079	<0.037	1.1	0.52	0.44	14.8	0.089		
	Basement	SS-1	SS-1:A022818	2/28/2018	Sub-slab	6L	8.0	-28.0	-2.0	TO-15	9.8	17.5	<0.037	0.58	0.77	0.26	2.4	0.24		
	Basement	IA-1	IA-1:A012720	1/27/2020	Indoor Air	6L	8.0	-30.0	-5.5	TO-15	0.12	<0.085	<0.040	0.60	0.59	0.55	2.8	0.092		
	Basement	SS-1	SS-1:A012720	1/27/2020	Sub-slab	6L	8.0	-30.0	-6.0	TO-15	84.2	0.28	<0.040	0.57	1.5	1.0	2.8	0.13		59.7
	NA	AMB-3	AMB-3 ISS 720 25th Ave	11/30/2012	Outdoor Air	6L	8.0	-29.5	-8.0	TO-15 SIM	<0.22	<0.18	<0.042	0.84	NT	NT	NT		NT	
	NA	OA1	OA-1:A110713	11/7/2013	Outdoor Air	6L	8.0	-30.0+	-6.0	TO-15 SIM	<0.21	<0.17	<0.040	0.35	NT	NT	NT		NT	
	NA	OA2	OA-1:A110713	11/7/2013	Outdoor Air	6L	8.0	-30.0+	-6.5	TO-15 SIM	<0.22	<0.17	<0.041	0.35	NT	NT	NT		NT	
Outdoor Air	NA	OA720	OA-720:A022818	2/28/2018	Outdoor Air	6L	8.0	-30.0+	-4.0	TO-15 SIM	0.20	0.17	<0.039	0.77	0.65	0.12	2.3	0.091		
	NA	OA720	OA720:A012720	1/27/2020	Outdoor Air	6L	8.0	-30.0	-5.0	TO-15 SIM	1.3	0.089	<0.041	2.0	0.74	0.43	2.6	0.095		21.1

- Notes:
- 1. All air analytical results are presented in micrograms per cubic meter (ug/m3).
 - 2. All results are displayed for PCE and its daughter compounds, TCE and vinyl chloride. The other compounds presented contain at least one sample that was detected at a concentration greater than the applicable screening level.
 - 3. A bold font style indicates that the concentration exceeds the applicable Method B Screening Level. For carcinogens, the Cancer Screening Level is used. For non-carcinogens, the Noncancer Screening Level is used.
 - 4. NT = Not Tested
 - 5. NA = Not Applicable

Table 5. Emulsified Oil Substrate Thicknesses & Recovery Tracking

Former Cherry Cleaners

2510 E. Cherry Street, Seattle, WA 98122

VCP ID: NW2009; Cleanup Site ID: 4175

Facility/Site ID: 476174

Location	Well Construction Information			4Q 16	1Q 17	2Q 17	3Q 17	1Q 18	1Q 20	1Q 20
	Well Diameter (in)	Depth to Top of Screen (ft bgs)	Depth to Bottom of Screen (ft bgs)	EOS Thickness (ft)	EOS Thickness (ft)	EOS Thickness (ft)	EOS Thickness (ft)	EOS Thickness (ft)	Depth to EOS (ft)	EOS Thickness (ft)
IW-02	4	20.0	40.0	NM	0.05	<0.01	0.00	0.00	NP	0.00
IW-03	4	20.0	40.0	NM	NM	<0.01	0.20	0.20	32.18	0.25
IW-04	4	20.0	40.0	NM	NM	0.20	0.08	NM	31.00	0.14
IW-05	4	20.0	40.0	NM	NM	0.20	0.10	0.60	30.95	0.20
IW-06	4	20.0	40.0	NM	NM	0.10	0.00	0.10	30.99	0.22
IW-07	4	20.0	40.0	NM	NM	<0.01	0.00	0.00	NP	0.00
IW-08	4	20.0	40.0	NM	NM	NM	NM	NM	NM	NM
IW-09	4	20.0	40.0	NM	0.01	0.01	0.01	NM	NP	0.00
IW-10	4	20.0	40.0	NM	0.01	<0.01	0.00	NM	NP	0.00
IW-11	4	20.0	40.0	NM	0.35	0.00	0.00	0.00	NP	0.00
IW-12	4	20.0	40.0	1.00	0.00	0.00	0.00	0.00	NP	0.00
IW-13	4	20.0	40.0	<0.01	0.00	0.00	0.00	0.00	NP	0.00
IW-14	4	18.0	38.0	4.00	<0.01	0.02	<0.01	0.05	30.35	0.12
IW-15	4	20.0	40.0	2.00	0.00	0.00	0.03	0.01	NP	0.00
IW-16	4	20.0	40.0	2.00	0.00	0.00	0.00	0.00	NP	0.00
IW-17	4	20.0	40.0	NM	0.00	0.00	<0.01	0.00	NP	0.00
IW-18	4	20.0	40.0	NM	0.02	0.02	<0.01	0.01	29.47	0.12
IW-19	4	18.5	38.5	NM	0.00	0.00	0.00	0.00	NP	0.00
IW-20	4	18.5	38.5	NM	0.00	0.00	0.00	0.00	NP	0.00
IW-21	4	17.5	37.5	NM	0.00	0.00	0.00	0.00	NP	0.00
IW-22	4	17.0	37.0	NM	<0.01	0.00	0.00	0.01	NP	0.00
IW-23	4	16.5	36.5	1.50	0.00	0.00	0.00	0.00	NP	0.00
IW-24	4	15.0	35.0	NM	0.00	0.00	0.00	0.00	NP	0.00
IW-25	4	15.0	35.0	1.50	0.01	0.01	<0.01	0.02	25.75	0.01
IW-26	4	15.0	35.0	0.00	0.00	0.00	0.00	0.00	NP	0.00
IW-27	4	20.0	40.0	NM	3+	1.30	0.30	0.75	28.85	0.80
IW-28	4	20.0	40.0	NM	0.00	0.00	0.00	0.00	NP	0.00
MW-1	2	22.0	40.6	NM	0.00	0.00	0.00	0.00	NP	0.00
MW-2	4	20.0	40.0	NM	NM	NM	NM	NM	NP	0.00
MW-3	4	20.0	30.0	NM	3+	3+	0.40	0.20	NM	NM
MW-7	4	20.0	40.0	NM	0.00	0.00	0.00	0.00	NP	0.00
Estimated Volume of Oil/Water Removed (gallons)				125	250	75	75	30	25	25
Estimated Volume of Oil Removed (gallons)				25	50	15	15	6	5	5
Average Depth to Product (ft)				27.44	25.17	24.19	25.69	25.89	30.10	30.10

NOTES:

1. The 4Q 16 Product thickness measurements were collected with an oil-water interface probe, but not visually confirmed with a bailer, and are likely overestimated. The sticky nature of EOS makes it difficult to obtain accurate measurements using an oil-water interface probe. Consequently, the practice of measuring the thickness with the oil-water interface probe was discontinued after 4Q 16 in favor of visual inspection and measurement with a bailer.
2. NM = Not Measured
3. NP = No Product
4. Bold font and shading indicates vacuum was applied to the well to remove EOS

Table 6. Summary of Emulsified Oil Substrate Analytical Results

Former Cherry Cleaners

2510 E. Cherry Street, Seattle, WA 98122

VCP ID: NW2009; Cleanup Site ID: 4175; Facility/Site ID: 476174

Location	Sample Date	Sample Method	Analytical Method	Tetrachloro-ethene	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride
MW-3	03/15/17	Bailer	VOC 8260	73800	672	625	<235
MW-3	06/22/17	Bailer	VOC 8260	42700	1180	1490	<190
MW-3	09/18/17	Bailer	VOC 8260	68500	934	1020	<196
MW-3	02/27/18	Bailer	VOC 8260	6690	175	406	<50
IW-27	01/24/20	Bailer	VOC 8260	445	314	113	<10

Notes:

1. All analytical results are presented in micrograms per kilogram (ug/kg).
2. All results are displayed for PCE, TCE, and their daughter compounds, cis-1,2-DCE, and vinyl chloride.

Table 7. Cleanup Alternatives

Former Cherry Cleaners
2510 E. Cherry Street, Seattle, WA 98122
VCP ID: NW2009; Cleanup Site ID: 4175; Facility/Site ID: 476174

Treatment Horizon	Depth (feet bgs)	Cleanup Alternative										
		1	2	3	4	5	6	7	8	9	10	11
	0	Environmental Covenant	Environmental Covenant	Environmental Covenant	Environmental Covenant	Environmental Covenant	Environmental Covenant	Environmental Covenant	Environmental Covenant	Environmental Covenant	Environmental Covenant	Environmental Covenant
Surface Soil	1	Limited Excavation	Limited Excavation	Limited Excavation	Limited Excavation	Limited Excavation	Limited Excavation	Limited Excavation	Limited Excavation	Limited Excavation	Limited Excavation	Thermal Remediaton
Shallow Vadose Zone (Noncohesive silt and sand)	2	No Remedy	Gravity ISCO	Gravity ISCO	Gravity ISCO	SVE	SVE	SVE	Soil Mixing ISCO	Soil Mixing ISCO	Soil Mixing ISCO	Thermal Remediaton and SVE
	3											
	4											
	5											
	6											
	7											
	8											
	9											
	10											
Deep Vadose Zone (Non-cohesive sand and gravel)	11	No Remedy	No Remedy	Ozone Injection System	SVE	No remedy	Ozone Injection System	SVE	No Remedy	Ozone Injection System	SVE	Thermal Remediation and SVE
	12											
	13											
	14											
	15											
	16											
	17											
	18											
	19											
	20											
	21											
	22											
	23											
	24											
	25											
	26											
	27											
	28											
	29											
EOS Product Layer	30	Vacuum Extraction	Vacuum Extraction	Vacuum Extraction/Ozone	Vacuum Extraction	Vacuum Extraction	Vacuum Extraction/Ozone	Vacuum Extraction	Vacuum Extraction	Vacuum Extraction/Ozone	Vacuum Extraction	Thermal Remediation
Saturated Zone (Non-cohesive sand and gravel)	31	MNA	MNA	Ozone Injection System	AS	MNA	Ozone Injection System	AS	MNA	Ozone Injection System	AS	Thermal Remediation
	32											
	33											
	34											
	35											
	36											
	37											
	38											
	39											
	40											
	41											
	42											
	43											
	44											
	45											

Table 8. Applicable, Relevant and Appropriate Requirements (ARARs)

Former Cherry Cleaners

2510 E. Cherry Street, Seattle, WA 98122

VCP ID: NW2009; Cleanup Site ID: 4175

Facility/Site ID: 476174

Preliminary ARAR	Citation or Source
Model Toxics Control Cleanup Act (MTCA)	Chapter 70.105 of the Revised Code of Washington (RCW)
MTCA Cleanup Regulation	Washington Administrative Code (WAC) 173-340
Washington State Department of Ecology (Ecology) Vapor Intrusion Guidance	<i>Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action</i> , Review Draft, October 2009, Revised 2016, Publication Number 09-09-047
The State Environmental Policy Act (SEPA)	RCW 43.21C; WAC 197-11
Washington State Shoreline Management Act	RCW 90.58; WAC 173-18, 173-22 and 173-27
The Federal Clean Water Act	33 USC Section 1251
Comprehensive Environment Response, Compensation, and Liability Act (CERCLA)	40 CFR 300
The Resource Conservation and Recovery Act (RCRA)	40 CFR 239-282
USDOT Hazardous Materials Regulations (HMR)	40 CFR 100 through 185
The Toxic Substances Control Act (TSCA)	15 USC Section 2601
The Occupational Safety and Health Act (OSHA)	Part 1910 of Title 29 of the Code of Federal Regulations, 29 CFR 1910
Washington's Dangerous Waste Regulations	Chapter 70.105 RCW; Chapter 173-303 WAC
Washington's Solid Waste Handling Standards	Chapter 173-350 WAC
Water Quality Standards for Groundwaters of the State of Washington	Chapter 173-200 WAC
Federal and State Clean Air Acts	42 USC 7401 et seq.; 40 CFR 50; RCW 70.94; WAC 173-400, 403
Washington's General Occupational Health Standards	WAC 296-62
Washington's Safety Standards for Construction Work	WAC 296-155
Minimum Standards for Construction and Maintenance of Wells	WAC-173-160
U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response	<i>OSWER Technical Guide For Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air</i> , June 2015, Publication 9200.2-154
Native American Graves Protection and Repatriation Act (NAGPRA)	43 CFR 10
Archaeological Resources Protection Act (ARPA)	16 US Code Chapter 1B
City of Seattle regulations, codes and standards	All applicable or relevant and appropriate regulation, codes and standards
King County regulation, codes and standards	All applicable or relevant and appropriate regulation, codes and standards

Table 9. Disproportionate Cost Analysis

Former Cherry Cleaners
2510 E. Cherry Street, Seattle, WA 98122
VCP ID: NW2009; Cleanup Site ID: 4175; Facility/Site ID: 476174

Cleanup Alternative		1		2		3		4		5		6		7		8		9		10		11	
Cleanup Alternative Name	MNA	Shallow ISCO (gravity) and MNA		Shallow ISCO (gravity), Deep ISCO, and Saturated ISCO		Shallow ISCO (gravity), Deep SVE, and Saturated AS		Shallow SVE and MNA		Shallow SVE, Deep ISCO, and Saturated ISCO		Shallow SVE, Deep SVE, and Saturated AS		Shallow ISCO (mixing) and MNA		Shallow ISCO (mixing), Deep ISCO, and Saturated ISCO		Shallow ISCO (mixing), Deep SVE, and Saturated AS		Thermal Remediation and SVE			
Institutional Control for Subject Property	Environmental Covenant	Environmental Covenant		Environmental Covenant		Environmental Covenant		Environmental Covenant		Environmental Covenant		Environmental Covenant		Environmental Covenant		Environmental Covenant		Environmental Covenant		Environmental Covenant		Environmental Covenant	
Surface Soil	Limited Excavation	Limited Excavation		Limited Excavation		Limited Excavation		Limited Excavation		Limited Excavation		Limited Excavation		Limited Excavation		Limited Excavation		Limited Excavation		Limited Excavation		Thermal Remediation	
Shallow Vadose Zone Soil	No Remedy	Gravity Infiltration of Permanganate and Confirmation Sample Collection		Gravity Infiltration of Permanganate and Confirmation Sample Collection		Gravity Infiltration of Permanganate and Confirmation Sample Collection		Soil Vapor Extraction System and Confirmation Sample Collection		Soil Vapor Extraction System and Confirmation Sample Collection		Soil Vapor Extraction System and Confirmation Sample Collection		Soil Mixing of Activated Persulfate and Confirmation Sample Collection		Soil Mixing of Activated Persulfate and Confirmation Sample Collection		Soil Mixing of Activated Persulfate and Confirmation Sample Collection		Thermal Remediation and SVE			
Deep Vadose Zone Soil	No Remedy	No Remedy		Ozone Injection System		Soil Vapor Extraction System		No Remedy		Ozone Injection System		Soil Vapor Extraction System		No Remedy		Ozone Injection System		Soil Vapor Extraction System		Thermal Remediation and SVE			
EOS Product Layer	Periodic Vacuum Removal Events and Monitoring	Periodic Vacuum Removal Events and Monitoring		Periodic Vacuum Removal Events and Monitoring, until Ozone Injection System Installed		Periodic Vacuum Removal Events and Monitoring		Periodic Vacuum Removal Events and Monitoring		Periodic Vacuum Removal Events and Monitoring, until Ozone Injection System Installed		Periodic Vacuum Removal Events and Monitoring		Periodic Vacuum Removal Events and Monitoring		Periodic Vacuum Removal Events and Monitoring, until Ozone Injection System Installed		Periodic Vacuum Removal Events and Monitoring		Periodic Vacuum Removal Events and Monitoring, until Thermal Remediation System Installed			
Saturated Soil	Monitoring	Monitoring		Ozone Injection System		Air Sparge System		Monitoring		Ozone Injection System		Air Sparge System		Monitoring		Ozone Injection System		Air Sparge System		Thermal Remediation			
Vapor Intrusion Assessment	Monitoring, with potential vapor mitigation system installation, until no longer warranted	Monitoring, with potential vapor mitigation system installation, until no longer warranted		Monitoring, until no longer warranted		Monitoring, until no longer warranted		Monitoring, with potential vapor mitigation system installation, until no longer warranted		Monitoring, until no longer warranted		Monitoring, until no longer warranted		Monitoring, with potential vapor mitigation system installation, until no longer warranted		Monitoring, until no longer warranted		Monitoring, until no longer warranted		Monitoring, until no longer warranted			
Evaluation Criteria (WAC 173-340-360(3)(f))	Weighting Factor	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
(i) Protectiveness. Least Protective = 1 Most Protective = 11	10%	1	0.1	2	0.2	7	0.7	5	0.5	3	0.3	8	0.8	6	0.6	4	0.4	10	1	9	0.9	11	1.1
(ii) Permanence. Least Permanent = 1 Most Permanent = 11	10%	1	0.1	2	0.2	7	0.7	5	0.5	3	0.3	8	0.8	6	0.6	4	0.4	10	1	9	0.9	11	1.1
(iv) Effectiveness over the long term. Least Effective = 1 Most Effective = 11	30%	1	0.3	2	0.6	7	2.1	5	1.5	3	0.9	8	2.4	6	1.8	4	1.2	10	3	9	2.7	11	3.3
(v) Management of short-term risks. Longest VIA Period = 1 Shortest VIA Period = 11	10%	1	0.1	2	0.2	9	0.9	5	0.5	3	0.3	7	0.7	8	0.8	4	0.4	10	1	6	0.6	11	1.1
(vi) Technical and administrative implementability. Most Difficult to Implement = 1 Easiest to Implement = 11	10%	11	1.1	6	0.6	4	0.4	5	0.5	10	1	8	0.8	9	0.9	3	0.3	1	0.1	2	0.2	7	0.7
(vii) Consideration of public concerns. Most Concerning to Public = 1 Least Concerning to Public = 11	30%	4	1.2	8	2.4	10	3	5	1.5	3	0.9	6	1.8	2	0.6	9	2.7	11	3.3	7	2.1	1	0.3
Total	100%	Benefit Score	2.9	Benefit Score	4.2	Benefit Score	7.8	Benefit Score	5	Benefit Score	3.7	Benefit Score	7.3	Benefit Score	5.3	Benefit Score	5.4	Benefit Score	9.4	Benefit Score	7.4	Benefit Score	7.6
(iii) Cost.		Estimated Cost	\$2,294,000	Estimated Cost	\$2,405,000	Estimated Cost	\$1,385,000	Estimated Cost	\$1,907,500	Estimated Cost	\$2,916,000	Estimated Cost	\$2,108,500	Estimated Cost	\$2,297,000	Estimated Cost	\$2,494,000	Estimated Cost	\$1,476,000	Estimated Cost	\$1,996,500	Estimated Cost	\$1,892,000
Cost / Benefit Ratio the smaller the number, the better the cost to benefit ratio		Cost/Benefit Ratio	791,034	Cost/Benefit Ratio	572,619	Cost/Benefit Ratio	177,564	Cost/Benefit Ratio	381,500	Cost/Benefit Ratio	788,108	Cost/Benefit Ratio	288,836	Cost/Benefit Ratio	433,396	Cost/Benefit Ratio	461,852	Cost/Benefit Ratio	157,021	Cost/Benefit Ratio	269,797	Cost/Benefit Ratio	248,947
Normalized Cost / Benefit Ratio calaculated cost / benefit ratio divided by smallest cost / benefit ratio		Normalized Cost/Benefit Ratio	5.0	Normalized Cost/Benefit Ratio	3.6	Normalized Cost/Benefit Ratio	1.1	Normalized Cost/Benefit Ratio	2.4	Normalized Cost/Benefit Ratio	5.0	Normalized Cost/Benefit Ratio	1.8	Normalized Cost/Benefit Ratio	2.8	Normalized Cost/Benefit Ratio	2.9	Normalized Cost/Benefit Ratio	1.0	Normalized Cost/Benefit Ratio	1.7	Normalized Cost/Benefit Ratio	1.6
Cleanup Alternative	1	2	3	4	5	6	7	8	9	10	11												
Cleanup Alternative Name	MNA	Shallow ISCO (gravity) and MNA	Shallow ISCO (gravity), Deep ISCO, and Saturated ISCO	Shallow ISCO (gravity), Deep SVE, and Saturated AS	Shallow SVE and MNA	Shallow SVE, Deep ISCO, and Saturated ISCO	Shallow SVE, Deep SVE, and Saturated AS	Shallow ISCO (mixing) and MNA	Shallow ISCO (mixing), Deep ISCO, and Saturated ISCO	Shallow ISCO (mixing), Deep SVE, and Saturated AS	Thermal Remediaton and SVE												

Table 10. Cost Estimates for Cleanup Alternatives

Former Cherry Cleaners
2510 E. Cherry Street, Seattle, WA 98122
VCP ID: NW2009; Cleanup Site ID: 4175; Facility/Site ID: 476174

Cleanup Alternative	1	2	3	4	5	6	7	8	9	10	11
Cleanup Alternative Name	MNA	Shallow ISCO (gravity) and MNA	Shallow ISCO (gravity), Deep ISCO, and Saturated ISCO	Shallow ISCO (gravity), Deep SVE, and Saturated AS	Shallow SVE and MNA	Shallow SVE, Deep ISCO, and Saturated ISCO	Shallow SVE, Deep SVE, and Saturated AS	Shallow ISCO (mixing) and MNA	Shallow ISCO (mixing), Deep ISCO, and Saturated ISCO	Shallow ISCO (mixing), Deep SVE, and Saturated AS	Thermal Remediation and SVE
Project Management/Preparation	\$465,000	\$465,000	\$225,000	\$300,000	\$465,000	\$300,000	\$235,000	\$465,000	\$225,000	\$300,000	\$220,000
HOT Removal and Limited Excavation	\$160,000	\$160,000	\$160,000	\$160,000	\$160,000	\$160,000	\$160,000	\$160,000	\$160,000	\$160,000	
EOS Removal	\$115,000	\$115,000	\$23,000	\$23,000	\$115,000	\$46,000	\$23,000	\$115,000	\$23,000	\$23,000	
Remedy Implementation		\$171,000	\$533,000	\$866,000	\$682,000	\$1,044,000	\$1,377,000	\$260,000	\$624,000	\$955,000	\$1,330,000
Soil Confirmation Sampling		\$21,000	\$21,000	\$21,000	\$21,000	\$21,000	\$21,000	\$21,000	\$21,000	\$21,000	\$21,000
Groundwater Monitoring	\$1,110,000	\$1,110,000	\$222,000	\$296,000	\$1,110,000	\$296,000	\$259,000	\$1,110,000	\$222,000	\$296,000	\$109,000
Vapor Intrusion Assessment	\$384,000	\$303,000	\$81,000	\$121,500	\$303,000	\$121,500	\$102,000	\$303,000	\$81,000	\$121,500	\$32,000
Site Restoration	\$60,000	\$60,000	\$120,000	\$120,000	\$60,000	\$120,000	\$120,000	\$60,000	\$120,000	\$120,000	\$180,000
Estimated Cost	\$2,294,000	\$2,405,000	\$1,385,000	\$1,907,500	\$2,916,000	\$2,108,500	\$2,297,000	\$2,494,000	\$1,476,000	\$1,996,500	\$1,892,000

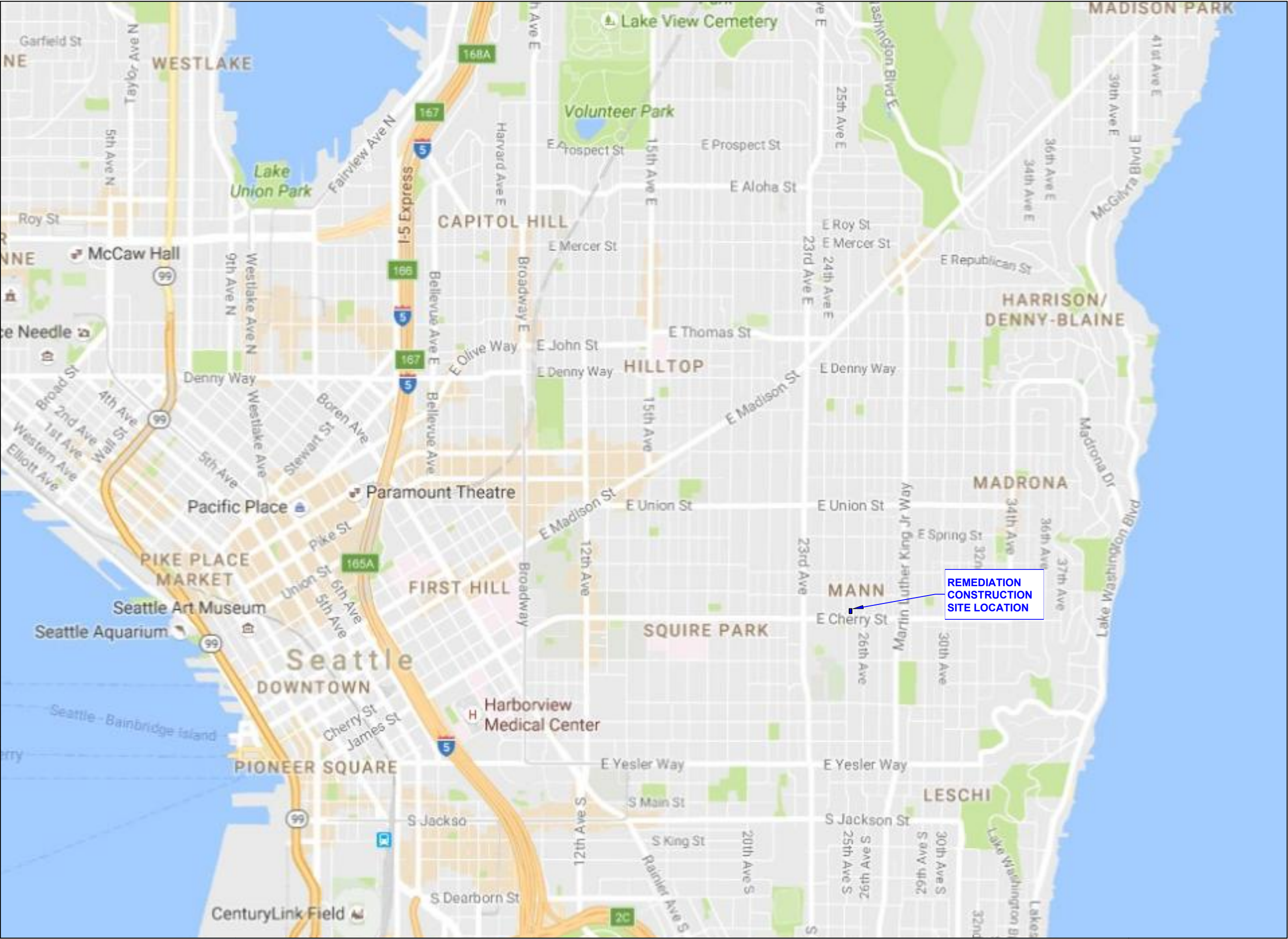


VCP ID NW2009

Project No. WAKS2510C12.01

Date: 7/9/20

Figures



The **ELAM** Group

LEGEND

 Remediation Construction Site

Notes:

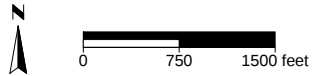
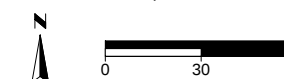
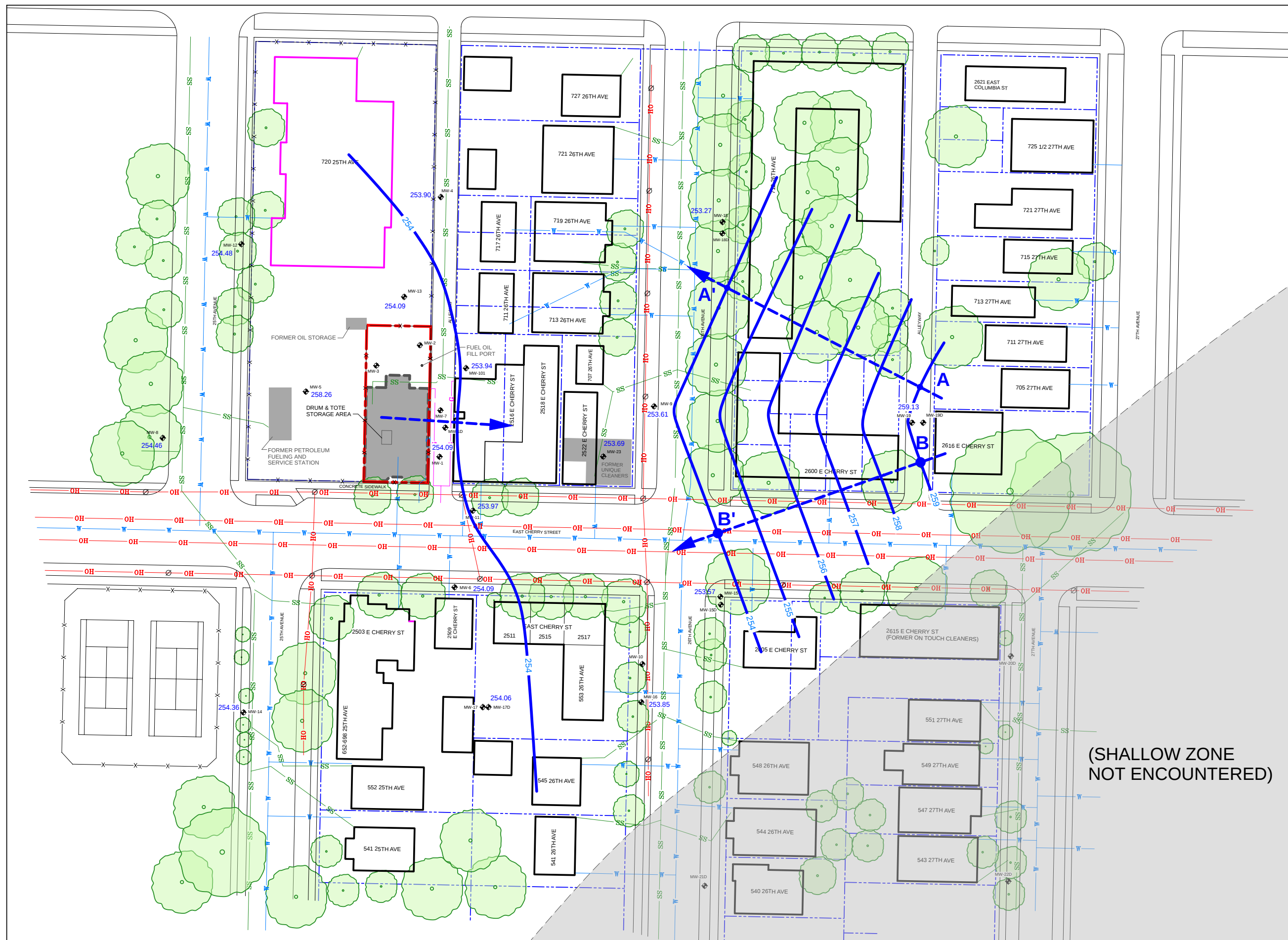


Figure No: 1
Title: Site Location Map
Scale: 1" = 1,500'
Project No: WAKS2510C
Report: Feasibility Study
Drawn by: The ELAM Group
Date: 6/12/20





The **ELAM** Group

LEGEND

- Monitoring Well
- Underground Sanitary Sewer Line
- Underground Water Line
- Underground Natural Gas Line
- Overhead Electric Line
- Utility Pole
- Tree
- Former Building Location
- Vapor Intrusion Assessment Location
- Water Table Elevation (ft.)
- Water Table Contour (ft.)
- Approx Ground-water Flow Direction

Notes:

$$A - A' = \frac{254' - 253.5'}{134'} = 0.00373$$



Figure No: 3B

Title: 3Q 2017 WTE Deep

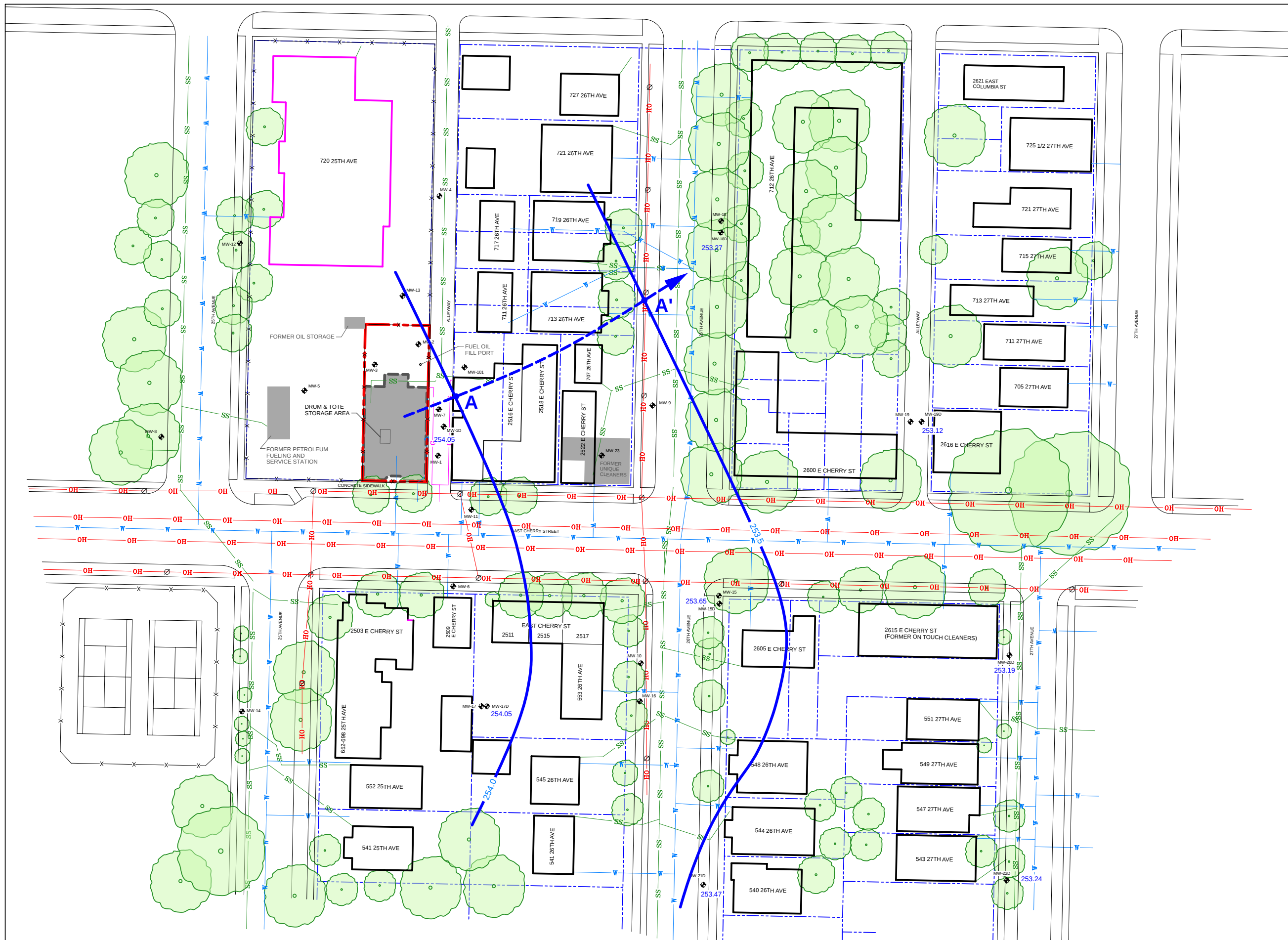
Scale: 1" = 60'

Project No: WAKS2510C

Report: Feasibility Study

Drawn by: The ELAM Group

Date: 06/10/2020





TheELAMGroup

LEGEND

- Monitoring Well
- Soil Boring
- Injection Well
- Soil Vapor Extraction Well
- Vapor Monitoring Point
- Underground Sanitary Sewer Line
- Underground Water Line
- Underground Natural Gas Line
- Overhead Electric Line
- Utility Pole
- Tree
- Former Building Location
- Vapor Intrusion Assessment Location

Notes:

- PCE Tetrachloroethene (mg/kg)
- TCE Trichloroethene (mg/kg)
- (u) Sample collected from unsaturated zone
- (s) Sample collected from saturated zone

Bold font indicates value above MTCA Method A.

- A COC Concentration exceeds MTCA Method A.

(See Figure 4B for investigation data within the facility property boundary)

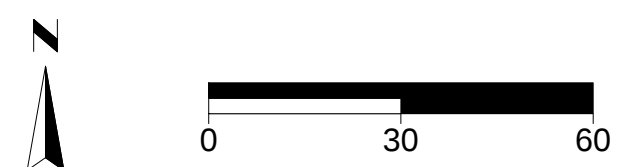


Figure No: 4A

Title: Soil Summary

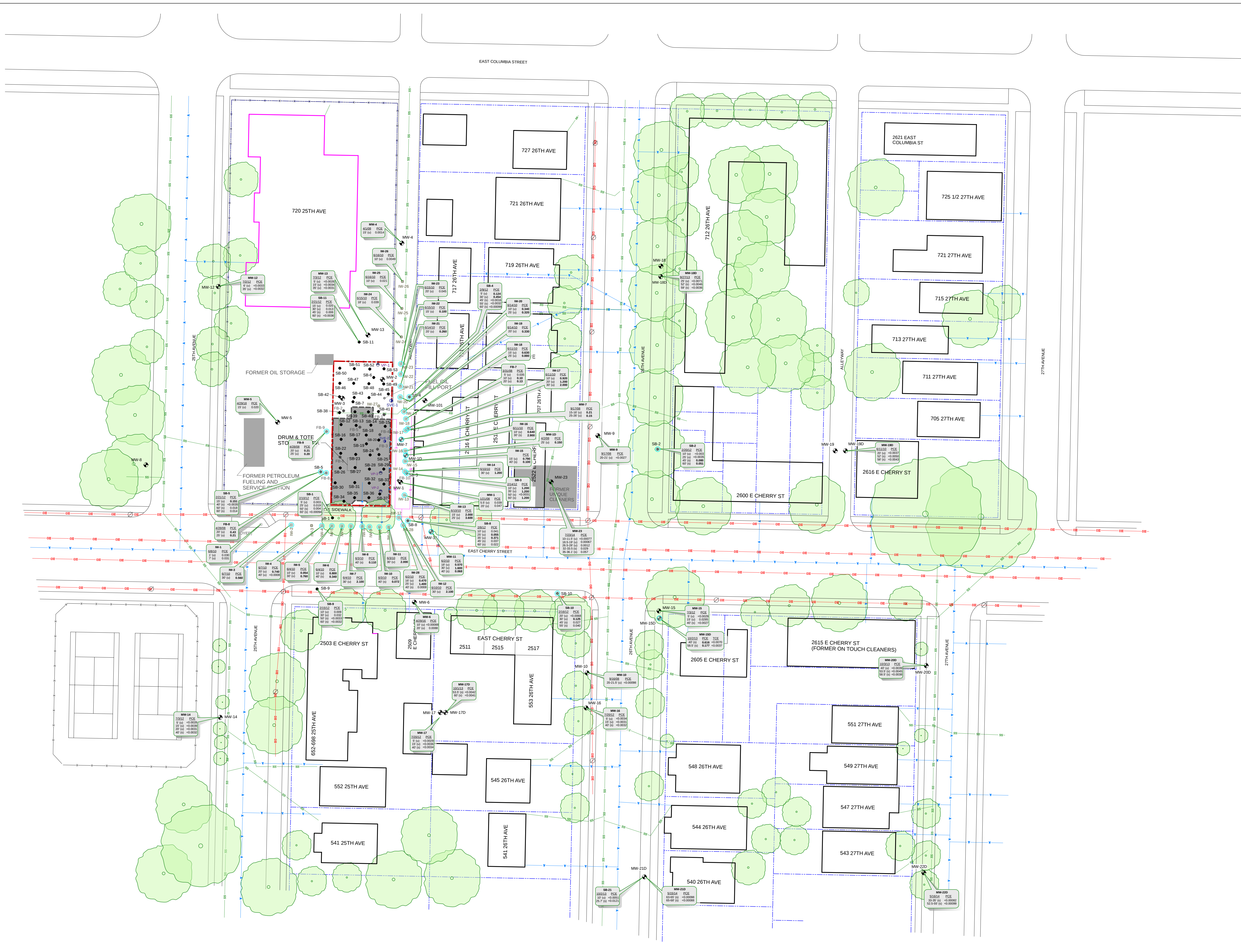
Scale: 1" = 30'

Project No: WAKS2510C

Report: Feasibility Study

Drawn by: The ELAM Group

Date: 07/09/2020



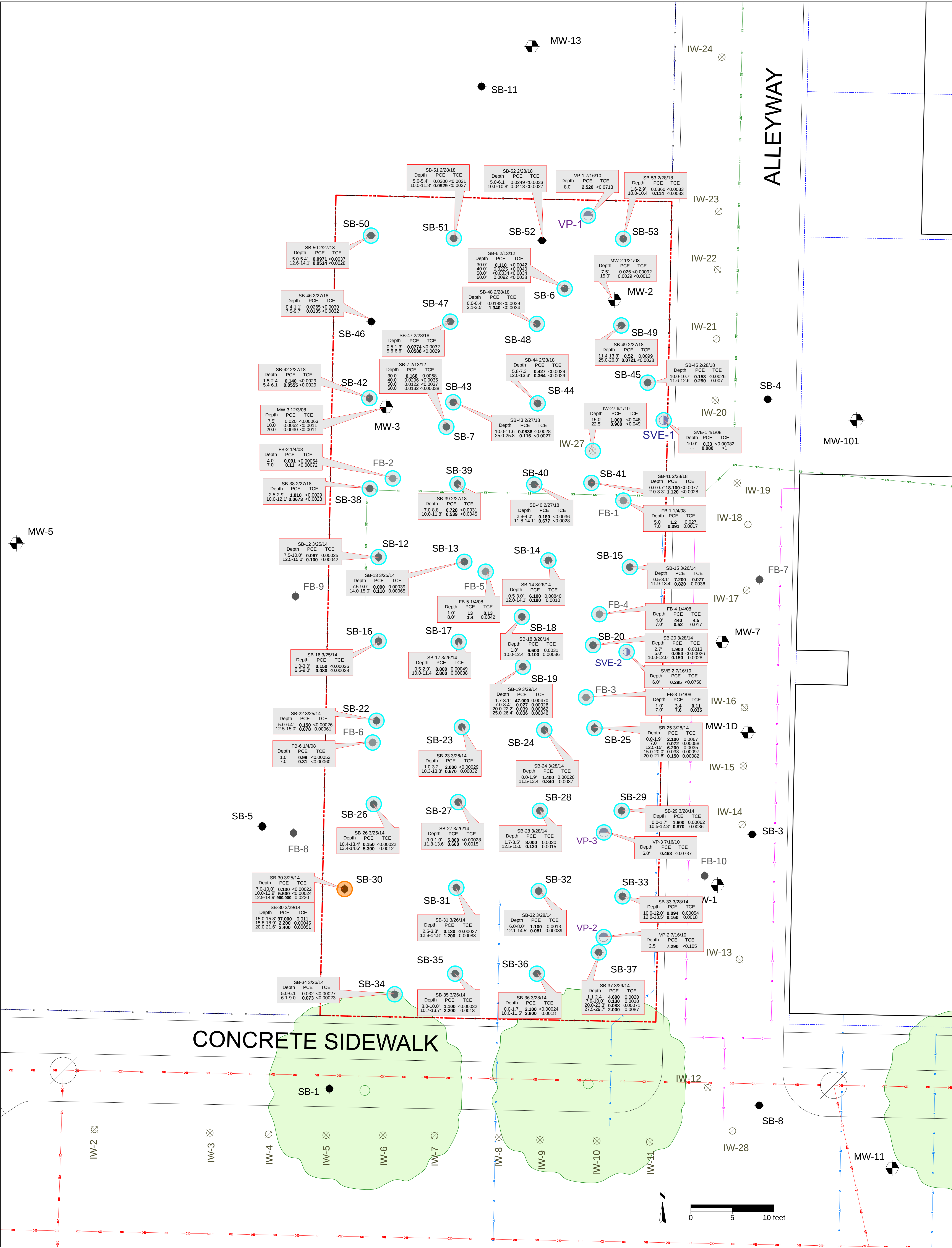


Figure No: 4B
Title: Soil Baseline Summary
Scale: 1 in = 5 ft
Project No: WAKS2510C
Report: Feasibility Study
Drawn by: The ELAM Group
Date: 07/09/2020

LEGEND	
	Monitoring Well
	Vapor Point
	Soil Boring
	Injection Well
	Soil Vapor Extraction Well
	Tree
	Former Building Location
	Vapor Intrusion Assessment Location
	Underground Sanitary Sewer Line
	Underground Water Line
	Underground Natural Gas Line
	Overhead Electric Line
	Utility Pole
	A COC Concentration Exceeds MTCA Method A
	A COC Concentration Exceeds MTCA Method B

Notes:	
PCE	= Tetrachloroethylene (mg/kg)
TCE	= Trichloroethylene (mg/kg)
Ecology's MTCE Method A	
PCE	TCE
0.05 mg/kg	0.03 mg/kg
Depth provided in feet below ground surface.	

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LEGEND

 Monitoring Well

 Underground Sanitary Sewer Line

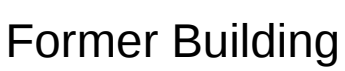
 Underground Water Line

 Underground Natural Gas Line

 Overhead Electric Line

 Utility Pole

 Tree

 Former Building Location

 Vapor Intrusion Assessment Location

Notes:

PCE Tetrachloroethene
TCE Trichloroethene
c-DCE cis-1,2 Dichloroethene
trans-1,2 Dichloroethene
VC Vinyl Chloride

All results are shown for PCE, TCE and their daughter compounds. Bold font COCs exceed MTCA Cleanup Levels. All results given in ug/L

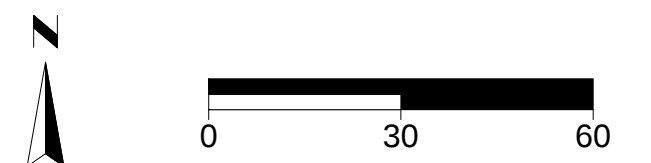


Figure No: 5

Title: Groundwater Summary

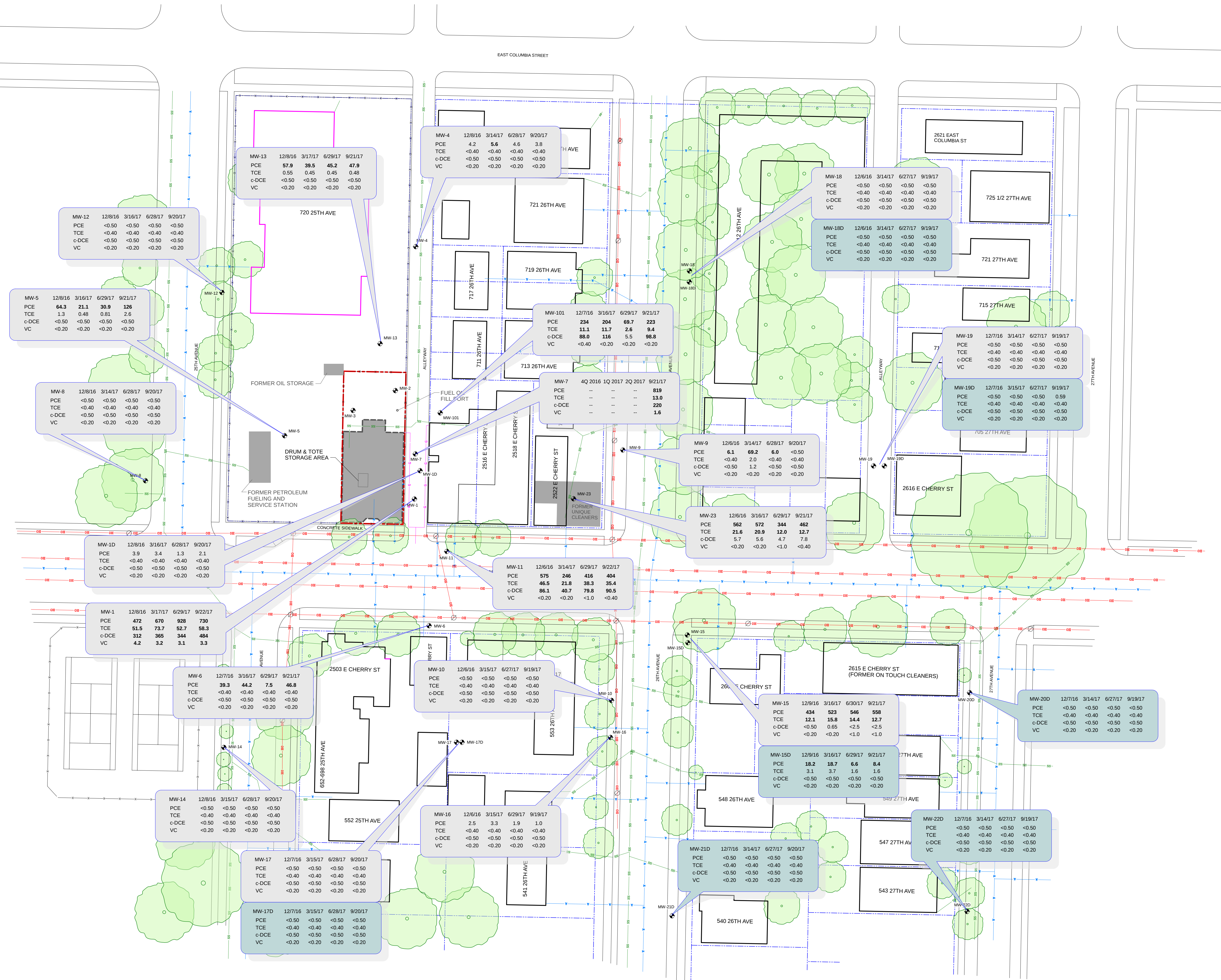
Scale: 1" = 30'

Project No: WAKS2510C

Report: Feasibility Study

Drawn by: The ELAM Group

Date: 06/10/2020





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LEGEND

-  Air Sampling Point
-  Subslab/Crawl Space Soil Gas Sampling Point
-  Air Sampling Point (2012)
-  Subslab/Crawl Space Soil Gas Sampling Point (2012)
-  Air Sampling Point (2013)

- Notes:
- Soil gas analytical results are presented in micrograms/cubic meter (ug/m^3)
 - Any analytical result that exceeds an applicable Screening Level is shown in **bold** font style
 - Samples were analyzed for the full VOC list. Only PCE and its daughter products TCE and VC are shown

P Tetrachloroethylene (PCE)
T Trichloroethylene (TCE)
VC Vinyl Chloride

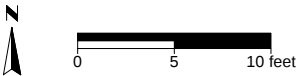
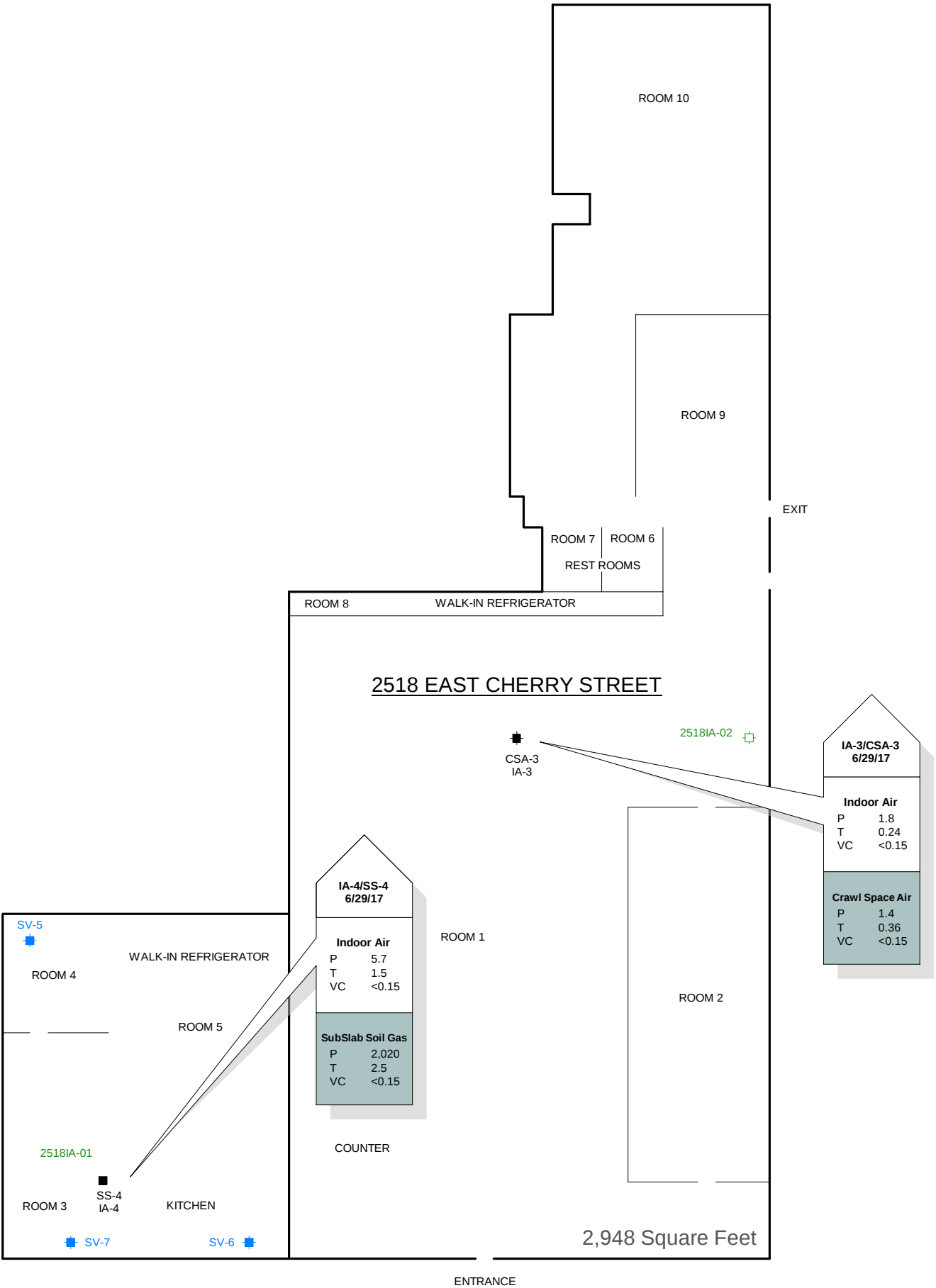


Figure No: 6A
Title: VIA Results For 2518 E. Cherry
Scale: 1" = 10'
Project No: WAKS2510C
Report: Feasibility Study
Drawn by: The ELAM Group
Date: 11/30/2017





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LEGEND

- Air Sampling Point
- Subslab/Crawl Space Soil Gas Sampling Point
- Air Sampling Point (2012)
- Subslab/Crawl Space Soil Gas Sampling Point (2012)
- Air Sampling Point (2013)

Notes:

- Soil gas analytical results are presented in micrograms/cubic meter (ug/m^3)
- Any analytical result that exceeds an applicable Screening Level is shown in **bold** font style
- Samples were analyzed for the full VOC list. Only PCE and its daughter products TCE and VC are shown

P Tetrachloroethylene (PCE)
T Trichloroethylene (TCE)
VC Vinyl Chloride



0 5 10 feet

Figure No: 6B

Title: VIA Results For 2516 E. Cherry

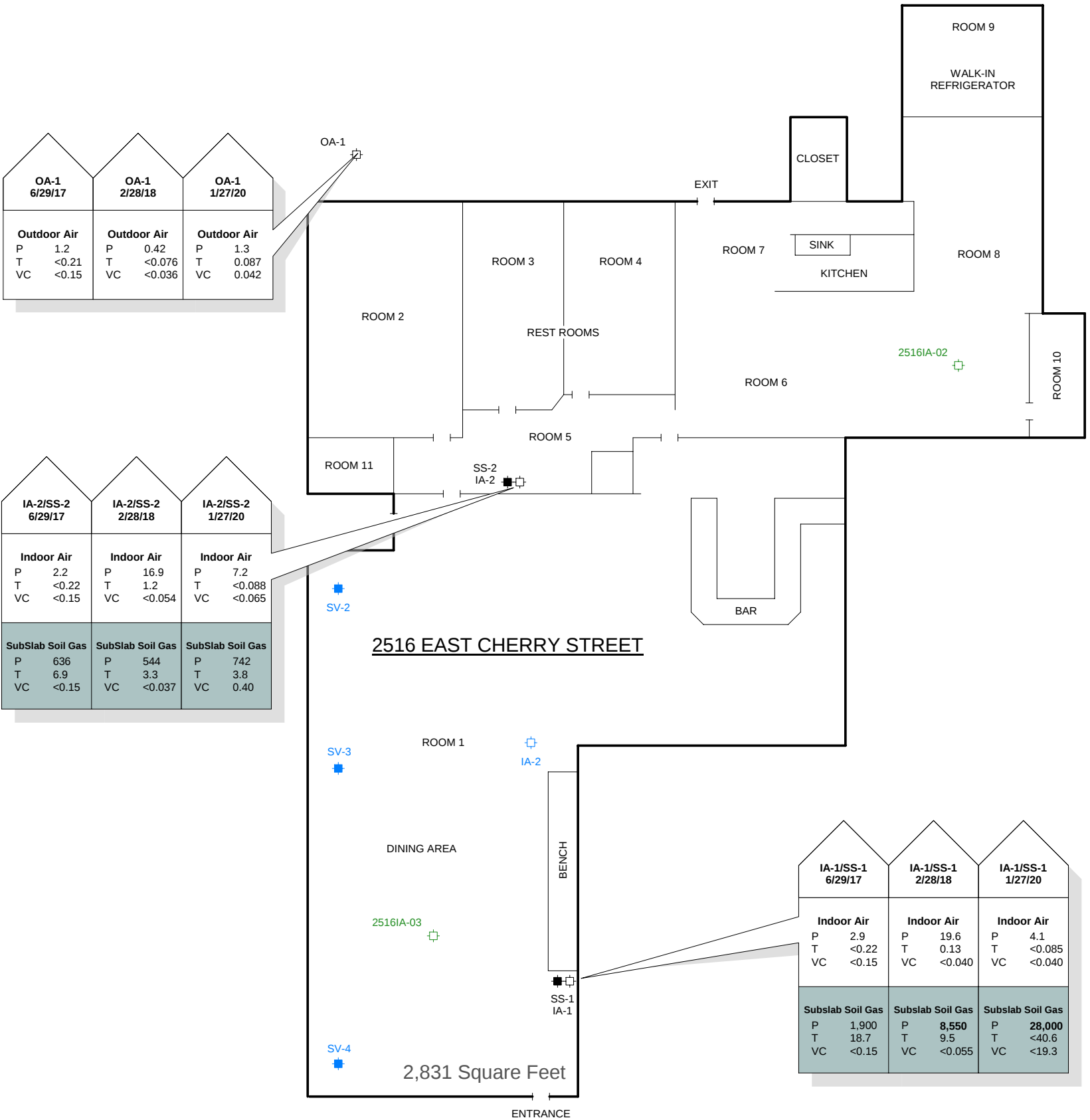
Scale: 1" = 10'

Project No: WAKS2510C

Report: Feasibility Study

Drawn by: The ELAM Group

Date: 03/26/2020





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LEGEND

- Air Sampling Point
- Subslab Soil Gas Sampling Point
- Air Sampling Point (2012)
- Subslab/Crawl Space Soil Gas Sampling Point (2012)

Notes:

- Analytical results are presented in micrograms per cubic meter (ug/m3).
- Analytical results shown in bold font style exceed the Model Toxics Control Act (MTCA) Method B Cancer Levels that were published by the WA Dept. of Ecology on 4/6/15.

P Tetrachloroethylene (PCE)
T Trichloroethylene (TCE)
c-DCE cis-1,2-Dichloroethane
VC Vinyl Chloride



0 10 20 feet

Figure No: 6C

Title: VIA Results For 720 E 25th

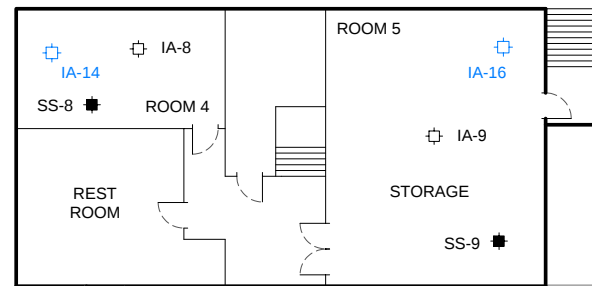
Scale: 1" = 20'

Project No: WAKS2510C

Report: Feasibility Study

Drawn by: The ELAM Group

Date: 03/26/2020

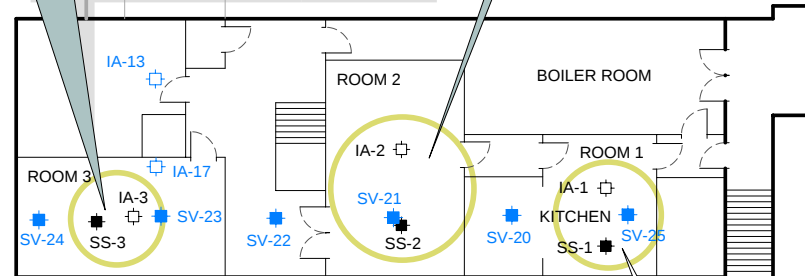


IA-2 3/16/17	IA-2 2/28/18	IA-2 1/27/20
P <2.1	P 0.29	P 0.71
T <0.85	T 0.20	T <0.088
c-DCE <1.3	c-DCE <0.062	c-DCE --
VC <0.40	VC <0.040	VC <0.042

SS-2 3/16/17	SS-2 2/28/18	SS-2 1/27/20
P 445	P 442	P 412
T <0.89	T 0.26	T 0.48
c-DCE <1.3	c-DCE <0.058	c-DCE --
VC <0.42	VC <0.037	VC <0.044

IA-3 3/16/17	IA-3 2/28/18	IA-3 1/27/20
P 1	P 0.22	P <0.12
T <0.79	T 0.11	T <0.096
c-DCE <1.2	c-DCE <0.062	c-DCE --
VC <0.37	VC <0.040	VC <0.046

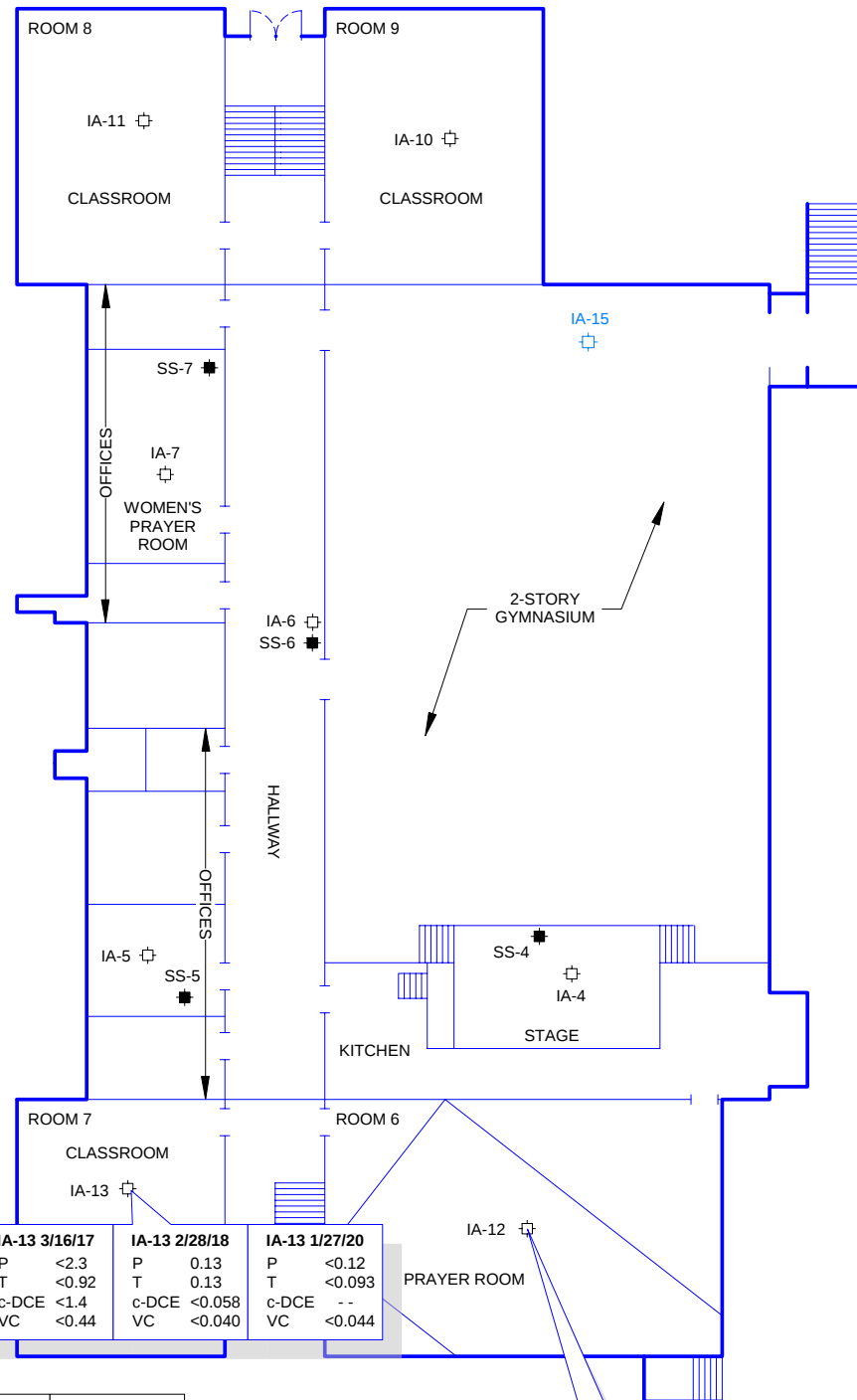
SS-3 3/16/17	SS-3 2/28/18	SS-3 1/27/20
P NS	P NS	P NS
T NS	T NS	T NS
c-DCE NS	c-DCE NS	c-DCE NS
VC NS	VC NS	VC NS



BASEMENT PLAN

IA-1 3/16/17	IA-1 2/28/18	IA-1 1/27/20
P <2.1	P 0.31	P 0.12
T <0.85	T <0.079	T <0.085
c-DCE <1.3	c-DCE <0.058	c-DCE --
VC <0.40	VC <0.037	VC <0.040

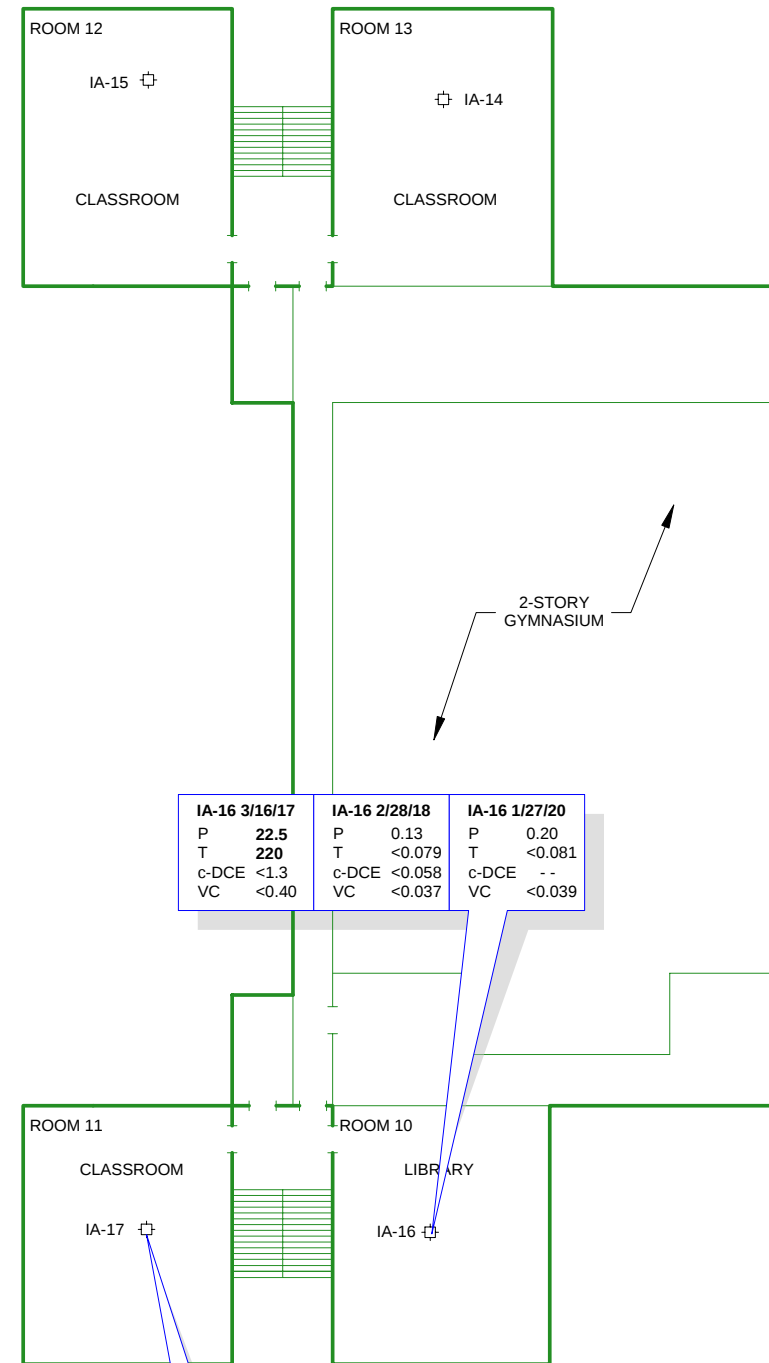
SS-1 3/16/17	SS-1 2/28/18	SS-1 1/27/20
P 62.7	P 9.8	P 84.2
T <0.85	T 17.5	T 0.28
c-DCE <1.3	c-DCE 0.060	c-DCE --
VC <0.40	VC <0.037	VC <0.040



1ST FLOOR PLAN

IA-13 3/16/17	IA-13 2/28/18	IA-13 1/27/20
P <2.3	P 0.13	P <0.12
T <0.92	T 0.13	T <0.093
c-DCE <1.4	c-DCE <0.058	c-DCE --
VC <0.44	VC <0.040	VC <0.044

IA-12 3/16/17	IA-12 2/28/18	IA-12 1/27/20
P <2.2	P 0.23	P 0.13
T <0.83	T 0.23	T <0.085
c-DCE <1.3	c-DCE <0.074	c-DCE --
VC <0.42	VC <0.048	VC <0.040



2ND FLOOR PLAN

IA-16 3/16/17	IA-16 2/28/18	IA-16 1/27/20
P 22.5	P 0.13	P 0.20
T 220	T <0.079	T <0.081
c-DCE <1.3	c-DCE <0.058	c-DCE --
VC <0.40	VC <0.037	VC <0.039

IA-17 3/16/17	IA-17 2/28/18	IA-17 1/27/20
P <2.1	P 0.16	P <0.16
T <0.89	T 0.089	T <0.13
c-DCE <1.3	c-DCE <0.056	c-DCE --
VC <0.40	VC <0.036	VC <0.060



TheELAMGroup

LEGEND

- Monitoring Well
- Injection Well
- Underground Sanitary Sewer Line
- Underground Water Line
- Underground Natural Gas Line
- Overhead Electric Line
- Utility Pole
- Tree
- Former Building Location
- Vapor Intrusion Assessment Location

Notes:

PCE Tetrachloroethene
TCE Trichloroethene
c-DCE cis-1,2 Dichloroethene
t-DCE trans-1,2 Dichloroethene
VC Vinyl Chloride

● = 2.310 gallons of EOS injected in July 2010

● = 1.155 gallons of EOS injected in July 2010

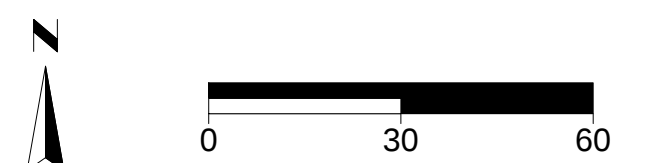


Figure No: 7

Title: EOS Performance Monitoring

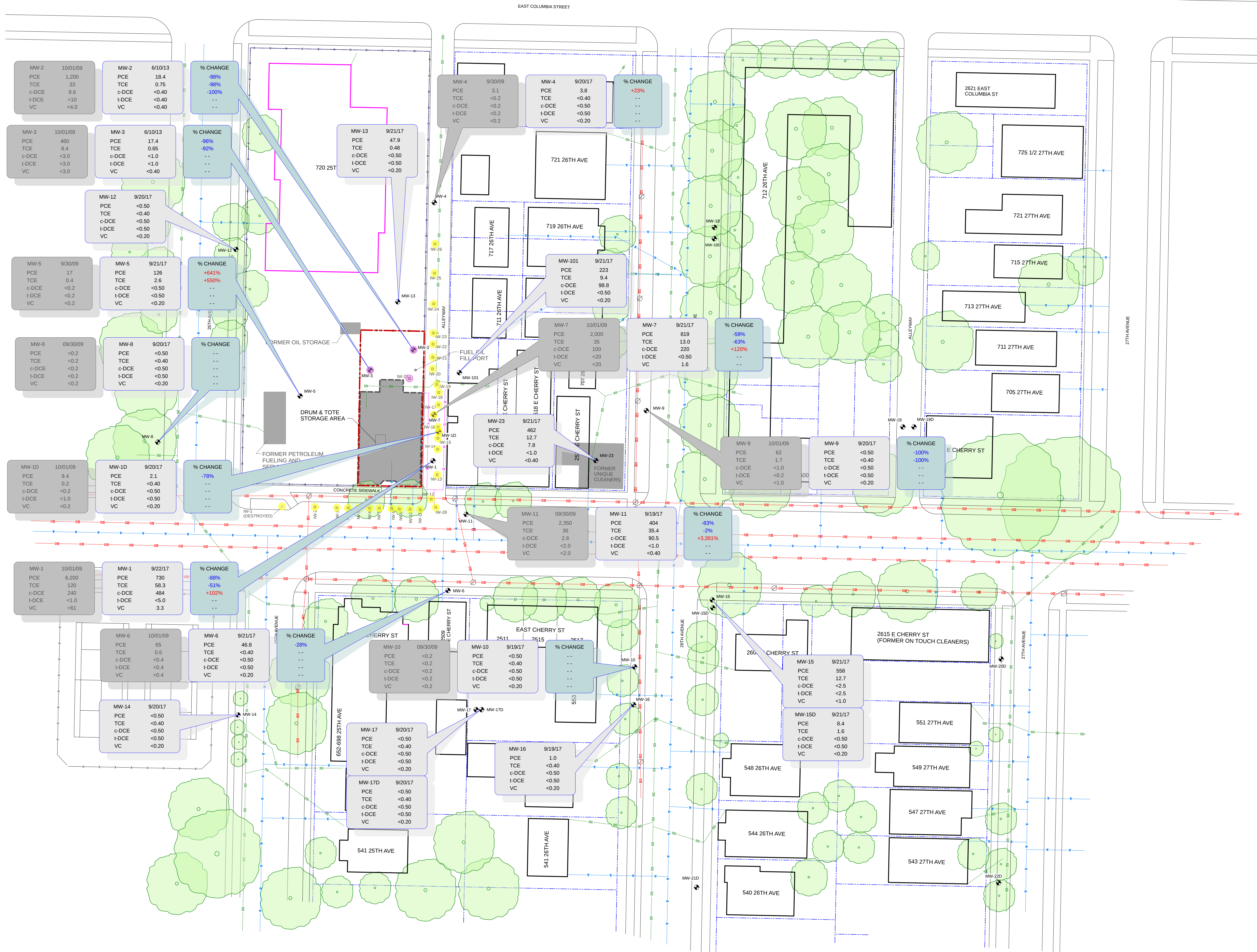
Scale: 1" = 30'

Project No: WAKS2510C

Report: Feasibility Study

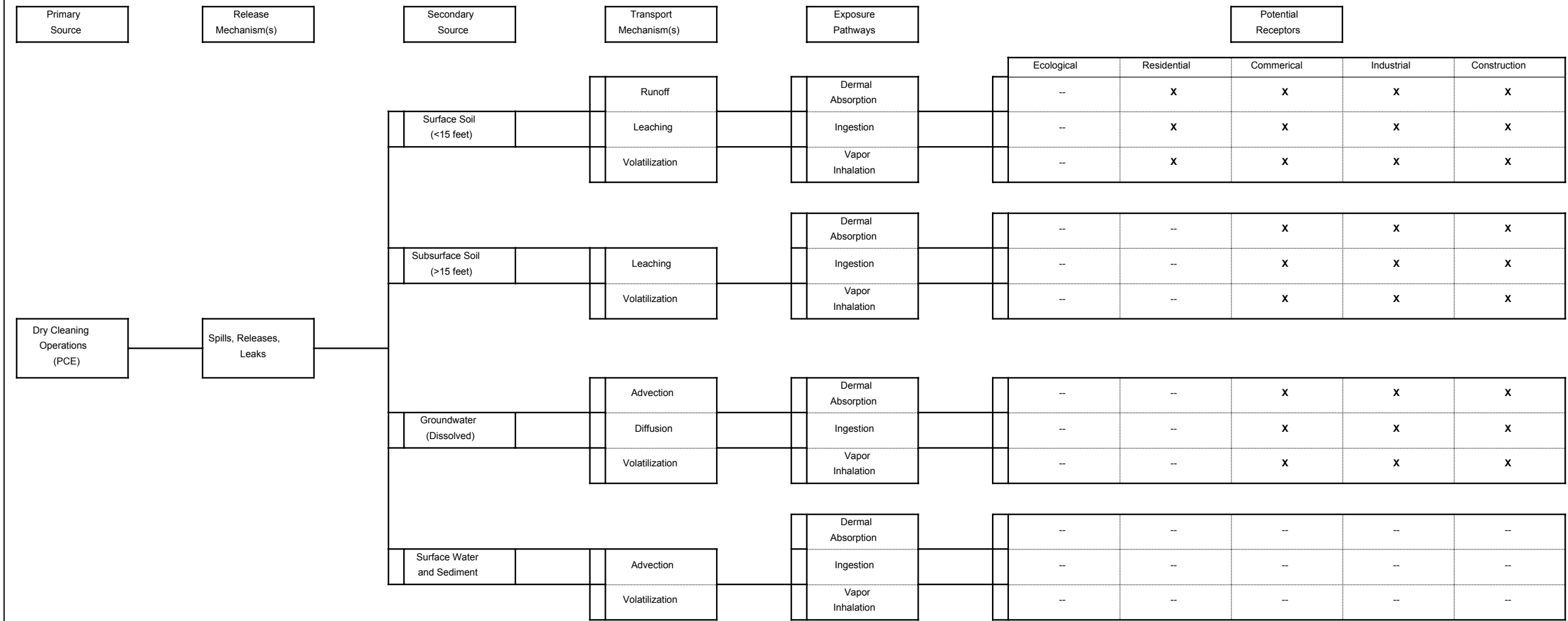
Drawn by: The ELAM Group

Date: 06/10/2020





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Notes:

Figure No: 8

Title: Conceptual Site Model

Project No: WAKS2510C

Report: Feasibility Study

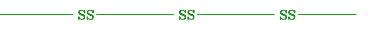
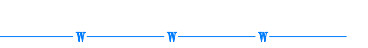
Drawn by: The ELAM Group

Date: 6/12/20



The **ELAM** Group

LEGEND

-  Monitoring Well
-  Underground Sanitary Sewer Line
-  Underground Water Line
-  Underground Natural Gas Line
-  Overhead Electric Line
-  Utility Pole
-  Tree
-  Former Building Location
-  Vapor Intrusion Assessment Location

Notes:

-  A COC Concentration exceeds MTCA Method A.



0 30 60

Figure No: 9

Title: Assumed COC Extent in Groundwater

Scale: 1" = 30'

Project No: WAKS2510C

Report: Feasibility Study

Drawn by: The ELAM Group

Date: 07/09/2020

