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# REMEDIAL INVESTIGATION AND FEASIBILITY STUDY REPORT

# 18420 68<sup>TH</sup> AVENUE SOUTH KENT, WASHINGTON

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# ACRONYMS AND ABBREVIATIONS

ARARs applicable, relevant and appropriate requirements

AS air sparge

ATC ATC Environmental Inc.

bgs below ground surface

BTEX benzene, toluene, ethylbenzene, and xylenes

CAM Industries, Inc.

cis-1,2-DCE cis-1,2-dichloroethene

COCs constituents of concern

COPCs constituents of potential concern

cPAH carcinogenic polycyclic aromatic hydrocarbon

CSM conceptual site model

DCA disproportionate cost analysis

DRO total petroleum hydrocarbons as diesel-range organics

Ecology Washington State Department of Ecology

EMS Environmental Management Services, LLC

EPA U.S. Environmental Protection Agency

Farallon Farallon Consulting, L.L.C.

FS Feasibility Study

GRO total petroleum hydrocarbons as gasoline-range organics

HLA Harding Lawson Associates

HVOCs halogenated volatile organic compounds

ICU Industrial Coatings Unlimited



ISCO in-situ chemical oxidation

Lift Real Estate Partners Fund, LLC

mg/kg milligrams per kilogram

mg/L milligrams per liter

 $\mu g/l$  micrograms per liter

MTCA Washington State Model Toxics Control Act Cleanup Regulation

NAVD88 North American Vertical Datum of 1988

ORO total petroleum hydrocarbons as oil-range organics

ORP oxidation-reduction potential

PAHs polynuclear aromatic hydrocarbons

PCE tetrachloroethene

PID photoionization detector

PQL practical quantitation limit

Property the property at 18420 68<sup>th</sup> Avenue South in Kent, Washington

RAO remedial action objectives

RI Remedial Investigation

SCFM standard cubic feet per minute

Site the area where hazardous substances have come to be located at

concentrations exceeding applicable cleanup levels

SMP Soil Management Plan

Storage Yard an unpaved area used for vehicle parking, equipment staging, and

materials storage on the eastern portion of the property at 18420 68<sup>th</sup>

Avenue South in Kent, Washington

SVE soil vapor extraction

TCE trichloroethene



TEC toxic equivalent concentration

TEE Terrestrial Ecological Evaluation

TPH total petroleum hydrocarbons

trans-1,2-DCE trans-1,2-dichloroethene

USGS U.S. Geologic Survey

UST underground storage tank

VCP Voluntary Cleanup Program

VOCs volatile organic compounds

WAC Washington Administrative Code

West Valley the south-adjoining property at 18417-18421 72<sup>nd</sup> Avenue South in

Property Kent, Washington



#### **EXECUTIVE SUMMARY**

Farallon Consulting, L.L.C. (Farallon) has prepared this Remedial Investigation and Feasibility Study Report on behalf of Lift Real Estate Partners Fund, LLC for the property at 18420 68<sup>th</sup> Avenue South in Kent, Washington (Property). Lift Real Estate Partners Fund, LLC is under contract for the purchase of the Property from the current owner (Snider and Associates LLC), and plans to redevelop the Property with an industrial warehouse and distribution center. The preferred cleanup action alternative selected in the Feasibility Study would be conducted in conjunction with redevelopment.

The Property is part of the broader Site, which is defined under the Washington State Model Toxics Control Act Cleanup Regulation (MTCA) and its implementing regulations as established in Chapter 173-340 of the Washington Administrative Code (WAC 173-340) as comprising the area where hazardous substances have come to be located at concentrations exceeding applicable cleanup levels. Based on the results from the Remedial Investigation, the Site encompasses portions of the Property and the boundary with the south-adjoining property at 18417-18421 72<sup>nd</sup> Avenue South in Kent, Washington (West Valley Property). In July 2021, the Site was enrolled in the expedited process of the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program (VCP) and assigned VCP Project Identification No. XN0006.

The Property was enrolled in the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program (VCP) as "Coating Unlimited Inc Kent" in October 2003, and was assigned VCP Project No. NW1172. The Property was removed from the VCP in 2007 due to inactivity.

The West Valley Property was enrolled in the VCP as "West Valley Business Park" in August 1999, and was assigned VCP Project No. NW0298. The West Valley Property was removed from the VCP in 2006 due to inactivity. The West Valley Property was added to the Ecology Confirmed and Suspected Contaminated Sites List in 1999 after a release of total petroleum hydrocarbons as diesel-range organics and as oil-range organics was detected in soil, and vinyl chloride and cis-1,2-dichloroethene were detected in groundwater at the property boundary between the Property and the West Valley Property. The West Valley Property received a determination of partial sufficiency from Ecology for the cleanup of total petroleum hydrocarbons as diesel-range organics and as oil-range organics in soil.

Multiple subsurface investigations and interim actions were conducted at the Property and the Site between 1987 and 2008. Interim actions have included underground storage tank decommissioning by permanent removal, excavation of petroleum- and metals-contaminated soil; and installation and operation of an air sparge groundwater treatment system to reduce concentrations of vinyl chloride and cis-1,2-dichloroethene in groundwater.

The previous investigations and interim actions performed by others did not provide sufficient information to meet the requirements under MTCA for a Remedial Investigation or selection of a preferred cleanup action alternative. One of the key objectives of this Remedial Investigation was to compile and evaluate historical data obtained by others and identify the data gaps to be



addressed. In addition, the previous environmental investigations and interim actions were conducted more than 10 years ago, such that soil and groundwater conditions may have changed due to attenuation of potential contaminants from natural processes and/or residual effects of the historical interim actions performed at the Site.

The Remedial Investigation was conducted by Farallon in multiple phases between 2019 and 2021 to evaluate current Site conditions, to further define the nature and extent of contamination, and to support the development and evaluation of cleanup action alternatives for the Site.

Based on results from the Remedial Investigation conducted at the Site, the following constituents of concern have been identified at concentrations exceeding MTCA cleanup levels and/or screening levels in soil, groundwater, and/or soil gas:

- Vinyl chloride and cis-1,2-dichloroethene in groundwater on the southern, northwestern, and northeastern portions of the Property;
- Tetrachloroethene and trichloroethene in soil gas;
- Oil-range organics in soil in a localized area on the southern portion of the Property; and
- Carcinogenic polycyclic aromatic hydrocarbons and lead in soil in a localized area on the east-central portion of the Property.

Arsenic was detected at concentrations exceeding MTCA cleanup levels in groundwater samples collected during the Remedial Investigation. However, concentrations of arsenic in groundwater are attributed to reducing conditions from wood debris in native saturated formation materials resulting in dissolution of naturally occurring solid-phase arsenic.

Based on the results from the Remedial Investigation, Farallon performed a Feasibility Study to develop and evaluate a selection of potential cleanup action alternatives under the criteria established under WAC 173-340-350. The following cleanup action alternatives were evaluated:

- Cleanup Alternative 1: Institutional and Engineered Controls and Monitored Natural Attenuation;
- Cleanup Alternative 2: In-Situ Chemical Oxidation, Limited Soil Excavation, and, Engineered Controls, and Monitored Natural Attenuation; and
- Cleanup Alternative 3: Air Sparging and Soil Vapor Extraction, Limited Soil Excavation, and Engineered Controls, and Monitored Natural Attenuation.

Based on the results from the Feasibility Study and the Disproportionate Cost Analysis, the preferred cleanup action alternative selected was Cleanup Alternative 3, which includes installation of an air sparging and soil vapor extraction treatment system and limited spot excavations. Cleanup Alternative 3 also includes application of engineered controls, consisting of an impervious cap and building vapor barrier.



Cleanup Alternative 3 satisfies MTCA threshold criteria as specified in WAC 173-340-360(2)(a); meets additional requirements specified in WAC 173-340-360(2)(b), provides the greatest degree of permanence and protectiveness, and provides the highest MTCA Composite Benefit Score for a cleanup alternative that is technically practicable.

Farallon, on behalf of Lift Real Estate Partners Fund, LLC, requests that Ecology issue an opinion that the Remedial Investigation and Feasibility Study are consistent with MTCA requirements, and that Cleanup Alternative 3 likely will result in a No Further Action determination.



#### 1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this Remedial Investigation (RI) and Feasibility Study (FS) Report on behalf of Lift Real Estate Partners Fund, LLC (Lift) for the property at 18420 68<sup>th</sup> Avenue South in Kent, Washington (Property) (Figure 1). This RI/FS Report was prepared in accordance with the Washington State Model Toxics Control Act Cleanup Regulation (MTCA), as established in Chapter 173-340 of the Washington Administrative Code (WAC 173-340).

Lift is under contract for the purchase of the Property from the current owner (Snider and Associates LLC), and plans to redevelop the Property with an industrial warehouse and distribution center. The preferred cleanup action alternative selected in the FS would be conducted in conjunction with redevelopment of the Property. A preliminary conceptual development plan is provided in Appendix A.

The Site, as defined under MTCA and its implementing regulations in WAC 173-340, comprises the area where hazardous substances have come to be located at concentrations exceeding applicable cleanup levels. Based on the results from the RI, the Site encompasses portions of the Property and the Property boundary with the south-adjoining property at 18417-18421 72<sup>nd</sup> Avenue South in Kent, Washington (West Valley Property).

The Property was enrolled in the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program (VCP) as "Coating Unlimited Inc Kent" in October 2003, and was assigned VCP Project No. NW1172. The Property was removed from the VCP in 2007 due to inactivity. The West Valley Property was enrolled in the VCP as "West Valley Business Park" in August 1999, and was assigned VCP Project No. NW0298. The West Valley Property was removed from the VCP in 2006 due to inactivity. The West Valley Property was added to the Ecology Confirmed and Suspected Contaminated Sites List in 1999 after a release of hazardous substances was reported. Specifically, total petroleum hydrocarbons (TPH) as diesel-range organics (DRO) and as oil-range organics (ORO) were detected in soil on the West Valley Property, and vinyl chloride and cis-1,2-dichloroethene (cis-1,2-DCE) were detected in groundwater on the property boundary between the Property and the West Valley Property. The West Valley Property received a determination of partial sufficiency for DRO and ORO in soil from Ecology.

<u>In July 2021, the Site was enrolled in Ecology's expedited process of the VCP and assigned VCP Project Identification No. XN0006. The Site will be enrolled in the VCP.</u> This RI/FS Report will be submitted to Ecology with a request for an opinion on whether the selected preferred cleanup action alternative is sufficient to meet the substantive requirements of MTCA for the future issuance of a No Further Action determination.

## 1.1 PURPOSE

Multiple subsurface investigations and interim actions were conducted at the Site between 1987 and 2008. The previous investigations performed by others did not provide sufficient information



to meet the requirements of WAC 173-340-350(7) for an RI or selection of a preferred cleanup action alternative. One of the key objectives of this RI was to compile and evaluate historical data obtained by others and identify the data gaps to be addressed. In addition, the previous environmental investigations and interim actions were conducted more than 10 years ago, such that soil and groundwater conditions may have changed due to attenuation of potential contaminants from natural processes and/or residual effects of the historical interim actions performed at the Site.

The purpose of the RI was to collect the data necessary to adequately characterize the Site to develop and evaluate technically feasibly cleanup alternatives in accordance with WAC 173-340-350 through 173-340-370. The results from the RI provide sufficient data for use in evaluating feasible cleanup alternatives.

The purpose of the FS was to develop and evaluate cleanup action alternatives to facilitate selection of a cleanup action in accordance with WAC 173-340-350 through 173-340-370. The FS was conducted to screen available remediation technologies and identify a set of technically feasible and practicable cleanup action alternatives for evaluation in accordance with the requirements for cleanup actions established in WAC 173-340-360(2) and the expectations for cleanup action alternatives as specified in WAC 173-340-370.

#### 1.2 REPORT ORGANIZATION

This report has been organized into the following sections:

- **Section 2, Background,** presents a description of the Property and its historical use, a history of adjacent property operations, the Site setting, and the geology and hydrogeology of the Site and region.
- Section 3, Previous Environmental Investigations and Interim Actions, presents a summary of previous environmental investigations and interim actions conducted at the Property between 1987 and 2008 by others.
- Section 4, Remedial Investigation, summarizes the data gaps to be addressed in the RI, the constituents of potential concern (COPCs), screening levels, the field program conducted between 2019 and 2021, and the nature and extent of contamination.
- Section 5, Conceptual Site Model, summarizes the results from the RI and the conceptual site model (CSM) developed for the Site, including the media of concern, the constituents of concern (COCs), confirmed and suspected sources, exposure pathways and receptors, and the Terrestrial Ecological Evaluation (TEE).
- **Section 6, Proposed Cleanup Standards,** presents the proposed cleanup levels and points of compliance for the COCs in soil and groundwater at the Site.
- Section 7, Feasibility Study, describes the scope of work and the results from the FS. Topics addressed are the applicable, relevant and appropriate requirements (ARARs) identified for the Site, the evaluation of feasible remediation technologies, the air sparging



(AS) and soil vapor extraction (SVE) pilot tests conducted, the evaluation of natural attenuation parameters, the cleanup action alternatives developed for the Site and the evaluation of the alternatives, the preferred alternative for implementation at the Site, the compliance monitoring to be conducted, and the restoration time frame.

- Section 8, References, provides a list of the source materials used in preparing this report.
- **Section 9, Limitations,** presents Farallon's standard limitations associated with conducting the work reported herein and preparing this report.



#### 2.0 BACKGROUND

This section presents a description of the Property and its historical use, a history of adjacent property operations, the Site setting, and the geology and hydrogeology of the Site and region.

#### 2.1 PROPERTY DESCRIPTION

The Property consists of King County Parcel Number 640760-0050, which totals 6.55 acres of land. According to the City of Kent, the Property is zoned in the Industrial Business District, which is intended for small- to moderate-scale industrial land uses. According to the King County Department of Assessments, the Property owner is Snider and Associates LLC.

The Property is developed with five buildings (Figure 2):

- Building 1, a two-story wood-framed office building totaling 10,488 square feet constructed in 1965;
- Building 2, a one-story wood-framed office building totaling 1,775 square feet constructed in 1948;
- Building 3, a pre-fabricated steel industrial manufacturing building totaling 59,437 square feet constructed in 1965;
- Building 4, a pre-fabricated steel warehouse/light industrial manufacturing building totaling 13,260 square feet constructed in 1966; and
- Building 5, a wood-framed materials-storage building totaling 7,800 square feet constructed in 1965.

Buildings 3 through 5 are adjoined as one building on the central portion of the Property. Storage buildings, portable storage containers, and covered storage areas are present along the south-central boundary of the Property. Small outbuildings and portable trailers used as a maintenance shop, a sandblast booth, and offices; and for parts storage are present along the eastern exterior of Building 4. An unpaved area used for vehicle parking, equipment staging, and materials storage is present on the eastern portion of the Property (Storage Yard). Paved parking areas are present on the western portion of the Property in the vicinity of Buildings 1 and 2. Small outbuildings and portable storage containers used for equipment, solvent, and paint storage are present on the southern portion of the Property. A concrete sump that reportedly collects surface stormwater runoff from the southern portion of the Property is present along the southern boundary of the Property. The sump reportedly discharges to the municipal storm sewer.

The Property is occupied by various tenants, and is used for office, manufacturing, light industrial, storage, and warehousing purposes. The tenants and their operations at the Property as of January 2020 consisted of:



Industrial Coatings Unlimited (ICU), operating as "Coatings Unlimited" prior to 2018: The majority of the Property is occupied by ICU. ICU has occupied the Property for over 20 years. ICU services the commercial, industrial, and marine markets. Operations include sandblasting, painting, and applying industrial coatings for corrosion control. ICU occupies a portion of Building 1 and portions of Buildings 3 through 5. ICU also occupies and/or uses the majority of the covered storage areas, storage buildings, and portable storage containers on the southern portion of the Property, and the portable trailers east of the Building 4. Materials are stored by ICU throughout exterior portions of the Property, with the majority stored in the Storage Yard.

**Northwest Prefab:** This tenant has occupied the Property since 2013. Northwest Prefab assembles wood panels for off-Property construction, occupies part of the western portion of Building 3, and stores wood on the eastern portion of the Storage Yard and on the southwestern portion of the Property.

**Safe Systems:** This tenant has occupied the Property for over 20 years. Safe Systems builds and fabricates sandblast equipment, and occupies portions of Building 1 and Building 3. Operations include welding, grinding, and milling. Lathes are used to smooth and shape various materials.

**Natural Stoneworks**: This tenant has occupied the Property for over 5 years and occupies the northwestern portion of Building 3. Natural Stoneworks operations include cutting and grinding stone slabs for installation at commercial and residential properties.

**Protect Construction Services:** This tenant has occupied the Property for over 5 years. Protect Construction Services conducts operations in Building 5 involving warehousing and storage of plastic wrapping, and uses a portion of Building 1 for office and retail sales purposes.

**Phampena, Inc**: This tenant has occupied the Property for approximately 1 year. Phampena, Inc operates as a general contractor and scaffolding rental company, and occupies Building 2 for storage of construction-related materials, tools, and equipment for off-Property use; and uses the southeastern portion of the Storage Yard for scaffolding storage.

**CAM Industries, Inc.** (**CAM**): This tenant has occupied the Property for over 20 years. CAM assembles heaters for resale, and occupies a small area in the western portion of Building 3, and a portion of Building 1. Equipment used by CAM on the Property includes small-scale tools and electric saws.

**Dale:** This tenant has occupied the Property for over 20 years, and uses a small tenant space in the western portion of the Building 3 for storage of tools and equipment.

# 2.2 PROPERTY HISTORICAL USE

The Property appeared undeveloped in 1937 and 1944 aerial photographs. By 1954, the southwestern portion of the Property appeared developed with the current Building 2, which was used as a private residence. By 1968, the Property appeared developed with Building 1 and



Buildings 3 through 5 and covered storage areas; Building 2 appeared to be used as a private residence; the eastern portion of the Property was undeveloped. By 1977, the Property appeared developed similar to the present, with Building 2 being used for commercial purposes, and the eastern portion of the Property being used as the Storage Yard by industrial tenants. The Property has remained relatively unchanged since 1977 (Farallon 2020).

City directory listings for the Property address included West Coast Electric in 1970, CAM Industries Inc. from 1970 through 2018, Washington Packaging from 1970 through 1985, Coates Electric Manufacturing Company from 1973 through 1985, COMPLT ABRASV BIST from 1980 through 1990, West Coast Electric from 1980 through 1985, CAB Abrasive Blasting from 1990 through 2002, Coates Heater Company from 1990 through 2002, Atlas Applicators from 1994 through 2018, Coatings Unlimited from 1994 through 2018, Seaport Fabrication, Steel Finishing Equipment, and Transonics in 1994, Carbek Steel in 1998, Cobra Machinery Fabrication Inc. from 1998 through 2002, Liden Dennis Enterprises welding in 1998, Pro Tect Construction Services from 1998 through 2018, Steel Abrasive Finishing Equipment from 1998 through 2018, West Coast Trailer Repair in 1998, and Trivitro Corporation abrasives from 2002 through 2018.

# 2.3 ADJACENT PROPERTY OPERATIONAL HISTORY

Adjacent properties are developed with industrial and commercial buildings. Layfield Group, an industrial fabric manufacturing and distribution warehouse, is directly south of the Property. Floor Dealz, a flooring supply retailer, and a civil engineering firm are directly north of the Property. 72<sup>nd</sup> Avenue South is directly east, followed by a PBS Logistics Ltd. distribution facility to the east. Sun Supply Inc., an industrial sign materials supply warehouse, and a single-family residence are directly to the southeast. West Valley Highway is directly west of the Property, followed by various commercial business offices.

- From at least 1937 through at least 1977, adjacent properties appeared developed with private residences, or were undeveloped and used for agricultural purposes.
- By 1981, the north-adjacent property appeared developed with private residences; the
  northeast-adjacent property appeared developed with a private residence similar to the
  present; the east-adjacent property appeared undeveloped; the current commercial/light
  industrial buildings were located on the south-adjacent property; and the current
  commercial buildings on the west-adjacent property were present.
- By 1990, one of the three current commercial buildings on the north-adjacent property was apparent; the remainder of the north-adjacent property appeared developed with a private residence, and the east-adjacent property remained undeveloped.
- By 2002 and through 2016, two of the current commercial buildings on the north-adjacent property were apparent, and the remainder of the north-adjacent property appeared developed with a private residence; the east-adjacent property appeared developed with the current commercial/light industrial building.



• By 2017, the third current commercial building on the north-adjacent property was apparent, and all other properties appeared similar to the present (Farallon 2020).

According to the city directory listings, historical businesses on adjacent properties included the following:

- The north-adjacent property included private residences from 1970 to 1994, and various engineering, contracting, and developer business offices from 1990 through 2018.
- The northeast-adjacent property included private residences from 1970 to 1994.
- The east-adjacent property included a cold storage and distribution warehouse from 2002 through 2018.
- The southeast-adjacent property included a wholesale distributor of automotive lubricants, equipment, and parts from 1980 to 1984; and a distribution warehouse from 1990 through 2018.
- The south-adjacent property included various commercial freight distribution warehouse facilities and manufacturing businesses from 1980 through 2018.
- The west-adjacent properties included commercial office buildings from 1980 through 2018.

#### 2.4 SITE SETTING

The Site is in the Duwamish River valley, an approximately 8-mile-long north-south-trending valley that is bounded on the west and east by glacial upland areas. The Green River, approximately 310 feet northwest of the Site, flows northward through the valley to Puget Sound, approximately 15 miles to the north-northwest. The surface topography of the Site is relatively flat, at an approximate elevation of 27 feet North American Vertical Datum of 1988 (NAVD88).

#### 2.5 SITE GEOLOGY AND HYDROGEOLOGY

The Geologic Map of the Renton Quadrangle (U.S. Geological Survey [USGS] 1965) indicates that the Site is underlain by alluvium. These deposits consist of silt, sand, and clay with thin peat lenses deposited by the Green River before diversion of the White River.

Farallon reviewed geotechnical reports for projects in the vicinity of the Site that were entered into the Washington Geologic Information Portal. A summary of the geology and hydrogeology for each geotechnical report are summarized below.

<u>Sentral Valley Interceptor Project</u>: This project was conducted along the approximate 3-mile north-south alignment for a proposed sewer line. Generally, the work was conducted proximate to the 76<sup>th</sup> Avenue South right-of-way located east-adjacent to the Site. The geotechnical investigation identified interbedded silty sand, sand, sandy silt, clay, and silt to the maximum depth explored of 82.5 feet below ground surface (bgs). Boring logs



indicated that organic material was encountered in every boring advanced for the project. The organic material included wood fragments, peat, and decayed logs.

- <u>Boeing Surplus Property.</u> This project was conducted on two properties located approximately 3,000 feet south of the Site. The geotechnical investigation identified interbedded silty sand, sandy silt, and silt, which were characterized as levee, overbank river, and river meander deposits typical of the Green River region. According to the test pit logs, organic material including peat, tree limbs, and other organics were encountered in select test pits at depths ranging from 6 to 13 feet bgs. Groundwater was encountered at depths ranging from 2 to 9 feet bgs.
- Meteor Communications R and D Site. This project was conducted on a property located approximately 3,000 feet southwest of the Site. The geotechnical investigation identified interbedded silts and sands, which were characterized as alluvium deposits. According to the geotechnical report, peat beds, tree stumps, and wood fragments were encountered during test pitting activities at depths ranging from 6.5 to 17 feet bgs. Groundwater was encountered at depths ranging from 15.5 to 18.5 feet bgs.

According to the geotechnical reports, alluvium deposits consisting of interbedded silty sand, sandy silt, and silt were encountered. Peat and organic debris, including trees, were common occurencesoccurrences.

Soil observed during the RI was consistent with the observations provided in the geotechnical reports summarized above. subsurface investigations conducted by Farallon and othersThe subsurface lithology consisted of loose to medium dense interbedded silty sand, sandy silt, and silt to the maximum depth explored of 20 feet feet below ground surface (bgs). A shallow silt unit ranging in thickness from 1 to 5 feet was encountered at depths between approximately 5 and 14 feet bgs. Based on the results from pilot testing, the shallow silt unit is intermittent beneath the Site and is not a confining unit. Additional information is provided in Section 7.3. Wood debris was observed in multiple-borings F-28 through F-30, FMW-3, FMW-4, FMW-8, FMW-13, AS-1, and SVE-1 at depths ranging from approximately 15 to 19.5 feet bgs.

The locations of the geologic cross sections are shown on Figure 3. Cross sections depicting the general lithology of the Site are presented on Figures 4 and 5, which are based on field observations made during subsurface investigations conducted by Farallon and others, . Available Bboring logs for EMS-B-1, EMS-B-3, EMS-B-4, EMS-B-10, B-1 through B-7, B-9 through B-11, F-25 through F-32, FMW-1 through FMW-6, FMW-10 through FMW-17, SVE-1, and AS-1 are documented in boring logs (provided in Appendix B). Select boring logs were not available to Farallon and are not provided in Appendix B. The remaining borings logs were not provided to Lift and are not included in Appendix B, ...

Groundwater elevation contours were developed using the groundwater elevation data collected during the groundwater monitoring events conducted at the Site. Based on the depth-to-water measurements, calculated groundwater elevations ranged from 11.5110.98 to 22.18 feet NAVD88 at the Site (Table 1). Based on groundwater levels measured during the May 24, 2021 groundwater



monitoring event, the groundwater flow direction is northwest toward the Green River, with an average horizontal hydraulic gradient of approximately 0.01 foot per foot. A groundwater elevation contour map for the Site is provided as Figure 6.



# 3.0 PREVIOUS ENVIRONMENTAL INVESTIGATIONS AND INTERIM ACTIONS

Multiple subsurface investigations and interim actions were conducted at the Property and the West Valley Property between 1987 and 2008. One of the key objectives of the RI for the Site was to compile and evaluate the historical data obtained by others and identify the data gaps to be addressed to complete the RI. Additionally, previous environmental investigations and interim actions were conducted more than 10 years ago. Soil and groundwater conditions may have changed due to attenuation of potential contaminants from natural processes and/or residual effects of historical interim actions performed at the Site.

Figure 3 shows the sampling locations for subsurface investigations conducted at the Site. Figure Figure 7 shows the general locations of the interim actions conducted between 1987 and 2006. Analytical results for halogenated volatile organic compounds (HVOCs) in groundwater and soil are summarized in Tables 2 and 3, respectivelythrough 9 and depicted on Figures 8A, 8B, 9 through 176, 17A, 17B, and 18. Select tables and figures from previous environmental investigations and interim actions are provided in Appendix C.

The following chronological summary of previous investigations, interim actions, and regulatory history is based on data and information from documentation of previous environmental investigation and interim actions provided to Farallon by Lift and Ecology. Additional information pertaining to previous environmental investigations and interim actions, including site plans, sampling locations, and analytical tables, is provided in the referenced documents.

#### 3.1 1987 UNDERGROUND STORAGE TANK REMOVAL

In July 1987, CAM (1987) decommissioned by permanent removal two 2,500-gallon underground storage tanks (USTs) containing gasoline and diesel fuel from the northern portion of the Property (Figure 7). During the UST removals, a single soil sample was collected and submitted for laboratory analysis for oil and grease, which were reported non-detect at the laboratory practical quantitation limit (PQL) of 20 milligrams per kilogram (mg/kg). The location or depth of the soil sample was not provided.

#### 3.2 1990 SUBSURFACE INVESTIGATION

In November 1990, Harding Lawson Associates (HLA) (1991) conducted a subsurface investigation at the Property to evaluate soil conditions proximate to the USTs formerly present in the northern portion of the Property, and proximate to the sandblast booth east of Building 4 (Figure 3).

Two-Bborings HLA-B1 and HLA-B2 were advanced proximate to the former locations of the USTs (Figure 3). Soil samples were collected at depths ranging from 10 to 11.5 feet bgs, and submitted for laboratory analysis for TPH and benzene, toluene, ethylbenzene, and xylenes (BTEX). HLA (1991) reported that no obvious indications of petroleum contamination were



observed or measured. ORO was detected at a concentration of 580 mg/kg, less than the current MTCA Method A cleanup level of 2,000 mg/kg (<u>Figures 11 and 120; Appendix C, HLA Figure 1 and Table 1Table 4</u>).

Six shallow surface soil samples were collected proximate to the sandblast booth, and submitted for laboratory analysis for volatile organic compounds (VOCs) and metals. HLA (1991) observed soil staining in this area. Lead and chromium werewas detected at concentrations exceeding the MTCA Method A cleanup level in all of the soil samples analyzed. Concentrations of the remaining metals (barium, cadmium, chromium, copper, nickel, and zinc) and of VOCs (BTEX and halogenated VOCs [HVOCs]) were less than MTCA Method A cleanup levels in all samples analyzed (Figures 9-10 and 176B; Tables 3, 4, and 8Appendix C, HLA Figure 1 and Table 1).

#### 3.3 1991 INTERIM ACTION

In February 1991, HLA (1991) conducted an interim action at the Property to remove contaminated soil proximate to the former UST area and the sandblast booth (Figure 7; Appendix C, HLA Figures 2 and 3).

The soil excavation proximate to the former UST area extended to a depth of approximately 11 feet bgs. Approximately 54 cubic yards of soil was excavated and placed into two stockpiles at the Property. A performance soil sample was collected from each soil stockpile, and two confirmation soil samples were collected from the bottom of the excavation (Figure 3). The samples were submitted for laboratory analysis for DRO and ORO.

ORO was detected in the samples at concentrations less than the MTCA Method A cleanup level. DRO was reported non-detect at the laboratory PQL (Figure 11; Table 4). ORO was detected at a concentration of 270 mg/kg in a soil sample collected from one of the soil stockpiles. Based on this result, the 17-cubic-yard soil stockpile was transported off the Property to a waste disposal facility.

Metals-contaminated soil that was previously identified proximate to the sandblast booth was excavated to depths ranging from 6 to 12 inches bgs and stockpiled. Five sSoil samples were collected from the extents of the excavation and submitted for laboratory analysis for metals. Concentrations of lead and chromium cadmium exceeded MTCA Method A cleanup levels in all four of the soil samples analyzed (Figure 176B; Table 8). The excavation continued laterally to the maximum extent practicable, but the lateral extent of the excavation was limited due to the presence of building foundations (Figure 176B). HLA (1991) transported 48.5 tons of contaminated soil to the Chemical Waste Management facility in Arlington, Oregon.

# 3.4 1996-1997 SUBSURFACE INVESTIGATIONS

In 1996 and 1997, ATC Environmental Inc. (ATC) conducted multiple subsurface investigations at the West Valley Property after observing: a concrete-lined sump on the Property that was discharging to the West Valley Property through a 4-inch-diameter pipe; a 2-inch-diameter



high-pressure hose that protruded from a building on the Property and appeared to discharge onto the West Valley Property; a hazardous-waste storage area on the southern portion of the Property; and compressors on the West Valley Property that appeared to be leaking oil (Figure 7). The purpose of the subsurface investigations was to evaluate potential source areas on the West Valley Property for releases of hazardous substances related to the observations noted above. The subsurface investigations consisted of surface soil sampling, advancement of borings, and collection of soil and reconnaissance groundwater samples.

In November 1996, ATC (1997a) advanced hand-auger borings HA-1 through HA-4 (Figure 3). Soil samples were collected at depths of 2 and 4 feet bgs, and submitted for laboratory analysis for TPH, VOCs, and metals. Concentrations of DRO and ORO exceeded the MTCA Method A cleanup level in a single soil sample collected from boring HA-2 at a depth of 2 feet bgs (Figure 101; Table 4). VOCs and metals were either reported non-detect at the laboratory PQL or less than the MTCA Method A cleanup level in all soil samples analyzed (Figures 10 and 17A; Appendix C; ATC Figure 1 and Table 1Tables 3, 4, and 8).

In January 1997, ATC (1997b) advanced borings <u>ATC-B-1</u> through <u>ATC-B-3</u> along the property boundary between the Property and the West Valley Property and collected reconnaissance groundwater samples for laboratory analysis for DRO, ORO, and VOCs <u>(Figure 3)</u>. DRO and/or ORO were detected at concentrations exceeding the MTCA Method A cleanup level in the reconnaissance groundwater samples collected from borings <u>ATC-B-1</u> and <u>ATC-B-2 (Table 5)</u>. VOCs, including tetrachloroethene (PCE) and/or trichloroethene (TCE), were detected at concentrations less than MTCA Method A cleanup levels in the reconnaissance groundwater samples collected from borings <u>ATC-B-1</u> through <u>ATC-B-3</u> (<u>Figure 8B; Appendix C; ATC Drawing No. 1, and Columbia Analytical Services, Inc. Analytical ReportTable 2</u>).

In April 1997, ATC (1997c) collected surface soil samples S-1 and S-2 proximate to a compressor on the West Valley Property that was observed to be leaking oil. The samples were submitted for laboratory analysis for DRO and ORO. Concentrations of DRO and ORO exceeded the MTCA Method A cleanup level in the soil samples. ATC (1997c) compared the laboratory chromatograms to oil used in the compressor, and confirmed that the soil impacts were related to an oil leak from the compressor-(Appendix C, ATC Figures 2 and 3).

#### 3.5 1998 INTERIM ACTION

In October 1998, ATC (1999) conducted an interim action at the West Valley Property to remove DRO- and ORO-contaminated soil identified during previous investigations (Figure 7). The first excavation was extended to a maximum depth of 3 feet bgs proximate to the compressor. The second excavation was conducted proximate to the sump discharge area, and ranged in depth from 4 to 6 feet bgs.

ATC (1999) collected 43 soil samples during the excavation, and submitted the samples for laboratory analysis for DRO and ORO. Concentrations of DRO and ORO were less than the MTCA cleanup level in the confirmation soil samples collected from the final extents of the



excavation areas, confirming that petroleum-contaminated soil had been removed (Appendix C, ATC Figures 4 through 6 and Table 1Table 4)).

ATC (1999) transported 161.39 tons of petroleum-impacted soil to the Associated Sand & Gravel facility in Everett, Washington for disposal by thermal desorption.

#### 3.6 1998 SUBSURFACE INVESTIGATION

In October 1998, Versar, Inc. (1998) conducted a subsurface investigation at the West Valley Property. The subsurface investigation included advancement of borings V-1 through V-4, and collection of reconnaissance groundwater samples for laboratory analysis for TPH and VOCs (Figure 3). Concentrations of DRO and ORO were reported non-detect at the laboratory PQL (Table 5). Cis-1,2-DCE was detected at a concentration exceeding the MTCA Method A cleanup level in the reconnaissance groundwater sample collected from boring V-2, which was located on the boundary between the Property and the West Valley Property. Vinyl chloride was reported non-detect at the laboratory PQL of 1 microgram per liter (μg/l) in reconnaissance groundwater samples collected from borings V-1 through V-4 (Table 2; Figure 8B; Table 2 Appendix C, Versar, Inc. Figure 3, and Transglobal Environmental Geosciences Northwest Inc. Laboratory Report).

#### 3.7 1999 WEST VALLEY PROPERTY VCP ENROLLMENT

In August 1999, the West Valley Property was enrolled in the VCP as "West Valley Business Park" and was assigned VCP Project No. NW0298. The West Valley Property received a determination of partial sufficiency from Ecology for the cleanup of DRO and ORO in soil.

#### 3.8 2000-2002 SUBSURFACE INVESTIGATIONS

In May 2000, ATC (2000a) installed monitoring wells SMW-1 through SMW-3 on the West Valley Property to evaluate groundwater conditions following the 1998 interim action (Figure 3). Soil samples were collected during well installation, and submitted for laboratory analysis for VOCs. Concentrations of VOCs were reported non-detect at the laboratory PQL in the soil samples analyzed.

In May and June 2000, ATC (2000a, 2000b) collected groundwater samples from monitoring wells SMW-1 through SMW-3 for laboratory analysis for VOCs. Vinyl chloride was detected at concentrations of 150 and 24  $\mu$ g/l in the groundwater samples collected from monitoring well SMW-2 in May and June 2000, respectively, exceeding the MTCA cleanup level of 0.2  $\mu$ g/l. Monitoring well SMW-2 is located proximate to the concrete-lined sump on the Property (Figure 3). VOCs were reported non-detect at the laboratory PQL in the remaining groundwater samples analyzed (Figure 8B; Table 2).

Appendix C, ATC Tables 1 and 2).



In July 2002, URS (2002) collected groundwater samples from monitoring wells SMW-1 through SMW-3 for laboratory analysis for VOCs. Concentrations of VOCs, including vinyl chloride and cis-1,2-DCE, were less than MTCA cleanup levels in all groundwater samples collected (Figure 8B; Table 2; Appendix C, Analytical Resources Incorporated Laboratory Report).

#### 3.9 2003 SUBSURFACE INVESTIGATION

In September 2003, Environmental Management Services, LLC (EMS) (2003a), conducted a subsurface investigation to evaluate groundwater on the southern portion of the Property that potentially was impacted by the confirmed release of vinyl chloride and cis-1,2-DCE at the boundary with the West Valley Property, and potentially contaminated groundwater proximate to the location of the former USTs in the northern portion of the Property.

Borings Area-2-B6 through Area-2-B16 were advanced on the southern portion of the Property (Figure 3). A reconnaissance groundwater sample was collected from each boring, and submitted for laboratory analysis for VOCs. Concentrations of vinyl chloride and cis-1,2-DCE exceeded MTCA Method A cleanup levels in the reconnaissance groundwater samples analyzed. The highest concentration of vinyl chloride was 15  $\mu$ g/l, detected in the reconnaissance groundwater sample collected from boring Area-2-B6, located proximate to the concrete-lined sump (Table 2Figure 8B; Table 2).

Five borings were advanced proximate to the location of the former USTs (Figure 3). One soil sample and one reconnaissance groundwater sample were collected from borings Area-1-B3 and Area-1-B1, respectively. The samples were analyzed for TPH as gasoline-range organics (GRO), DRO, ORO, and BTEX, which were reported non-detect at the laboratory PQL (Appendix C, EMS Table 1Figures 131 and through 14; Tables 4 and 5).

#### 3.10 2003 PROPERTY VCP ENROLLMENT

In October 2003, the Property was enrolled in the VCP as "Coatings Unlimited Inc Kent," and was assigned VCP Project No. NW1172. EMS (2003b) submitted a corrective action plan that included a scope of work for installing an AS groundwater treatment system on the southern portion of the Property.

#### 3.11 2004-2006 INTERIM ACTION

In June 2004, EMS (2010) installed an AS groundwater treatment system to reduce concentrations of HVOCs, including vinyl chloride and cis-1,2-DCE, in groundwater on the southern portion of the Property. The general location of the treatment area is shown on Figure 7. EMS also installed monitoring wells MW-1 through MW-3 to monitor groundwater conditions in the treatment area (Figure 3).



The AS groundwater treatment system operated from June 2004 through December 2006. Monitoring wells MW-1 through MW-3 were sampled on a quarterly basis from September 2004 through May 2008 (EMS 2010).

According to EMS (2008b), concentrations of vinyl chloride and cis-1,2-DCE in groundwater decreased considerably during operation of the AS groundwater treatment system. However, concentrations of vinyl chloride and cis-1,2-DCE continued to exceed MTCA Method A cleanup levels in groundwater samples collected from monitoring wells MW-1 and MW-2 (Figure 8B; Table 2). Following shutdown of the AS groundwater treatment system in December 2006, concentrations of vinyl chloride and/or cis-1,2-DCE in groundwater increased, and consistently exceeded MTCA Method A cleanup levels in monitoring wells MW-1 through MW-3 (Figure 8B; Table 2).

#### 3.12 2007 ECOLOGY OPINION

In December 2007, Ecology (2007) provided an opinion that additional characterization, including installation of additional monitoring wells, was necessary to evaluate the extent of vinyl chloride and cis-1,2-DCE in groundwater at the Property and at the West Valley Property. Ecology also indicated that groundwater should be screened based on the beneficial use of groundwater, which is protection of the nearby surface water of the Green River.

#### 3.13 2008 SUBSURFACE INVESTIGATION

In 2008, EMS (2008a) conducted a subsurface investigation to further delineate the nature and extent of vinyl chloride- and cis-1,2-DCE-contaminated groundwater at the Site. The subsurface investigation included advancement of borings EMS-B1 through EMS-B5 on the West Valley Property, and borings EMS-B6 through EMS-B14 on the Property. The borings were located up-gradient of confirmed groundwater impacts on the West Valley Property; on the eastern, western, and northern boundaries of the Property; and in the Storage Yard (Figure 3). Soil and reconnaissance groundwater samples were collected, and submitted for laboratory analysis for VOCs.

Vinyl chloride and/or cis-1,2-DCE was detected at concentrations exceeding MTCA cleanup levels in reconnaissance groundwater samples collected from borings EMS-B8, EMS-B9, and EMS-B12, which were advanced on the northern, southwestern, and central portions of the Property, respectively (Figure 8A; Table 2). The remaining reconnaissance groundwater samples collected on the eastern, northern, and western portions of the Property were either reported non-detect at the laboratory PQL or less than MTCA cleanup levels. Concentrations of VOCs, including vinyl chloride and/or cis-1,2-DCE, were reported non-detect at the laboratory PQL in the groundwater samples collected from up-gradient borings EMS-B1 through EMS-B5 on the West Valley Property (Figure 8A; Table 2).

TCE was detected at a concentration of 0.091 mg/kg, which exceeds the MTCA Method A cleanup level of 0.03 mg/kg, in a single soil sample collected from boring EMS-B9 at a depth of 12 feet



bgs. Concentrations of VOCs were reported either non-detect at the laboratory PQL or less than MTCA cleanup levels in the remaining soil samples analyzed (Figure 10; Table 3).



#### 4.0 REMEDIAL INVESTIGATION

The overall objective of the RI performed by Farallon was to collect and evaluate sufficient information to support the development of feasible cleanup action alternatives for the Site in accordance with WAC 173-340-350 through WAC 173-340-370. Specific objectives of the RI were to: 1) identify the COPCs and the media of concern at the Site; 2) evaluate the data gaps from previous investigations; 3) evaluate current Site conditions following previous interim actions; 4) identify the potential source(s) of the release(s) of COPCs; 5) identify the nature and extent of COPCs in the identified media of concern; and 6) develop and refine a CSM for the Site.

The RI was conducted in several phases between December 2019 and May September 2021. A summary of the data gaps, COPCs, screening levels, field program, and nature and extent of contamination is provided in the following sections.

#### 4.1 DATA GAPS

One of the key objectives of the RI for the Site was to compile and evaluate historical data obtained by others and identify the data gaps to be addressed to complete the RI. The previous investigations performed by others did not provide sufficient information to meet the requirements under MTCA for an RI. In addition, the previous environmental investigations and interim actions were conducted more than 10 years ago. Soil and groundwater conditions may have changed due to attenuation of potential contaminants from natural processes and/or residual effects of the historical interim actions performed at the Site.

Specific data gaps consisted of the following:

- **Soil.** The nature and extent of COPCs in soil had not been adequately characterized in previous environmental investigations. Additional investigation was needed to:
  - o Identify potential HVOC source areas.
  - o Characterize the nature and extent of metals-contaminated soil proximate to the sandblast booth.
  - o Evaluate current soil conditions proximate to the former USTs on the northern portion of the Property.
  - o Evaluate soil for COPCs in areas with limited data.
- Groundwater. The nature and extent of COPCs in groundwater had not been adequately characterized in previous environmental investigations. Additional investigation was needed to:
  - Evaluate vinyl chloride and cis-1,2-DCE in groundwater at the Site, including the southern portion of the Property in the vicinity of the AS groundwater treatment system that operated from June 2004 through December 2006. Groundwater



sampling had not been conducted in this treatment area since 2008, and current conditions are unknown.

- o Evaluate groundwater for COPCs in areas with limited data.
- Evaluate groundwater conditions at the Site with groundwater samples collected using low-flow techniques from properly installed and developed monitoring wells. Previous investigations included groundwater sampling only from monitoring wells on the southern portion of the Property. The reconnaissance groundwater samples collected from other areas of the Property were obtained from open borings with limited to no development prior to sampling. Groundwater samples collected from properly installed and developed monitoring wells are considered to be most-representative of groundwater quality.
- o Evaluate the groundwater to surface water exposure pathway.
- Soil Gas. Soil gas sampling had not been conducted in previous environmental studies. Additional investigation was needed to:
  - Evaluate the potential vapor intrusion pathway for existing and future buildings at the Property.
  - o Identify potential source areas for HVOCs.

#### 4.2 CONSTITUENTS OF POTENTIAL CONCERN

Soil, groundwater, and/or soil gas samples collected during the RI were analyzed for the COPCs identified for the Site. The COPCs were selected based on the historical uses of the Property and West Valley Property, the proximity to potential sources of contamination, and results from previous investigations and interim actions. The COPCs consisted of the following:

- GRO, DRO, and ORO;
- VOCs, including BTEX and HVOCs;
- Metals, including arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver; and
- Polycyclic aromatic hydrocarbons (PAHs).

# 4.3 SCREENING LEVELS

This section presents the screening levels—the values that were derived to evaluate data collected during the RI to assess the nature and extent of contamination at the Site. The Site screening levels were developed based on current and potential future exposure pathways and receptors, as described in Section 5.3. Proposed cleanup standards were developed based on results from the RI, presented in Section 6.



Cleanup levels under MTCA may be established under Method A, Method B, or Method C. Per WAC 173-340-704(1)(a) and 173-340-704(1)(b), MTCA Method A cleanup levels are appropriate for use at sites where:

- Few hazardous substances have been detected;
- The site is undergoing a routine cleanup action; and
- Numerical standards are available for applicable COPCs and media of concern.

MTCA Method A cleanup levels for unrestricted land use are appropriate for the affected media at the Site based on the criteria listed above.

The proposed soil and groundwater cleanup levels were used as preliminary screening levels for the RI. MTCA Method A cleanup levels for soil and groundwater have been established for the majority of the COPCs at the Site. If a MTCA Method A cleanup level has not been established for a specific COPC, the MTCA Method B cleanup level was used as the Site screening level.

Cleanup levels also consider both direct exposure pathways and exposure from intermedia transport. The following intermedia transport pathways were considered applicable during selection of screening levels:

- The groundwater to surface water pathway;
- The soil to groundwater pathway; and
- The groundwater to air pathway.

Concentrations of COPCs were compared to surface water cleanup standards due to the location of the Green River approximately 310 feet northwest of the Site. Based on the results from the RI, the potential transport pathway to surface water (i.e., the Green River) is incomplete. In addition, the proposed cleanup action alternative will eliminate future migration of COPCs to surface water. Additional details on exposure pathways are provided in Section 5.3.

The screening levels for soil gas are the MTCA Method B screening levels for protection of human health for residential and commercial exposure scenarios.

# 4.4 FIELD PROGRAM

The RI field program performed between December 2019 and May September 2021 was conducted to address the data gaps listed in Section 4.1, and was composed of the following work elements: utility locate, boring advancement and soil and reconnaissance groundwater sample collection, monitoring well installation and development, groundwater monitoring, soil gas sampling, a passive soil gas survey, and a pilot study. A summary of the scope of work conducted for each of these work elements and of the laboratory analyses conducted is provided below. Sample locations for the RI are shown on Figure 3.



# 4.4.1 Utility Locate

Applied Professional Services, Inc. of North Bend, Washington and Linescape, LLC of Seattle, Washington performed private utility locate surveys before each subsurface investigation, and identified underground utilities in the vicinity of each proposed boring location. The Northwest Utility Notification Center located public utilities in the vicinity of the Site.

# 4.4.2 Boring Advancement and Soil Sample Collection

A total of 4648 borings, including those completed as monitoring wells, were advanced for the RI field program (Figure 3). Borings were advanced for collection of soil and/or reconnaissance groundwater samples, installation of monitoring wells, and installation of pilot study wells. Drilling services were provided by ESN Northwest, Inc. of Olympia, Washington, and Holt Services, Inc. of Edgewood, Washington.

Before borings were advanced for soil sample collection, each boring location was manually cleared for utilities using a vacuum excavator to depths of between 3 and 5 feet bgs. Soil samples collected in the utility clearance interval were obtained using a hand-auger. Once each location was cleared for utilities, a direct-push drill rig was used to advance each boring to total depth. Borings were continuously sampled using 5-foot probe rods lined with disposable polyvinyl chloride or Teflon liners that were removed and cut to reveal the sample after each interval driven. Soil samples were described by a Farallon Geologist in accordance with the Unified Soil Classification System, and screened in the field for potential visual and olfactory evidence of contamination, and by headspace analysis using a photoionization detector (PID) to detect the presence of VOCs. Headspace analysis was performed by placing soil from each sample interval into a sealable plastic bag and allowing the sample to sit for at least 30 seconds. The probe of the PID was inserted into the bag, and the highest reading obtained over an approximately 30-second interval was recorded. The PID readings, the Unified Soil Classification System symbol, and visual and olfactory notations for the samples were recorded on boring logs. Boring logs for EMS-B-1, EMS-B-3, EMS-B-4, EMS-B-10, B-1 through B-7, B-9 through B-11, F-25 through F-32, FMW-1 through FMW-6, FMW-10 through FMW-17, SVE-1, and AS-1 are provided in Appendix B. The remaining borings logs were not provided to Lift and are not included in Appendix B, Select boring logs are provided in Appendix B.

Soil samples retained for laboratory analysis were collected in laboratory-supplied containers, placed on ice, and transported to OnSite Environmental Inc. of Redmond, Washington for analysis for one or more of the following: DRO and ORO by Northwest Method NWTPH-Dx;

GRO by Northwest Method NWTPH-Gx;

BTEX by U.S. Environmental Protection Agency (EPA) Method 8021B or 8260D;

VOCs by EPA Method 8260D;

PAHs by EPA Method 8270E/Selective Ion Mode; and



<u>Total metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) by EPA</u> Method 6010D/7471B.

Upon reaching total depth, borings that were not completed as groundwater monitoring wells were backfilled with bentonite and completed at the surface with concrete or asphalt.

# 4.4.3 Reconnaissance Groundwater Sample Collection

Reconnaissance groundwater samples were collected by placing a temporary polyvinyl chloride or stainless steel well screen into the open borehole, and using a peristaltic pump to draw water from the borehole. Water was pumped directly into laboratory-prepared sample containers. Each container was labeled with a unique sample identification number, placed on ice in a cooler, and transported to OnSite Environmental Inc. for laboratory analysis for one or more of the following: DRO and ORO by Northwest Method NWTPH-Dx;

GRO by Northwest Method NWTPH-Gx;

BTEX by EPA Method 8021B or 8260D;

VOCs by EPA Method 8260D;

PAHs by EPA Method 8270E/Selective Ion Mode; and total

Total-metals (arsenic, cadmium, chromium, lead, and mercury) by EPA Method 200.8/7470A.-

# 4.4.4 Groundwater Monitoring Well Installation and Development

A total of <u>15-17</u> monitoring wells (FMW-1 through FMW-<u>1517</u>) were installed during the RI (Figure 3). Construction details for the wells are provided in Appendix B.

Following monitoring well installation, each well was developed using a downhole pump to surge and purge the well until water pumped from the well appeared clear. In March 2021, monitoring wells MW-1 through MW-3, which were installed in 2004, were redeveloped to ensure the filter pack was effectively reducing turbidity in the monitoring wells to ensure collection of representative groundwater samples. Approximately 20 to 30 gallons of water was purged from each well until the water was observed to be clear.

The monitoring well locations and elevations were surveyed by Professional Land Surveyors, Inc. of Issaquah, Washington. The monitoring well top of casings and top of monument were surveyed to an accuracy of 0.01 foot using a NAVD88 benchmark.

#### 4.4.5 Groundwater Monitoring

Groundwater monitoring events were conducted in December 2019, June and September 2020, and March, and May, and September 2021. During each groundwater monitoring event, well caps were opened, and groundwater levels were allowed to equilibrate for at least 30 minutes. The depth



to groundwater in each monitoring well was then measured to the nearest 0.01 foot using a water-level meter.

Groundwater samples were collected in accordance with U.S. Environmental Protection Agency (EPA) (1996) procedures, and a Site-specific work plan summary was prepared before each monitoring event. Purging and sampling of each monitoring well was performed using a peristaltic pump and dedicated silicone and polyethylene tubing, at flow rates ranging from approximately 100 to 300 milliliters per minute. The tubing intake generally was placed in the middle of the screen interval.

During purging, water quality was monitored using a YSI Pro DSS water-quality system equipped with a flow-through cell. The water-quality parameters temperature, pH, specific conductance, dissolved oxygen, oxidation-oxidation-reduction potential (ORP), and turbidity were monitored and recorded at 3-minute intervals during purging. Following purging, groundwater samples were collected from the pump outlet tubing located upstream of the flow-through cell, and placed directly into laboratory-prepared sample containers. Samples for analysis for dissolved metals were collected through a 0.45-micron field filter that was attached to the pump outlet and removed prior to filling containers for other analyses. Groundwater samples were only collected from monitoring wells with sufficient water column for sampling.

Each container was labeled with a unique sample identification number, placed on ice in a cooler, and transported to OnSite Environmental Inc. for analysis for one or more of the following: DRO and ORO by Northwest Method NWTPH-Dx; GRO by Northwest Method NWTPH-Gx; BTEX by EPA Method 8021B or 8260D; VOCs by EPA Method 8260D or 8260D/Selective Ion Mode; PAHs by EPA Method 8270E/Selective Ion Mode; and total and dissolved metals (arsenic, cadmium, chromium, lead, and mercury) by EPA Method 200.8/245.1/7470A.

In September 2021, monitoring wells FWM-1, FMW-2, FMW-3, FMW-4, FMW-6, FMW-8, FMW-9, FMW-16, and FMW-17 were selected from the existing monitoring well network and sampled for natural attenuation parameters. The assessment of natural attenuation parameters was used to evaluate whether the biodegradation is occurring and by what processes. Selected samples were submitted for laboratory analysis for one or more of the following: chloride by Standard Method 4500-Cl E; nitrate and nitrite by EPA Method 353.2; sulfate by ASTM Method D516-11; sulfide by Standard Method 4500-S2-D; methane, ethane, and ethene by RSK 175; ferrous iron by Standard Method 3500FeB; total organic carbon by Standard Method 5310B; hardness by EPA Method 200.7/Standard Method 2340B; and alkalinity by Standard Method 2320B. Additional groundwater parameters were collected as indicators of the subsurface environment, including ORP, specific conductivity, turbidity, dissolved oxygen, temperature, and pH, Results of the natural attenuation parameters are discussed in Section 7.4.

#### 4.4.6 Soil Gas Sampling

Soil gas sampling was conducted at the Property in December 2019 and May 2020 to evaluate potential vapor intrusion in existing and future buildings at the Site. Soil gas sampling involved



collection of 18 subsurface soil gas samples (sample locations SG-1 through SG-4 and F-1 through F-14). Soil gas sample locations are shown on Figure 3.

Temporary soil gas sampling points were installed by ESN Northwest using a direct-push drill rig to depths ranging from approximately 0.5 to 5 feet bgs. Expendable soil gas sampling anchor points and Teflon tubing were advanced using 1-inch-diameter steel rods. The discrete soil gas samples were collected in 1-liter Summa canisters, and transported to Friedman & Bruya, Inc. of Seattle, Washington for analysis <u>Soil gas samples collected during the field program were analyzed for VOCs using EPA Method TO-15.</u>

Soil gas samples SG-1 through SG-4 were collected within a temporary helium-filled shroud to prevent sample contamination from the ambient atmosphere above the building slab. Soil gas samples from sample locations F-1 through F-14 were not collected within a shroud or with other leak-testing methodology.

## 4.4.7 Passive Soil Gas Survey

The passive soil gas survey was conducted in September and October 2020 to evaluate potential source areas of VOCs beneath the <u>central and eastern portions of the</u> Property. Passive soil gas surveys provide qualitative data regarding distribution of VOCs in soil gas, and cannot be compared to MTCA cleanup levels or screening levels. Results from the passive soil gas survey were used to focus soil sampling to determine whether source areas for VOCs were present beneath the Property.

The passive soil gas survey included installation of 113 passive soil gas samplers on a predetermined 50-foot grid pattern. Holt Services, Inc. advanced borings to a depth of approximately 3 feet bgs using hand-held rotary hammer drills. The passive soil gas samplers were inserted into each boring by a Farallon Scientist, secured with string and a cork plug, and allowed to sit for 10 days prior to retrieval. The passive soil gas samplers were retrieved after the 10-day collection period, placed into individual vials, and shipped under standard chain-of-custody protocols to Amplified Geochemical Imaging, LLC of Newark, Delaware for analysis. Passive soil gas samplers were analyzed for VOCs using the Amplified Geochemical Imaging, LLC screening method, which is a modified version of EPA Method 8260C.

Upon removal of the passive soil gas samplers, each borehole was backfilled with clean silica sand, and patched at the surface with concrete or asphalt.

#### 4.4.8 Pilot Study

An air sparging (AS) and soil vapor extraction (SVE) pilot study was conducted in March 2021. The pilot study was conducted to develop and evaluate cleanup action alternatives for the FS. The pilot study included installation of AS well AS-1, SVE well SVE-1, and monitoring wells FMW-10 and FMW-11 proximate to existing monitoring well MW-4. Monitoring wells FMW-10 and



FMW-11 were used as observation wells during the pilot study, but were not included in the groundwater monitoring events conducted in March 2021 during the RI. Construction details for the wells are provided in Appendix B. The pilot study is described in greater detail in Section 7.3.

## 4.4.9 Laboratory Analyses

#### 4.4.9.1 Soil

Soil samples collected during the field program were analyzed for one or more of the following analytes by the method indicated:

- DRO and ORO by Northwest Method NWTPH-Dx;
- GRO by Northwest Method NWTPH-Gx;
- BTEX by EPA Method 8021B or 8260D;
- VOCs by EPA Method 8260D;
- PAHs by EPA Method 8270E/Selective Ion Mode; and
- Total metals (arsenie, barium, eadmium, ehromium, lead, mercury, selenium, and silver) by EPA Method 6010D/7471B.

#### 4.4.9.2 Groundwater

Groundwater samples collected during the field program were analyzed for one or more of the following analytes by the method indicated:

- DRO and ORO by Northwest Method NWTPH-Dx;
- GRO by Northwest Method NWTPH-Gx;
- BTEX by EPA Method 8021B or 8260D;
- VOCs by EPA Method 8260D or 8260D/Selective Ion Mode;
- PAHs by EPA Method 8270E/Selective Ion Mode; and
- Total and/or dissolved metals (arsenic, cadmium, chromium, lead, and mercury) by EPA Method 200.8/245.1/7470A;
- Chloride by Standard Method 4500-CL-E;
- Nitrate and nitrite by EPA Method 353.2;
- Sulfate by ASTM Method D516-11;
- Sulfide by Standard Method 4500-S2-D;
- Methane, ethane, and ethene by RSK 175;
- Ferrous iron by Standard Method 3500FeB;
- Total organic carbon by Standard Method 5310B;



- Hardness by EPA Method 200.7/Standard Methos 2340B; and
- Alkalinity by Standard Method 2320B.

#### 4.4.9.3 Soil Gas

Soil gas samples collected during the field program were analyzed for VOCs using EPA Method TO-15.

Passive soil gas samplers were analyzed for VOCs using the Geochemical Imaging, LLC screening method, which is a modified version of EPA Method 8260C.

## 4.5 NATURE AND EXTENT OF CONTAMINATION

The nature and extent of contamination at the Site as defined in WAC 173-340-350 has been sufficiently characterized by the results from the RI to evaluate technically feasible cleanup alternatives. This section presents a discussion of the nature and extent of contamination in the affected media. The analytical results for COPCs are summarized in Tables 2 through 11, and shown on Figures 89 through 16, 17A, 17B, and 18 through 17. Figures 49 and 10 depicts the potential source areas for HVOCs based on the results of the October 2020 passive soil gas survey. Figure 19 depicts the confirmed source areas based on soil and groundwater analytical results from the RI. The distribution of VOCs from the passive soil gas survey is shown on the maps in the Mapping Report provided in Appendix ED. Select laboratory analytical reports for the samples collected during the RI are provided in Appendix DE.

## 4.5.1 Halogenated Volatile Organic Compounds

<u>During the RI, c</u>Concentrations of vinyl chloride and cis-1,2-DCE exceeded MTCA Method A cleanup levels in <u>seven-nine</u> of the reconnaissance groundwater samples collected from borings advanced in the central portion of the Site down-gradient of the AS groundwater treatment system that operated from June 2004 through December 2006. Monitoring wells were installed during the RI to provide more-representative groundwater quality data.

cis-1,2-DCE eis 1,2 DCE was detected at a concentration of 19 18  $\mu$ g/l in a groundwater sample collected from monitoring well MW-1 in December 2019, which exceeds the MTCA Method B cleanup level of 16  $\mu$ g/l (Figure 89; Table 2). The concentrations of cis-1,2-DCE were less than the MTCA Method B cleanup level in the groundwater samples collected from monitoring well MW-1 in June and September 2020 and March 2021.

Vinyl chloride was detected at concentrations exceeding the MTCA Method A cleanup level of 0.2 μg/l in the groundwater samples collected from monitoring wells FMW-1, FMW-2, FMW-4, FMW-6, FMW-16, FMW-17, and MW-3 during one or more of the groundwater monitoring events conducted between December 2019 and March-September 2021 (Figure 9-8; Table 2). Vinyl chloride was detected at concentrations ranging from 0.33 μg/l in the groundwater sample collected from monitoring well FMW-2 to 4.323 μg/l in the groundwater sample collected from monitoring well FMW-417. Due to the proximity of the Green River, groundwater analytical



results were compared also to the surface water standard of  $0.02~\mu g/l$ . Vinyl chloride was reported non-detect at the laboratory PQL of  $0.02~\mu g/l$  for samples collected from monitoring wells FMW-1,FMW-5, FMW-7, FMW-8, FMW-9, and FMW-15, located on the northern and western portions of the Property, down-gradient of vinyl chloride-impacted groundwater, during the March and/or May 2021 groundwater monitoring events conducted during the RI. In addition, vinyl chloride was reported non-detect at the laboratory PQL of  $0.02~\mu g/l$  in the groundwater sample collected from monitoring well FMW-14 located proximate to the Green River in May 2021 (Figure 89; Table Table 2).

According to the results from groundwater sampling, distribution of vinyl chloride was intermittent, and data suggested the presence of multiple distinct source areas for VOCs in groundwater. A passive soil gas survey was conducted in September and October 2020 to evaluate potential source areas on the central and eastern portions of the Property. The passive soil gas survey was not conducted on the western portion of the Property. Several PCE and TCE areas were identified based on the results from the passive soil gas survey. The highest-concentration PCE and TCE areas were identified in the general vicinity of the maintenance shop, the solvent storage area on the southern portion of the Property, the northeastern portion of the Storage Yard, and the northwestern portion of Building 3 (Appendix E). Figure Xs 9 and 10 shows the potential hot spot areas based on the results of the passive soil gas survey. The areas with the highest concentrations of vinyl chloride—and cis-1,2-DCE-contaminated groundwater correlate with the PCE and TCE areas identified during soil gas sampling and the passive soil gas survey conducted in 2019 and 2020.

In 2021, soil <u>and groundwater</u> samples were collected proximate to the PCE and TCE areas identified during soil gas sampling and the passive soil gas survey. PCE, TCE, and/or cis-1,2-DCE were detected at concentrations less than MTCA cleanup levels in soil samples collected proximate to the PCE and TCE areas identified during soil gas sampling and the passive soil gas survey (Figure <u>910</u>; Table 3).

HVOCs have been analyzed in soil samples collected at the Site between 1990 and 2021. The MTCA Method A cleanup levels for soil were exceeded in only a single soil sample. TCE exceeded the MTCA Method A cleanup level in a single soil sample collected at a depth of 12 feet bgs from boring EMS-B9 during an environmental investigation conducted by others in 2008. In May 2021, boring F-31 was advanced immediately adjacent to boring EMS-B9, and soil and a reconnaissance groundwater sample were collected. Multiple soil samples were collected and analyzed at depths ranging from 5 to 19.5 feet bgs, including a sample collected at 12 feet bgs. HVOCs, including TCE, were detected at concentrations less than the MTCA cleanup levels in all soil samples collected from boring F-31 (Figure 910; Table 3).

Vinyl chloride and cis-1,2-DCE were detected at concentrations exceeding the MTCA Method A cleanup levels in the reconnaissance groundwater sample collected from boring F-31. Monitoring well FMW-17 was installed adjacent to boring F-31. Vinyl chloride was detected at concentration, which, exceeded the MTCA cleanup level in the groundwater sample collected from monitoring well FMW-17 in September 2021 (Figure 9; Table 2). The locations of boring F-31 and monitoring



well FMW-17 are outside the footprint of the passive soil gas survey. These data indicate that an additional source area is located proximate to boring F-31 and monitoring well FMW-17.

Multiple soil samples have been collected from within or at the top of the shallow intermittent silt unit (Figures 4 and 5). Concentrations of HVOCs are less than the MTCA cleanup levels indicating that there is not a significant mass of HVOCs within or above the intermittent silt unit (Table 3).

## Multiple soil samples have been collected from the shallow silt unit.

Concentrations of PCE and TCE exceeded the MTCA Method B soil gas screening level for a commercial exposure scenario (Table 11). The highest concentrations of PCE and TCE were detected at soil gas sampling locations F-1 and F-11, located proximate to the solvent storage area on the southern portion of the Property, and the maintenance shop, respectively.

## These data indicate the following:

- Releases of HVOCs likely are related to multiple residual sources from historical and/or current industrial operations at the Property.
- The AS groundwater treatment system that operated on the southern portion of the Site from June 2004 through December 2006 was successful in remediating vinyl chloride- and cis-1,2-DCE-contaminated groundwater within the effective treatment area.
- Monitoring well MW-3, located on the southern portion of the Site, contains concentrations of vinyl chloride exceeding the MTCA cleanup level. The location of this monitoring well likely was outside the effective treatment area of the AS groundwater treatment system that operated from June 2004 through December 2006.
- Residual vinyl chloride- and cis-1,2-DCE-contaminated groundwater is present in multiple distinct locations at the Site, including the maintenance shop, the northeastern portion of the Storage Yard, the southern portion of Building 3 proximate to monitoring well FMW-04, the northwestern portion of Building 3,—and the solvent storage area on the southern portion of the Property proximate to monitoring well MW-3, and proximate to monitoring well FMW-17 (Figure 19).
- The transport pathway for groundwater to surface water is incomplete.
- HVOCs are not present in soil at concentrations exceeding MTCA cleanup levels. In 2008, TCE was detected at a concentration exceeding the MTCA Method A cleanup level in a single soil sample collected during previous investigations conducted at the Site between 1990 and 2008. During the RI, soil sampling was conducted proximate to the 2008 exceedance to evaluate current soil conditions. Based on the results from the RI, TCE soil concentrations have decreased likely due to attenuation from natural processes and/or residual effects of the historical interim actions performed at the Site.
- Soil gas containing PCE and TCE is present at the Site, and likely is associated with residual sources related to the solvent storage area and the maintenance shop.



## 4.5.2 Total Petroleum Hydrocarbons

ORO was detected at a concentration exceeding the MTCA Method A cleanup level in a single shallow soil sample collected from boring B-5 at a depth of 5 feet bgs. ORO was reported either non-detect at the laboratory PQL or at concentrations less than the MTCA Method A cleanup level in the remaining soil samples analyzed, including borings F-14 through F-17, which were advanced proximate to boring B-5 to define the extent of ORO impacts in soil (Figure 101; Table 4). Concentrations of DRO, ORO, GRO, and BTEX were reported either non-detect at the laboratory PQLs or less than MTCA Method A cleanup levels in the remaining soil samples analyzed (Figures 10-11 and 1112; Table 4).

Concentrations of DRO, ORO, GRO, and BTEX were reported either non-detect at the laboratory PQLs or less than the MTCA Method A cleanup levels in reconnaissance groundwater samples and groundwater samples collected from monitoring wells at the Site (Figures 12-13 and 1314; Table 5).

These data indicate the following:

- An anomalous shallow localized area of ORO-contaminated soil is present proximate to boring B-5.
- Soil and groundwater are not impacted proximate to the former USTs on the northern portion of the Property.

#### 4.5.3 PAHs

The total carcinogenic PAH (cPAH) toxic equivalent concentration (TEC) exceeded the MTCA Method A cleanup level for unrestricted land use of 0.1 mg/kg in the soil sample collected from boring B-4 at a depth of 1.0 foot bgs (Figure 1415; Table 6). The total cPAH TEC detected in soil at a depth of 1.0 foot bgs in boring B-4 was 0.303 mg/kg. The total cPAH TEC did not exceed the MTCA cleanup level in the soil sample collected in boring B-4 at a depth of 5.0 feet bgs.

The total cPAH TECs were reported non-detect at the laboratory PQL in reconnaissance groundwater samples and groundwater samples collected from monitoring wells at the Site, including the reconnaissance groundwater sample collected from boring B-4 (Figure 1516; Table 7).

These data indicate that a shallow localized area of cPAH-contaminated soil is present proximate to boring B-4 and the sandblast booth (Figure 15).

## **4.5.4** Metals

Lead was detected at a concentration exceeding the MTCA Method A cleanup level in a single shallow soil sample collected from boring B-4 at a depth of 1-foot bgs. Lead was reported either non-detect at the laboratory PQL or at concentrations less than the MTCA Method A cleanup level in the remaining soil samples analyzed, including those collected from borings F-19 through F-23, which were advanced proximate to boring B-4 to define the extent of lead (Figures 1617A and



<u>17B</u>; Table 8). The concentration of total lead was less than the MTCA Method A cleanup level in the reconnaissance groundwater sample collected from boring B-4 (Table 9).

Total arsenic, chromium, and lead were detected at concentrations exceeding MTCA Method A cleanup levels in reconnaissance groundwater samples collected from the Property (Table 9). Chromium or lead was not detected at a concentration exceeding MTCA Method A cleanup levels in groundwater samples collected from properly installed and developed monitoring wells at the Property, with the exception of the groundwater sample collected from monitoring well FMW-4 in December 2019. The concentrations of total chromium and lead detected in December 2019 in the groundwater sample collection from monitoring well FMW-4, which was installed 6 days before the sample was collected, were attributed to suspended solids in the groundwater sample collected. Concentrations of chromium and lead in groundwater samples collected from monitoring well FMW-4 during subsequent monitoring events were significantly less than the MTCA Method A cleanup level (Table 9).

Dissolved arsenic was detected at concentrations <u>ranging from 3.2 to 49 µg/l in groundwater samples collected during the RI. Dissolved arsenic exceededing</u> the MTCA Method A cleanup level in groundwater samples collected from monitoring wells <u>FMW-1</u>, FMW-3 through FMW-5, FMW-7, FMW-8, <u>FMW-16</u>, and MW-3.

According to Ecology's review draft Natural Background Groundwater Arsenic Concentrations in Washington State (Ecology 2018), natural cConcentrations of dissolved arsenic range from 0.8 to 76 μg/l in the Puget Sound lowlands. Ecology, using EPA's ProUCL statistical software, calculated the background concentration at 8 μg/l for the Puget Sound lowlands. Groundwater samples collected from monitoring wells FMW-1, FMW-5, FMW-7, FMW-8, and FMW-16 were consistent with the unpublished state wide background concentration for the Puget Sound lowlands of 7-8 μg/l (Ecology 2018) in groundwater samples collected from monitoring wells FMW-5, FMW-7, and FMW-8 (Figure 1718; Table 9).

Concentrations of dissolved arsenic exceeded the background concentration for the Puget Sound lowlands detected in groundwater samplesd collected during the RI ranged from monitoring wells MW-3, FMW-3, and FMW-4 with concentrations ranging from 12-9.1 µg/l in monitoring well FMW-3-4 to 49 µg/l in monitoring well FMW-3.

Groundwater monitoring <u>results have for these monitoring wells</u>-indicated that the <u>oxidation-reduction potentialORP</u> was negative in a majority of the monitoring wells at the Site, and that <u>natural attenuation of HVOCs is occurring</u>, which is indicative of reducing conditions (<u>Table 10</u>). In addition, naturally occurring <u>W</u>wood debris was observed in <u>multiple boringsborings F-28</u> through F-30, FMW-3, FMW-4, FMW-8, FMW-13, AS-1, SVE-1, and EMS-B10 at depths ranging from approximately 8.5 to 19.5 feet bgs. In addition, as discussed in Section 2.5, Farallon reviewed several geotechnical reports from the Washington Geologic Information Portal, which documented the presence of peat and organic debris throughout the Green River region.



, including the borings for these monitoring wells, in the saturated zone at depths ranging from approximately 15 to 19.5 feet bgs.

These data indicate the following:

- A shallow localized area of cPAH-contaminated soil is present proximate to boring B-4 and the sandblast booth (Figure 15).
- A shallow localized area of lead- and cadmium-contaminated soil is present proximate to the sand blast booth (Figure 17B).
- Concentrations of total chromium and lead detected in reconnaissance groundwater samples and the groundwater sample collected from monitoring well FMW-4 are attributed to suspended solids in the samples. Based on this information, chromium and lead were eliminated as COCs in groundwater for the Site.
- Concentrations of arsenic in groundwater are attributed to reducing conditions from <u>peat</u> and wood debris in native saturated formation materials, resulting in dissolution of naturally occurring solid-phase arsenic. <u>Potential sources of arsenic were not identified during the RI. In addition, anthropogenic carbon sources were not identified during the RI. Petroleum hydrocarbons were not detected in groundwater during the RI, and only a single soil sample collected from the vadose zone contained concentrations of TPH exceeding the MTCA cleanup levels. Based on this information, arsenic was eliminated as a COC for the Site.</u>



## 5.0 CONCEPTUAL SITE MODEL

This section provides a summary of the CSM derived from the results from the RI and from previous investigations and interim actions. Included in this section is a discussion of the media of concern and COCs, the confirmed and suspected sources, exposure pathways and receptors, and the TEE. The CSM is used as a basis for developing technically feasible cleanup action alternatives and selecting a final cleanup action in accordance with MTCA regulations.

## 5.1 MEDIA AND CONSTITUENTS OF CONCERN

According to results from the RI conducted at the Site, the following COCs have been identified at concentrations exceeding applicable MTCA cleanup levels and/or screening levels in soil, groundwater, and/or soil gas:

HVOCs: in soil gas and groundwater;

ORO: in soil;

• Lead and cadmium: in soil; and

cPAHs: in soil.

## 5.2 CONFIRMED AND SUSPECTED SOURCES

The sources and releases of contamination at the Site are presented below.

## **5.2.1** Halogenated Volatile Organic Compounds

The Property has been used for industrial purposes since 1968. Although specific operations were not identified as HVOC sources, specific areas at the Site were identified as sources <u>based on analytical results from the RI</u>. Figure 19 depicts the source areas.

In 1996, wastewater was observed discharging from a sump onto the southern boundary of the Property. Subsequent investigations confirmed the presence of cis-1,2-DCE and vinyl chloride in groundwater. The historical discharge of wastewater onto the southern boundary of the Property appears to be the source of cis-1,2-DCE and vinyl chloride to groundwater on the southern portion of the Property.

Much of the impacted groundwater was remediated during previous interim actions. However, according to analytical results from the RI, cis-1,2-DCE- and vinyl chloride-impacted groundwater is still present proximate to monitoring well MW-3, located outside the interim action area where an air sparge treatment system operated between 2004 and 2006.

Additional source areas were identified proximate to monitoring wells FMW-2, FMW-4, FMW-6, and FMW-12, and FMW-17. Sources of cis-1,2-DCE- and vinyl chloride-impacted groundwater in these areas are suspected to be direct releases to the ground. Although the exact mechanism of release is unknown, it is presumed that HVOCs were released through poor housekeeping



practices, from containers that may have been used to store HVOCs, or from leaks in the drains where HVOCs may have come to be located during industrial operations.

#### 5.2.2 Metals and cPAHs

Results from the 1991 interim action and the RI confirm that a shallow localized area of metals (lead and cadmium) and cPAH-contaminated soil is present proximate to the sandblast booth. Contaminated soil proximate to the sandblast booth was excavated to the maximum extent practicable in 1991. The excavation was limited due to the presence of the building foundations. Groundwater has not been impacted in this area.

## 5.2.3 Petroleum Hydrocarbons

Results from the RI confirm that a shallow localized area of ORO-contaminated soil is present proximate to boring B-5. The source of petroleum hydrocarbons in soil is suspected to be general industrial operations and spills. Groundwater has not been impacted in this area.

## 5.3 EXPOSURE PATHWAYS AND RECEPTORS

#### **5.3.1** Groundwater to Surface Water

The Green River is approximately 310 feet northwest of the Site. Concentrations of HVOCs, including vinyl chloride, have not been detected at concentrations exceeding MTCA surface water cleanup levels in samples collected from the down-gradient points of compliance (monitoring wells FMW-5, FMW-7, FMW-8, and FMW-14FMW-1, FMW-5, FMW-7, FMW-8, FMW-9, FMW-14, and FMW-15) during the March, May, and/or September May 2021 groundwater monitoring events. As such, this pathway is incomplete. In addition, the preferred cleanup action alternative will remediate residual HVOC-contaminated groundwater, eliminating any potential pathway in the future. Compliance groundwater monitoring will be conducted as part of the cleanup action to demonstrate that this exposure pathway continues to be incomplete.

#### **5.3.2** Soil to Groundwater

Based on the RI results, the soil to groundwater pathway is potentially complete. Residual sources of HVOCs have been identified at the Site, although concentrations detected in soil generally are less than MTCA cleanup levels in the residual source areas. Furthermore, empirical groundwater data suggest that the concentrations of PCE and TCE in soil are not leaching to groundwater. The preferred cleanup action alternative will remediate residual HVOCs in soil.

## 5.3.3 Soil and Groundwater Direct Contact

Contaminated soil and groundwater are present at the Site, and the direct contact pathway is considered a complete exposure pathway. This contamination presents a risk of direct contact if the improvements covering the contamination such as existing pavement, concrete building slabs, and buildings are removed.



As part of implementation of the cleanup action during redevelopment, contaminated soil and groundwater will be exposed and will present an exposure risk. Future receptors to potential contaminants in soil and groundwater primarily consist of construction workers through the ingestion and dermal exposure pathways. The preferred cleanup action includes excavation of contaminated soil, and groundwater remediation. Groundwater remediation will be conducted during and after Property redevelopment. Following redevelopment, the entire Property will be covered with pavement and a building, thus eliminating the direct contact exposure pathway.

## 5.3.4 Vapor Inhalation

Based on the RI soil gas results, there is potential for an unacceptable vapor intrusion risk from PCE and TCE in soil gas intruding into existing structures at the Site, and for short-term inhalation of volatilized contaminants by construction workers during future redevelopment activities. The preferred cleanup action alternative is expected to treat the residual HVOC source areas identified during the RI. In addition, a chemical-resistant vapor barrier will be installed in the future building on the Property, which will eliminate the vapor inhalation pathway for future occupants.

## 5.4 TERRESTRIAL ECOLOGICAL RISK EVALUATION

A TEE is required by WAC 173-340-7490 at any site where a release of a hazardous substances to soil has occurred. The regulation requires that one of the following actions be taken:

- Documenting a TEE exclusion using the criteria presented in WAC 173-340-7491;
- Conducting a simplified TEE in accordance with WAC 173-340-7492; or
- Conducting a site-specific TEE in accordance with WAC 173-340-7493.

Based on the criteria for TEE exclusion in WAC 173-340-7491, the following exclusions apply to the Site:

- All soil contamination is, or will be, at least 15 feet below the surface.
- All soil contaminated with hazardous substances is, or will be, covered by buildings, paved
  roads, pavement, or other physical barriers that prevent exposure to plants and wildlife,
  and institutional controls will be used to manage remaining contamination.
- There is less than 1.5 acres of contiguous undeveloped land on the Site or within 500 feet of any area of the Site, and the Site is not contaminated with the hazardous substances listed in WAC 173-340-7491(1)(c)(ii).

No further consideration of ecological impacts is required under MTCA. The TEE Form is provided in Appendix F.



## 6.0 PROPOSED CLEANUP STANDARDS

This section presents the proposed cleanup levels and points of compliance for the COCs in soil and groundwater at the Site. Chemicals detected at concentrations exceeding the selected cleanup levels at the selected points of compliance are considered to be COCs for future cleanup actions.

## 6.1 CLEANUP LEVELS

The proposed cleanup levels are the concentrations of COCs that are to be met for each medium of concern at the points of compliance defined for the Site. MTCA Method A cleanup levels for unrestricted land use are appropriate for COCs affecting the Site. If MTCA Method A cleanup levels were not available for a specific COC, the MTCA Method B cleanup level was used. Modified MTCA Method B air cleanup levels for a commercial exposure scenario were calculated for the Site (Tables 12 and 13).

The cleanup levels for COCs in soil at the Site are:

• ORO: 2,000 mg/kg;

• Lead: 250 mg/kg;

• Cadmium: 2 mg/kg; and

• cPAH TEC: 0.1 mg/kg.

The cleanup levels for COCs in groundwater at the Site are:

• PCE: 5 μg/l;

• TCE: 5 μg/l;

• cis-1,2-DCE: 16 μg/l;

Vinyl chloride: 0.2 μg/l;

The cleanup levels for COCs in air at the Site are:

• PCE:  $50.2 \,\mu \text{g/m}^3$ ;

• TCE:  $1.48 \mu g/m^3$ ; and

• Vinyl chloride:  $1.5 \mu g/m^3$ .



## **6.2** POINTS OF COMPLIANCE

The points of compliance are the locations at which cleanup levels for the COCs must be attained to meet the requirements of MTCA and support issuance of a No Further Action determination from Ecology.

- In accordance with WAC 173-340-740(6), the point of compliance for soil is defined as all soil at the Site where COCs have been detected at concentrations exceeding MTCA soil cleanup levels.
- In accordance with WAC 173-340-720(8), the point of compliance for groundwater is defined as the uppermost level of the saturated zone extending vertically to the lowest depth at the Site that potentially could be impacted by COCs.



## 7.0 FEASIBILITY STUDY

This section describes the scope of work and the results from the FS. Topics addressed are the applicable, relevant and appropriate requirements (ARARs) identified for the Site, the evaluation of feasible remediation technologies, the air sparging (AS) and soil vapor extraction (SVE) pilot tests conducted, the cleanup action alternatives developed for the Site and the evaluation of those alternatives, the preferred alternative for implementation at the Site, the compliance monitoring to be conducted, and the reasonable restoration time frame.

The purpose of an FS is to develop and evaluate cleanup action alternatives to facilitate the selection of a preferred cleanup action at a site in accordance with WAC 173-340-350(8). The FS conducted for the Site was intended to provide sufficient information to select a preferred cleanup action alternative under the VCP.

Lift is under contract for the purchase of the Property from the current owner, and plans to redevelop the Property with an industrial warehouse and distribution center. The preferred cleanup action alternative selected in the FS would be conducted in conjunction with redevelopment. The existing structures on the Property will be demolished, and there will be no structures blocking access to subsurface impacts. A preliminary conceptual development plan is provided in Appendix A.

The FS conducted for the Site included screening of potentially feasible remedial technologies and development of a range of cleanup action alternatives that achieve the proposed cleanup standards in the shortest possible restoration time frame. The cleanup action alternatives were evaluated with respect to threshold and other requirements for cleanup actions set forth in MTCA. The FS conducted for the Site evaluated the alternatives, identified those that were not effective or were not technically possible or whose costs were disproportionate to benefits, and provided the basis for identifying a preferred cleanup action alternative.

The FS evaluated three cleanup action alternatives according to criteria provided in WAC 173-340-360(2). In accordance with WAC 173-340-350(8)(c)(ii), the FS included one permanent cleanup action alternative, as defined in WAC 173-340-200, to serve as a baseline against which other alternatives were evaluated for the purpose of assessing whether the cleanup action selected is permanent to the maximum extent practicable.

The FS included preparation of a disproportionate cost analysis (DCA) in accordance with WAC 173-340-360(3)(e)(ii). The DCA uses a semi-quantitative procedure to compare the cost of implementation against the environmental benefit to be achieved, and to identify which cleanup alternative is most-practicable under MTCA.

The FS identified a preferred cleanup alternative for the Site in accordance with WAC 173-340-360 through 173-340-370. The preferred cleanup alternative is considered to present the highest degree of permanence and protectiveness considering current and potential future Site conditions to the maximum extent practicable.



## 7.1 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

MTCA requires that cleanup actions comply with applicable state and federal laws (WAC 173-340-360[2][a][iii]), which include applicable requirements and requirements that Ecology determines are relevant and appropriate. ARARs for cleanup actions often include various construction-related permits, air emission requirements, water discharge requirements, off-site disposal requirements, and other issues related to impacts in and around the site. ARARs can be categorized as follows:

- Chemical-specific ARARs: Laws and requirements that establish health- or risk-based numerical values or methodologies for developing such values. These ARARs are used to establish the acceptable concentration of a chemical that may remain in or be discharged to the environment. As such, chemical-specific ARARs are considered in developing cleanup standards (Section 6).
- Action-specific ARARs: Performance, design, or other requirements that may place controls or restrictions on a particular remedial action.
- Location-specific ARARs: Requirements that are triggered based on the location of the remedial action to be undertaken.

The following ARARs have been identified for the Site:

- MTCA, Chapter 70.105D of the Revised Code of Washington, and WAC 173-340;
- The State Environmental Policy Act (WAC 197-11) and its procedures (WAC 173-802);
- The Guidance for Remediation of Petroleum Contaminated Sites (Ecology 2016);
- The Draft Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action (Ecology 2010);
- Washington State Solid Waste Management Laws and Regulations, Chapter 70.95 of the Revised Code of Washington; WAC 173-351 and 173-304;
- The Washington State Dangerous Waste Regulation, WAC 173-303;
- A National Pollutant Discharge Elimination System Construction Stormwater General Permit:
- Water Quality Standards for Groundwater of the State of Washington (WAC 173-200);
- Water Quality Standards for Surface Waters of the State of Washington (WAC 173-201A);
   and
- City of Kent construction permits.

These primary ARARs are anticipated to be the most-applicable to the FS because they provide the framework for the remedial action, including applicable and relevant regulatory guidelines,



cleanup standards, waste disposal criteria, references for additional ARARs, and standards for documentation of the remedial action.

Other applicable ARARs for the Site include:

- The Occupational Safety and Health Act, Part 1910 of Title 29 of the Code of Federal Regulations;
- Safety Standards for Construction Work, WAC 296-155; and
- Accreditation of Environmental Laboratories, WAC 173-50.

## 7.2 EVAULATION OF FEASIBLE REMEDIATION TECHNOLOGIES

This section summarizes the technologies that were screened to determine which would be effective, implementable, and cost-effective based on Site conditions. Using the results from this screening, technologies were selected for grouping into three technically feasible cleanup action alternatives, which were evaluated according to MTCA threshold and other criteria according to WAC 173-340-360. The initial screening of remediation technologies focused primarily on implementability, protectiveness, and effectiveness (Table 14).

## 7.2.1 Remedial Action Objectives

Remedial action objectives (RAOs) are site-specific goals established to protect human health and the environment by eliminating or substantially reducing one or more exposure pathways. The RAOs established for the Site were based on the CSM discussed in Section 5, and provide a framework for developing and evaluating remedial technologies and cleanup action alternatives that will: (i) reduce the toxicity and volume of affected soil on the Site; (ii) eliminate the soil to groundwater leaching pathway; and (iii) eliminate the groundwater to soil gas and/or indoor air pathway.

The following RAOs have been identified for the Property:

- Reduce concentrations of HVOCs in groundwater to meet the proposed cleanup levels at the standard point of compliance;
- Reduce concentrations of COCs in soil to reduce or eliminate the potential soil to groundwater leaching pathway;
- Reduce concentrations of HVOCs in soil to reduce or eliminate the potential for vapor intrusion into future buildings;
- Comply with local, state, and federal laws; and
- Provide for compliance monitoring to evaluate the effectiveness of the preferred cleanup action alternative.



## 7.2.2 Remedial Technologies

Based on the RAOs, several remediation technologies were evaluated and screened for effectiveness, implementability, and relative cost to produce a focused list of technologies for inclusion in the development of the cleanup alternatives.

Table 14 summarizes the results from the technology screening for a wide range of remediation technologies, and identifies the most-favorable technologies for environmental conditions to be retained for evaluation as a cleanup action alternative. The remediation technologies that passed the screening process are discussed below.

## 7.2.2.1 Institutional and Engineered Controls

Institutional and engineered controls can be effective protective measures preventing exposure to impacted soil and/or groundwater, and are considered to be readily implementable at the Site at a significantly lower cost than active cleanup technologies.

Institutional controls are measures undertaken to limit or prohibit activities that may interfere with the integrity of a cleanup action, or that could result in adverse exposure to hazardous substances at a site, and are implemented in accordance with WAC 173-340-440. Institutional controls evaluated included an environmental covenant that restricts future uses of a site, consistent with industrial uses and cleanup levels. The environmental covenant would include provisions for long-term compliance monitoring of groundwater, and inspection and maintenance of the capping system.

Engineered controls refer to containment or treatment systems designed to prevent or limit movement of or exposure to hazardous substances. Physical barriers such as pavement covers or caps over contaminated areas are considered effective in limiting exposure to impacted soil, and in reducing rainwater infiltration that could mobilize soil contamination from soil to groundwater. Capping systems consist of impervious surfaces, including exterior paved surfaces suitable for vehicle traffic and a range of other uses. Capping systems typically require periodic inspections, maintenance, and implementation of protective measures when breached for subsurface maintenance or construction activities. Physical barriers and constructed cover are considered implementable and effective technologies for application at the Site. Installation of a chemical-resistant vapor barrier is considered effective in eliminating the vapor intrusion to indoor air exposure pathway.

## 7.2.2.2 Soil Excavation and Landfill Disposal

Excavation of impacted soil and disposal at an appropriately engineered and permitted facility is an effective approach to reducing risk to human health and the environment. Land disposal is the act of removing contaminated soil from an uncontrolled condition and placing it in a controlled condition where it will produce fewer adverse environmental impacts. A controlled condition generally refers to an engineered landfill that features a low-permeability liner and a leachate collection system to prevent disposed soil from leaching into the environment.



Excavation and landfill disposal employs standard construction practices and readily available construction and earthmoving equipment. Landfills are regulated under Subtitle C (hazardous waste) and Subtitle D (solid waste) of the Resource Conservation and Recovery Act. Regulated landfills are designed to securely manage hazardous and nonhazardous soil over the long term. Excavations will be backfilled with suitable imported material placed according to geotechnical specifications required for resurfacing according to future Property-use plans. Excavation and landfill disposal of soil exceeding MTCA cleanup levels is considered to be a quick, effective, and implementable technology at the Site.

## 7.2.2.3 Dewatering

Dewatering is the process of pumping out groundwater that collected in sumps, trenches, and wells in the excavation or treatment area. Dewatering may be required if groundwater is encountered during excavation activities or for accumulation of stormwater. Should excavation dewatering be necessary, wastewater collected from excavation dewatering will require analytical testing to support profiling, treatment, and/or disposal of the wastewater. Dewatering is considered a potentially applicable component for cleanup of soil and groundwater at the Site.

## 7.2.2.4 In-Situ Chemical Oxidation

In-situ chemical oxidation (ISCO) injections with permanganate is a proven technology that chemically oxidizes chlorinated solvents in groundwater. ISCO involves reduction/oxidation reactions that convert hazardous compounds to nonhazardous or less-toxic compounds. In this treatment process, a permanganate solution is injected into the subsurface using temporary points. Once injected, the permanganate solution is transported through the aquifer by groundwater flow. ISCO is a proven technology for treatment of groundwater exceeding cleanup levels, and could be considered an effective and implementable technology at the Site dependent upon future treatability testing results.

## 7.2.2.5 Air Sparging and Soil Vapor Extraction

AS involves injection of air through a contaminated aquifer. Injected air travels horizontally and vertically through the soil column, removing volatile and semi-volatile organic contaminants by volatilization. The injected air volatilizes contaminants into the unsaturated zone for uptake by an SVE system. Oxygen added to contaminated groundwater and unsaturated soils also can enhance biodegradation of contaminants above and below the water table. SVE is the process of inducing a pressure and concentration gradient in the subsurface to cause volatile organic compounds such as HVOCs to desorb from soil and flow with the vapor stream to a common collection point for discharge to the atmosphere. AS and SVE are proven technologies for treatment of groundwater exceeding cleanup levels, and is considered an effective and implementable technology at the Site based on both existing pilot test results (see Section 7.3) and prior implementation of this technology at the Site.



#### 7.2.2.6 Monitored Natural Attenuation

Natural attenuation relies on natural processes to attenuate concentrations of hazardous constituents in soil and/or groundwater. Although natural attenuation occurs at most contaminated sites, optimal subsurface conditions must exist for effective and complete remediation of a site within a reasonable restoration time frame. Monitored natural attenuation is the process of monitoring these conditions to ensure that natural attenuation continues to occur until remediation is complete.

Monitored natural attenuation is considered an effective means of reducing risk to human health and the environment at some sites, especially when risk of exposure is low and a longer restoration time frame is acceptable. Monitored natural attenuation is considered a potentially applicable component for cleanup of soil and groundwater at the Site.

## 7.2.3 Rejected Technologies

Table 14 identifies cleanup technologies that were eliminated from further consideration for application at the Site because they are not amenable to or are less-suited to Site-specific conditions than other technologies, and/or did not perform as well as other technologies evaluated in the FS.

## 7.3 AIR SPARGING AND SOIL VAPOR EXTRACTION PILOT TEST

AS and SVE pilot tests were conducted to evaluate Site-specific soil gas flow rates and range of influence to prepare a full-scale AS and SVE design. A summary of the AS and SVE pilot tests is provided below.

## 7.3.1 Air Sparging Pilot Test

An AS pilot test was performed on March 18, 2021. Test well AS-1 was screened from 15 to 16.5 feet bgs. The AS pilot test consisted of a step test to apply variable pressures to test well AS-1 using a gas-powered compressor while monitoring air flow rate and pressure at the test well. The pilot test started with the minimum pressure to displace the water column in the test well; pressure was systematically increased in a step-wise manner. The air pressure applied at the test well was controlled and monitored through a series of valves and gauges; the corresponding air flow rate was recorded.

The AS pilot test was performed over a 5-hour period. The air flow rate and pressure at the test well were measured using in-line instrumentation. Depth-to-water and dissolved-oxygen measurements were collected pre- and post-pilot test. Induced pressure was monitored in nearby wells and subslab soil gas points.

Based on the AS pilot test results, an applied pressure of 5 pounds per square inch corresponded to an air flow rate of 7.5 standard cubic feet per minute. The measured pressure at an observation point was considered significant if at least 1 percent of the applied pressure from the test well was observed at the observation point. One percent of the applied pressure was observed at observation point FMW-4, approximately 11 feet from the test well.



Pressure applied to AS-1 was measured at monitoring wells SVE-1, FMW-4, FMW-10, and FMW-11 at levels varying from 0.3 to 0.8 inches of water. The AS pilot test on AS-1 also demonstrated communication above and below the intermittent silt layer as demonstrated by induced pressure wells screened below the intermittent silt contact (FMW-04) and in wells screened across the intermittent silt layer into the sand (SVE-1, FMW-10, and FMW-11).

-Concentrations of vinyl chloride, trans-1,2-dichloroethene (trans-1,2-DCE), cis-1,2-DCE, and TCE were detected in a performance soil gas sample collected from SVE well SVE-1, approximately 27 feet west of test well AS-1, demonstrating that the test well was effectively stripping HVOCs from saturated soil. A change in the pressure gradient was observed in monitoring wells as far as 40 feet away, which is attributed to heterogeneities in the subsurface soil.

Based on the results from the AS pilot study, a radius of influence of 20 feet was selected for full-scale design.

## 7.3.2 Soil Vapor Extraction Pilot Test

An SVE pilot test was performed on March 19, 2021. Test well SVE-1 was screened from 3 to 18 feet bgs, through the silt layer that begins at approximately 5 feet bgs to the sand layer below. The SVE pilot test consisted of a step test to apply variable vacuums to test well SVE-1 using a vacuum truck. The pilot test started with the lowest achievable vacuum; the vacuum was systematically increased. Vacuum applied at the test well was controlled by adjusting the air dilution valve on the instrument train between the test well and the vacuum truck. The vacuum applied to test well SVE-1 ranged from 24 to 60 inches of water column during the pilot test.

The SVE pilot test was performed over a 6-hour period. The Air flow rate and the vacuum at the test well were measured using in-line instrumentation. Depth-to-water measurements were collected pre- and post- pilot test. Induced vacuum was monitored in nearby wells and subslab soil gas points.

Based on the pilot test results, an applied vacuum of 50 to 60 inches of water column corresponded to an air flow rate of 50 to 60 standard cubic feet per minute at the test well. Pilot test data were evaluated to determine a range of influence for development of a full-scale design. The measured vacuum at an observation point was considered significant if at least 1 percent of the applied vacuum from the test well was observed at the observation point. A significant vacuum was observed at observation points FMW-04 and FMW-10, 23 to 24 feet away, respectively. An induced vacuum was observed as far as 34 feet from the test well.

Vacuum induced pressure up to 60 inches of water at SVE-1 was measured at monitoring wells FMW-4, FMW-10, and FMW-11 at levels varying from 0.2 to 1.5 inches of water vacuum. FMW-4 is screened from 10 to 20 feet bgs. In FMW-4, a silt layer was observed beginning at 8 feet bgs. The screened interval at FMW-4 is below the intermittent silt layer. FMW-10 and FMW-11 are both screened from 5 to 20 feet bgs, across the intermittent silt layer. The SVE pilot test on SVE-1 demonstrated communication above and below the intermittent silt layer as demonstrated by



induced vacuum in wells screened below the intermittent silt contact (FMW-4) and in wells screened across the intermittent silt layer into the sand (FMW-10 and FMW-11).

-Concentrations of cis-1,2-DCE and TCE were detected in a performance soil gas sample collected from SVE-1, demonstrating that the test well was effectively removing HVOCs from unsaturated soil.

Based on the results from the AS-SVE pilot study, a radius of influence of 30 feet was selected for full-scale design.

## 7.4 MONITORED NATURAL ATTENUATION EVALUATION

The results for the natural attenuation parameters collected during the RI indicated that groundwater within the dissolved-phase TCE plume is both anoxic (iron reducing) and anaerobic (sulfate reducing and methanogenic). Both conditions are conducive to the biodegradation of TCE and its breakdown compounds. These conclusions are based on the following:

- Dissolved oxygen concentrations less than 0.5 milligrams per liter (mg/L) are typically associated with anoxic and anaerobic conditions that are conducive to the biodegradation of TCE (EPA 1998, USGS 2012). The dissolved oxygen concentrations were typically less than 1 mg/L.
- Nitrate concentrations less than 1 mg/L are typically associated with anoxic and anaerobic conditions that are conducive to biodegradation of TCE (EPA 1998, USGS 2012). The nitrate concentrations were typically less than 1 mg/L.
- Sulfate concentrations less than 20 mg/L are typically associated with anaerobic conditions that are most conducive to the biodegradation of PCE, TCE, cis-1,2-DCE, and trans-1,2-DCE (EPA 1998, USGS 2012). Within the suspected source areas, sulfate concentrations are less than 20 mg/L which is more conducive to the degradation of PCE, TCE, cis-1,2-DCE, and trans-1,2-DCE.
- Methane concentrations less than 0.5 mg/L are typically associated with anoxic conditions that are most conducive to biodegradation of vinyl chloride (EPA 1998). Concentrations of methane greater than 0.5 mg/L typically lead to the accumulation of vinyl chloride as a result of HVOC degradation (USGS 2012). The methane concentrations from the monitoring wells are typically greater than 0.5 mg/L.
- ORP readings less than 50 millivolts are associated with anoxic and anaerobic conditions that are generally conducive to the biodegradation of HVOCs (EPA 1998). The ORP readings from the monitoring wells were typically less than 50 millivolts.
- A pH range of 5 to 9 is optimal to support microbes that support the degradation HVOCs under anoxic and anaerobic conditions. The pH of the groundwater from the monitoring wells ranged from 5.66 to 7.01.



The nature and extent of HVOCs and natural attenuation parameters demonstrate that biodegradation of HVOCs is occurring and that cis-1,2-DCE and vinyl chloride are accumulating under primarily methanogenic conditions which exhibit slower biodegradation rates. -

## 7.47.5 CLEANUP ACTION ALTERNATIVES

The remedial technologies derived from the technology screening (Table 14) were used to develop three cleanup alternatives for the Site:

- Cleanup Alternative 1: Institutional and Engineered Controls and Monitored Natural Attenuation:
- Cleanup Alternative 2: In-Situ Chemical Oxidation, Limited Soil Excavation, and Engineered Controls, and Monitored Natural Attenuation; and
- Cleanup Alternative 3: Air Sparging and Soil Vapor Extraction, Limited Soil Excavation, and Engineered Controls, and Monitored Natural Attenuation.

A description of each cleanup action alternative is provided below, summarized in Table 15. Summary cost estimates developed for the three cleanup action alternatives are provided in Table 16.

# 7.4.17.5.1 Cleanup Alternative 1 – Institutional and Engineered Controls and Monitored Natural Attenuation

Cleanup Alternative 1 consists of: engineered controls to eliminate direct contact with shallow soil contamination, limit surface water infiltration through contaminated soil, and eliminate the soil vapor to indoor air exposure pathway; compliance groundwater sampling to demonstrate monitored natural attenuation and that groundwater is not a medium of concern with soil impacts left in-place; and institutional controls to protect ecological and human receptors from exposure to COCs remaining in shallow soil. The conceptual layout for Cleanup Alternative 1 is shown on Figure <u>1820</u>.

Implementation of Cleanup Alternative 1 incorporates the planned Site redevelopment that consists of demolishing existing structures on Property and constructing a new industrial warehouse facility improved with an asphalt-paved parking lot. The new building concrete foundation and surrounding asphalt surface will act as engineered controls (Figure 1820). COCs will remain in soil and groundwater at concentrations exceeding MTCA cleanup levels over the long term. Groundwater monitoring will be conducted to evaluate or document the incomplete soil to groundwater leaching pathway. Successful implementation of Cleanup Alternative 1 includes an institutional control in the form of an environmental covenant that restricts future uses of the Property, consistent with industrial uses and cleanup levels.

Key assumptions for Cleanup Alternative 1 include the following:

• All existing buildings and warehouses will be demolished.



- The existing paved surfaces and buildings will be used for the foreseeable future as engineering controls to eliminate direct contact with COCs remaining in soil at concentrations exceeding cleanup levels.
- All permits associated with construction and Property redevelopment activities are development-related costs and were not included in the Alternative cost.
- Monitoring wells in the future building foundation will be decommissioned.
- Future use of shallow groundwater at the Site is not anticipated.
- Contaminant migration from soil to groundwater and via groundwater transport will be limited by existing and future impervious surfaces.
- A contaminant-resistant vapor barrier will be installed with the new building foundation as an engineered control to eliminate the soil gas to indoor air exposure pathway.
- Annual cap inspections will be conducted for a 20-year period.
- Resealing asphalt surfaces will be necessary after 10 years.
- Costs to demolish existing buildings, canopies, and other infrastructure are development-related costs and were not included in the Alternative cost.
- Institutional controls will be implemented per WAC 173-340-440 and will include an environmental covenant recorded on the property deed.
- A Soil Management Plan (SMP) will be implemented to govern the handling of potentially contaminated environmental media during future redevelopment or utility work, as necessary, including general worker protection measures. The SMP will include a Sampling and Analysis Plan developed per WAC 173-340-810.
- Installation of two new monitoring wells post-Property redevelopment to support groundwater compliance monitoring.
- Evaluation of the monitored natural attenuation geochemical parameters during performance and/or compliance groundwater monitoring events.
- Groundwater monitoring for Cleanup Alternative 1 consists of monitoring a network of up to 15-14 monitoring wells quarterly for Year 1, semiannually for Years 2 through 19, and quarterly for Year 20. Groundwater monitoring reports will be submitted annually for 20 years.

Monitoring wells will be decommissioned at the conclusion of the 20-year compliance groundwater monitoring program, or when the points of compliance have been achieved and Ecology issues a determination of No Further Action.

For the purpose of estimating its present worth cost, the time frame to implement Cleanup Alternative 1 was assumed to be 20 years. The estimated cost to complete Cleanup Alternative 1 is summarized below from Table 16:



Capital Cost: \$41,000 Ongoing Periodic and Future Cost: \$846984,000 Cleanup Alternative 1 Total: \$8871,025,000

<del>7.4.2</del>7.5.2

Cleanup Alternative 2 –

In-Situ Chemical Oxidation, Limited Soil Excavation, and Engineered Controls, and Monitored Natural Attenuation

Cleanup Alternative 2 includes ISCO injections to treat groundwater exceeding cleanup levels, and limited soil excavation in three areas where COCs have been detected at concentrations exceeding soil cleanup levels. Future Property development will incorporate a vapor barrier with the building foundation to eliminate the soil vapor to indoor air exposure pathway. Results from compliance groundwater monitoring will be used to evaluate the effectiveness of the remedial technology and restoration of groundwater quality. The conceptual layout for Cleanup Alternative 2 is shown on Figure 1921.

Cleanup Alternative 2 assumes that a solution of sodium permanganate will be delivered to the subsurface in each treatment area via temporary injection points. Sodium permanganate will oxidize HVOCs in groundwater, and convert hazardous compounds to nonhazardous or less-toxic compounds. Localized areas of soil with concentrations of COCs exceeding MTCA cleanup levels for ORO, TCE, and lead will be excavated, and the soil removed from the Site. As part of redevelopment, the majority of the Site will be covered with impervious surfaces consisting of the new building foundation and an asphalt-paved parking surface.

Key assumptions for Cleanup Alternative 2 include the following:

- All existing buildings and warehouses will be demolished.
- All permits associated with construction and Property redevelopment activities are development-related costs, and were not included in the Alternative cost.
- Monitoring wells in the future building foundation will be decommissioned.
- Future use of shallow groundwater at the Site is not anticipated.
- A contaminant-resistant vapor barrier will be installed with the new building foundation as an engineered control to eliminate the soil gas to indoor air exposure pathway.
- An SMP will be implemented to govern the handling of contaminated environmental media during future redevelopment and excavation activities, including general worker protection measures. The SMP will include a Sampling and Analysis Plan developed per WAC 173-340-810.
- Two limited areas on the Site proximate to borings B-4 and B-5 will be excavated. A 20-by-20-foot area will be excavated at each location to depths ranging from 5 feet bgs proximate to boring B-4 to 8 feet bgs proximate to boring B-5. An estimated 700 tons of soil will be transported off the Site for disposal as nonhazardous waste at a Subtitle D



landfill. Confirmation soil samples will be collected from the base of the excavations and sidewalls for compliance sampling.

- Temporary dewatering will be required where excavation occurs below groundwater. The depth to groundwater varies seasonally between the ground surface and 6.5 to 12 feet bgs.
- No shoring was included in the estimate; a 1:1 slope back on the excavation sidewalls was assumed for the cost estimate.
- A treatability study will be conducted, including analysis of the soil oxidant demand.
- Approximately 420,000 pounds or 3819,000 gallons of a 5 percent solution of sodium permanganate will be injected across approximately 41021 temporary injection points for each ISCO injection event. Each injection event will consist of injecting approximately 900 gallons of sodium permanganate into each temporary injection point.
- Two injection events are anticipated to treat HVOCs in groundwater, with a third contingency injection event.
- Installation of two new monitoring wells post-Property redevelopment to support groundwater compliance monitoring.
- Evaluation of the monitored natural attenuation geochemical parameters during performance and/or compliance groundwater monitoring events.
- Groundwater monitoring for Cleanup Alternative 2 consists of monitoring a network of 16 up to 15 monitoring wells quarterly for Years 1 and 2, semiannually for Years 3 and 4, and quarterly for Year 5. Groundwater monitoring reports will be submitted annually for 5 years.

Monitoring wells will be decommissioned at the conclusion of the 5-year compliance groundwater monitoring program, or when the points of compliance have been achieved and Ecology issues a determination of No Further Action. For the purpose of estimating the present worth cost, the time frame to implement Cleanup Alternative 2 was assumed to be 5 years for compliance groundwater monitoring. The estimated cost to complete Cleanup Alternative 2 is summarized below from Table 16:

 Capital Cost:
 \$1,3682,176562,000

 Ongoing Periodic and Future Cost:
 \$264328,000

 Cleanup Alternative 2 Total:
 \$1,6322,504890,000

<del>7.4.3</del>7.5.3

Cleanup Alternative 3 –

Air Sparging and Soil Vapor Extraction, Limited Soil Excavation, and Engineered Controls, and Monitored Natural Attenuation

Cleanup Alternative 3 involves installation of an AS and SVE remediation system to treat soil and groundwater with HVOC concentrations exceeding MTCA cleanup levels, limited soil excavation in three areas where COCs detected at concentrations exceeding soil cleanup levels, and



compliance groundwater monitoring to demonstrate the effectiveness of the remedial technology. The conceptual layout for Cleanup Alternative 3 is shown on Figure 2022. AS and SVE are proven technologies for treatment of groundwater exceeding cleanup levels, and are considered effective and implementable technologies at the Site based on both existing pilot test results (see Section 7.3) and prior implementation of these technologies at the Site.

Cleanup Alternative 3 assumes that AS and SVE will be used to treat four localized areas with HVOCs detected at concentrations exceeding MTCA cleanup levels for groundwater. Localized areas of soil with concentrations of COCs exceeding MTCA cleanup levels for ORO, TCE, and lead will be excavated and removed from the Site. As part of redevelopment, the majority of the Site will be covered with impervious surfaces consisting of the new building foundation and an asphalt-paved parking surface.

Key assumptions for Cleanup Alternative 3 include the following:

- All existing buildings and warehouses will be demolished.
- All permits associated with construction and Property redevelopment activities are development-related costs and were not included in the Alternative cost.
- Monitoring wells in the future building foundation will be decommissioned.
- Future use of shallow groundwater at the Site is not anticipated.
- A contaminant-resistant vapor barrier will be installed with the new building foundation as an engineered control to eliminate the soil gas to indoor air exposure pathway.
- An SMP will be implemented to govern the handling of contaminated environmental media during future redevelopment and excavation activities, including general worker protection measures. The SMP will include a Sampling and Analysis Plan developed per WAC 173-340-810.
- Two limited areas on the Site proximate to borings B-4 and B-5 will be excavated. A 20-by-20-foot area will be excavated at each location to depths ranging from 5 feet bgs proximate to boring B-4 to 8 feet bgs proximate to B-5. An estimated 700 tons of soil will be transported off the Site for disposal as nonhazardous waste at a Subtitle D landfill. Confirmation soil samples will be collected from the base of the excavations and sidewalls for compliance sampling.
- Temporary dewatering will be required where excavation occurs below groundwater. The depth to groundwater varies seasonally between the ground surface and 6.5 to 12 feet bgs.
- No shoring is included in this estimate; a 1:1 slope back on the excavation sidewalls was assumed for the cost estimate.
- The cost estimate includes three separate AS/SVE systems that will be required for the four
  treatment areas. Each AS/SVE system will be composed of a series of AS wells with an
  assumed radius of influence of 20 feet and horizontal SVE trenches with an assumed radius
  of influence of 30 feet. The AS/SVE design includes a total of 30 AS wells, 28 vertical and



- <u>2 diagonal</u>, and associated horizontal <u>SVE</u> trenches for vapor recovery. The AS/SVE systems will be operational for 5 years with monthly operation and maintenance visits. It was assumed that <del>no</del>-vapor-phase treatment will be required <u>for one out of the three of the treatment systems</u> prior to direct discharge to the atmosphere.
- Installation of two new monitoring wells post-Property redevelopment to support groundwater compliance monitoring.
- Evaluation of the monitored natural attenuation geochemical parameters during performance and/or compliance groundwater monitoring events.
- Groundwater monitoring for Cleanup Alternative 3 consists of monitoring a network of <a href="mailto:up">up</a> <a href="mailto:165">165</a> monitoring wells quarterly for Years 1 through 3, semiannually for Years 4 and 5, and quarterly for Year 6. Groundwater monitoring reports will be submitted annually for 6 years.

Monitoring wells will be decommissioned at the conclusion of the 6-year compliance groundwater monitoring program, or when points of compliance have been achieved and Ecology issues a determination of No Further Action.

For the purpose of estimating the present worth cost, the time frame to implement Cleanup Alternative 3 was assumed to be 5 years for AS/SVE system operation, and 6 years for compliance groundwater monitoring. The estimated cost to complete Cleanup Alternative 3 is summarized below from Table 16:

Capital Cost: \$1,007<u>801</u>,000

Ongoing Periodic and Future Cost: \$\_<u>469550,000</u>

Cleanup Alternative 3 Total: \$1,4762,351,000

# 7.57.6 CLEANUP ALTERNATIVE EVALUATION

This section presents the evaluation of Cleanup Alternatives 1 through 3 with respect to the requirements set forth in MTCA under WAC 173-340-350 through 173-340-370. The cleanup alternative evaluation considered results from the RI and Site-specific conditions, including the nature and extent of COCs and the exposure assessment presented in Section 5.3, Exposure Pathways and Receptors. The evaluation of cleanup alternatives also considered current and future land use. The evaluation process conducted per MTCA, the results from the evaluation, and the results from the DCA conducted for the Site are summarized below.

7.5.17.6.1 Evaluation Process

The FS considered the requirements under WAC 173-340-350 and the criteria defined in WAC 173-340-360 for screening potentially feasible cleanup alternatives for the Site. A cleanup alternative must satisfy the following threshold criteria specified in WAC 173-340-360(2)(a):

• Protect human health and the environment;



- Comply with cleanup standards;
- Comply with applicable state and federal laws; and
- Provide for compliance monitoring.

In addition to meeting the threshold criteria, cleanup actions under MTCA must meet the following additional requirements specified in WAC 173-340-360(2)(b):

- Provide for a reasonable restoration time frame based on the factors provided in WAC 173-340-360(4)(b);
- Use permanent solutions to the maximum extent practicable based on the criteria defined in WAC 173-340-360(3)(f); and
- Consider public concerns (WAC 173-340-600).

The factors used to evaluate the reasonableness of the restoration time frame per WAC 173-340-360(4)(b) were:

- Potential risks posed by COCs at the Site to human health and the environment;
- Practicability of achieving a shorter restoration time frame;
- Current use of the Site, surrounding areas, and associated resources that are or may be affected by releases from the Site;
- Availability of alternative water supplies;
- Likely effectiveness and reliability of institutional controls;
- Ability to control and monitor migration of hazardous substances from the Site;
- Toxicity of the hazardous substances at the Site; and
- Natural processes that reduce concentrations of hazardous substances and have been documented to occur at the Site or under similar Site conditions.

The criteria used to evaluate the degree of permanence to the maximum extent practicable per WAC 173-340-360(3)(f) were:

- Protectiveness: Overall protectiveness of human health and the environment, including the degree to which existing risks are reduced; the time required to reduce risk at the Site and attain cleanup standards, and risks at the Site resulting from implementing the alternative; and improvement of overall environmental quality.
- Permanence: The degree to which the alternative permanently reduces the toxicity, mobility, or volume of hazardous substances, including the adequacy of the alternative in destroying the hazardous substances, the reduction or elimination of hazardous substance releases and sources of releases, the degree of irreversibility of the waste treatment process, and the characteristics and quantity of treatment residuals generated.



- Long-term effectiveness: The degree of certainty that the alternative will be successful, the reliability of the alternative during the period of time that hazardous substances are expected to remain on the Site at concentrations that exceed preliminary cleanup levels, and the magnitude of residual risk with the alternative in place. The following types of cleanup action components may be used as a guide, in descending order, when assessing the relative degree of long-term effectiveness: reuse or recycling; destruction or detoxification; immobilization or solidification; disposal on or off the Site in an engineered, lined, and monitored facility; isolation or containment with attendant engineered controls on the Site; and institutional controls and monitoring.
- Management of short-term risks: The risk to human health and the environment associated
  with the alternative during construction and implementation, and the effectiveness of
  measures that will be taken to manage such risks. This criterion includes risks to workers
  and customers at businesses adjoining the Site and to members of the public on surrounding
  public roads resulting from implementation of the cleanup alternative.
- Technical and administrative implementability: Ability to be implemented, including
  consideration of whether the alternative is technically feasible, administrative and
  regulatory requirements, permitting, scheduling, size, complexity, monitoring
  requirements, access for construction operations and monitoring, and integration with the
  business operations at the Site and adjoining business operations.
- Consideration of public concerns: Whether the community has concerns regarding the alternative and, if so, the extent to which the alternative addresses those concerns. This process includes concerns from individuals, community groups, local governments, federal and state agencies, or any other organization that may have an interest in or knowledge of the Site.
- Cost: The cost to implement the alternative, including the cost of construction and anticipated long-term costs. Long-term costs include operation and maintenance, monitoring, and reporting costs.

7.5.27.6.2 Evaluation Results

A summary of the evaluation of the Threshold Requirements and Other Requirements for the cleanup action alternatives is provided in Table 17. The evaluation was conducted in accordance with MTCA requirements and is summarized below.

## 7.5.2.1 Threshold Requirements

The evaluation of Cleanup Alternatives 1 through 3 against the threshold requirements of WAC 173-340-360(2)(a) is summarized in Table 17. The evaluation indicates that Cleanup Alternatives 2 and 3 meet the minimum Threshold Requirements for a cleanup action under WAC 173-340-360(2). Cleanup Alternative 1 does not meet the Threshold Requirement for complying with cleanup standards (WAC 173-340-360 (2)(a)(iii). The restoration time frame is considered reasonable for Cleanup Alternatives 2 and 3.



## **7.5.2.2 7.6.2.2** Other Requirements

As defined in WAC 173-340-360(3), a cleanup action must use permanent solutions to the maximum extent practicable. The following criteria were considered for each of the cleanup alternatives under the requirement for a permanent solution to the maximum extent practicable. Table 17 summarizes the ranking of each alternative.

## Protectiveness

- Cleanup Alternative 1 will achieve a low level of protectiveness as a result of no active treatment of soil or groundwater with COCs detected at concentrations exceeding cleanup levels, and relies on engineered and institutional controls to eliminate risks to human health and environment.
- Cleanup Alternative 2 will provide a high level of protectiveness as a result of soil source removal and active groundwater treatment. ISCO requires direct contact with COCs in groundwater to oxidize and reduce toxicity of COCs, and may be limited by heterogeneities in the subsurface. A contaminant-resistant vapor barrier will be installed with the new building foundation as an engineered control to eliminate the soil gas to indoor air exposure pathway during the restoration time frame.
- Cleanup Alternative 3 will provide a high level of protectiveness as a result of
  soil source removal and active groundwater treatment. In-situ treatment with
  AS and SVE physically removes COCs from groundwater and the unsaturated
  zone. A contaminant-resistant vapor barrier will be installed with the new
  building foundation as an engineered control to eliminate the soil gas to indoor
  air exposure pathway during the restoration time frame.

#### Permanence

- Cleanup Alternative 1 does not achieve permanence, and only prevents exposure to contaminated soil and groundwater by using containment and institutional controls. Natural attenuation may reduce concentrations of HVOCs in soil and groundwater; however, concentrations of lead in soil will be reduced only if removed by future redevelopment.
- Cleanup Alternatives 2 and 3 provide a permanent solution by reducing the toxicity, mobility, and volume of COCs through both biological and physical means. Cleanup Alternative 3 will actively address COCs in soil and groundwater by physically removing COCs from the subsurface.

## Long-Term Effectiveness

Cleanup Alternative 1 will not provide adequate long-term effectiveness. No contaminant mass will be removed, and long-term inspection and maintenance will be necessary to maintain effective containment. Cleanup Alternative 2 provides a medium to high level of long-term effectiveness by removing contaminant mass in soil, and via in-situ treatment of contaminated groundwater. Cleanup Alternative 3



provides a slightly higher level of effectiveness than Cleanup Alternative 2 by physically removing COCs from the subsurface.

## Short-Term Risk Management

No short-term risks are associated with Cleanup Alternative 1. Cleanup Alternative 2 presents a moderate level of short-term risk associated with exposure to contaminated soil during the limited soil excavation. Cleanup Alternative 3 presents a moderate level of short-term risk associated with exposure to contaminated soil during the limited soil excavation and installation of the AS/SVE treatment system. Cleanup Alternative 2 presents a slightly higher short-term risk than Cleanup Alternative 3 due to the handling of strong chemical oxidants during the injection process.

## **Technical and Administrative Implementability**

Implementing Cleanup Alternative 1 will be relatively uncomplicated, and will include activities such as establishing an environmental covenant, institutional controls, installing a building vapor barrier as part of redevelopment, and long-term monitoring of Site containment. Cleanup Alternatives 2 and 3 involve permitting and work along the Property boundary, and present a moderate to high level of difficulty in implementation. Cleanup Alternatives 2 and 3 involve heavy equipment.

#### Public Concerns

The Site is in an industrial area with controlled access. There is no pathway for direct contact with the public. All three alternatives will address potential public concerns.

#### Cost

The estimated cost for implementation for each cleanup alternative is:

- Cleanup Alternative 1, Institutional and Engineered Controls and Monitored Natural Attenuation: \$8871,025,000;
- Cleanup Alternative 2, In-Situ Chemical Oxidation, Limited Soil Excavation, and Engineered Controls: \$1,6322,890,000; and
- Cleanup Alternative 3, Air Sparging and Soil Vapor Extraction, Limited Soil Excavation, and Engineered Controls: \$1,4762,351,000.

<del>7.5.3</del>7.6.3 **Disproportionate Cost** 

#### Analysis

The purpose of the DCA was to facilitate selection of the cleanup alternative that provides the highest degree of permanence to the maximum extent practicable.



The DCA for the Site was conducted in accordance with the methodology provided in WAC 173-340-360(3)(e). The cleanup alternative evaluation presented in Table 17 is provided in the format suggested by Ecology (2009). Table 17 presents a quantitative assessment of the MTCA criteria for determining whether a cleanup action uses permanent solutions to the maximum extent practicable (WAC 173-340-360[3][f]). A numeric score ranging from 0 to 10 was assigned to each of the criteria based on best professional judgment. The higher the score, the more favorable the cleanup alternative is under MTCA. The criteria scores were weighted according to Ecology (2009) suggestions, as indicated in Table 17.

A MTCA Composite Benefit Score was calculated for each alternative by summing the mathematical product of each criterion score and the weighting factor, which provided the quantitative measure of environmental benefit that will be realized by implementation of each cleanup alternative. The weighting factors for the six criteria were:

• Protectiveness: 30 percent;

• Permanence: 20 percent;

• Long-Term Effectiveness: 20 percent;

• Short-Term Effectiveness: 10 percent;

• Implementability: 10 percent; and

• Public Concerns: 10 percent.

For example, if the scores for each of the above listed criteria were 7.5, 7, 6, 3, 7, and 6, respectively, the MTCA Composite Benefit Score would be calculated as:  $(7.5) \times (0.3) + (7) \times (0.2) + (6) \times (0.2) + (3) \times (0.1) + (7) \times (0.1) + (6) \times (0.1) = 6.45$ . On a scale of 0 to 10, with 10 having the highest environmental benefit, a score of 6.45 represents moderate environmental benefit.

Table 17 summarizes the basis for the scoring, and the estimated costs for the three cleanup alternatives. Chart 1 graphically presents the results from the DCA. The orange bars on Chart 1 reflect the MTCA Composite Benefit Score for each cleanup alternative. The blue bars reflect the estimated cost of each alternative. The incremental benefit of a cleanup alternative relative to its incremental cost thus can be discerned.

## Based on this analysis:

- Cleanup Alternative 1 was assigned an overall benefit score of 5.0, with a cost of \$8871,025,000;
- Cleanup Alternative 2 was assigned an overall benefit score of 6.5, with an estimated cost of \$1,6322,890,000; and
- Cleanup Alternative 3 was assigned an overall benefit score of 7.5, with an estimated cost of \$1,4762,351,000.



Table 17 presents the MTCA evaluation criteria, the weighting factors, and the calculated cumulative benefit ranking (i.e., weighted average) for each cleanup alternative. A comparison of the overall benefit score versus the estimated cost for each of the alternatives is presented graphically on Chart 1.

Implementing Cleanup Alternative 1 results in a MTCA Composite Benefit Score of 5.0. The approximately \$1.62.893 million to implement Cleanup Alternative 2 will increase the MTCA Composite Benefit Score to 6.5. Implementing Cleanup Alternative 3 costs approximately \$1.482.35 million, resulting in a MTCA Composite Benefit Score of 7.5, an increase of 33 percent over Cleanup Alternative 1 and an increase of 13 percent over Cleanup Alternative 2. Cleanup Alternative 3 costs less than Cleanup Alternative 2 and has a higher benefit score.

Based on the MTCA Composite Benefit Score for the unit cost incurred, Cleanup Alternative 3 offers the greatest environmental benefit of the three cleanup alternatives evaluated. Cleanup Alternative 3, Air Sparging and Soil Vapor Extraction, Limited Soil Excavation, and Engineered Controls, is selected as the preferred cleanup alternative for the Site.

Cleanup Alternative 1 has the lowest cost, but does not provide environmental benefits similar to those of Cleanup Alternatives 2 and 3. The results from the DCA confirm that Cleanup Alternative 3 provides a permanent solution to the maximum extent practicable, meets the evaluation criteria defined in WAC 173-340-360(3)(f), provides a higher degree of environmental benefit over lower-cost Cleanup Alternative 1, and provides similar environmental benefits at a slightly lower cost than Cleanup Alternative 2.

## 7.67.7 PREFERRED CLEANUP ACTION ALTERNATIVE

Based on Site-specific conditions, the most-practicable cleanup approach for the Site is Cleanup Alternative 3, which includes installation and operation of an AS/SVE treatment system, limited soil excavation, and engineered controls. Compliance groundwater monitoring will be conducted to confirm that treatment of groundwater exceeding cleanup levels is occurring. Figure 20–22 presents the conceptual layout of Cleanup Alternative 3.

Preferred Cleanup Alternative 3 satisfies the MTCA threshold criteria specified in WAC 173-340-360(2)(a), and meets additional requirements specified in WAC 173-340-360(2)(b) and the expectations specified in WAC 173-340-370. Cleanup Alternative 3 uses permanent solutions to the maximum extent practicable per WAC 173-340-360(3)(f), and with a MTCA Benefit Score that is practicable of 7.5, achieves the highest score for a practicable alternative.

# 7.77.8 COMPLIANCE MONITORING

During the limited source excavation, compliance monitoring will be conducted in accordance with a Compliance Monitoring Plan to be prepared, as specified in WAC 173-340-410, which will include protection, performance, and confirmation soil sampling. The Compliance Monitoring



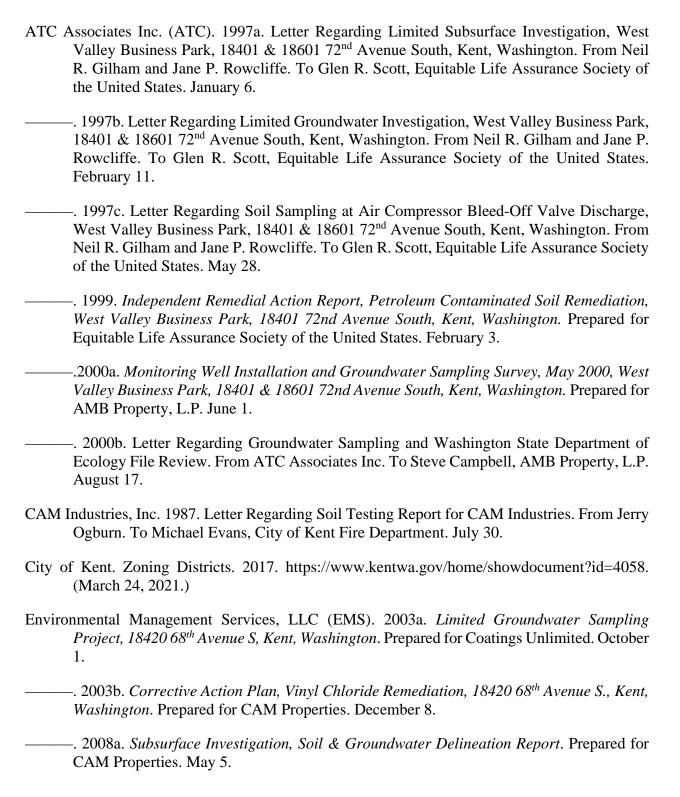
Plan also will include protocols for post-remediation groundwater monitoring. Figure 21–23 presents the Site restoration and compliance monitoring well network plan.

# 7.87.9 RESTORATION TIME FRAME

The active elements of Cleanup Alternative 3, including AS/SVE system operation, limited excavation, and site restoration, will be implemented over the period of approximately 1 to 2 months. A contaminant-resistant vapor barrier will be installed with the new building foundation as an engineered control to eliminate the soil gas to indoor air exposure pathway during the restoration timeframe. The restoration time frame is considered reasonable under MTCA, as additional protective controls, inspections, and monitoring will be implemented, no off-Site effects of COCs from source areas at the Site have been identified, and cleanup levels for shallow groundwater will be attained in a reasonable restoration time frame. For the purposes of the FS, AS/SVE system operations were assumed to be completed in Year 5, and groundwater compliance monitoring in Year 6.



## 8.0 REFERENCES





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	2018. Natural Background Groundwater Arsenic Concentrations in Washington State. Ecology Publication #14-09-044 (Draft). May.



### 9.0 LIMITATIONS

### 9.1 GENERAL LIMITATIONS

The conclusions contained in this report/assessment are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location. The conclusions contained herein are subject to the following inherent limitations:

- Accuracy of Information. Farallon obtained, reviewed, and evaluated certain information
  used in this report/assessment from sources that were believed to be reliable. Farallon's
  conclusions, opinions, and recommendations are based in part on such information.
  Farallon's services did not include verification of its accuracy or authenticity. Should the
  information upon which Farallon relied prove to be inaccurate or unreliable, Farallon
  reserves the right to amend or revise its conclusions, opinions, and/or recommendations.
- Reconnaissance and/or Characterization. Farallon performed a reconnaissance and/or characterization of the Site that is the subject of this report/assessment to document current conditions. Farallon focused on areas deemed more likely to exhibit hazardous materials conditions. Contamination may exist in other areas of the Site that were not investigated or were inaccessible. Site activities beyond Farallon's control could change at any time after the completion of this report/assessment.

For the foregoing reasons, Farallon cannot and does not warrant or guarantee that the Site is free of hazardous or potentially hazardous substances or conditions, or that latent or undiscovered conditions will not become evident in the future. Farallon's observations, findings, and opinions can be considered valid only as of the date of the report.

This report/assessment has been prepared in accordance with the contract for services between Farallon and Lift Real Estate Partners Fund, LLC, and currently accepted industry standards. No other warranties, representations, or certifications are made.

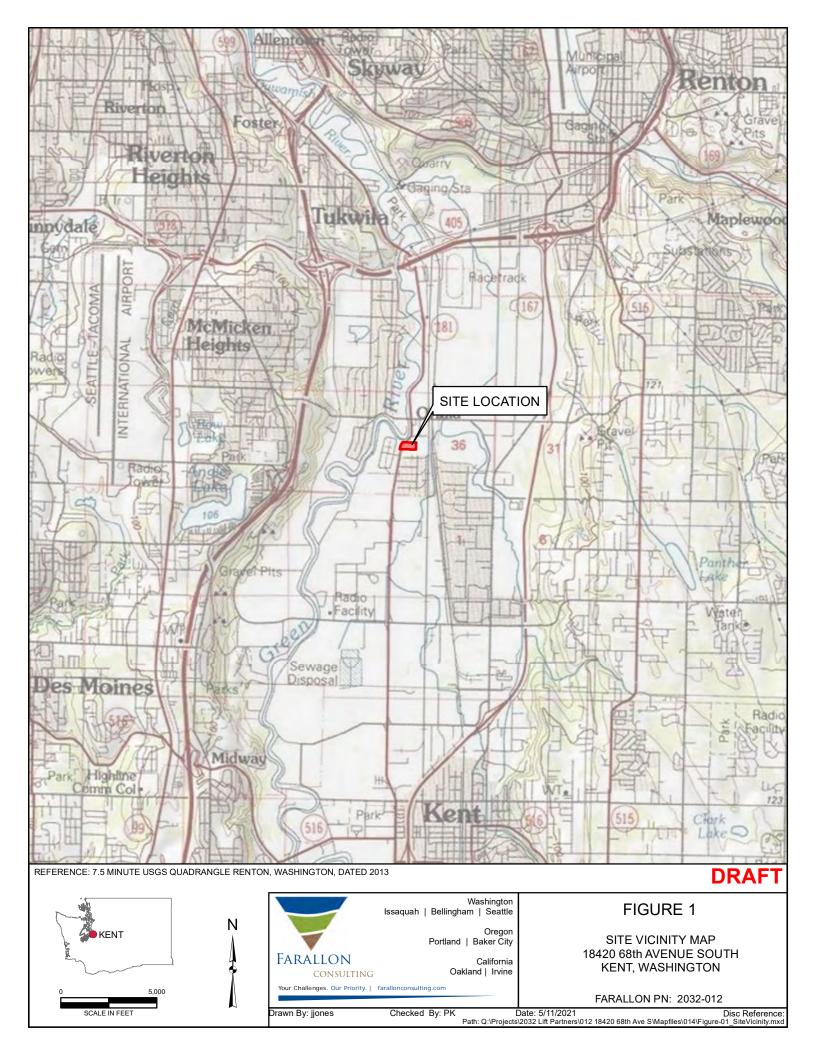
### 9.2 LIMITATION ON RELIANCE BY THIRD PARTIES

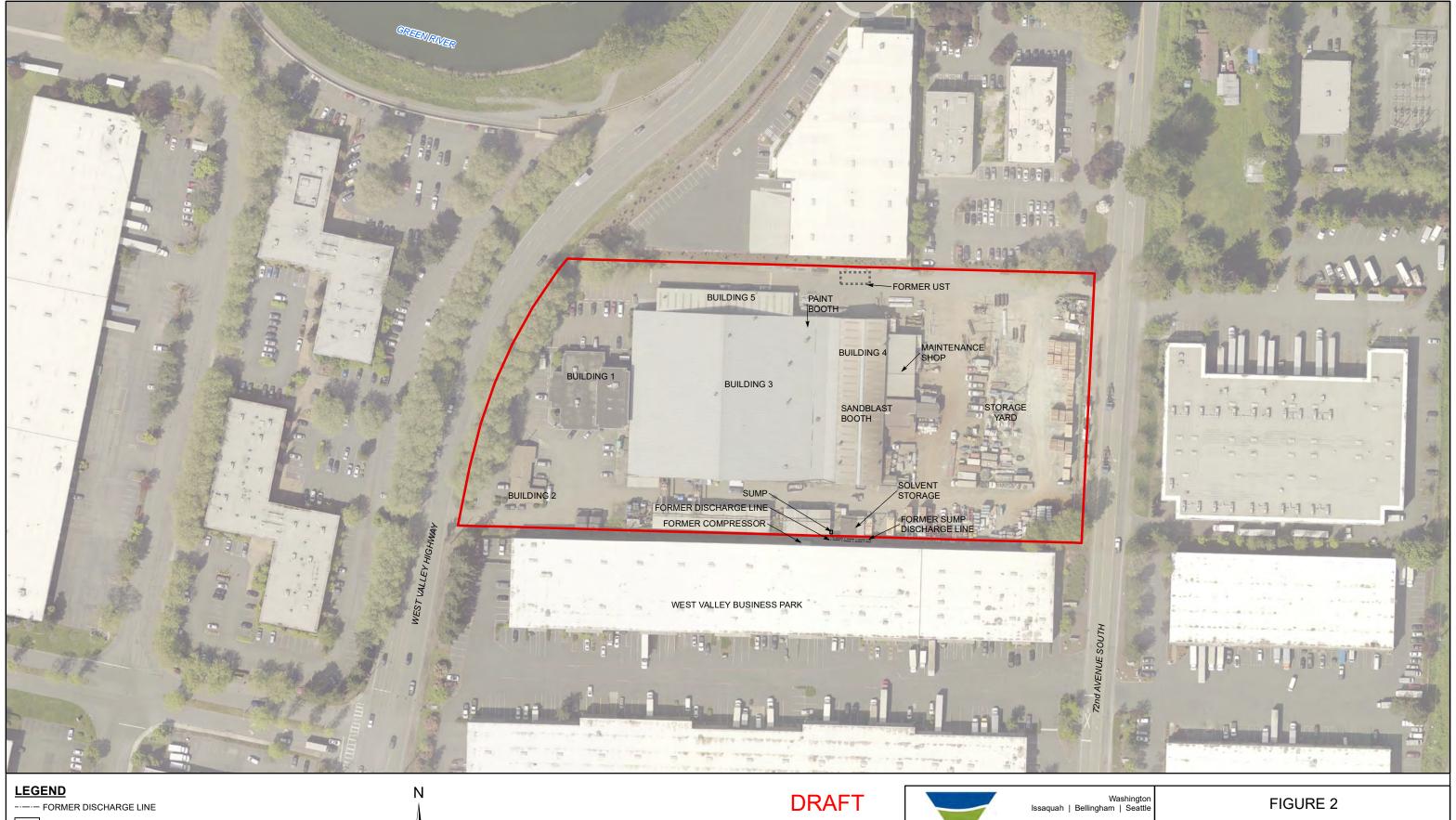
**Reliance by third parties is prohibited**. This report/assessment has been prepared for the exclusive use of Lift Real Estate Partners Fund, LLC to address the unique needs of Lift Real Estate Partners Fund, LLC at the 18420 68<sup>th</sup> Avenue property at a specific point in time.

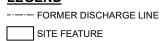
This is not a general grant of reliance. No one other than Lift Real Estate Partners Fund, LLC may rely on this report unless Farallon agrees in advance to such reliance in writing. Any unauthorized use, interpretation, or reliance on this report/assessment is at the sole risk of that party and Farallon will have no liability for such unauthorized use, interpretation, or reliance.

## **FIGURES**

REMEDIAL INVESTIGATION AND FEASIBILITY STUDY REPORT 18420 68<sup>th</sup> Avenue South Kent, Washington







SITE FEATURE
FORMER UNDERGROUND STORAGE TANK (UST)

PROPERTY BOUNDARY

NOTES:
1. ALL LOCATIONS ARE APPROXIMATE.
2. FIGURES WERE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.



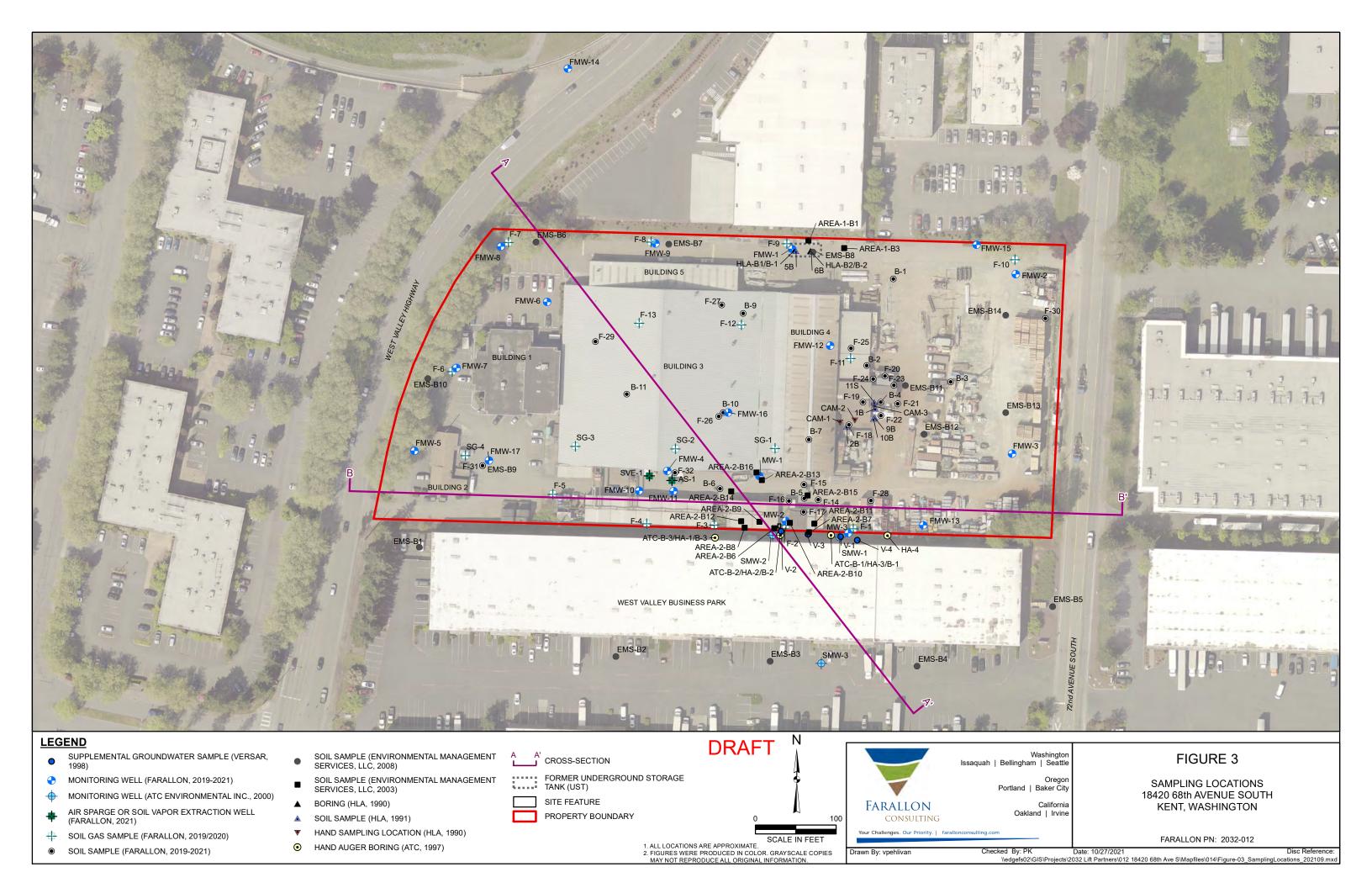
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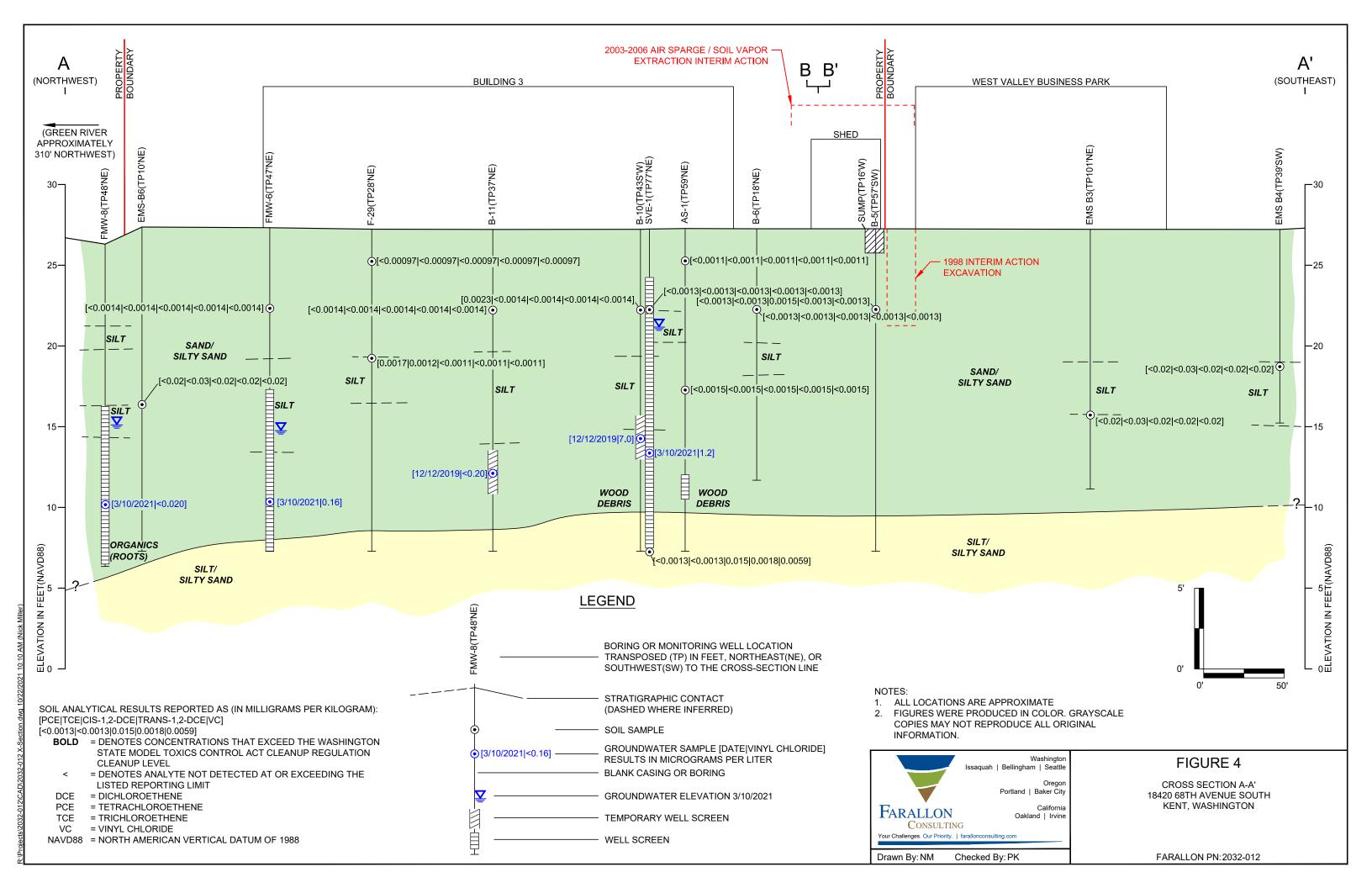
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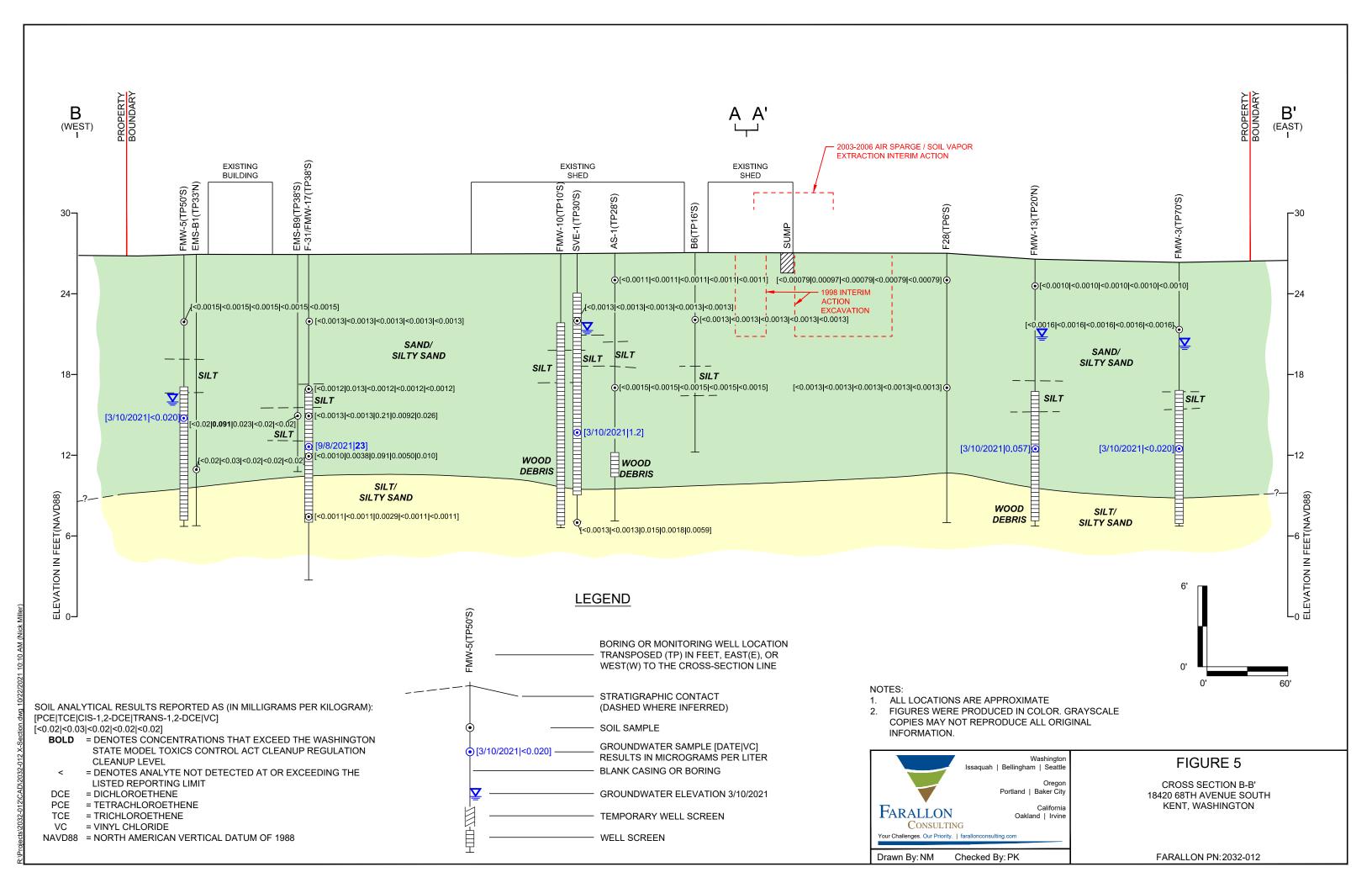
SITE PLAN 18420 68th AVENUE SOUTH KENT, WASHINGTON

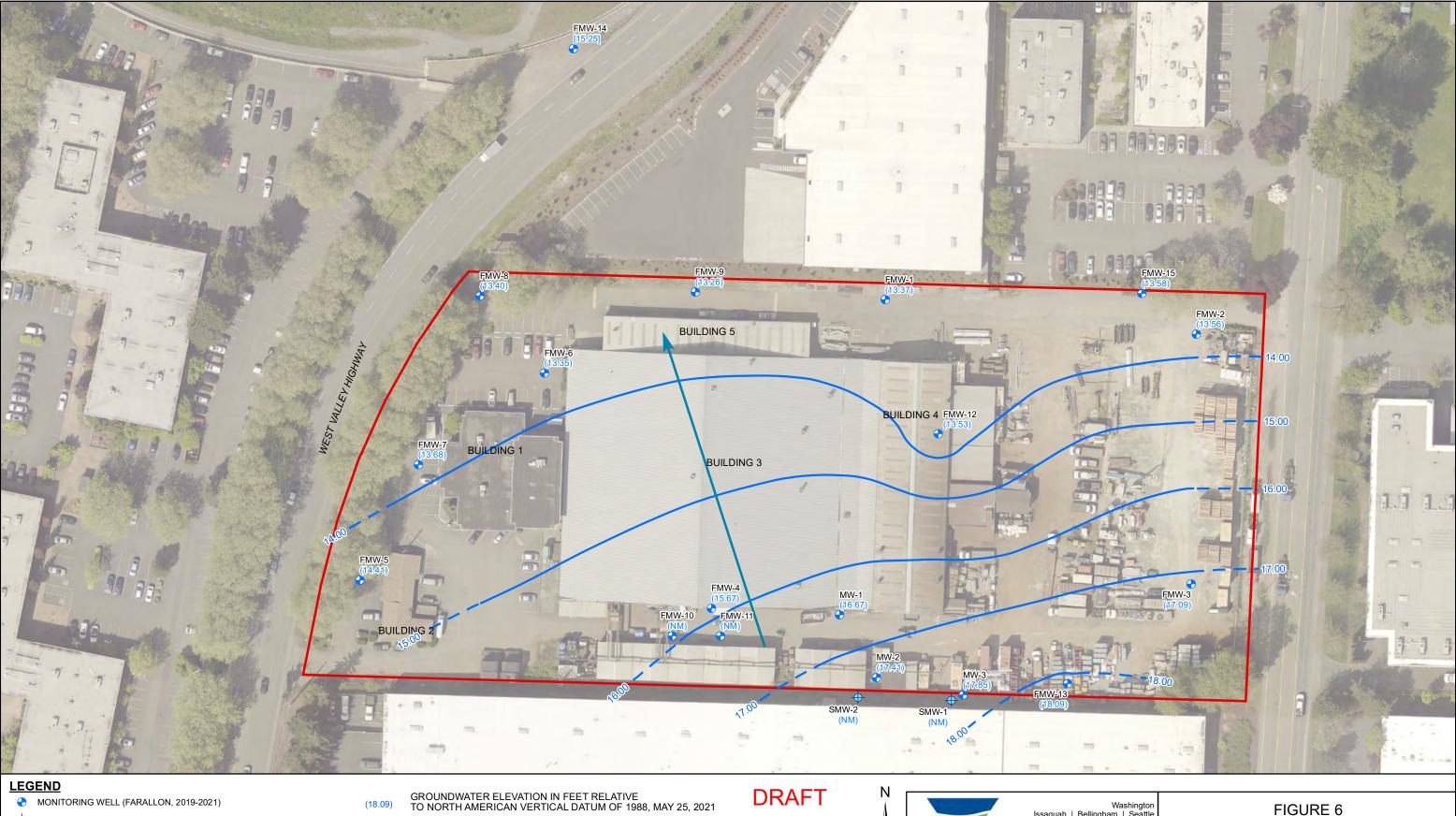
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Date: 5/11/2021 Disc Reference: Q:\Projects\2032 Lift Partners\012 18420 68th Ave S\Mapfiles\014\Figure-02\_PropertyPlan.mxd









MONITORING WELL (ATC ENVIRONMENTAL INC., 2000)

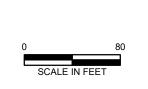
PROPERTY BOUNDARY

GROUNDWATER ELEVATION NOT USED IN CONTOUR GENERATION

GROUNDWATER ELEVATION CONTOUR IN FEET (DASHED WHERE INFERRED)

GROUNDWATER ELEVATION NOT MEASURED OR USED IN GROUNDWATER CONTOURING (INACCESSIBLE)

APPROXIMATE DIRECTION OF GROUNDWATER FLOW



ALL LOCATIONS ARE APPROXIMATE.
 FIGURES WERE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.



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Portland | Baker City

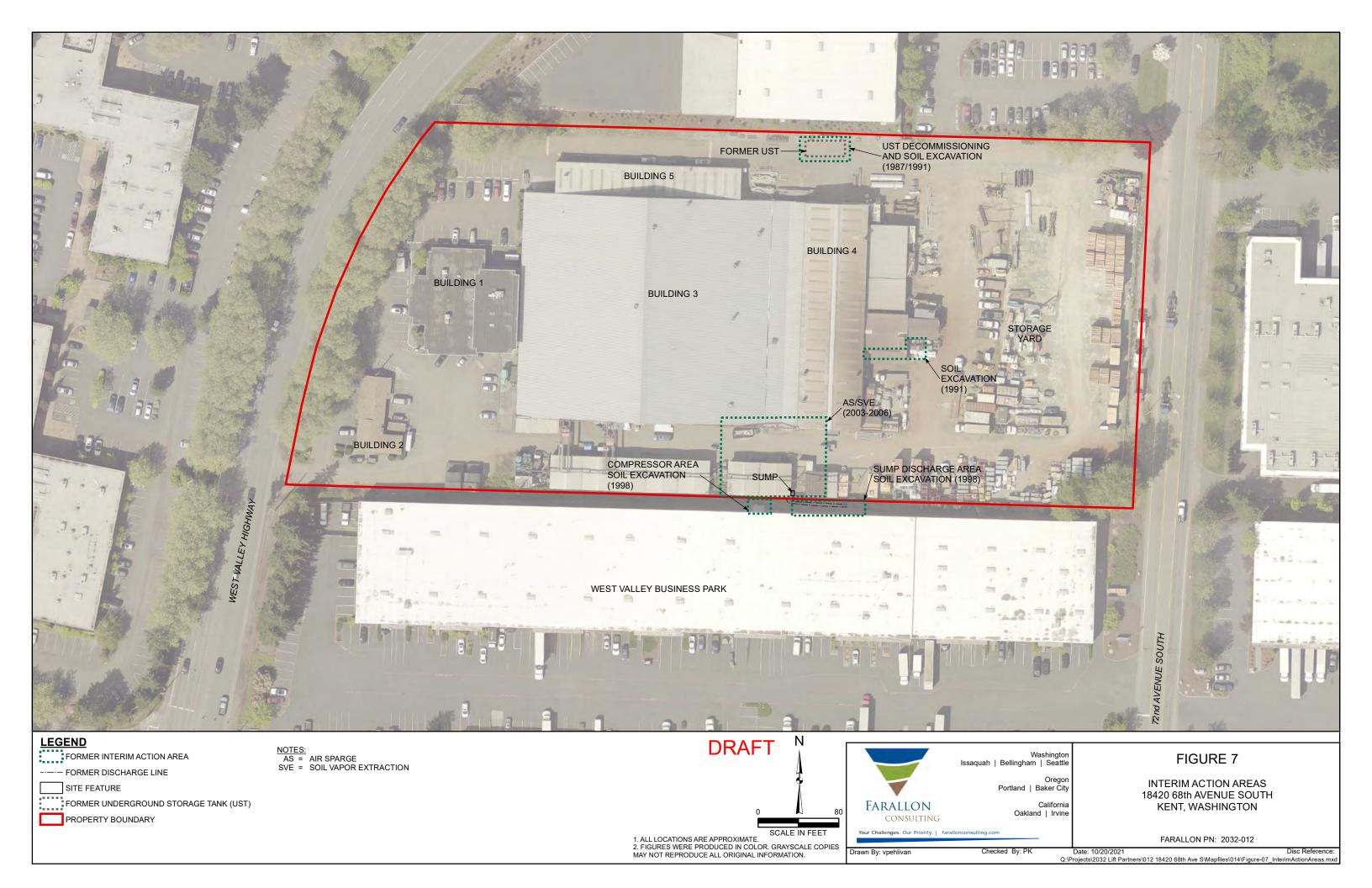
California Oakland | Irvine

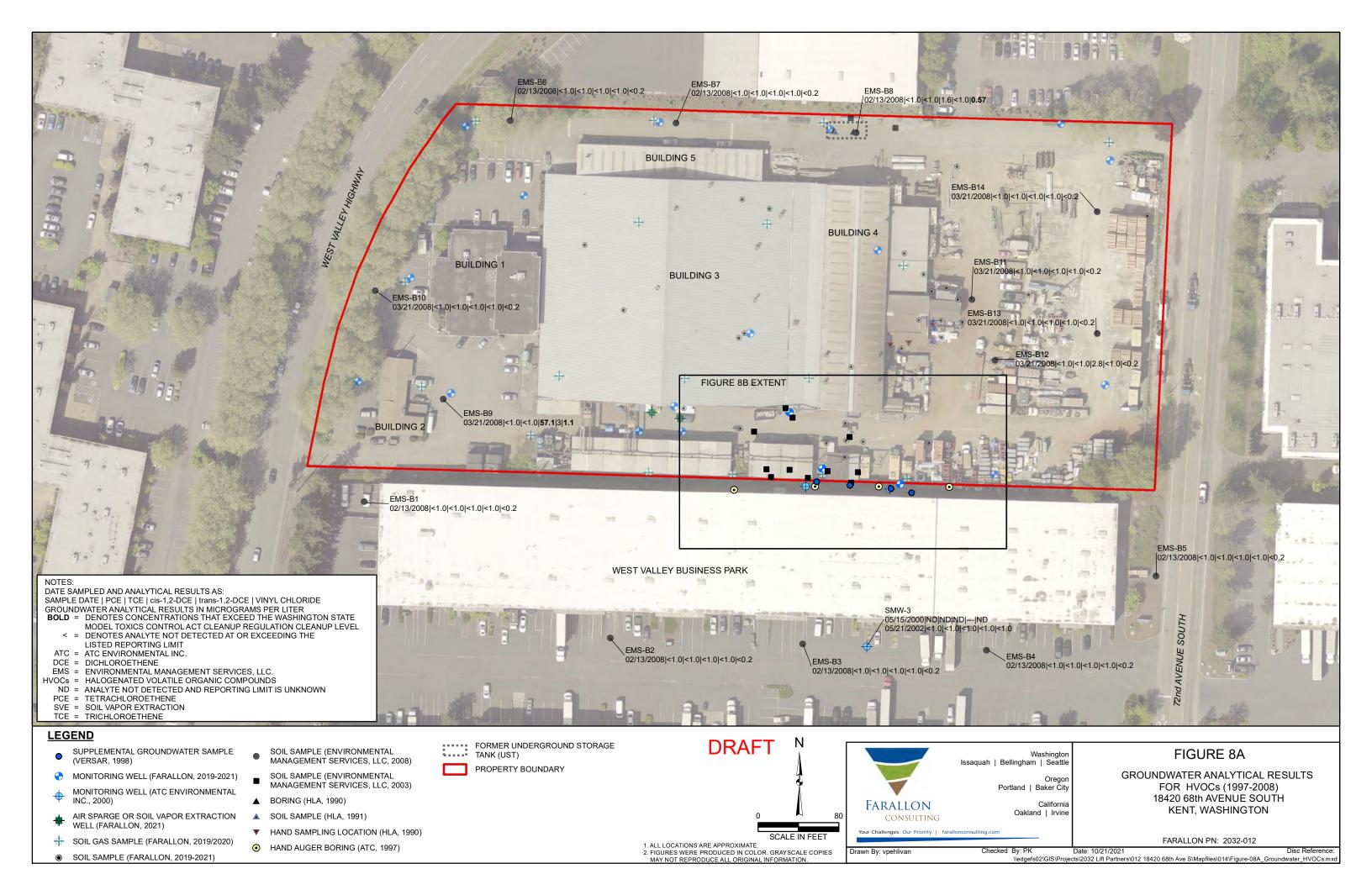
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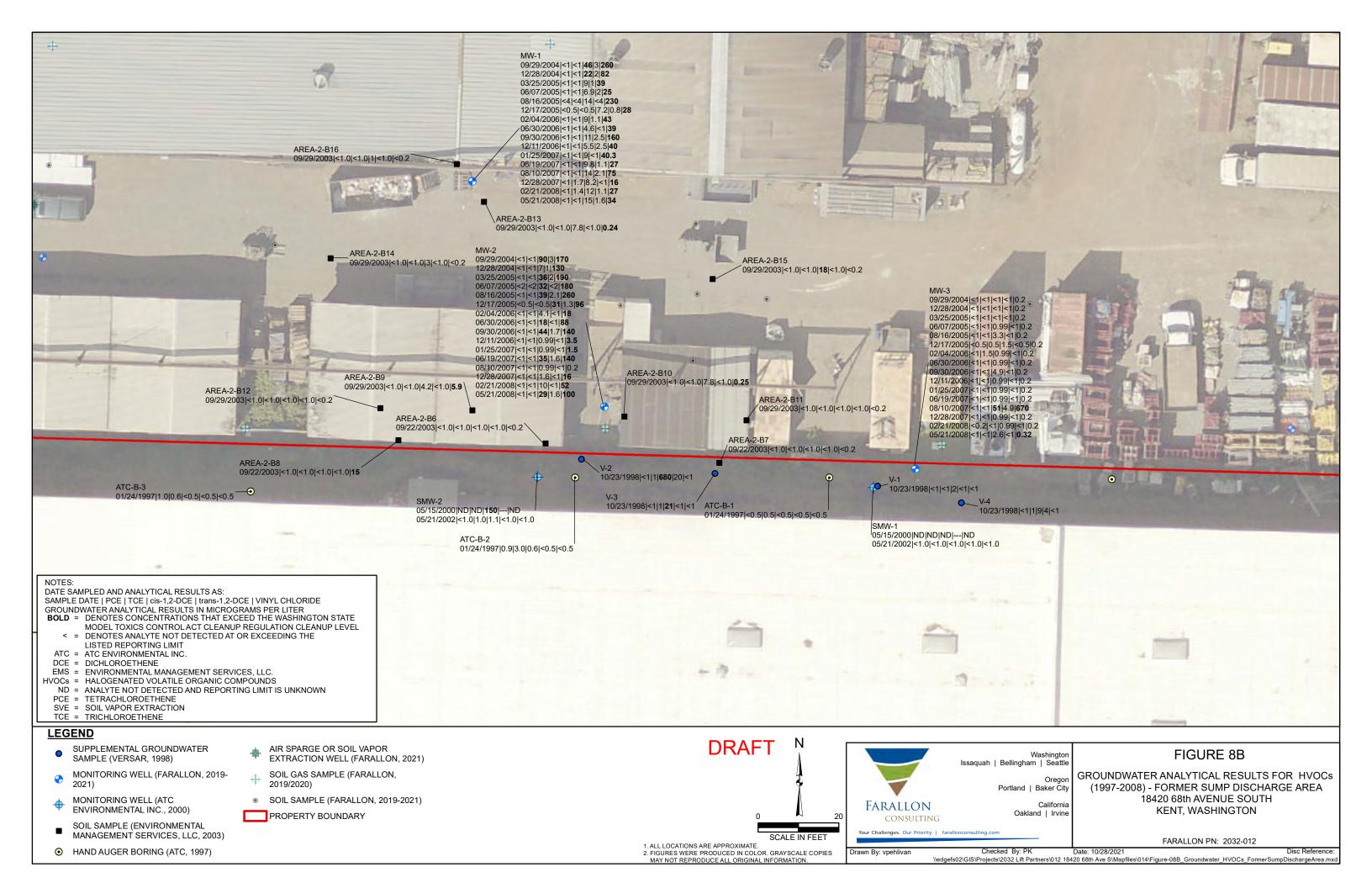
GROUNDWATER ELEVATION CONTOURS

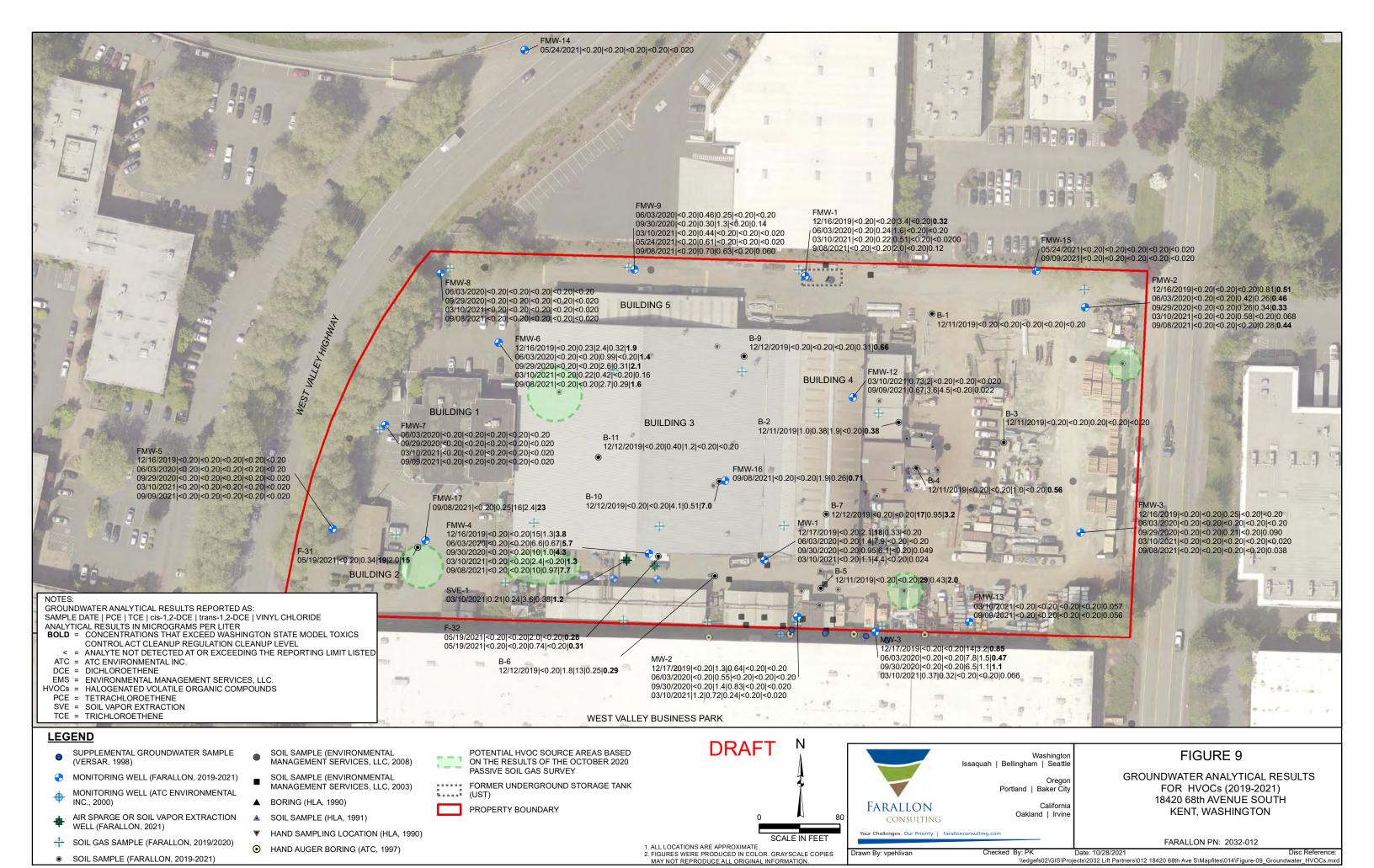
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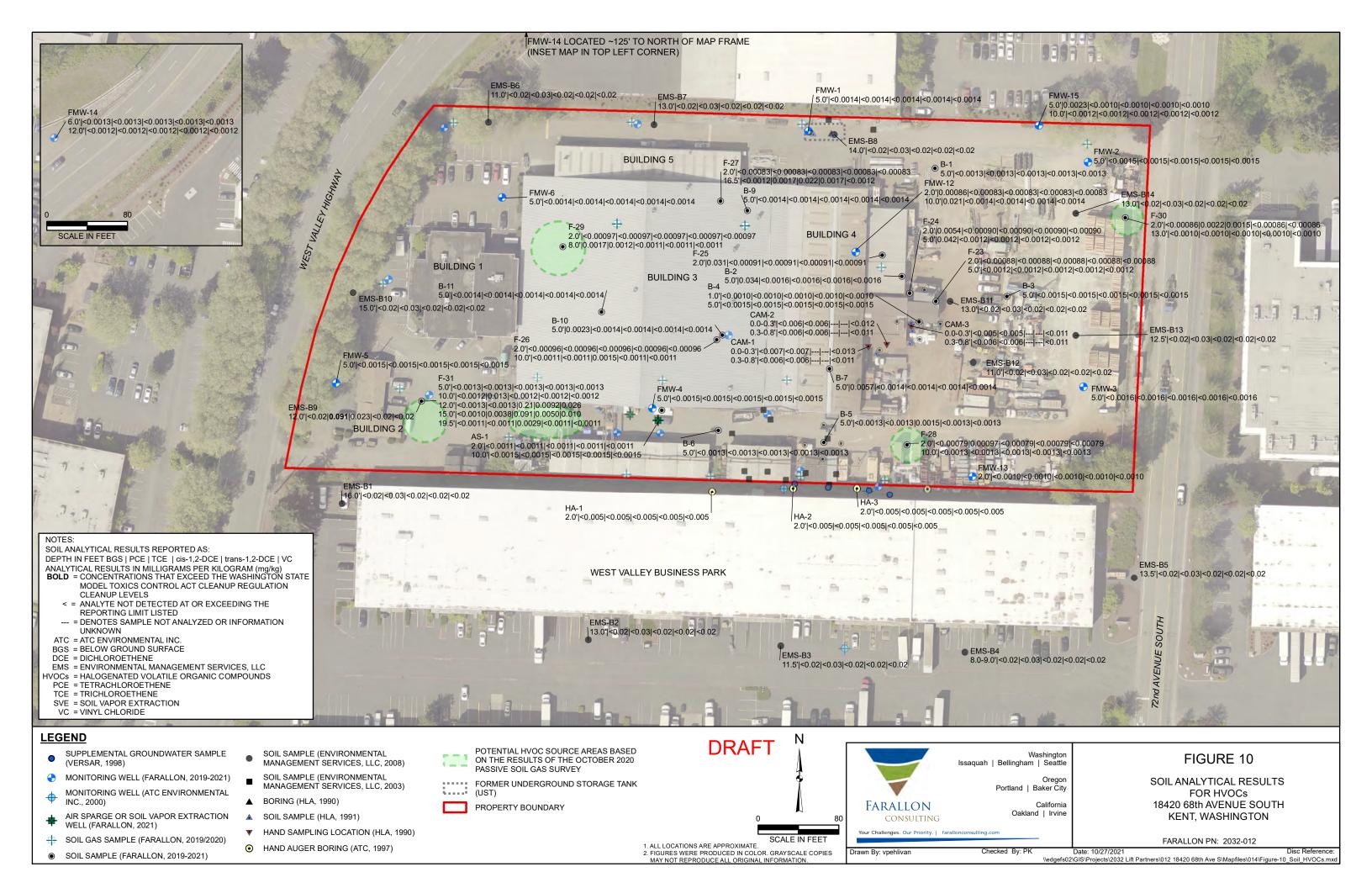
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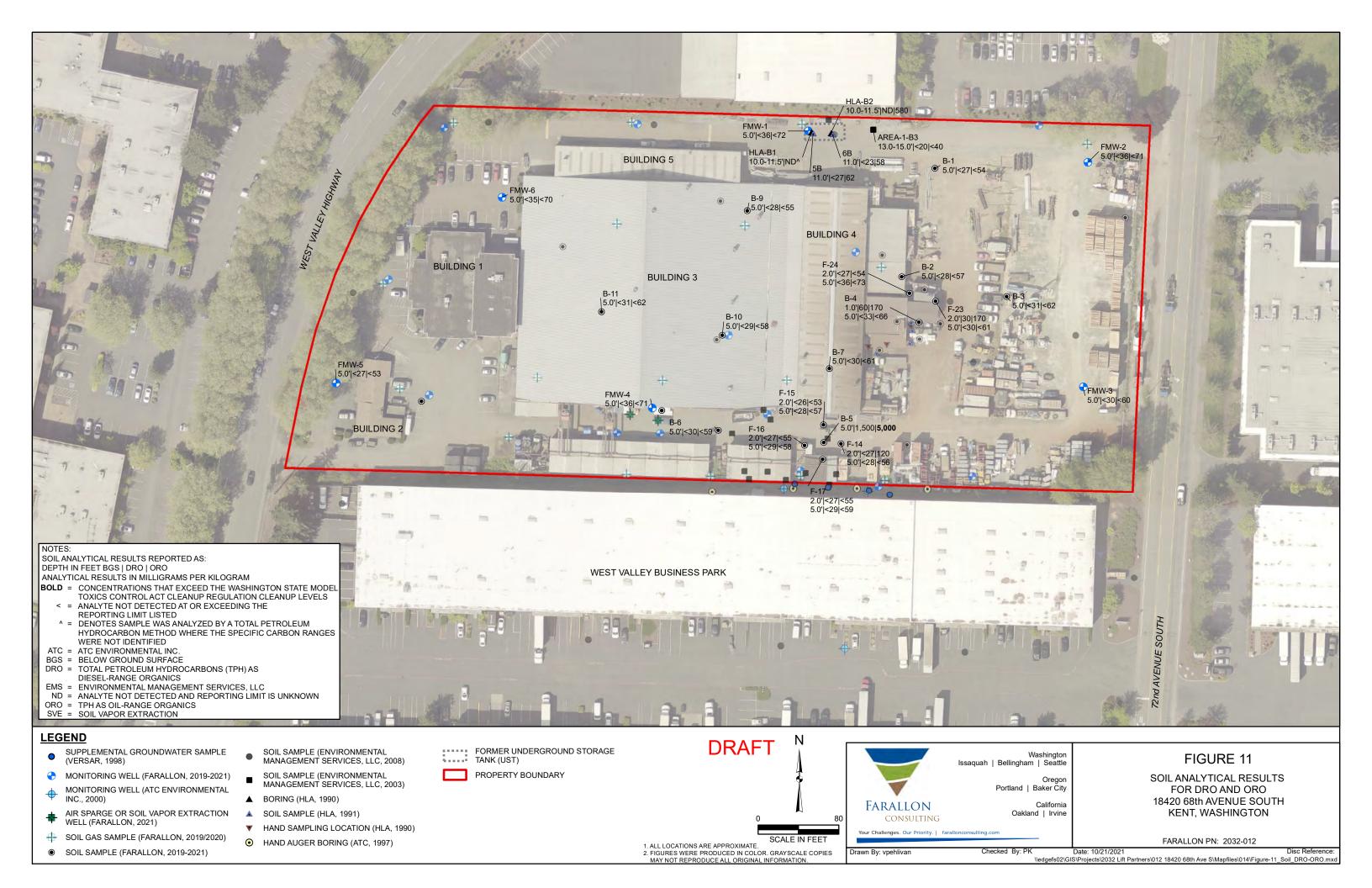


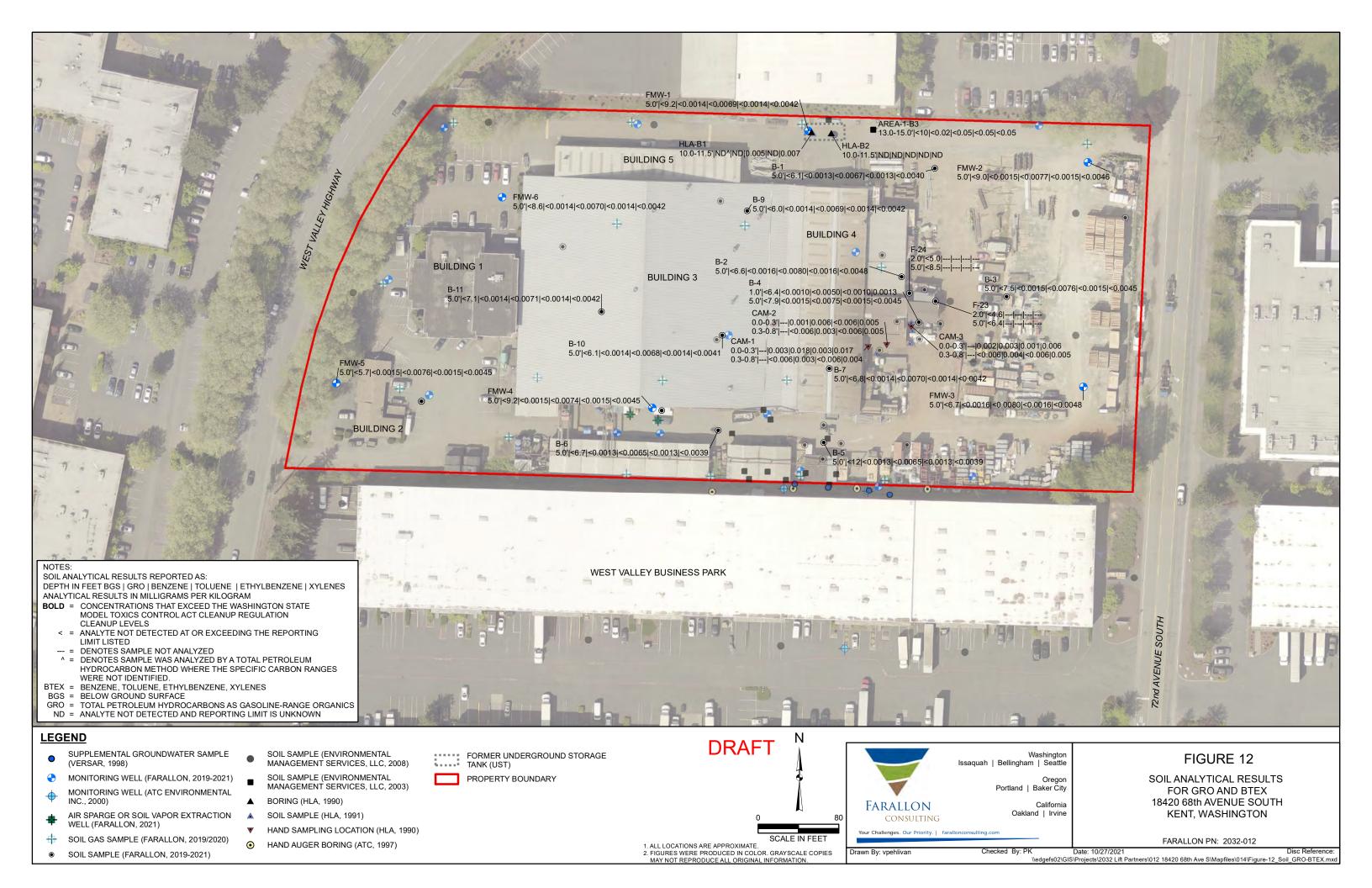


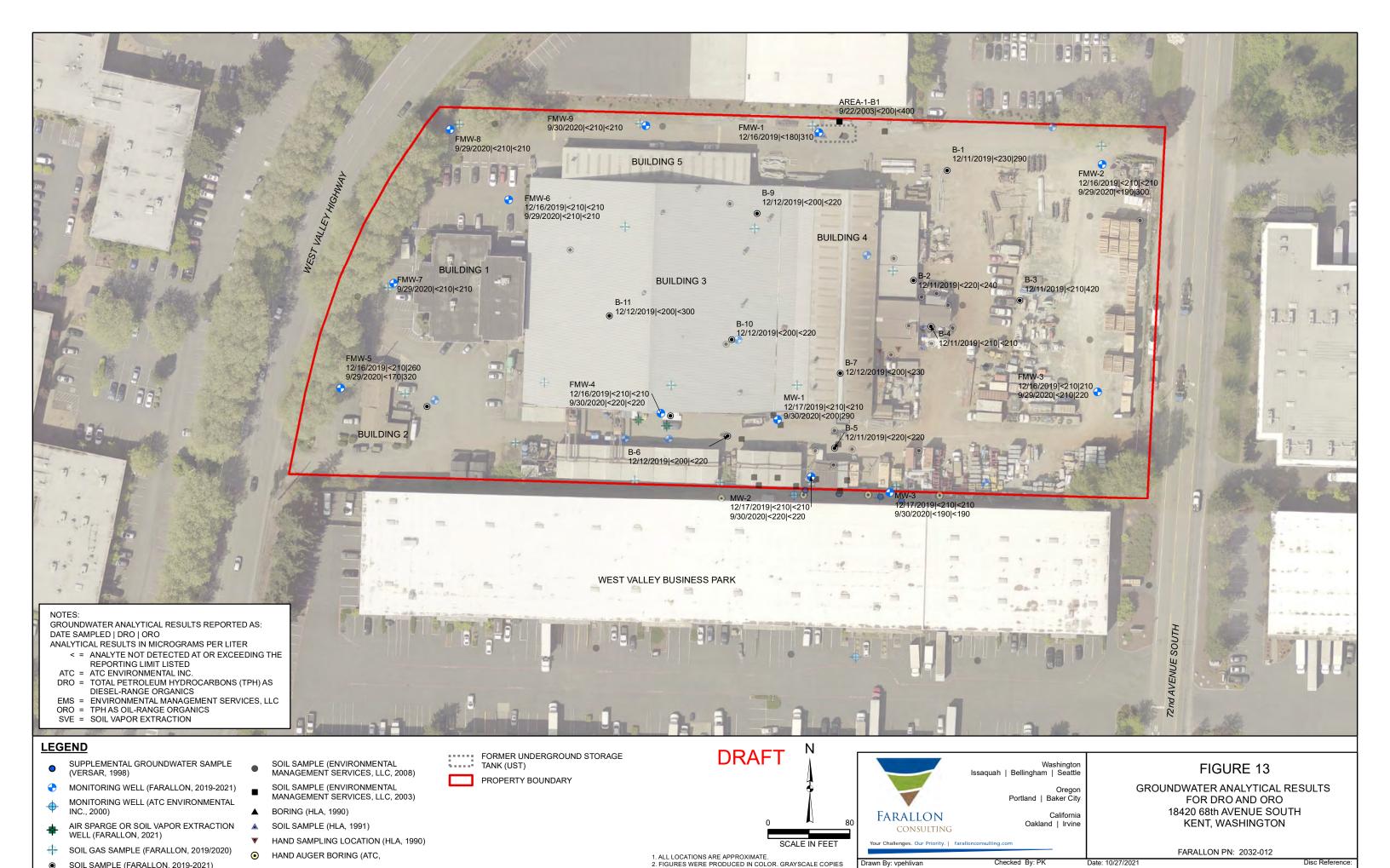










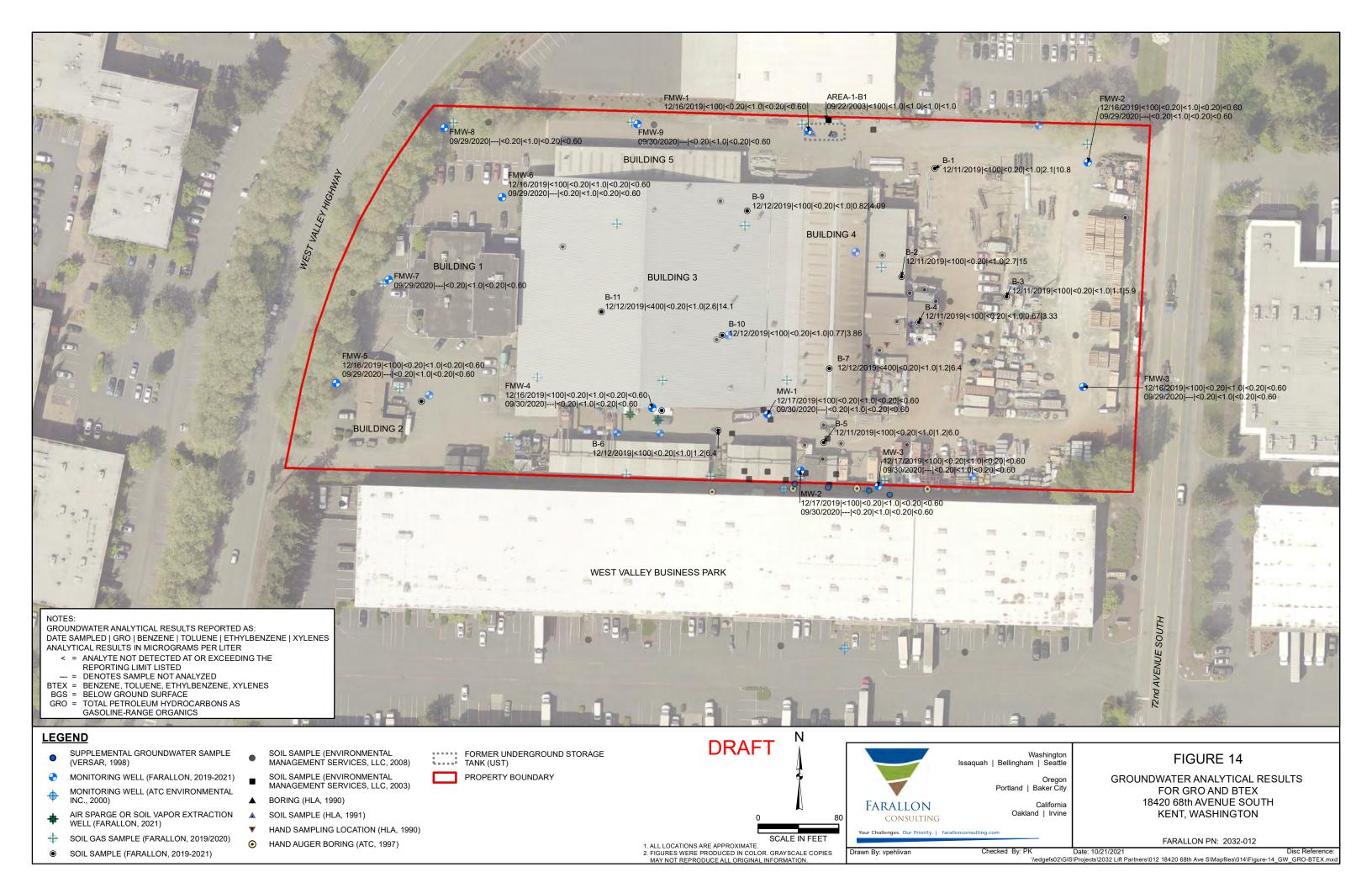


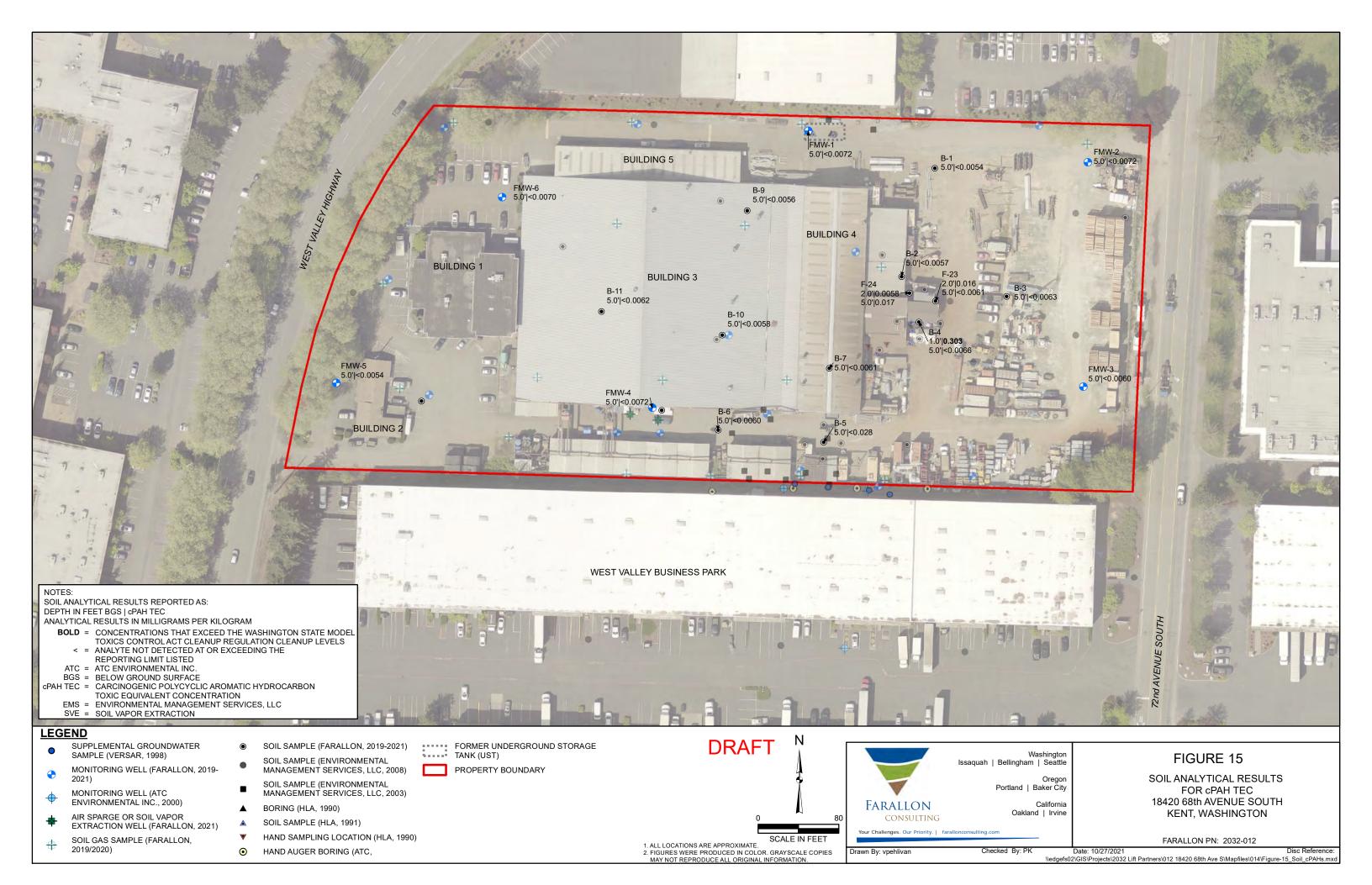
MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.

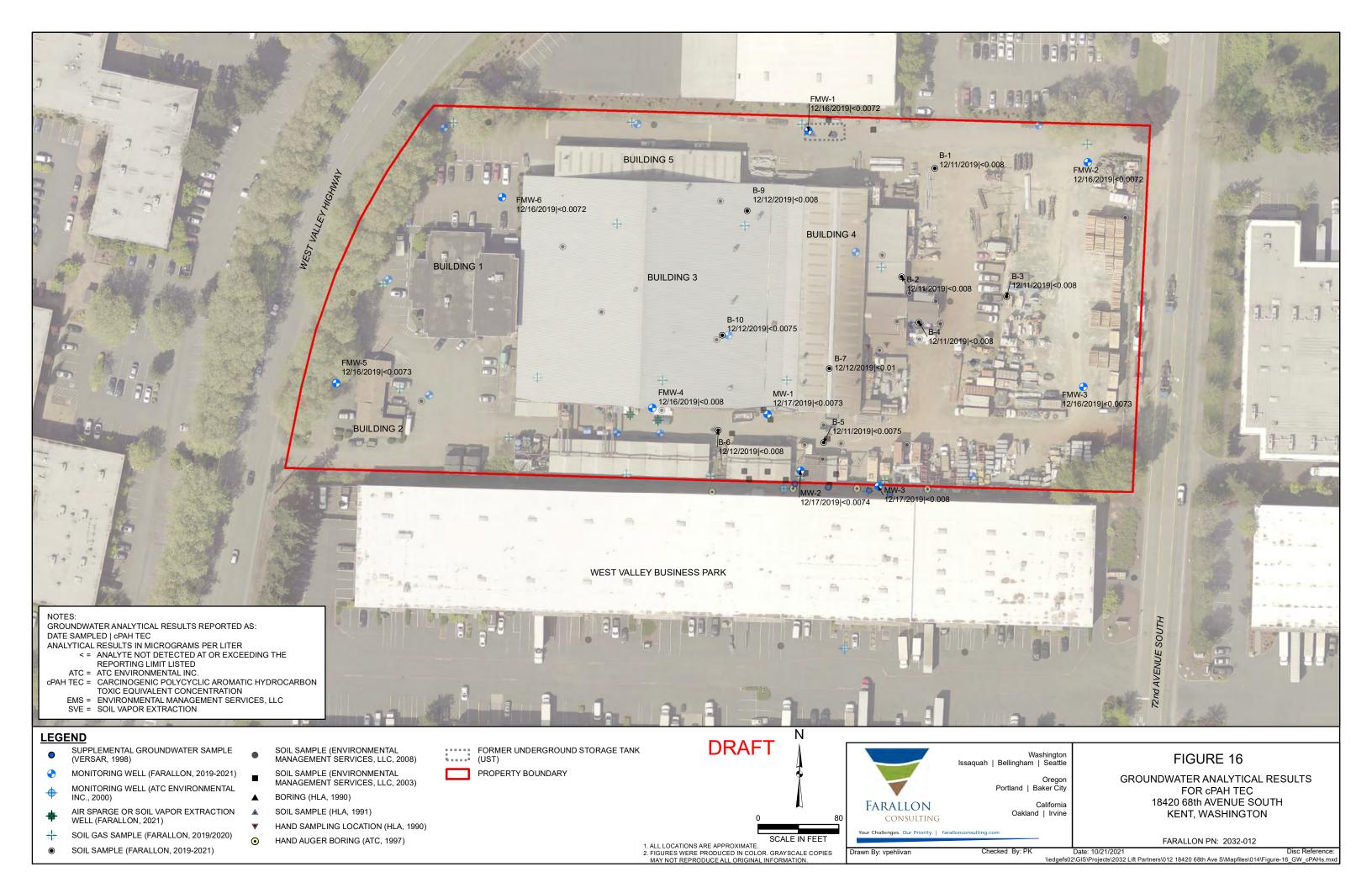
SOIL SAMPLE (FARALLON, 2019-2021)

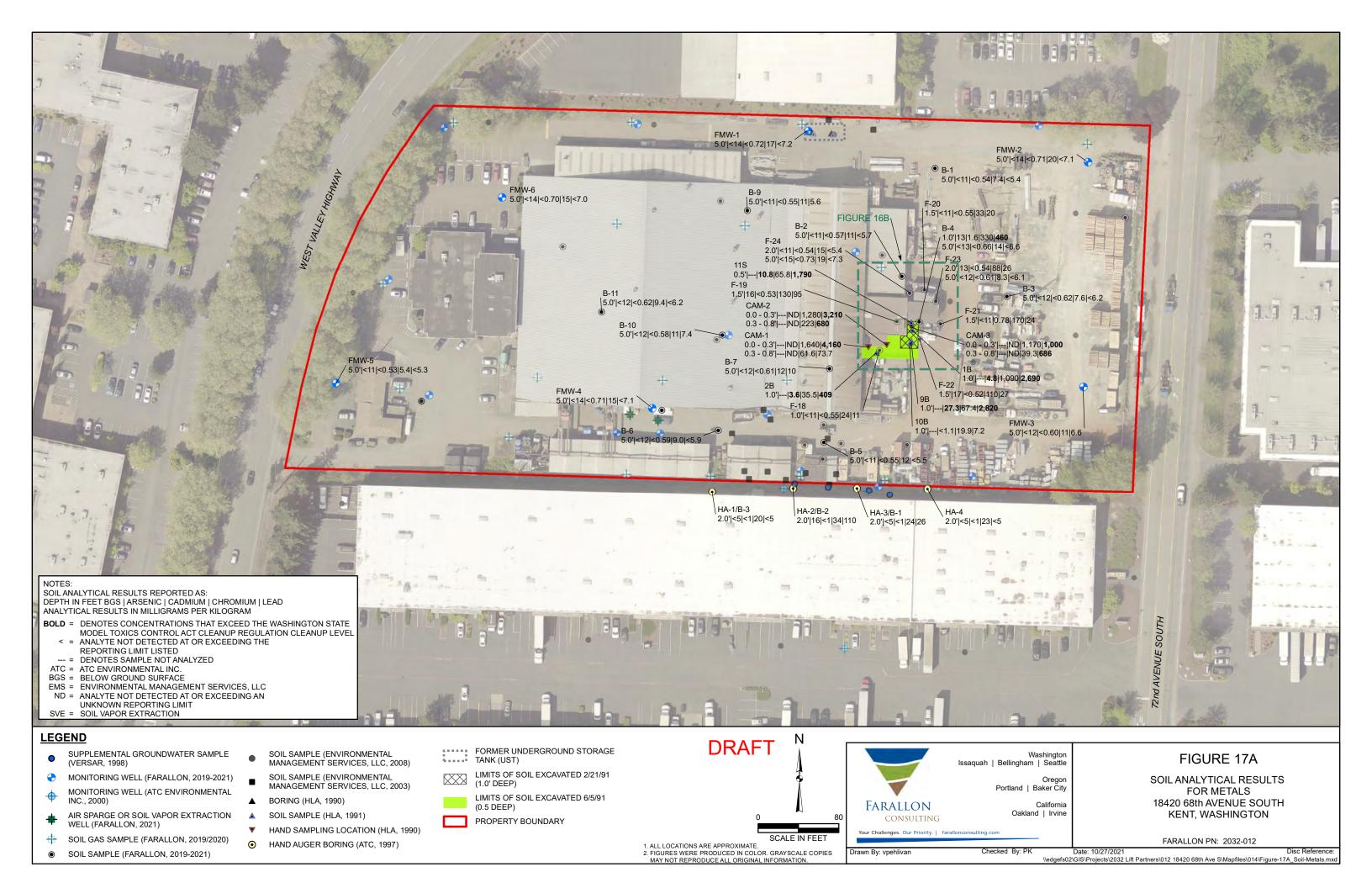
Date: 10/27/2021

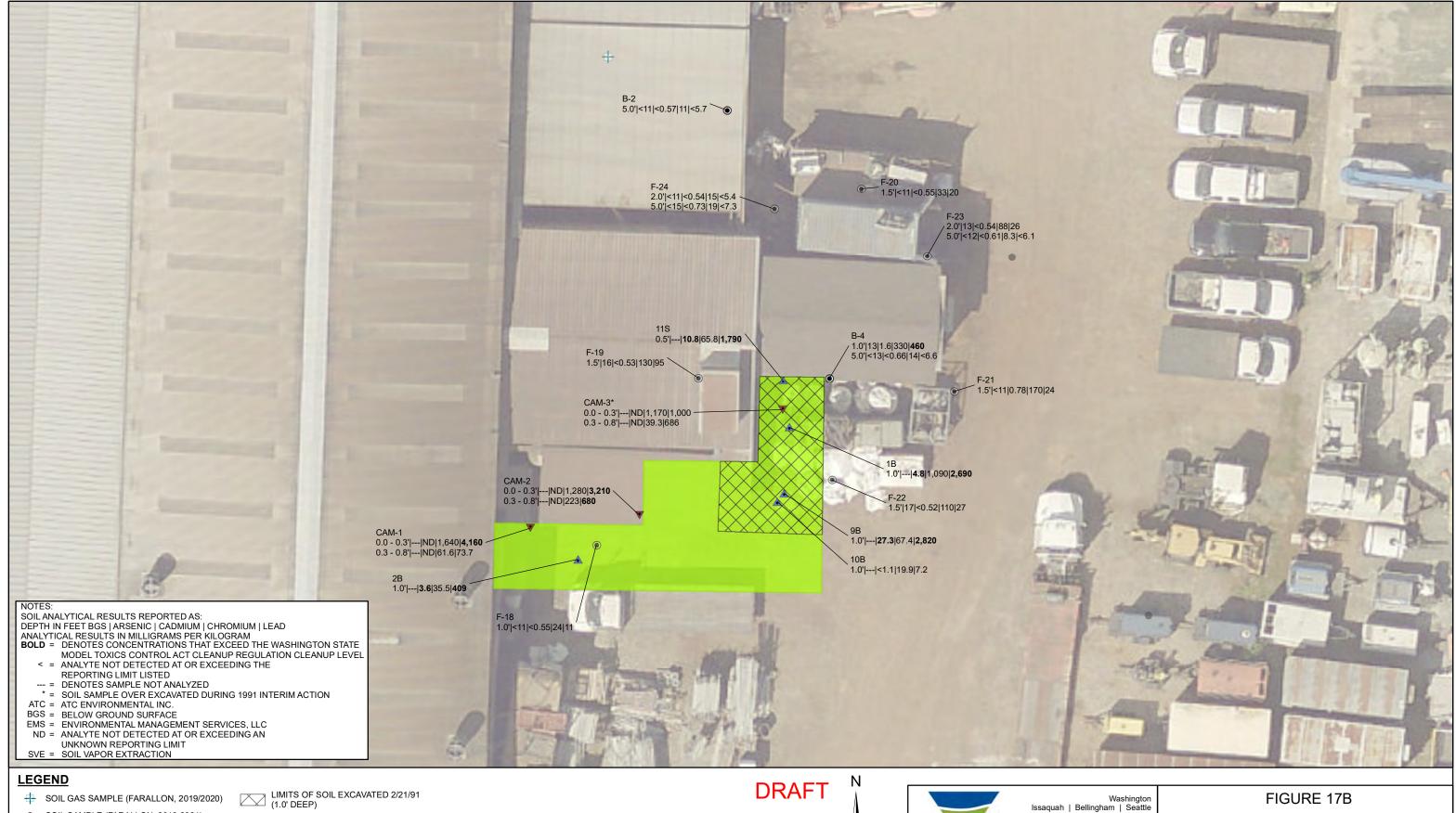
Disc Reference: \\edgefs02\GIS\Projects\2032 Lift Partners\012 18420 68th Ave S\\Mapfiles\014\Figure-13\_GW\_DRO-ORO.mxd











- SOIL SAMPLE (FARALLON, 2019-2021)
- SOIL SAMPLE (ENVIRONMENTAL MANAGEMENT SERVICES, LLC, 2008)
- ▲ SOIL SAMPLE (HLA, 1991)
- ▼ HAND SAMPLING LOCATION (HLA, 1991)

LIMITS OF SOIL EXCAVATED 6/5/91 (0.5 DEEP)

PROPERTY BOUNDARY



ALL LOCATIONS ARE APPROXIMATE.
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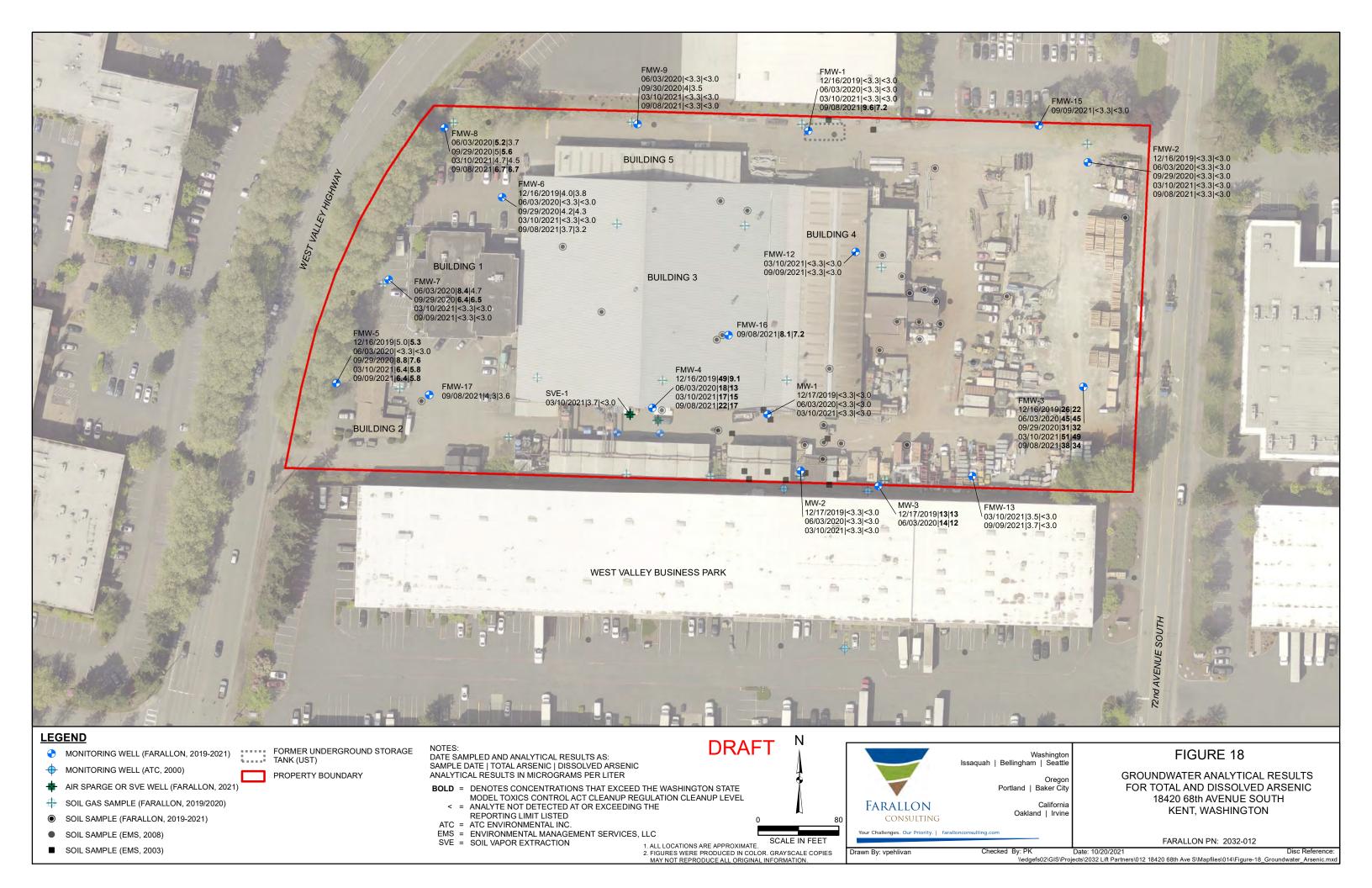
SOIL ANALYTICAL RESULTS

FOR METALS - SANDBLAST BOOTH

18420 68th AVENUE SOUTH

KENT, WASHINGTON

Checked By: PK Date: 10/28/2021 Disc Reference: \\edgefs02\GIS\Projects\2032 Lift Partners\012 18420 68th Ave S\Mapfiles\014\Figure-17B\_Detail\_Soil-Metals\_SandblastBooth.mxd





### **LEGEND**

HVOC SOURCE AREAS BASED ON SOIL AND GROUNDWATER ANALYTICAL RESULTS

SITE BOUNDARY

HVOCs = HALOGENATED VOLATILE ORGANIC COMPOUNDS

# DRAFT

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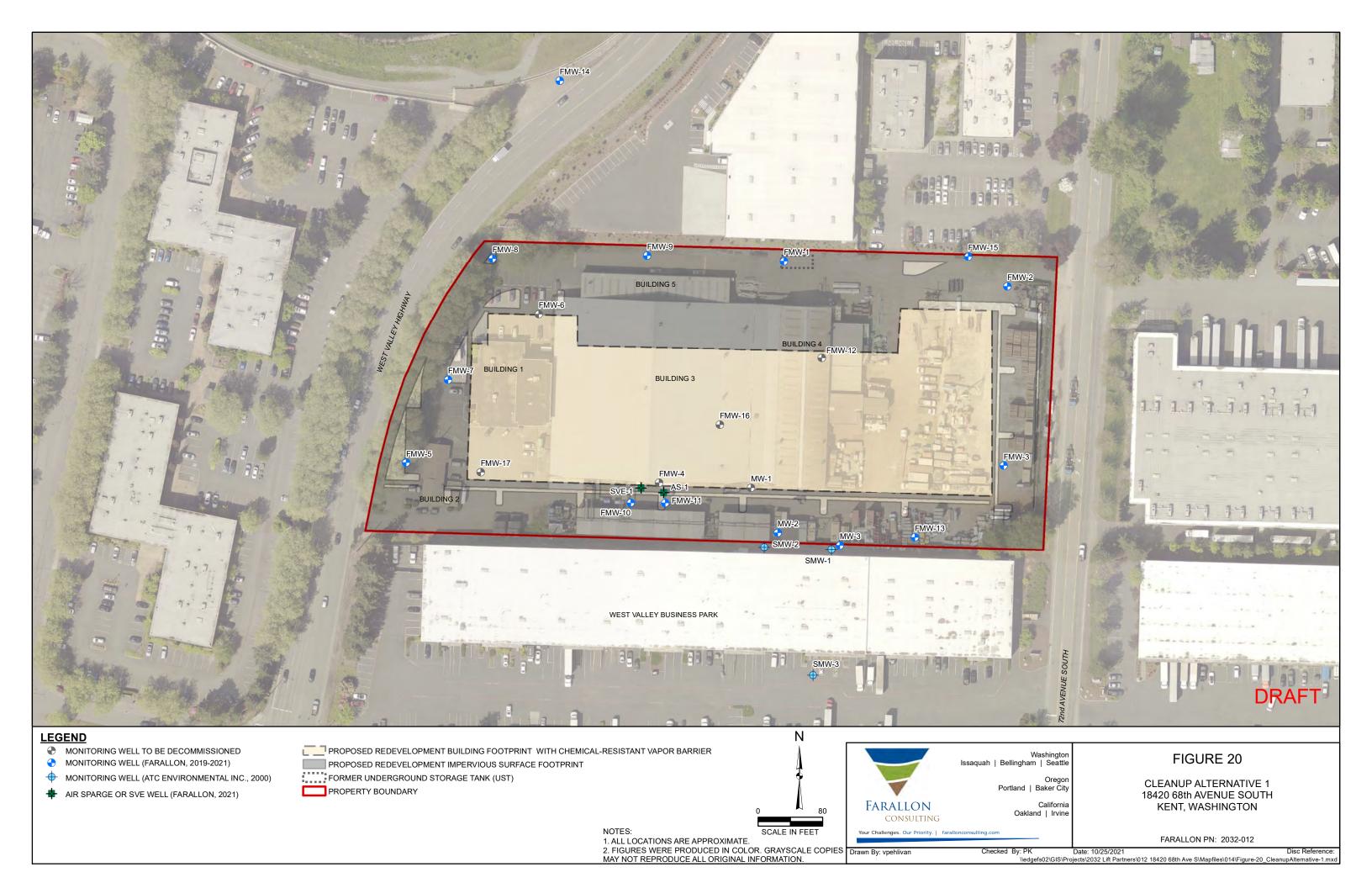
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# FIGURE 19

CONFIRMED SOURCE AREAS BASED ON SOIL AND GROUNDWATER ANALYTICAL RESULTS 18420 68th AVENUE SOUTH KENT, WASHINGTON

FARALLON PN: 2032-012

Checked By: PK Date: 10/27/2021 Disc Reference: \\edge(s02\)GIS\Projects\2032 Lift Partners\012 18420 68th Ave S\Mapfiles\014\Figure-019\_PotentialSourceArea\_PassiveSG.mxd







- MONITORING WELL (FARALLON, 2019-2021)
- MONITORING WELL (ATC ENVIRONMENTAL INC., 2000)
- AIR SPARGE OR SOIL VAPOR EXTRACTION WELL (FARALLON, 2021)
- AIR SPARGE WELL
- ANGLED AIR SPARGE WELL
- HHH HORIZONTAL SOIL VAPOR EXTRACTION LINE
- AIR SPARGE TREATMENT AREA

- EXCAVATION AREA EXCAVATION SLOPE
- FORMER UNDERGROUND STORAGE TANK (UST)
- PROPERTY BOUNDARY

- 1. ALL LOCATIONS ARE APPROXIMATE.
- 2. FIGURES WERE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.

  Drawn By: vpehlivar

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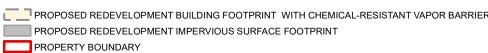
**CLEANUP ALTERNATIVE 3** 18420 68th AVENUE SOUTH KENT, WASHINGTON

FARALLON PN: 2032-012

y: PK Date: 10/25/2021 Disc Reference: \\edgefs02\GIS\Projects\2032 Lift Partners\012 18420 68th Ave S\Mapfiles\014\Figure-22\_CleanupAltemative-3.mxd



- MONITORING WELL (FARALLON, 2019-2021)
- MONITORING WELL (ATC ENVIRONMENTAL INC., 2000)
- → MONITORING WELL TO BE DECOMMISSIONED
- ♣ AIR SPARGE OR SOIL VAPOR EXTRACTION WELL (FARALLON, 2021)



1. ALL LOCATIONS ARE APPROXIMATE.

2. FIGURES WERE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.

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SITE RESTORATION AND COMPLIANCE MONITORING WELL NETWORK 18420 68th AVENUE SOUTH KENT, WASHINGTON

FARALLON PN: 2032-012

ked By: PK Date: 10/25/2021 Disc Reference: \\edgefs02\GIS\Projects\2032 Lift Partners\012 18420 68th Ave S\Mapfiles\014\Figure-23\_Restoration\_w\_Compliance.mxd

## **TABLES**

REMEDIAL INVESTIGATION AND FEASIBILITY STUDY REPORT 18420 68<sup>th</sup> Avenue South Kent, Washington

# Table 1 **Groundwater Elevations** 18420 68th Avenue South Kent, Washington

Farallon	DNI.	2032	012
raranon	PN:	ZU3Z:	·U12

		Top of Casing Elevation			Depth to Water	Water Level Elevation
Location	Location Area	(feet NAVD88) <sup>1</sup>	Measured By	<b>Monitoring Date</b>	(feet) <sup>2</sup>	(feet NAVD88) <sup>1</sup>
			Farallon	12/16/2019	13.30	12.94
FMW-1	Coatings	26.24	Farallon	3/10/2021	10.83	15.41
1 1/1 // -1	Coatings	20.24	Farallon	5/24/2021	12.87	13.37
			Farallon	9/8/2021	15.15	11.09
			Farallon	12/16/2019	11.80	14.54
			Farallon	9/29/2020	14.44	11.90
FMW-2	Coatings	26.34	Farallon	3/10/2021	10.80	15.54
			Farallon	5/24/2021	12.78	13.56
			Farallon	9/8/2021	15.03	11.31
			Farallon	12/16/2019	9.39	16.80
			Farallon	9/29/2020	13.35	12.84
FMW-3	Coatings	26.19	Farallon	3/10/2021	6.58	19.61
			Farallon	5/24/2021	9.10	17.09
			Farallon	9/8/2021	11.54	14.65
			Farallon	12/16/2019	12.35	14.56
		26.91	Farallon	9/29/2020	13.30	13.61
FMW-4	Coatings		Farallon	3/10/2021	9.17	17.74
			Farallon	5/24/2021	11.24	15.67
			Farallon	9/8/2021	13.24	13.67
			Farallon	12/16/2019	13.99	13.27
		27.26	Farallon	9/29/2020	15.15	12.11
FMW-5	Coatings		Farallon	3/10/2021	10.89	16.37
			Farallon	5/24/2021	12.85	14.41
			Farallon	9/8/2021	15.56	11.70
	Coatings		Farallon	12/16/2019	14.40	12.99
			Farallon	9/29/2020	15.82	11.57
FMW-6		27.39	Farallon	3/10/2021	11.94	15.45
			Farallon	5/24/2021	14.04	13.35
			Farallon	9/8/2021	16.36	11.03
			Farallon	9/29/2020	15.24	11.78
EMM 7	Castinas	27.02	Farallon	3/10/2021	10.82	16.20
FMW-7	Coatings	27.02	Farallon	5/24/2021	13.34	13.68
			Farallon	9/8/2021	15.85	11.17
			Farallon	9/29/2020	15.10	11.56
FMW-8	Continue	26.66	Farallon	3/10/2021	11.15	15.51
LIM M -0	Coatings	20.00	Farallon	5/24/2021	13.26	13.40
			Farallon	9/8/2021	15.65	11.01
			Farallon	9/29/2020	15.50	11.51
FMW-9	Coatings	27.01	Farallon	3/10/2021	11.86	15.15
1 1V1 VV -9	Coatings	27.01	Farallon	5/24/2021	13.75	13.26
			Farallon	9/8/2021	16.03	10.98
FMW-10	Continue	26.42	Farallon	5/24/2021	10.90	15.52
L1A1 AA - 1 ()	Coatings	20.42	Farallon	9/8/2021	NM	NA
FMW-11	Continue	26.54	Farallon	5/24/2021	10.57	15.97
1.1A1 AA - 1 1	Coatings	20.34	Farallon	9/8/2021	NM	NA

# Table 1 **Groundwater Elevations** 18420 68th Avenue South Kent, Washington

Location	Location Area	Top of Casing Elevation (feet NAVD88) <sup>1</sup>	Measured By	Monitoring Date	Depth to Water (feet) <sup>2</sup>	Water Level Elevation (feet NAVD88) <sup>1</sup>
			Farallon	3/10/2021	12.19	15.47
FMW-12	Coatings	27.66	Farallon	5/24/2021	14.13	13.53
			Farallon	9/8/2021	16.39	11.27
			Farallon	3/10/2021	5.74	20.39
FMW-13	Coatings	26.13	Farallon	5/24/2021	8.04	18.09
			Farallon	9/8/2021	10.49	15.64
EMMY 14	Off Decrease	22.25	Farallon	5/24/2021	17.00	15.25
FMW-14	Off-Property	32.25	Farallon	9/8/2021	19.05	13.20
EMW 15	Cartina	26.25	Farallon	5/24/2021	12.67	13.58
FMW-15	Coatings	26.25	Farallon	9/8/2021	14.90	11.35
FMW-16	Coatings	NM	Farallon	9/8/2021	14.79	NA
FMW-17	Coatings	NM	Farallon	9/8/2021	14.96	NA
			EMS	9/29/2004	8.21	18.21
			EMS	12/28/2004	7.43	18.99
			EMS	3/25/2005	10.42	16.00
			EMS	6/7/2005	10.72	15.70
			EMS	8/16/2005	12.01	14.41
			EMS	12/17/2005	12.20	14.22
			EMS	2/4/2006	6.29	20.13
			EMS	6/30/2006	10.53	15.89
			EMS	9/30/2006	12.05	14.37
			EMS	12/11/2006	7.78	18.64
MW-1	Coatings	26.42	EMS	1/25/2007	6.90	19.52
			EMS	6/19/2007	10.39	16.03
			EMS	8/10/2007	10.90	15.52
			EMS	12/28/2007	8.53	17.89
			EMS	2/21/2008	9.08	17.34
			EMS	5/21/2008	9.20	17.22
			Farallon	12/16/2019	10.51	15.91
			Farallon	9/29/2020	11.65	14.77
			Farallon	3/10/2021	7.16	19.26
			Farallon	5/24/2021	9.75	16.67
			Farallon	9/8/2021	11.68	14.74

# Table 1 Groundwater Elevations 18420 68th Avenue South Kent, Washington Farallon PN: 2032-012

		Top of Casing Elevation			Depth to Water	Water Level Elevation
Location	Location Area	(feet NAVD88) <sup>1</sup>	Measured By	Monitoring Date	(feet) <sup>2</sup>	(feet NAVD88) <sup>1</sup>
		,	EMS	9/29/2004	6.28	21.00
			EMS	12/28/2004	5.99	21.29
			EMS	3/25/2005	6.41	20.87
			EMS	6/7/2005	9.60	17.68
			EMS	8/16/2005	10.89	16.39
			EMS	12/17/2005	10.31	16.97
			EMS	2/4/2006	5.10	22.18
			EMS	6/30/2006	10.69	16.59
			EMS	9/30/2006	11.00	16.28
			EMS	12/11/2006	6.74	20.54
MW-2	Coatings	27.28	EMS	1/25/2007	5.75	21.53
			EMS	6/19/2007	9.40	17.88
			EMS	8/10/2007	9.40	17.88
			EMS	12/28/2007	7.72	19.56
			EMS	2/21/2008	8.16	19.12
			EMS	5/21/2008	8.26	19.02
			Farallon	12/16/2019	10.52	16.76
			Farallon	9/29/2020	11.88	15.40
			Farallon	3/10/2021	7.48	19.80
			Farallon	5/24/2021	9.87	17.41
			Farallon	9/8/2021	NM	NA
			EMS	9/29/2004	7.80	18.65
			EMS	12/28/2004	6.90	19.55
			EMS	3/25/2005	7.22	19.23
			EMS	6/7/2005	8.72	17.73
			EMS	8/16/2005	10.50	15.95
			EMS	12/17/2005	10.61	15.84
			EMS	2/4/2006	4.67	21.78
			EMS	6/30/2006	8.98	17.47
			EMS	9/30/2006	11.15	15.30
) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1		26.45	EMS	12/11/2006	5.32	21.13
MW-3	Coatings	26.45	EMS	1/25/2007	6.20	20.25
			EMS	6/19/2007	9.12	17.33
			EMS	8/10/2007	9.12	17.33 20.90
			EMS	12/28/2007	5.55	
			EMS EMS	2/21/2008 5/21/2008	6.78 8.50	19.67 17.95
			Farallon	12/16/2019	11.52	14.93
			Farallon	9/29/2020	13.77	12.68
			Farallon	3/10/2021	6.15	20.30
			Farallon	5/24/2021	8.60	17.85
			Farallon	9/8/2021	NM	NA
SVE-1	Coatings	27.06	Farallon	3/10/2021	5.55	21.51
OAE-I	Coatings	27.00	I aranon	3/10/2021	5.55	41.31

Notes:

Coatings = Coatings Unlimited, Inc.

EMS = Environmental Management Services, LLC

Farallon = Farallon Consulting, L.L.C.

NM = not measured NA = not applicable

<sup>—</sup> denotes elevation could not be calculated.

 $<sup>^{\</sup>rm 1}$  In feet referenced to North American Vertical Datum of 1988 (NAVD88).

<sup>&</sup>lt;sup>2</sup> In feet below top of well casing.

# Table 2 Groundwater Analytical Results for Halogenated Volatile Organic Compounds 18420 68th Avenue South Kent, Washington

					Analytical Results (micrograms per liter) <sup>1</sup>				
Sample Location	Location Area	Sampled By	Sample Date	Sample Identification	PCE	TCE	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride
				Reconnaissance B	oring Groundwater	Samples			
				1996 - 1997 S	ubsurface Investiga	tion			
ATC-B-1	West Valley	ATC	1/24/1997	B-1/12497-1	< 0.5	0.5	< 0.5	< 0.5	< 0.5
ATC-B-2	West Valley	ATC	1/24/1997	B-2/12497-2	0.9	3.0	0.6	< 0.5	< 0.5
ATC-B-3	West Valley	ATC	1/24/1997	B-1/12497-3	1.0	0.6	< 0.5	< 0.5	< 0.5
				1998 Soil Excavatio	n and Groundwater	Sampling			
V-1	West Valley	Versar	10/23/1998	V-1B	< 1	< 1	2	< 1	< 1
V-2	West Valley	Versar	10/23/1998	V-2A	< 1	1	680	20	< 1
<b>V</b> -2	West Valley	Versar	10/23/1998	V-2C Dup	< 1	1	600	24	< 1
V-3	West Valley	Versar	10/23/1998	V-3C	< 1	1	21	< 1	< 1
V-4	West Valley	Versar	10/23/1998	V-4A	< 1	1	9	4	< 1
				2003 Subs	surface Investigation	1			
Area-2-B6	Coatings	EMS	9/22/2003	B-6	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2
Area-2-B7	Coatings	EMS	9/22/2003	B-7	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2
Area-2-B8	Coatings	EMS	9/22/2003	B-8	< 1.0	< 1.0	< 1.0	< 1.0	15
Area-2-B9	Coatings	EMS	9/29/2003	B-9	< 1.0	< 1.0	4.2	< 1.0	5.9
Area-2-B10	Coatings	EMS	9/29/2003	B-10	< 1.0	< 1.0	7.8	< 1.0	0.25
Area-2-B11	Coatings	EMS	9/29/2003	B-11	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2
Area-2-B12	Coatings	EMS	9/29/2003	B-12	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2
Area-2-B13	Coatings	EMS	9/29/2003	B-13	< 1.0	< 1.0	7.8	< 1.0	0.24
Area-2-B14	Coatings	EMS	9/29/2003	B-14	< 1.0	< 1.0	3	< 1.0	< 0.2
Area-2-B15	Coatings	EMS	9/29/2003	B-15	< 1.0	< 1.0	18	< 1.0	< 0.2
Area-2-B16	Coatings	EMS	9/29/2003	B-16	< 1.0	< 1.0	1	< 1.0	< 0.2
MTCA Cleanup I	Levels for Groun	ndwater			5 <sup>2</sup>	5 <sup>2</sup>	16 <sup>3</sup>	160 <sup>3</sup>	$0.2^{2}$
Surface Water Hi	ıman Health, W	ater, and Organisr	ns Screening Levels	, 173-201A WAC <sup>4</sup>	4.9	0.38	NE	600	0.02

# Table 2 Groundwater Analytical Results for Halogenated Volatile Organic Compounds 18420 68th Avenue South Kent, Washington

						Anal	ytical Results (microgra	ms per liter) <sup>1</sup>	
Sample Location	Location Area	Sampled By	Sample Date	Sample Identification	РСЕ	TCE	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride
				2008 Subs	urface Investigation	1			
EMS-B1	West Valley	EMS	2/13/2008	B1-021208-W1	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2
EMS-B2	West Valley	EMS	2/13/2008	B2-021208-W2	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2
EMS-B3	West Valley	EMS	2/13/2008	B3-021208-W3	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2
EMS-B4	West Valley	EMS	2/13/2008	B4-021208-W4	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2
EMS-B5	West Valley	EMS	2/13/2008	B5-021208-W5	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2
EMS-B6	Coatings	EMS	2/13/2008	B6-021208-W6	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2
EMS-B7	Coatings	EMS	2/13/2008	B7-021208-W7	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2
EMS-B8	Coatings	EMS	2/13/2008	B8-021208-W8	< 1.0	< 1.0	1.6	< 1.0	0.57
EMS-B9	Coatings	EMS	3/21/2008	B9-032108-W9	< 1.0	< 1.0	57.1	3.0	1.1
EMS-B10	Coatings	EMS	3/21/2008	B10-032108-W10	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2
EMS-B11	Coatings	EMS	3/21/2008	B11-032108-W11	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2
EMS-B12	Coatings	EMS	3/21/2008	B12-032108-W12	< 1.0	< 1.0	2.8	< 1.0	< 0.2
EMS-B13	Coatings	EMS	3/21/2008	B13-032108-W13	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2
EMS-B14	Coatings	EMS	3/21/2008	B14-021208-W14	< 1.0	< 1.0	< 1.0	< 1.0	< 0.2
				2019 Subs	urface Investigation	1			
B-1	Coatings	Farallon	12/11/2019	B1-121119-GW	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
B-2	Coatings	Farallon	12/11/2019	B2-121119-GW	1.0	0.38	1.9	< 0.20	0.38
B-3	Coatings	Farallon	12/11/2019	B3-121119-GW	< 0.20	< 0.20	0.20	< 0.20	< 0.20
B-4	Coatings	Farallon	12/11/2019	B4-121119-GW	< 0.20	< 0.20	1.0	< 0.20	0.56
B-5	Coatings	Farallon	12/11/2019	B5-121119-GW	< 0.20	< 0.20	29	0.43	2.0
B-6	Coatings	Farallon	12/12/2019	B6-121219-GW	< 0.20	1.8	13	0.25	0.29
B-7	Coatings	Farallon	12/12/2019	B7-121219-GW	< 0.20	< 0.20	17	0.95	3.2
B-9	Coatings	Farallon	12/12/2019	B9-121219-GW	< 0.20	< 0.20	< 0.20	0.31	0.66
B-10	Coatings	Farallon	12/12/2019	B10-121219-GW	< 0.20	< 0.20	4.1	0.51	7.0
B-11	Coatings	Farallon	12/12/2019	B11-121219-GW	< 0.20	0.40	1.2	< 0.20	< 0.20
ATCA Cleanup L	evels for Groun	dwater			5 <sup>2</sup>	5 <sup>2</sup>	16 <sup>3</sup>	160 <sup>3</sup>	0.22
urface Water Hu	man Health, Wa	ater, and Organisr	ns Screening Levels	, 173-201A WAC <sup>4</sup>	4.9	0.38	NE	600	0.02

# Table 2 Groundwater Analytical Results for Halogenated Volatile Organic Compounds 18420 68th Avenue South Kent, Washington

						Analytical Results (micrograms per liter) <sup>1</sup>				
Sample Location	Location Area	Sampled By	Sample Date	Sample Identification	РСЕ	TCE	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride	
				2021 Subs	urface Investigation	ı				
F-31	Coatings	Farallon	5/19/2021	F-31-20210519	< 0.20	0.34	19	2.0	15	
F-32	Continue	Farallon	5/19/2021	F-32-15-20210519	< 0.20	< 0.20	2.0	< 0.20	0.28	
F-32	Coatings	Farallon	5/19/2021	F-32-35-20210519	< 0.20	< 0.20	0.74	< 0.20	0.31	
				Monitoring Wo	ell Groundwater Sar	nples				
		Farallon	12/16/2019	FMW-1-121619	< 0.20	< 0.20	3.4	< 0.20	0.32	
FMW-1	Castinas	Farallon	6/3/2020	FMW-1-06032020	< 0.20	0.24	1.6	< 0.20	< 0.20	
FIVI W - 1	Coatings -	Farallon	3/10/2021	FMW-1-20210310	< 0.20	0.22	0.51	< 0.20	< 0.020	
	-	Farallon	9/8/2021	FMW-1-090821	< 0.20	< 0.20	2.0	< 0.20	0.12 *	
	Coatings	Farallon	12/16/2019	FMW-2-121619	< 0.20	< 0.20	< 0.20	0.81	0.51	
		Farallon	6/3/2020	FMW-2-06032020	< 0.20	< 0.20	0.42	0.26	0.46	
FMW-2		Farallon	9/29/2020	FMW-2-092920	< 0.20	< 0.20	0.26	0.34	0.33	
		Farallon	3/10/2021	FMW-2-20210310	< 0.20	< 0.20	0.58	< 0.20	0.068	
		Farallon	9/8/2021	FMW-2-090821	< 0.20	< 0.20	< 0.20	0.28	0.44	
		Farallon	12/16/2019	FMW-3-121619	< 0.20	< 0.20	0.25	< 0.20	< 0.20	
	-	Farallon	6/3/2020	FMW-3-06032020	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
FMW-3	Coatings	Farallon	9/29/2020	FMW-3-092920	< 0.20	< 0.20	0.21	< 0.20	0.090	
	-	Farallon	3/10/2021	FMW-3-20210310	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020	
	-	Farallon	9/8/2021	FMW-3-090821	< 0.20	< 0.20	< 0.20	< 0.20	0.038 *	
		Farallon	12/16/2019	FMW-4-121619	< 0.20	< 0.20	15	1.3	3.8	
	-	Farallon	6/3/2020	FMW-4-060320	< 0.20	< 0.20	6.6	0.67	5.7	
FMW-4	Coatings	Farallon	9/30/2020	FMW-4-093020	< 0.20	< 0.20	10	1.0	4.3	
		Farallon	3/10/2021	FMW-4-20210310	< 0.20	< 0.20	2.4	< 0.20	1.3	
		Farallon	9/8/2021	FMW-4-090821	< 0.20	< 0.20	10	0.97	7.7	
ITCA Cleanup L	evels for Groun	dwater			<b>5</b> <sup>2</sup>	5 <sup>2</sup>	16 <sup>3</sup>	160 <sup>3</sup>	0.22	
urface Water Hu	man Health, Wa	ater, and Organism	ns Screening Levels	, 173-201A WAC <sup>4</sup>	4.9	0.38	NE	600	0.02	

# Table 2 Groundwater Analytical Results for Halogenated Volatile Organic Compounds 18420 68th Avenue South

Kent, Washington Farallon PN: 2032-012

						Anal	ytical Results (microgra	ms per liter) <sup>1</sup>	
Sample Location	Location Area	Sampled By	Sample Date	Sample Identification	PCE	TCE	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride
		Farallon	12/16/2019	FMW-5-121619	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
		Farallon	6/3/2020	FMW-5-060320	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
FMW-5	Coatings	Farallon	9/29/2020	FMW-5-092920	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020
		Farallon	3/10/2021	FMW-5-20210310	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020
		Farallon	9/9/2021	FMW-5-090921	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020 *
		Farallon	12/16/2019	FMW-6-121619	< 0.20	0.23	2.4	0.32	1.9
		Farallon	6/3/2020	FMW-6-06032020	< 0.20	< 0.20	0.99	< 0.20	1.4
FMW-6	Coatings	Farallon	9/29/2020	FMW-6-092920	< 0.20	< 0.20	2.6	0.31	2.1
		Farallon	3/10/2021	FMW-6-20210310	< 0.20	0.22	0.42	< 0.20	0.16
		Farallon	9/8/2021	FMW-6-090821	< 0.20	< 0.20	2.7	0.29	1.6
D. W. 5	Coatings	Farallon	6/3/2020	FMW-7-060320	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
		Farallon	9/29/2020	FMW-7-092920	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020
FMW-7		Farallon	3/10/2021	FMW-7-20210310	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020
		Farallon	9/9/2021	FMW-7-090921	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020 *
		Farallon	6/3/2020	FMW-8-060320	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
FMW-8		Farallon	9/29/2020	FMW-8-092920	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020
FIVIW-8	Coatings -	Farallon	3/10/2021	FMW-8-20210310	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020
		Farallon	9/8/2021	FMW-8-090821	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020 *
		Farallon	6/3/2020	FMW-9-06032020	< 0.20	0.46	0.25	< 0.20	< 0.20
		Farallon	9/30/2020	FMW-9-093020	< 0.20	0.30	1.3	< 0.20	0.14
FMW-9	Coatings	Farallon	3/10/2021	FMW-9-20210310	< 0.20	0.44	< 0.20	< 0.20	< 0.020
		Farallon	5/24/2021	FMW-9-20210524	< 0.20	0.61	< 0.20	< 0.20	< 0.020
		Farallon	9/8/2021	FMW-9-090821	< 0.20	0.70	0.63	< 0.20	0.060 *
FMW-12	Continue	Farallon	3/10/2021	FMW-12-20210310	0.73	2.0	< 0.20	< 0.20	< 0.020
FIVI W - I∠	Coatings	Farallon	9/9/2021	FMW-12-090921	0.67	3.6	4.5	< 0.20	0.022 *
EMW 12	Continue	Farallon	3/10/2021	FMW-13-20210310	< 0.20	< 0.20	< 0.20	< 0.20	0.057
FMW-13	Coatings -	Farallon	9/9/2021	FMW-13-090921	< 0.20	< 0.20	< 0.20	< 0.20	0.056 *
FMW-14	Off-Property	Farallon	5/24/2021	FMW-14-20210524	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020
TCA Cleanup L	evels for Groun	dwater			<b>5</b> <sup>2</sup>	5 <sup>2</sup>	16 <sup>3</sup>	160 <sup>3</sup>	0.22
ırface Water Hu	ıman Health, Wa	ater, and Organisi	ns Screening Levels	, 173-201A WAC <sup>4</sup>	4.9	0.38	NE	600	0.02

## Table 2 Groundwater Analytical Results for Halogenated Volatile Organic Compounds 18420 68th Avenue South

Kent, Washington Farallon PN: 2032-012

						Anal	ytical Results (microgra	ms per liter) <sup>1</sup>	
sample Location	Location Area	Sampled By	Sample Date	Sample Identification	РСЕ	TCE	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride
EMW 15	Captings	Farallon	5/24/2021	FMW-15-20210524	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020
FMW-15	Coatings -	Farallon	9/9/2021	FMW-15-090921	< 0.20	< 0.20	< 0.20	< 0.20	< 0.020 *
FMW-16	Coatings	Farallon	9/8/2021	FMW-16-090821	< 0.20	< 0.20	1.9	0.26	0.71
FMW-17	Coatings	Farallon	9/8/2021	FMW-17-090821	< 0.20	0.25	16	2.4	23
		EMS	9/29/2004	MW1-092904	< 1	< 1	46	3	260
		EMS	12/28/2004	MW1-122804	< 1	< 1	22	2	82
		EMS	3/25/2005	MW1-032505	< 1	< 1	9	1	39
		EMS	6/7/2005	MW1-060705	< 1	< 1	6.9	2	25
		EMS	8/16/2005	MW1-081605	< 4	< 4	14	< 4	230
		EMS	12/17/2005	MW1-121705	< 0.5	< 0.5	7.2	0.8	28
		EMS	2/4/2006	MW1-020406	< 1	< 1	9	1.1	43
		EMS	6/30/2006	MW1-063006	< 1	< 1	4.6	< 1	39
		EMS	9/30/2006	MW1-093006	< 1	< 1	11	2.5	160
MW-1	Coatings -	EMS	12/11/2006	MW1-121106	< 1	< 1	5.5	2.5	40
IVI VV - I	Coatings	EMS	1/25/2007	MW1-012507	< 1	< 1	9	< 1	40.3
		EMS	6/19/2007	MW1-061907	< 1	< 1	9.8	1.1	27
		EMS	8/10/2007	MW1-081007	< 1	< 1	14	2.1	75
		EMS	12/28/2007	MW1-122807	< 1	1.7	8.2	< 1	16
		EMS	2/21/2008	MW1-022108	< 1	1.4	12	1.1	27
		EMS	5/21/2008	MW1-052108	< 1	1.0	15	1.6	34
		Farallon	12/17/2019	MW-1-121719	< 0.20	2.1	18	0.33	< 0.20
	[	Farallon	6/3/2020	MW-1-060320	< 0.20	1.4	7.9	< 0.20	< 0.20
	[	Farallon	9/30/2020	MW-1-093020	< 0.20	0.95	6.1	< 0.20	0.049
		Farallon	3/10/2021	MW-1-20210310	< 0.20	1.1	4.4	< 0.20	0.024
TCA Cleanup L	evels for Groun	dwater			5 <sup>2</sup>	5 <sup>2</sup>	16 <sup>3</sup>	160 <sup>3</sup>	0.22
ırface Water Hu	man Health, Wa	nter, and Organisi	ns Screening Levels	, 173-201A WAC <sup>4</sup>	4.9	0.38	NE	600	0.02

## Table 2 Groundwater Analytical Results for Halogenated Volatile Organic Compounds 18420 68th Avenue South Kent, Washington

						Anal	ytical Results (microgra	ms per liter) <sup>1</sup>	
Sample Location	Location Area	Sampled By	Sample Date	Sample Identification	PCE	TCE	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride
		EMS	9/29/2004	MW2-092904	< 1	< 1	90	3	170
		EMS	12/28/2004	MW2-122804	< 1	< 1	7	1	130
		EMS	3/25/2005	MW2-032505	< 1	< 1	36	2	190
		EMS	6/7/2005	MW2-060705	< 2	< 2	32	< 2	180
		EMS	8/16/2005	MW2-081605	< 1	< 1	39	2.1	260
		EMS	12/17/2005	MW2-121705	< 0.5	< 0.5	31	1.3	96
		EMS	2/4/2006	MW2-020406	< 1	< 1	4.1	< 1	18
		EMS	6/30/2006	MW2-063006	< 1	< 1	18	< 1	88
		EMS	9/30/2006	MW2-093006	< 1	< 1	44	1.7	140
MW-2	Continue	EMS	12/11/2006	MW2-121106	< 1	< 1	0.99	< 1	3.5
IVI VV -2	Coatings -	EMS	1/25/2007	MW2-012507	< 1	< 1	0.99	< 1	1.5
		EMS	6/19/2007	MW2-061907	< 1	< 1	35	1.6	140
		EMS	8/10/2007	MW2-081007	< 1	< 1	0.99	< 1	0.2
		EMS	12/28/2007	MW2-122807	< 1	< 1	1.6	< 1	16
		EMS	2/21/2008	MW2-022108	< 1	< 1	10	< 1	52
		EMS	5/21/2008	MW2-052108	< 1	< 1	29	1.6	100
		Farallon	12/17/2019	MW-2-121719	< 0.20	1.3	0.64	< 0.20	< 0.20
		Farallon	6/3/2020	MW-2-060320	< 0.20	0.55	< 0.20	< 0.20	< 0.20
		Farallon	9/30/2020	MW-2-093020	< 0.20	1.4	0.83	< 0.20	< 0.020
	Ī	Farallon	3/10/2021	MW-2-20210310	1.2	0.72	0.24	< 0.20	< 0.020
ITCA Cleanup Lo	evels for Groun	dwater			<b>5</b> <sup>2</sup>	5 <sup>2</sup>	16 <sup>3</sup>	160 <sup>3</sup>	$0.2^{2}$
urface Water Hu	man Health, Wa	nter, and Organism	ns Screening Levels	, 173-201A WAC <sup>4</sup>	4.9	0.38	NE	600	0.02

## Table 2 Groundwater Analytical Results for Halogenated Volatile Organic Compounds 18420 68th Avenue South Kent, Washington

						Anal	ytical Results (microgra	ms per liter) <sup>1</sup>	
Sample Location	Location Area	Sampled By	Sample Date	Sample Identification	PCE	TCE	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride
		EMS	9/29/2004	MW3-092904	< 1	< 1	1	< 1	0.2
		EMS	12/28/2004	MW3-122804	< 1	< 1	1	< 1	0.2
		EMS	3/25/2005	MW3-032505	< 1	< 1	1	< 1	0.2
		EMS	6/7/2005	MW3-060705	< 1	< 1	0.99	< 1	0.2
		EMS	8/16/2005	MW3-081605	< 1	< 1	3.3	< 1	0.2
		EMS	12/17/2005	MW3-121705	< 0.5	0.5	1.5	< 0.5	0.2
		EMS	2/4/2006	MW3-020406	< 1	1.5	0.99	< 1	0.2
		EMS	6/30/2006	MW3-063006	< 1	< 1	0.99	< 1	0.2
		EMS	9/30/2006	MW3-093006	< 1	< 1	4.9	< 1	0.2
		EMS	12/11/2006	MW3-121106	< 1	< 1	0.99	< 1	0.2
MW-3	Coatings	EMS	1/25/2007	MW3-012507	< 1	< 1	0.99	< 1	0.2
		EMS	6/19/2007	MW3-061907	< 1	< 1	0.99	< 1	0.2
		EMS	8/10/2007	MW3-081007	< 1	< 1	51	4.9	670
		EMS	12/28/2007	MW3-122807	< 1	< 1	0.99	< 1	0.2
		EMS	2/21/2008	MW3-022108	< 0.2	< 1	0.99	< 1	0.2
		EMS	2/21/2008	MW3-022108	< 0.2	< 1	0.99	< 1	0.2
		EMS	5/21/2008	MW3-052108	< 1	< 1	2.6	< 1	0.32
		Farallon	12/17/2019	MW-3-121719	< 0.20	< 0.20	14	3.2	0.85
		Farallon	6/3/2020	MW-3-060320	< 0.20	< 0.20	7.8	1.5	0.47
		Farallon	9/30/2020	MW-3-093020	< 0.20	< 0.20	6.5	1.1	1.1
		Farallon	3/10/2021	MW-3-20210310	0.37	0.32	< 0.20	< 0.20	0.066
ITCA Cleanup L	evels for Groun	dwater			<b>5</b> <sup>2</sup>	5 <sup>2</sup>	16 <sup>3</sup>	160 <sup>3</sup>	0.22
urface Water Hu	man Health, Wa	iter, and Organisi	ns Screening Levels	, 173-201A WAC <sup>4</sup>	4.9	0.38	NE	600	0.02

### Groundwater Analytical Results for Halogenated Volatile Organic Compounds 18420 68th Avenue South Kent, Washington

Farallon PN: 2032-012

						Analy	ytical Results (microgra	ms per liter) <sup>1</sup>		
Sample Location	Location Area	Sampled By	Sample Date	Sample Identification	PCE	тсе	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride	
CMW 1	West Valley	ATC	5/15/2000	ATC-MW-1-05152000	ND	ND	ND		ND	
SMW-1	West Valley	URS	5/21/2002	AMBMW1052102	< 1.0	< 1.0 < 1.0 < 1.0				
CMW 2	West Valley	ATC	5/15/2000	ATC-MW-2-05152000	ND	ND	150		ND	
SMW-2	West Valley	URS	5/21/2002	AMBMW2052102	< 1.0	1.0	1.1	< 1.0	< 1.0	
CMW 2	West Valley	ATC	5/15/2000	ATC-MW-3-05152000	ND	ND	ND		ND	
SMW-3	West Valley	URS	5/21/2002	AMBMW3052102	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
CVIE 1	Captings	Farallon	3/10/2021	SVE-1-20210310	0.21	0.24	3.6	0.38	1.2	
SVE-1	Coatings	Farallon	3/25/2021	SVE-1-032521	0.40	0.40	1.9	< 0.20	< 0.20	
MTCA Cleanup L	evels for Ground	dwater			5 <sup>2</sup>	5 <sup>2</sup>	16 <sup>3</sup>	160 <sup>3</sup>	0.22	
Surface Water Hu	man Health, Wa	iter, and Organism	ns Screening Levels	, 173-201A WAC <sup>4</sup>	4.9	0.38	NE	600	0.02	

### NOTES:

Results in **bold** and highlighted **gold** denote concentrations exceeding MTCA Cleanup Levels for Groundwater. Results in **bold** and highlighted **orange** denote concentrations exceeding Surface Water Human Health, Water, and Organisms Screening Levels. Results in **bold** and highlighted **pink** denote concentrations that exceed both screening levels.

< denotes analyte not detected at or exceeding the reporting limit listed.

ATC = ATC Environmental, Inc.
Coatings = Coatings Unlimited, Inc.

EMS = Environmental Management Services, LLC

Farallon = Farallon Consulting, L.L.C.

ND = analyte not detected exceeding an unknown laboratory re

NE = not established
PCE = tetrachloroethene
TCE = trichloroethene
URS = URS Corporation
Versar = Versar, Inc.

VOC = volatile organic compound West Valley = West Valley Business Park

<sup>---</sup> denotes sample not analyzed

<sup>\*</sup> denotes analyzed by U.S. Environmental Protection Agency (EPA) Method 8260D-SIM

<sup>&</sup>lt;sup>1</sup>Analyzed by EPA Method 8260 except for samples analyzed in 1998 and 2003; 1998 and 2003 samples analyzed by EPA Method 8021B. Only select VOCs shown in table; see lab reports for full list of analytes.

<sup>&</sup>lt;sup>2</sup>Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013.

<sup>&</sup>lt;sup>3</sup>Washington State Model Toxics Control Act Cleanup Regulation Cleanup Levels and Risk Calculations, Standard Method B Values for Groundwater, updated August 2020, https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Contamination-clean-up-tools/CLARC

<sup>&</sup>lt;sup>4</sup>Values from Table 240, Section 240 of the Water Quality Standards for Surface Waters of the State of Washington, Chapter 173-201A of the Washington Administrative Code, as adopted on August 1, 2016, and updated on December 1, 2019. These values are subject to approval by the U.S. Environmental Protection Agency and are subject to change.

## Table 3 Soil Analytical Results for Halogenated Volatile Organic Compounds 18420 68th Avenue South Kent, Washington

							Analytical	Results (milligrams	per kilogram) <sup>2</sup>	
ample Location	Location Area	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	РСЕ	тсе	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride
		ı		1990 Indep	endent Cleanup A	Action	ı	ī		
CAM-1	Coatings	HLA	CAM-1S	0.0 - 0.3	11/15/1990	< 0.007	< 0.007			< 0.013
-	Coatings	HLA	CAM-1D	0.3 - 0.8	11/15/1990	< 0.006	< 0.006			< 0.011
CAM-2	Coatings	HLA	CAM-2S	0.0 - 0.3	11/15/1990	< 0.006	< 0.006			< 0.012
C/ HVI 2	Coatings	HLA	CAM-2D	0.3 - 0.8	11/15/1990	< 0.006	< 0.006			< 0.011
CAM-3	Coatings	HLA	CAM-3S	0.0 - 0.3	11/15/1990	< 0.005	< 0.005			< 0.011
CAIVI-3	Coatings	HLA	CAM-3D	0.3 - 0.8	11/15/1990	< 0.006	< 0.006			< 0.011
				1996 - 1997	Subsurface Invest	igation				
HA-1	West Valley	ATC	HA-1-2.0	2.0	11/25/1996	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
HA-2	West Valley	ATC	HA-2-2.0	2.0	11/25/1996	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
HA-3	West Valley	ATC	HA-3-2.0	2.0	11/25/1996	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
				2008 Sub	surface Investiga	tion				
EMS-B1	West Valley	EMS	B1-021208-16'	16.0	2/13/2008	< 0.02	< 0.03	< 0.02	< 0.02	< 0.02
EMS-B2	West Valley	EMS	B2-021208-13'	13.0	2/13/2008	< 0.02	< 0.03	< 0.02	< 0.02	< 0.02
EMS-B3	West Valley	EMS	B3-021208-11.5'	11.5	2/13/2008	< 0.02	< 0.03	< 0.02	< 0.02	< 0.02
EMS-B4	West Valley	EMS	B4-021208-8-9'	8.0-9.0	2/13/2008	< 0.02	< 0.03	< 0.02	< 0.02	< 0.02
EMS-B5	West Valley	EMS	B5-021208-13.5'	13.5	2/13/2008	< 0.02	< 0.03	< 0.02	< 0.02	< 0.02
EMS-B6	Coatings	EMS	B6-021208-11'	11.0	2/13/2008	< 0.02	< 0.03	< 0.02	< 0.02	< 0.02
EMS-B7	Coatings	EMS	B7-021208-13'	13.0	2/13/2008	< 0.02	< 0.03	< 0.02	< 0.02	< 0.02
EMS-B8	Coatings	EMS	B8-021208-14'	14.0	2/13/2008	< 0.02	< 0.03	< 0.02	< 0.02	< 0.02
EMS-B9	Coatings	EMS	B9-032108-12'	12.0	3/21/2008	< 0.02	0.091	0.023	< 0.02	< 0.02
EMS-B10	Coatings	EMS	B10-032108-15'	15.0	3/21/2008	< 0.02	< 0.03	< 0.02	< 0.02	< 0.02
EMS-B11	Coatings	EMS	B11-032108-13'	13.0	3/21/2008	< 0.02	< 0.03	< 0.02	< 0.02	< 0.02
EMS-B12	Coatings	EMS	B12-032108-11'	11.0	3/21/2008	< 0.02	< 0.03	< 0.02	< 0.02	< 0.02
EMS-B13	Coatings	EMS	B13-032108-12.5'	12.5	3/21/2008	< 0.02	< 0.03	< 0.02	< 0.02	< 0.02
EMS-B14	Coatings	EMS	B14-032108-13'	13.0	3/21/2008	< 0.02	< 0.03	< 0.02	< 0.02	< 0.02
ITCA Cleanup	Levels for Soil					0.05 <sup>3</sup>	0.033	160 <sup>4</sup>	1,6004	0.674

## Table 3 Soil Analytical Results for Halogenated Volatile Organic Compounds 18420 68th Avenue South Kent, Washington

							Analytical	Results (milligrams	per kilogram) <sup>2</sup>	
Sample Location	Location Area	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	PCE	тсе	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride
				2019-2020 S	ubsurface Invest	igation				
B-1	Coatings	Farallon	B1-5.0	5.0	12/10/2019	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
B-2	Coatings	Farallon	B2-5.0	5.0	12/11/2019	0.034	< 0.0016	< 0.0016	< 0.0016	< 0.0016
B-3	Coatings	Farallon	B3-5.0	5.0	12/11/2019	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015
D 4	Castinas	Farallon	B4-1.0	1.0	12/11/2019	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
B-4	Coatings	Farallon	B4-5.0	5.0	12/11/2019	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015
B-5	Coatings	Farallon	B5-5.0	5.0	12/11/2019	< 0.0013	< 0.0013	0.0015	< 0.0013	< 0.0013
B-6	Coatings	Farallon	B6-5.0	5.0	12/12/2019	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
B-7	Coatings	Farallon	B7-5.0	5.0	12/12/2019	0.0057	< 0.0014	< 0.0014	< 0.0014	< 0.0014
B-9	Coatings	Farallon	B9-5.0	5.0	12/12/2019	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014
B-10	Coatings	Farallon	B10-5.0	5.0	12/12/2019	0.0023	< 0.0014	< 0.0014	< 0.0014	< 0.0014
B-11	Coatings	Farallon	B11-5.0	5.0	12/12/2019	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014
FMW-1	Coatings	Farallon	FMW1-5.0	5.0	12/9/2019	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014
FMW-2	Coatings	Farallon	FMW2-5.0	5.0	12/9/2019	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015
FMW-3	Coatings	Farallon	FMW3-5.0	5.0	12/10/2019	< 0.0016	< 0.0016	< 0.0016	< 0.0016	< 0.0016
FMW-4	Coatings	Farallon	FMW4-5.0	5.0	12/10/2019	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015
FMW-5	Coatings	Farallon	FMW5-5.0	5.0	12/10/2019	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015
FMW-6	Coatings	Farallon	FMW6-5.0	5.0	12/10/2019	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014
E 22	Continue	Farallon	F-23-2.0	2.0	5/28/2020	<0.00088	<0.00088	< 0.00088	< 0.00088	< 0.00088
F-23	Coatings	Farallon	F-23-5.0	5.0	5/28/2020	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0012
E 24	Continue	Farallon	F-24-2.0	2.0	5/28/2020	0.0054	< 0.00090	<0.00090	<0.00090	< 0.00090
F-24	Coatings	Farallon	F-24-5.0	5.0	5/28/2020	0.042	< 0.0012	< 0.0012	< 0.0012	< 0.0012
ITCA Cleanup l	Levels for Soil					0.05 <sup>3</sup>	0.033	160 <sup>4</sup>	1,6004	0.674

## Table 3 Soil Analytical Results for Halogenated Volatile Organic Compounds 18420 68th Avenue South Kent, Washington

							Analytical	Results (milligrams	per kilogram) <sup>2</sup>	
ample Locatio	n Location Area	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	РСЕ	TCE	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride
	•			2021 Sub	surface Investiga	tion				
AS-1	Coatings	Farallon	AS-1-2	2.0	3/3/2021	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
A5-1	Coatings	Farallon	AS-1-10	10.0	3/4/2021	< 0.0015	< 0.0015	< 0.0015	< 0.0015	< 0.0015
FMW-12	Coatings	Farallon	FMW-12-2	2.0	3/3/2021	0.00086	< 0.00083	< 0.00083	< 0.00083	< 0.00083
1 1V1 VV -1 Z	Coatings	Farallon	FMW-12-10	10.0	3/5/2021	0.021	< 0.0014	< 0.0014	< 0.0014	< 0.0014
FMW-13	Coatings	Farallon	FMW-13-2	2.0	3/3/2021	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
FMW-14	Off-Property	Farallon	FMW-14-6	6.0	5/19/2021	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
1.101.00 - 1.4	OII-FTOPERTY	Farallon	FMW-14-12	12.0	5/19/2021	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0012
FMW-15	Coatings	Farallon	FMW-15-5	5.0	5/19/2021	0.0023	< 0.0010	< 0.0010	< 0.0010	< 0.0010
170100-13	Coatings	Farallon	FMW-15-10	10.0	5/19/2021	< 0.0012	< 0.0012	< 0.0012	< 0.0012	< 0.0012
F-25	Coatings	Farallon	F-25-2	2.0	3/3/2021	0.031	< 0.00091	< 0.00091	< 0.00091	< 0.00091
		Farallon	F-26-2	2.0	3/3/2021	< 0.00096	< 0.00096	< 0.00096	< 0.00096	< 0.00096
F-26	Coatings	Farallon	F-26-6.5	6.5	3/4/2021	0.0028	< 0.0013	< 0.0013	< 0.0013	< 0.0013
		Farallon	F-26-10	10.0	3/4/2021	< 0.0011	< 0.0011	0.0015	< 0.0011	< 0.0011
		Farallon	F-27-2	2.0	3/3/2021	< 0.00083	< 0.00083	< 0.00083	< 0.00083	< 0.00083
F-27	Coatings	Farallon	F-27-7	7.0	3/4/2021	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
		Farallon	F-27-16.5	16.5	3/4/2021	< 0.0012	0.0017	0.022	0.0017	< 0.0012
MTCA Cleanup	Levels for Soil					0.05 <sup>3</sup>	0.033	160 <sup>4</sup>	1,6004	0.674

### Soil Analytical Results for Halogenated Volatile Organic Compounds 18420 68th Avenue South Kent, Washington

**Farallon PN: 2032-012** 

						Analytical Results (milligrams per kilogram) <sup>2</sup>					
Sample Location	Location Area	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	РСЕ	тсе	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride	
F-28	Coatings	Farallon	F-28-2	2.0	3/3/2021	< 0.00079	0.00097	< 0.00079	< 0.00079	< 0.00079	
Γ-20	Coatings	Farallon	F-28-10	10.0	3/4/2021	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	
F-29	Coatings	Farallon	F-29-2	2.0	3/3/2021	< 0.00097	< 0.00097	< 0.00097	< 0.00097	< 0.00097	
Г-29	Coatings	Farallon	F-29-8	8.0	3/5/2021	0.0017	0.0012	< 0.0011	< 0.0011	< 0.0011	
F-30	Coatings	Farallon	F-30-2	2.0	3/3/2021	< 0.00086	0.0022	0.0015	< 0.00086	< 0.00086	
r-30	Coatings	Farallon	F-30-13	13.0	3/5/2021	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	
		Farallon	F-31-5	5.0	5/19/2021	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	
		Farallon	F-31-10	10.0	5/19/2021	< 0.0012	0.013	< 0.0012	< 0.0012	< 0.0012	
F-31	Coatings	Farallon	F-31-12	12.0	5/19/2021	< 0.0013	< 0.0013	0.21	0.0092	0.026	
		Farallon	F-31-15	15.0	5/19/2021	< 0.0010	0.0038	0.091	0.0050	0.010	
		Farallon	F-31-19.5	19.5	5/19/2021	< 0.0011	< 0.0011	0.0029	< 0.0011	< 0.0011	
SVE-1	Coatings	Farallon	SVE-1-5	5.0	3/4/2021	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	
SVE-1	Coatings	Farallon	SVE-1-20	20.0	3/4/2021	< 0.0013	< 0.0013	0.015	0.0018	0.0059	
MTCA Cleanup	Levels for Soil					0.05 <sup>3</sup>	0.033	160 <sup>4</sup>	1,6004	0.674	

#### NOTES:

Results in **bold** and highlighted gold denote concentrations exceeding applicable cleanup levels.

ATC = ATC Environmental Inc. Coatings = Coatings Unlimited, Inc.

EMS = Environmental Management Services, LLC

Farallon = Farallon Consulting, L.L.C. HLA = Harding Lawson Associates

PCE = tetrachloroethene

TCE = trichloroethene

VOC = volatile organic compound West Valley = West Valley Business Park

<sup>&</sup>lt; denotes analyte not detected at or exceeding the reporting limit listed.

<sup>—</sup> denotes sample not analyzed.

<sup>&</sup>lt;sup>1</sup>Depth in feet below ground surface.

<sup>&</sup>lt;sup>2</sup>Analyzed by U.S. Environmental Protection Agency Method 8260, 8240 (1990 samples), or 8260 (1996 samples). Only select VOCs shown in table; see lab reports for full list of analytes.

<sup>&</sup>lt;sup>3</sup>Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013.

<sup>&</sup>lt;sup>4</sup>Washington State Cleanup Levels and Risk Calculations under the Washington State Model Toxics Control Act Cleanup Regulation, Standard Method B Formula Values for Soil (Unrestricted Land Use) - Direct Contact (Ingestion Only) and Leaching Pathway, https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Contamination-clean-up-tools/CLARC

## Table 4 Soil Analytical Results for TPH and BTEX 18420 68th Avenue South Kent, Washington

								Analytical	Results (millig	rams per kilog	ram)	
Sample Location	Location Area	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	DRO <sup>2</sup>	$ORO^2$	GRO <sup>3</sup>	Benzene <sup>4</sup>	Toluene <sup>4</sup>	Ethylbenzene <sup>4</sup>	Xylenes <sup>4</sup>
					1990 Independent	Cleanup Act	ion					
CAM-1	Coatings	HLA	CAM-1S	0.0 - 0.3	11/15/1990				0.003 J	0.018	0.003 J	0.017
CAM-1	Coatings	HLA	CAM-1D	0.3 - 0.8	11/15/1990				< 0.006	0.003 J	< 0.006	0.004 J
CAM-2	Coatings	HLA	CAM-2S	0.0 - 0.3	11/15/1990				0.001 J	0.006	< 0.006	0.005 J
CAIVI-2	Coatings	HLA	CAM-2D	0.3 - 0.8	11/15/1990				< 0.006	0.003 J	< 0.006	0.003 J
CAM-3	Coatings	HLA	CAM-3S	0.0 - 0.3	11/15/1990				0.002 J	0.003 J	0.001 J	0.006
CAM-3	Coatings	HLA	CAM-3D	0.3 - 0.8	11/15/1990				< 0.006	0.004 J	< 0.006	0.005 J
HLA-B1	Coatings	HLA	HLA-B1	10.0 - 11.5	11/15/1990		ND^		ND	0.005 J	ND	0.007
HLA-B2	Coatings	HLA	HLA-B2	10.0 - 11.5	11/15/1990	ND	580	ND	ND	ND	ND	ND
					1991 Inter	im Action						
5B	Coatings	HLA	5B	11.0	2/22/1991	< 27	62					
6B	Coatings	HLA	6B	11.0	2/22/1991	< 23	58					
				19	996 - 1997 Subsur	face Investiga	tion					
HA-1	West Valley	ATC	HA-1-2.0	2.0	11/25/1996	< 50*	< 100*	< 20*	< 0.005	< 0.005	< 0.005	< 0.005
HA-2	West Valley	ATC	HA-2-2.0	2.0	11/25/1996	<b>5,190</b> N	4,590	< 20*	< 0.005	< 0.005	< 0.005	< 0.005
па-2	West Valley	ATC	HA-2-4.0	4.0	11/25/1996	321 N	300					
HA-3	West Valley	ATC	HA-3-2.0	2.0	11/25/1996	240 N	330	< 20 **	< 0.005	< 0.005	< 0.005	< 0.005
па-э	West Valley	ATC	HA-3-4.0	4.0	11/25/1996	146 N	160					
HA-4	West Valley	ATC	HA-4-2.0	2.0	11/25/1996	< 50*	< 100*	< 20*			< 0.005	< 0.005
ITCA Metho	d A Cleanup Leve	ls for Soil <sup>5</sup>				2,000	2,000	30/100 <sup>6</sup>	0.03	7	6	9

## Table 4 Soil Analytical Results for TPH and BTEX 18420 68th Avenue South Kent, Washington

								Analytical	Results (millig	rams per kilog	ram)	
Sample Location	Location Area	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	DRO <sup>2</sup>	ORO <sup>2</sup>	GRO <sup>3</sup>	Benzene <sup>4</sup>	Toluene <sup>4</sup>	Ethylbenzene <sup>4</sup>	Xylenes <sup>4</sup>
		<b>1</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<u> </u>	( 2 2 2 )	1998 Remed	lial Action						<b>,</b>
SR-1	West Valley	ATC	SR-1	1.5	10/16/1998	< 25	< 50					
SR-2	West Valley	ATC	SR-2	2.0	10/16/1998	< 25	< 50					
SR-3	West Valley	ATC	SR-3	2.0	10/16/1998	< 25	< 50					
SR-4	West Valley	ATC	SR-4	3.5	10/16/1998	< 25	< 50					
SR-5	West Valley	ATC	SR-5	1.5	10/16/1998	< 25	< 50					
SR-6	West Valley	ATC	SR-6	2.0	10/16/1998	< 25	< 50					
SR-7	West Valley	ATC	SR-7	2.5	10/16/1998	< 25	< 50					
SR-8	West Valley	ATC	SR-8	1.5	10/16/1998	< 25	< 50					
SR-9	West Valley	ATC	SR-9	1.5	10/16/1998	< 25	< 50					
SR-10	West Valley	ATC	SR-10	2.0	10/16/1998	< 25	< 50					
SR-11	West Valley	ATC	SR-11	6.5	10/16/1998	< 25	< 50					
SR-12	West Valley	ATC	SR-12	2.5	10/16/1998	< 25	< 50					
SR-13	West Valley	ATC	SR-13	2.5	10/16/1998	< 25	< 50					
SR-14	West Valley	ATC	SR-14	4.0	10/16/1998	< 25	< 50					
SR-15	West Valley	ATC	SR-15	2.0	10/16/1998	< 25	< 50					
SR-16	West Valley	ATC	SR-16	2.5	10/16/1998	< 25	< 50					
SR-17	West Valley	ATC	SR-17	3.5	10/16/1998	< 25	< 50					
SR-18	West Valley	ATC	SR-18	2.0	10/16/1998	33 N	60					
SR-19	West Valley	ATC	SR-19	2.0	10/16/1998	48 N	140					
SR-20	West Valley	ATC	SR-20	3.0	10/16/1998	78 N	190					
SR-24	West Valley	ATC	SR-24	2.0	10/17/1998	< 25	< 50					
SR-25	West Valley	ATC	SR-25	2.0	10/17/1998	< 25	< 50					
SR-26	West Valley	ATC	SR-26	2.0	10/17/1998	26 N	99					
SR-27	West Valley	ATC	SR-27	2.0	10/17/1998	37 N	190					
SR-28	West Valley	ATC	SR-28	2.0	10/17/1998	< 25	< 50					
SR-29	West Valley	ATC	SR-29	2.0	10/17/1998	< 25	< 50					
SR-30	West Valley	ATC	SR-30	3.5	10/17/1998	< 25	< 50					
SR-31	West Valley	ATC	SR-31	3.5	10/17/1998	< 25	< 50					
SR-32	West Valley	ATC	SR-32	3.0	10/19/1998	64 N	170					
SR-34	West Valley	ATC	SR-34	3.0	10/19/1998	< 25	< 50					
SR-35	West Valley	ATC	SR-35	2.0	10/19/1998	< 25	< 50					
SR-36	West Valley	ATC	SR-36	2.0	10/19/1998	< 25	< 50					
SR-37	West Valley	ATC	SR-37	3.0	10/19/1998	< 25	< 50					
SR-38	West Valley	ATC	SR-38	2.0	10/19/1998	48 N	78					
SR-39	West Valley	ATC	SR-39	2.0	10/19/1998	< 25	< 50					
SR-40	West Valley	ATC	SR-40	3.0	10/19/1998	< 25	< 50					
SR-40	West Valley	ATC	SR-42	2.0	10/22/1998	< 25	< 50					
SR-42 SR-43	West Valley	ATC	SR-43	3.0	10/22/1998	< 25	56					
	d A Cleanup Leve		510-43	5.0	10/22/1770	2,000	2,000	30/100 <sup>6</sup>	0.03	7	6	9

## Table 4 Soil Analytical Results for TPH and BTEX 18420 68th Avenue South Kent, Washington

		_	
Farallon	PN:	2032-	012

								Analytical	Results (millig	rams per kilog	ram)	
Sample Location	Location Area	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	DRO <sup>2</sup>	ORO <sup>2</sup>	GRO <sup>3</sup>	Benzene <sup>4</sup>	Toluene <sup>4</sup>	Ethylbenzene <sup>4</sup>	Xylenes <sup>4</sup>
				200	03 Limited Subsu	rface Investig	ation					
Area-1-B3	Coatings	EMS	B3-092203-SS	13.0-15.0	9/22/2003	< 20	< 40	< 10	< 0.02	< 0.05	< 0.05	< 0.05
				2	019-2020 Subsurf	ace Investiga	tion					
B-1	Coatings	Farallon	B1-5.0	5.0	12/10/2019	< 27	< 54	< 6.1	< 0.0013	< 0.0067	< 0.0013	< 0.0040
B-2	Coatings	Farallon	B2-5.0	5.0	12/11/2019	< 28	< 57	< 6.6	< 0.0016	< 0.0080	< 0.0016	< 0.0048
B-3	Coatings	Farallon	B3-5.0	5.0	12/11/2019	< 31	< 62	< 7.5	< 0.0015	< 0.0076	< 0.0015	< 0.0045
B-4	Castinas	Farallon	B4-1.0	1.0	12/11/2019	60	170	< 6.4	< 0.0010	< 0.0050	< 0.0010	0.0013
B-4	Coatings	Farallon	B4-5.0	5.0	12/11/2019	< 33	< 66	< 7.9	< 0.0015	< 0.0075	< 0.0015	< 0.0045
B-5	Coatings	Farallon	B5-5.0	5.0	12/11/2019	1,500	5,000	< 12	< 0.0013	< 0.0065	< 0.0013	< 0.0039
B-6	Coatings	Farallon	B6-5.0	5.0	12/12/2019	< 30	< 59	< 6.7	< 0.0013	< 0.0065	< 0.0013	< 0.0039
B-7	Coatings	Farallon	B7-5.0	5.0	12/12/2019	< 30	< 61	< 6.8	< 0.0014	< 0.0070	< 0.0014	< 0.0042
B-9	Coatings	Farallon	B9-5.0	5.0	12/12/2019	< 28	< 55	< 6.0	< 0.0014	< 0.0069	< 0.0014	< 0.0042
B-10	Coatings	Farallon	B10-5.0	5.0	12/12/2019	< 29	< 58	< 6.1	< 0.0014	< 0.0068	< 0.0014	< 0.0041
B-11	Coatings	Farallon	B11-5.0	5.0	12/12/2019	< 31	< 62	< 7.1	< 0.0014	< 0.0071	< 0.0014	< 0.0042
FMW-1	Coatings	Farallon	FMW1-5.0	5.0	12/9/2019	< 36	< 72	< 9.2	< 0.0014	< 0.0069	< 0.0014	< 0.0042
FMW-2	Coatings	Farallon	FMW2-5.0	5.0	12/9/2019	< 36	< 71	< 9.0	< 0.0015	< 0.0077	< 0.0015	< 0.0046
FMW-3	Coatings	Farallon	FMW3-5.0	5.0	12/10/2019	< 30	< 60	< 6.7	< 0.0016	< 0.0080	< 0.0016	< 0.0048
FMW-4	Coatings	Farallon	FMW4-5.0	5.0	12/10/2019	< 36	< 71	< 9.2	< 0.0015	< 0.0074	< 0.0015	< 0.0045
FMW-5	Coatings	Farallon	FMW5-5.0	5.0	12/10/2019	< 27	< 53	< 5.7	< 0.0015	< 0.0076	< 0.0015	< 0.0045
FMW-6	Coatings	Farallon	FMW6-5.0	5.0	12/10/2019	< 35	< 70	< 8.6	< 0.0014	< 0.0070	< 0.0014	< 0.0042
F-14	Cartina	Farallon	F-14-2.0	2.0	5/28/2020	<27	120					
F-14	Coatings	Farallon	F-14-5.0	5.0	5/28/2020	<28	< 56					
T: 15	Continue	Farallon	F-15-2.0	2.0	5/28/2020	<26	<53					
F-15	Coatings	Farallon	F-15-5.0	5.0	5/28/2020	<28	<57					
E 16	Castinas	Farallon	F-16-2.0	2.0	5/28/2020	<27	<55					
F-16	Coatings	Farallon	F-16-5.0	5.0	5/28/2020	<29	<58					
E 17	Castina	Farallon	F-17-2.0	2.0	5/27/2020	<27	<55					
F-17	Coatings	Farallon	F-17-5.0	5.0	5/27/2020	<29	<59					
MTCA Method	l A Cleanup Leve	ls for Soil <sup>5</sup>				2,000	2,000	30/100 <sup>6</sup>	0.03	7	6	9

## Soil Analytical Results for TPH and BTEX 18420 68th Avenue South

Kent, Washington Farallon PN: 2032-012

								Analytical	Results (millig	rams per kilog	ram)	
Sample Location	Location Area	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	DRO <sup>2</sup>	ORO <sup>2</sup>	GRO <sup>3</sup>	Benzene <sup>4</sup>	Toluene <sup>4</sup>	Ethylbenzene <sup>4</sup>	Xylenes <sup>4</sup>
F-23	Coatings	Farallon	F-23-2.0	2.0	5/28/2020	30	170	<4.6				
Γ-23	Coatings	Farallon	F-23-5.0	5.0	5/28/2020	<30	<61	< 6.4				
F-24	Coatings	Farallon	F-24-2.0	2.0	5/29/2020	<27	<54	< 5.0				
Γ-24	Coatings	Farallon	F-24-5.0	5.0	5/29/2020	<36	<73	<8.5				
					2021 Subsurface	e Investigatio	n					
F-28	Coatings	Farallon	F-28-5	5.0	3/4/2021	< 30	330	< 7.1				
1'-20	Coatings	Farallon	F-28-10	10.0	3/4/2021	< 33	< 65	< 7.6				
FMW-12	Coatings	Farallon	FMW-12-10	10.0	3/5/2021	< 64	200	16				
MTCA Method	l A Cleanup Leve	ls for Soil <sup>5</sup>				2,000	2,000	30/100 <sup>6</sup>	0.03	7	6	9

#### NOTES:

Results in **bold** and highlighted gold denote concentrations exceeding applicable cleanup levels.

- < denotes analyte not detected at or exceeding the laboratory reporting limit listed.
- denotes sample not analyzed.
- \* = analyzed by Washington Department of Ecology Method WTPH-HCID
- \*\* = analyzed by WTPH-HCID following silica-gel cleanup
- ^ Analyzed by a total petroleum hydrocarbon method (ranges not identified).

ATC = ATC Environmental Inc.

BTEX = benzene, toluene, ethylbenzene and xylenes

Coatings = Coatings Unlimited, Inc.

DRO = total petroleum hydrocarbons (TPH) as diesel-range organics

EMS = Environmental Management Services, LLC

Farallon = Farallon Consulting, L.L.C.

GRO = TPH as gasoline-range organics

HLA = Harding Lawson Associates

J = result is an estimate

N = hydrocarbons in the oil-range are impacting the diesel-range result

ND = analyte not detected and laboratory reporting limit is unknown

NE = not established

ORO = TPH as oil-range organics

West Valley = West Valley Business Park

<sup>&</sup>lt;sup>1</sup>Depth in feet below ground surface.

<sup>&</sup>lt;sup>2</sup>Analyzed by Northwest Method NWTPH-Dx, Environmental Protection Agency (EPA) Method 8015 (1990-1991 samples), or Washington Department of Ecology Method WTPH-D (1996-1998 samples)

<sup>&</sup>lt;sup>3</sup>Analyzed by Northwest Method NWTPH-Gx or EPA Method 8015 (1990-1991 samples).

<sup>&</sup>lt;sup>4</sup>Analyzed by EPA Method 8021B, 8260D, 8240 (1990-1991 samples), or 8260 (1996 samples).

<sup>&</sup>lt;sup>5</sup>Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013.

<sup>&</sup>lt;sup>6</sup>Cleanup level is 30 milligrams per kilogram if benzene is detected and 100 milligrams per kilogram if benzene is not detected.

## Table 5 Groundwater Analytical Results for TPH and BTEX 18420 68th Avenue South Kent, Washington

							Analytical	Results (microgra	ms per liter)		
Sample Location	Location Area	Sampled By	Sample Date	Sample Identification	DRO <sup>1</sup>	ORO <sup>1</sup>	$GRO^2$	Benzene <sup>3</sup>	Toluene <sup>3</sup>	Ethylbenzene <sup>3</sup>	Xylenes <sup>3</sup>
				Reconn	aissance Boring G	Groundwater Sam	ples				
				199	96 - 1997 Subsurfa	ace Investigation					
ATC-B-1	West Valley	ATC	1/24/1997	B-1/12497-1	<b>520</b> N	1,290		< 0.5	0.7	2.7	15
ATC-B-2	West Valley	ATC	1/24/1997	B-2/12497-2	<b>550</b> T	< 750		< 0.5	< 0.5	< 0.5	< 0.5
ATC-B-3	West Valley	ATC	1/24/1997	B-1/12497-3	250 N	< 750		< 0.5	< 0.5	< 0.5	< 0.5
				1998 Soil	Excavation and C	Groundwater Sam	pling				
	West Valley	Versar	10/23/1998	V-1B				< 1	< 1	< 1	< 1
V-1	West Valley	Versar	10/23/1998	V-1D	< 200	< 400					
	West Valley	Versar	10/23/1998	V-1D Dup	< 200	< 400					
	West Valley	Versar	10/23/1998	V-2A				< 1	< 1	< 1	< 1
V-2	West Valley	Versar	10/23/1998	V-2C Dup				< 1	< 1	< 1	< 1
	West Valley	Versar	10/23/1998	V-2E	< 200	< 400					
V-3	West Valley	Versar	10/23/1998	V-3C				< 1	< 1	< 1	< 1
V-3	West Valley	Versar	10/23/1998	V-3E	< 200	< 400					
V-4	West Valley	Versar	10/23/1998	V-4A				< 1	< 1	< 1	< 1
V -4	West Valley	Versar	10/23/1998	V-4E	< 200	< 400					
				200	3 Limited Subsur	face Investigation					
Area-1-B1	Coatings	EMS	9/22/2003	B1-092203	< 200	< 400	< 100	< 1.0	< 1.0	< 1.0	< 1.0
				20	19-2020 Subsurfa	ce Investigation					
B-1	Coatings	Farallon	12/11/2019	B1-121119-GW	< 230	290	< 100	< 0.20	< 1.0	2.1	10.8
B-2	Coatings	Farallon	12/11/2019	B2-121119-GW	< 220	< 240	< 100	< 0.20	< 1.0	2.7	15
B-3	Coatings	Farallon	12/11/2019	B3-121119-GW	< 210	420	< 100	< 0.20	< 1.0	1.1	5.9
B-4	Coatings	Farallon	12/11/2019	B4-121119-GW	< 210	< 210	< 100	< 0.20	< 1.0	0.67	3.33
B-5	Coatings	Farallon	12/11/2019	B5-121119-GW	< 220	< 220	< 100	< 0.20	< 1.0	1.2	6.0
B-6	Coatings	Farallon	12/12/2019	B6-121219-GW	< 200	< 220	< 100	< 0.20	< 1.0	1.2	6.4
B-7	Coatings	Farallon	12/12/2019	B7-121219-GW	< 200	< 230	< 400	< 0.20	< 1.0	1.2	6.4
B-9	Coatings	Farallon	12/12/2019	B9-121219-GW	< 200	< 220	< 100	< 0.20	< 1.0	0.82	4.09
B-10	Coatings	Farallon	12/12/2019	B10-121219-GW	< 200	< 220	< 100	< 0.20	< 1.0	0.77	3.86
B-11	Coatings	Farallon	12/12/2019	B11-121219-GW	< 200	< 300	< 400	< 0.20	< 1.0	2.6	14.1
ITCA Method	A Cleanup Lev	el for Groundwate	er <sup>4</sup>		500	500	800/1,000 <sup>5</sup>	5	1,000	700	1,000

### Groundwater Analytical Results for TPH and BTEX 18420 68th Avenue South Kent, Washington

Farallon PN: 2032-012

							Analytical	Results (microgra	ms per liter)		
Sample Location	Location Area	Sampled By	Sample Date	Sample Identification	DRO <sup>1</sup>	ORO¹	GRO <sup>2</sup>	Benzene <sup>3</sup>	Toluene <sup>3</sup>	Ethylbenzene <sup>3</sup>	<b>Xylenes</b> <sup>3</sup>
				Mon	itoring Well Gro	undwater Sample	s				
FMW-1	Coatings	Farallon	12/16/2019	FMW-1-121619	< 180	310	< 100	< 0.20	< 1.0	< 0.20	< 0.60
FMW-2	Continue	Farallon	12/16/2019	FMW-2-121619	< 210	< 210	< 100	< 0.20	< 1.0	< 0.20	< 0.60
FIVI W -2	Coatings	Farallon	9/29/2020	FMW-2-092920	< 190	300		< 0.20	< 1.0	< 0.20	< 0.60
FMW-3	Continue	Farallon	12/16/2019	FMW-3-121619	< 210	210	< 100	< 0.20	< 1.0	< 0.20	< 0.60
FWIW-3	Coatings	Farallon	9/29/2020	FMW-3-092920	< 210	220		< 0.20	< 1.0	< 0.20	< 0.60
EMIN 4	Castinas	Farallon	12/16/2019	FMW-4-121619	< 210	< 210	< 100	< 0.20	< 1.0	< 0.20	< 0.60
FMW-4	Coatings	Farallon	9/30/2020	FMW-4-093020	< 220	< 220		< 0.20	< 1.0	< 0.20	< 0.60
EMW 5	Cartina	Farallon	12/16/2019	FMW-5-121619	< 210	260	< 100	< 0.20	< 1.0	< 0.20	< 0.60
FMW-5	Coatings	Farallon	9/29/2020	FMW-5-092920	< 170	320		< 0.20	< 1.0	< 0.20	< 0.60
EMW	Capting	Farallon	12/16/2019	FMW-6-121619	< 210	< 210	< 100	< 0.20	< 1.0	< 0.20	< 0.60
FMW-6	Coatings	Farallon	9/29/2020	FMW-6-092920	< 210	< 210		< 0.20	< 1.0	< 0.20	< 0.60
FMW-7	Coatings	Farallon	9/29/2020	FMW-7-092920	< 210	< 210		< 0.20	< 1.0	< 0.20	< 0.60
FMW-8	Coatings	Farallon	9/29/2020	FMW-8-092920	< 210	< 210		< 0.20	< 1.0	< 0.20	< 0.60
FMW-9	Coatings	Farallon	9/30/2020	FMW-9-093020	< 210	< 210		< 0.20	< 1.0	< 0.20	< 0.60
MW-1	Castinas	Farallon	12/17/2019	MW-1-121719	< 210	< 210	< 100	< 0.20	< 1.0	< 0.20	< 0.60
IVI W - I	Coatings	Farallon	9/30/2020	MW-1-093020	< 200	290		< 0.20	< 1.0	< 0.20	< 0.60
MW-2	Castina	Farallon	12/17/2019	MW-2-121719	< 210	< 210	< 100	< 0.20	< 1.0	< 0.20	< 0.60
IVI W -∠	Coatings	Farallon	9/30/2020	MW-2-093020	< 220	< 220		< 0.20	< 1.0	< 0.20	< 0.60
MW 2	Castina	Farallon	12/17/2019	MW-3-121719	< 210	< 210	< 100	< 0.20	< 1.0	< 0.20	< 0.60
MW-3	Coatings	Farallon	9/30/2020	MW-3-093020	< 190	< 190		< 0.20	< 1.0	< 0.20	< 0.60
MTCA Method	A Cleanup Lev	el for Groundwate	er <sup>4</sup>		500	500	800/1,000 <sup>5</sup>	5	1,000	700	1,000

### NOTES:

ATC = ATC Environmental, Inc.

Coatings = Coatings Unlimited, Inc.

BTEX = benzene, toluene, ethylbenzene, and xylenes

DRO = total petroleum hydrocarbons (TPH) as diesel-range organics

EMS = Environmental Management Services, LLC

Farallon = Farallon Consulting, L.L.C.

GRO = TPH as gasoline-range organics

ORO = TPH as oil-range organics

N = hydrocarbons in the lube oil range are impacting the oil range results

T = the sample chromatogram is not similar to a typical diesel standard

Versar = Versar, Inc.

<sup>&</sup>lt; denotes analyte not detected at or exceeding the reporting limit listed.

<sup>—</sup> denotes sample not analyzed.

<sup>&</sup>lt;sup>1</sup>Analyzed by Northwest Method NWTPH-Dx or Washington Department of Ecology Method WTPH-D (1997 samples).

<sup>&</sup>lt;sup>2</sup>Analyzed by Northwest Method NWTPH-Gx.

<sup>&</sup>lt;sup>3</sup>Analyzed by U.S. Environmental Protection Agency Method 8021B, 8260A, 8260D, 8260D/SIM.

<sup>&</sup>lt;sup>4</sup>Washington State Model Toxics Control Act Cleanup Regulation Method A Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as amended 2013.

<sup>&</sup>lt;sup>5</sup>Cleanup level is 800 micrograms per liter if benzene is detected and 1,000 micrograms per liter if benzene is not detected.

Total cPAHs
TEC<sup>4,5</sup>
< 0.0054

< 0.0057

< 0.0063

0.303

< 0.0066

< 0.028

< 0.0060

< 0.0061

< 0.0056

< 0.0058

< 0.0062

< 0.0072

< 0.0072

< 0.0060

< 0.0072

< 0.0054

< 0.0070

0.016

< 0.0061

0.0058

0.017 **0.1** 

Carcinogenic PAHs

< 0.0072

< 0.0076

< 0.0083

0.22

< 0.0088

< 0.037

< 0.0079

< 0.0081

< 0.0074

< 0.0077

< 0.0082

< 0.0096

< 0.0095

< 0.0080

< 0.0095

< 0.0071

< 0.0093

0.010

< 0.0081

< 0.0072

0.013

< 0.0072

< 0.0076

< 0.0083

0.032

< 0.0088

< 0.037

< 0.0079

< 0.0081

< 0.0074

< 0.0077

< 0.0082

< 0.0096

< 0.0095

< 0.0080

< 0.0095

< 0.007

< 0.0093

< 0.0072

< 0.0081

< 0.0072

< 0.0097

< 0.0072

< 0.0076

< 0.0083

0.19

< 0.0088

< 0.037

< 0.0079

< 0.0081

< 0.0074

< 0.0077

< 0.0082

< 0.0096

< 0.0095

< 0.0080

< 0.0095

< 0.0071

< 0.0093

0.011

< 0.0081

< 0.0072

0.015

# Table 6 Soil Analytical Results for PAHs 18420 68th Avenue South Kent, Washington Farallon PN: 2032-012

														Analytical	Results (mi	lligrams per	r kilogram) <sup>2</sup>	_
										l	Non-Carcin	ogenic PAH	s					L
Sample Location	Location Area	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes <sup>3</sup>	Acenaphthene	Acenaphthylene	Anthracene	Benzo(g,h,i)Perylene	Fluoranthene	Fluorene	Phenanthrene	Pyrene	
B-1	Coatings	Farallon	B1-5.0	5.0	12/10/2019	< 0.0072	< 0.0072	< 0.0072	< 0.0216	< 0.0072	< 0.0072	< 0.0072	< 0.0072	< 0.0072	< 0.0072	< 0.0072	< 0.0072	L
B-2	Coatings	Farallon	B2-5.0	5.0	12/11/2019	< 0.0076	< 0.0076	< 0.0076	< 0.0228	< 0.0076	< 0.0076	< 0.0076	< 0.0076	< 0.0076	< 0.0076	0.0079	< 0.0076	L
B-3	Coatings	Farallon	B3-5.0	5.0	12/11/2019	< 0.0083	< 0.0083	< 0.0083	< 0.0249	< 0.0083	< 0.0083	< 0.0083	< 0.0083	< 0.0083	< 0.0083	< 0.0083	< 0.0083	L
B-4	Coatings	Farallon	B4-1.0	1.0	12/11/2019	0.011	0.0086	0.010	0.0296	0.031	< 0.0075	0.035	0.19	0.46	0.021	0.23	0.37	L
D 1	Courings	Farallon	B4-5.0	5.0	12/11/2019	< 0.0088	< 0.0088	< 0.0088	< 0.0264	< 0.0088	< 0.0088	< 0.0088	< 0.0088	< 0.0088	< 0.0088	< 0.0088	< 0.0088	L
B-5	Coatings	Farallon	B5-5.0	5.0	12/11/2019	0.024	0.0077	0.012	0.0437	< 0.0074	< 0.0074	0.0084	< 0.037	0.028	< 0.0074	0.051	0.029	L
B-6	Coatings	Farallon	B6-5.0	5.0	12/12/2019	< 0.0079	< 0.0079	< 0.0079	< 0.0237	< 0.0079	< 0.0079	< 0.0079	< 0.0079	< 0.0079	< 0.0079	< 0.0079	< 0.0079	L
B-7	Coatings	Farallon	B7-5.0	5.0	12/12/2019	0.015	0.0096	0.015	0.0396	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	0.011	< 0.0081	L
B-9	Coatings	Farallon	B9-5.0	5.0	12/12/2019	< 0.0074	< 0.0074	< 0.0074	< 0.0222	< 0.0074	< 0.0074	< 0.0074	< 0.0074	< 0.0074	< 0.0074	< 0.0074	< 0.0074	L
B-10	Coatings	Farallon	B10-5.0	5.0	12/12/2019	< 0.0077	< 0.0077	< 0.0077	< 0.0231	< 0.0077	< 0.0077	< 0.0077	< 0.0077	< 0.0077	< 0.0077	< 0.0077	< 0.0077	L
B-11	Coatings	Farallon	B11-5.0	5.0	12/12/2019	< 0.0082	< 0.0082	< 0.0082	< 0.0246	< 0.0082	< 0.0082	< 0.0082	< 0.0082	< 0.0082	< 0.0082	< 0.0082	0.010	L
FMW-1	Coatings	Farallon	FMW1-5.0	5.0	12/9/2019	< 0.0096	< 0.0096	< 0.0096	< 0.0288	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	L
FMW-2	Coatings	Farallon	FMW2-5.0	5.0	12/9/2019	< 0.0095	< 0.0095	< 0.0095	< 0.0285	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	L
FMW-3	Coatings	Farallon	FMW3-5.0	5.0	12/10/2019	< 0.0080	< 0.0080	< 0.0080	< 0.024	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	< 0.0080	0.017	< 0.0080	Ĺ
FMW-4	Coatings	Farallon	FMW4-5.0	5.0	12/10/2019	< 0.0095	< 0.0095	< 0.0095	< 0.0285	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	
FMW-5	Coatings	Farallon	FMW5-5.0	5.0	12/10/2019	< 0.0071	< 0.0071	< 0.0071	< 0.0213	< 0.0071	< 0.0071	< 0.0071	< 0.0071	< 0.0071	< 0.0071	< 0.0071	< 0.0071	Ĺ
FMW-6	Coatings	Farallon	FMW6-5.0	5.0	12/10/2019	< 0.0093	< 0.0093	< 0.0093	< 0.0279	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	Ĺ
F-23	Contings	Farallon	F-23-2.0	2.0	5/28/2020	< 0.0072	< 0.0072	< 0.0072	< 0.0216	< 0.0072	< 0.0072	< 0.0072	0.012	0.011	< 0.0072	< 0.0072	0.014	Γ
Γ-23	Coatings	Farallon	F-23-5.0	5.0	5/28/2020	< 0.0081	< 0.0081	< 0.0081	< 0.0243	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	< 0.0081	
F-24	Continue	Farallon	F-24-2.0	2.0	5/28/2020	< 0.0072	< 0.0072	< 0.0072	< 0.0216	< 0.0072	< 0.0072	< 0.0072	< 0.0072	< 0.0072	< 0.0072	< 0.0072	< 0.0072	Γ
Γ-24	Coatings	Farallon	F-24-5.0	5.0	5/28/2020	< 0.0097	< 0.0097	< 0.0097	< 0.0291	< 0.0097	< 0.0097	< 0.0097	0.014	0.012	< 0.0097	< 0.0097	0.013	
MTCA Met	hod A Clean	up Level for Soil	6						5	4,800 <sup>7</sup>	NE	24,000 <sup>7</sup>	NE	3,2007	3,2007	NE	2,4007	Ī
MTCA Meth Celsius <sup>8</sup>	hod B Levels	s for Soil Protecti	ive of Groundwater	Vadose @ 1	3 Degrees	4.5	NE	NE	NE	98.0	NE	2,300	NE	630	100	NE	650	
MTCA Met	hod B Levels	s for Soil Protecti	ive of Groundwater S	Saturated <sup>8</sup>		0.24	NE	NE	NE	5.0	NE	110	NE	32.0	5.1	NE	33.0	

NOTES:

Results in **bold** and highlighted gold denote concentrations exceeding applicable cleanup levels.

Coatings = Coatings Unlimited, Inc.

 $cPAHs = carcinogenic\ polycyclic\ aromatic\ hydrocarbons$ 

Farallon = Farallon Consulting, L.L.C. PAHs = polycyclic aromatic hydrocarbons TEC = toxic equivalent concentration

NE = not established

< 0.0072

< 0.0076

< 0.0083

0.22

< 0.0088

< 0.037

< 0.0079

< 0.0081

< 0.0074

< 0.0077

< 0.0082

< 0.0096

< 0.0095

< 0.0080

< 0.0095

< 0.0071

< 0.0093

0.012

< 0.0081

< 0.0072

0.012

< 0.0072

< 0.0076

< 0.0083

0.19

< 0.0088

< 0.037

< 0.0079

< 0.0081

< 0.0074

< 0.0077

< 0.0082

< 0.0096

< 0.0095

< 0.0080

< 0.0095

< 0.007

< 0.0093

0.0074

< 0.0081

< 0.0072

< 0.0097

< 0.0072

< 0.0083

0.29

< 0.0088

< 0.037

< 0.0079

< 0.0081

< 0.0074

< 0.0077

< 0.0082

< 0.0096

< 0.0095

< 0.0080

< 0.0095

< 0.0071

< 0.0093

0.014

< 0.0081

0.0075

0.021

< 0.0072

< 0.0076

< 0.0083

0.11

< 0.0088

< 0.037

< 0.0079

< 0.0081

< 0.0074

< 0.0077

< 0.0082

< 0.0096

< 0.0095

< 0.0080

< 0.0095

< 0.007

< 0.0093

< 0.0072

< 0.0072

< 0.0097

<sup>&</sup>lt; denotes analyte not detected at or exceeding the reporting limit listed.

<sup>&</sup>lt;sup>1</sup>Depth in feet below ground surface.

<sup>&</sup>lt;sup>2</sup>Analyzed by U.S. Environmental Protection Agency Method 8270E/SIM.

<sup>&</sup>lt;sup>3</sup>Sum of naphthalene, 1-methylnaphthalene and 2-methylnaphthalene.

<sup>&</sup>lt;sup>4</sup>Total carcinogenic polycyclic aromatic hydrocarbons derived using the total toxicity equivalency method in Section 708(8) of Chapter 173-340 of the Washington Administrative Code.

<sup>&</sup>lt;sup>5</sup>For concentrations reported at less than the laboratory reporting limit, half the reporting limit was used to calculate the TEC.

<sup>&</sup>lt;sup>6</sup>Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses,

Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013, unless otherwise noted.

<sup>&</sup>lt;sup>7</sup>Washington State Department of Ecology Cleanup Levels and Risk Calculations, under the Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Standard Method B Formula Values for Soil (Unrestricted Land Use)

<sup>-</sup> Direct Contact (Ingestion Only) and Leaching Pathway, https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Contamination-clean-up-tools/CLARC

<sup>&</sup>lt;sup>8</sup>Washington State Cleanup Levels and Risk Calculations under the Washington State MTCA, Standard Method B Formula Values for Soil from CLARC Master spreadsheet updated May 2019, https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Contamination-clean-up-tools/CLARC

# Table 7 Groundwater Analytical Results for PAHs 18420 68th Avenue South Kent, Washington

Farallon PN: 2032-012

													Analytical	l Results (n	nicrograms	per liter) <sup>1</sup>								
									N	lon-Carcin	ogenic PAH	<b>Is</b>	•	<u> </u>						Carcinogo	enic PAHs			
Sample Location	Location Area	Sampled By	Sample Date	Sample Identification	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes <sup>2</sup>	Acenaphthene	Acenaphthylene	Anthracene	Benzo(g,h,i)Perylene	Fluoranthene	Fluorene	Phenanthrene	Pyrene	Benzo(a)Pyrene	Benzo(a)Anthracene	Benzo(b)Fluoranthene	Benzo(j,k)Fluoranthene	Chrysene	Dibenzo(a,h)Anthracene	Indeno(1,2,3-cd)Pyrene	Total cPAHs TEC <sup>3,4</sup>
	1	· · · · · · · · · · · · · · · · · · ·								naissance ]		undwater S			T	T 1	1		T	ī	ī			
B-1	Coatings	Farallon	12/11/2019	B1-121119-GW	< 0.10	< 0.10	< 0.10	< 0.30	< 0.10	< 0.10	< 0.10	< 0.010	< 0.10	< 0.10	< 0.10	< 0.10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.008
B-2	Coatings	Farallon	12/11/2019	B2-121119-GW	< 0.10	< 0.10	< 0.10	< 0.30	< 0.10	< 0.10	< 0.10	< 0.010	< 0.10	< 0.10	< 0.10	< 0.10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.008
B-3	Coatings	Farallon	12/11/2019	B3-121119-GW	< 0.10	< 0.10	< 0.10	< 0.30	< 0.10	< 0.10	< 0.10	< 0.010	< 0.10	< 0.10	< 0.10	< 0.10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.008
B-4	Coatings	Farallon	12/11/2019	B4-121119-GW	< 0.10	< 0.10	< 0.10	< 0.30	< 0.10	< 0.10	< 0.10	< 0.010	< 0.10	< 0.10	< 0.10	< 0.10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.008
B-5	Coatings	Farallon	12/11/2019	B5-121119-GW	< 0.099	< 0.099	< 0.099	< 0.297	< 0.099	< 0.099	< 0.099	< 0.0099	< 0.099	< 0.099	< 0.099	< 0.099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0075 < 0.008
B-6	Coatings	Farallon	12/12/2019	B6-121219-GW	< 0.10	< 0.10	< 0.10	< 0.30	< 0.10	< 0.10	< 0.10	< 0.010	< 0.10	< 0.10	< 0.10	< 0.10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.008
B-7	Coatings	Farallon Farallon	12/12/2019 12/12/2019	B7-121219-GW B9-121219-GW	< 0.13	< 0.13 < 0.10	< 0.13	< 0.39 < 0.30	< 0.13	< 0.13 < 0.10	< 0.13 < 0.10	< 0.013 < 0.010	< 0.13	< 0.13 < 0.10	< 0.13 < 0.10	< 0.13	< 0.013 < 0.010	< 0.013 < 0.010	< 0.013 < 0.010	< 0.013 < 0.010	< 0.013 < 0.010	< 0.013 < 0.010	< 0.013 < 0.010	< 0.008
B-9 B-10	Coatings Coatings	Farallon	12/12/2019	B10-121219-GW	< 0.10	< 0.10	< 0.10	< 0.297	< 0.10	< 0.10	< 0.10	< 0.010	< 0.10	< 0.10	< 0.10	< 0.10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.0099	< 0.0075
D-10	Coatings	Taranon	12/12/2019	B10-121219-GW	< 0.033	< 0.033	< 0.055	< 0.231				lwater Sam		< 0.033	< 0.055	< 0.033	< 0.0033	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0033	< 0.0033	< 0.0073
FMW-1	Coatings	Farallon	12/16/2019	FMW-1-121619	< 0.095	< 0.095	< 0.095	< 0.285	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0072
FMW-2	Coatings	Farallon	12/16/2019	FMW-2-121619	< 0.095	< 0.095	< 0.095	< 0.285	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0072
FMW-3	Coatings	Farallon	12/16/2019	FMW-3-121619	< 0.097	< 0.097	< 0.097	< 0.291	< 0.097	< 0.097	< 0.097	< 0.0097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0073
FMW-4	Coatings	Farallon	12/16/2019	FMW-4-121619	< 0.10	< 0.10	< 0.10	< 0.30	< 0.10	< 0.10	< 0.10	< 0.010	< 0.10	< 0.10	< 0.10	< 0.10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.008
FMW-5	Coatings	Farallon	12/16/2019	FMW-5-121619	< 0.097	< 0.097	< 0.097	< 0.291	< 0.097	< 0.097	< 0.097	< 0.0097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0073
FMW-6	Coatings	Farallon	12/16/2019	FMW-6-121619	< 0.095	< 0.095	< 0.095	< 0.285	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.095	< 0.095	< 0.095	< 0.095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0072
MW-1	Coatings	Farallon	12/17/2019	MW-1-121719	< 0.097	< 0.097	< 0.097	< 0.291	< 0.097	< 0.097	< 0.097	< 0.0097	< 0.097	< 0.097	< 0.097	< 0.097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0073
MW-2	Coatings	Farallon	12/17/2019	MW-2-121719	< 0.098	< 0.098	< 0.098	< 0.294	< 0.098	< 0.098	< 0.098	< 0.0098	< 0.098	< 0.098	< 0.098	< 0.098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0074
MW-3	Coatings	Farallon	12/17/2019	MW-3-121719	< 0.10	< 0.10	< 0.10	< 0.30	< 0.10	< 0.10	< 0.10	< 0.010	< 0.10	< 0.10	< 0.10	< 0.10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.008
MTCA Met	hod A Clean	up Level for G	Froundwater <sup>5</sup>					160	960 <sup>6</sup>	NE	4,8006	NE	640 <sup>6</sup>	640 <sup>6</sup>	NE	480 <sup>6</sup>								0.1

NOTES:

Coatings = Coatings Unlimited, Inc.
cPAHs = carcinogenic polycyclic aromatic hydrocarbons

Farallon = Farallon Consulting, L.L.C.

PAHs = polycyclic aromatic hydrocarbons

TEC = toxic equivalent concentration

NE = not established

<sup>&</sup>lt; denotes analyte not detected at or exceeding the reporting limit listed.

<sup>&</sup>lt;sup>1</sup>Analyzed by U.S. Environmental Protection Agency Method 8270E/SIM.

<sup>&</sup>lt;sup>2</sup>Sum of naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene.

<sup>&</sup>lt;sup>3</sup>Total cPAHs derived using the total toxicity equivalency method in Section 708(8) of Chapter 173-340 of the Washington Administrative Code.

<sup>&</sup>lt;sup>4</sup>For concentrations reported at less than the laboratory reporting limit, half the reporting limit was used to calculate the TEC.

<sup>&</sup>lt;sup>5</sup>Washington State Model Toxics Control Act Cleanup Regulation Method A Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013, unless otherwise noted.

<sup>&</sup>lt;sup>6</sup>Washington State Model Toxics Control Act Cleanup Regulation Cleanup Levels and Risk Calculations, Standard Method B Values for Groundwater, updated August 2020, https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Contamination-clean-up-tools/CLARC

# Table 8 Soil Analytical Results for Metals 18420 68th Avenue South Kent, Washington Farallon PN: 2032-012

									Analytica	l Results (millig	rams per kilog	ram) <sup>2</sup>			
Sample Location	Location Area	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Nickel	Mercury	Silver	Zinc
						1990 In	dependent Cle	anup Action							
CAM-1	Coatings	HLA	CAM-1S	0.0 - 0.3	11/15/1990		4,720	ND	1,640	1,000	4,160	567			19,700
CAIVI-1	Coatings	HLA	CAM-1D	0.3 - 0.8	11/15/1990		45.1	ND	61.6	122	73.7	48.3			241
CAM-2	Coatings	HLA	CAM-2S	0.0 - 0.3	11/15/1990		1,650	ND	1,280	615	3,210	482			14,700
CAIVI-2	Coatings	HLA	CAM-2D	0.3 - 0.8	11/15/1990		245	ND	223	213	680	116			1,550
CAM-3	Coatings	HLA	CAM-3S	0.0 - 0.3	11/15/1990		370	ND	1,170	746	1,000	935			446
CAIVI-3	Coatings	HLA	CAM-3D	0.3 - 0.8	11/15/1990		259	ND	39.3	667	686	32.7			2,260
						1991 Iı	nterim Action -	Excavation							
1B	Coatings	HLA	1B	1.0	2/22/1991		480	4.8	1,090	313	2,690	199			4,280
2B	Coatings	HLA	2B	1.0	2/22/1991		209	3.6	35.5	528	409	31.6			1,270
9B	Coatings	HLA	9B	1.0	3/5/1991		840	27.3	67.4	2,440	2,820	59.5			8,590
10B	Coatings	HLA	10B	1.0	6/5/1991		66.2	< 1.1	19.9	21.6	7.2	23.5			37.7
11S	Coatings	HLA	11S	0.5	6/5/1991		497	10.8	65.8	1,550	1,790	48.9			5,450
						1996 - 19	97 Subsurface	Investigation							
HA-1	West Valley	ATC	HA-1-2.0	2.0	11/25/1996	< 5	40	< 1	20		< 5		< 0.2	< 1	
HA-2	West Valley	ATC	HA-2-2.0	2.0	11/25/1996	16	74	< 1	34		110		< 0.2	140	
HA-3	West Valley	ATC	HA-3-2.0	2.0	11/25/1996	< 5	55	< 1	24		26		0.4	4	
HA-4	West Valley	ATC	HA-4-2.0	2.0	11/25/1996	< 5	53	< 1	23		< 5		< 0.2	< 1	
MTCA Clean	up Levels for S	Soil <sup>3</sup>				20	16,000 <sup>4</sup>	2	2,000	3,2004	250	1,600 <sup>4</sup>	2	4004	24,000 <sup>4</sup>

# Table 8 Soil Analytical Results for Metals 18420 68th Avenue South Kent, Washington Farallon PN: 2032-012

									Analytica	l Results (millig	rams per kilog	ram) <sup>2</sup>			
Sample Location	Location Area	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Nickel	Mercury	Silver	Zinc
						2019-20	20 Subsurface	Investigation							
B-1	Coatings	Farallon	B1-5.0	5.0	12/10/2019	< 11		< 0.54	7.4		< 5.4		< 0.27		
B-2	Coatings	Farallon	B2-5.0	5.0	12/11/2019	< 11		< 0.57	11		< 5.7		< 0.28		
B-3	Coatings	Farallon	B3-5.0	5.0	12/11/2019	< 12		< 0.62	7.6		< 6.2		< 0.31		
B-4	Continue	Farallon	B4-1.0	1.0	12/11/2019	13		1.6	330		460		< 0.28		
D-4	Coatings	Farallon	B4-5.0	5.0	12/11/2019	< 13		< 0.66	14		< 6.6		< 0.33		
B-5	Coatings	Farallon	B5-5.0	5.0	12/11/2019	< 11		< 0.55	12		< 5.5		< 0.28		
B-6	Coatings	Farallon	B6-5.0	5.0	12/12/2019	< 12		< 0.59	9.0		< 5.9		< 0.30		
B-7	Coatings	Farallon	B7-5.0	5.0	12/12/2019	< 12		< 0.61	12		10		< 0.30		
B-9	Coatings	Farallon	B9-5.0	5.0	12/12/2019	< 11		< 0.55	11		5.6		< 0.28		
B-10	Coatings	Farallon	B10-5.0	5.0	12/12/2019	< 12		< 0.58	11		7.4		< 0.29		
B-11	Coatings	Farallon	B11-5.0	5.0	12/12/2019	< 12		< 0.62	9.4		< 6.2		< 0.31		
FMW-1	Coatings	Farallon	FMW1-5.0	5.0	12/9/2019	< 14		< 0.72	17		< 7.2		< 0.36		
FMW-2	Coatings	Farallon	FMW2-5.0	5.0	12/9/2019	< 14		< 0.71	20		< 7.1		< 0.36		
FMW-3	Coatings	Farallon	FMW3-5.0	5.0	12/10/2019	< 12		< 0.60	11		6.6		< 0.30		
FMW-4	Coatings	Farallon	FMW4-5.0	5.0	12/10/2019	< 14		< 0.71	15		< 7.1		< 0.36		
FMW-5	Coatings	Farallon	FMW5-5.0	5.0	12/10/2019	< 11		< 0.53	5.4		< 5.3		< 0.27		
FMW-6	Coatings	Farallon	FMW6-5.0	5.0	12/10/2019	< 14		< 0.70	15		< 7.0		< 0.35		
F-18	Coatings	Farallon	F-18-1.0	1.0	5/27/2020	<11		< 0.55	24		11		< 0.28		
F-19	Coatings	Farallon	F-19-1.5	1.5	5/27/2020	16		< 0.53	130		95		< 0.27		
F-20	Coatings	Farallon	F-20-1.5	1.5	5/27/2020	<11		< 0.55	33		20		< 0.27		
F-21	Coatings	Farallon	F-21-1.5	1.5	5/27/2020	<11		0.78	170		24		< 0.26		
F-22	Coatings	Farallon	F-22-1.5	1.5	5/27/2020	17		< 0.52	110		27		< 0.26		
F-23	Coatings	Farallon	F-23-2.0	2.0	5/28/2020	13		< 0.54	88		26		< 0.27		
1-23	Coatings	Farallon	F-23-5.0	5.0	5/28/2020	<12		< 0.61	8.3		<6.1		< 0.30		
F-24	Coatings	Farallon	F-24-2.0	2.0	5/28/2020	<11		< 0.54	15		<5.4		< 0.27		
1:-24	Coatings	Farallon	F-24-5.0	5.0	5/28/2020	<15		< 0.73	19		<7.3		< 0.36		
MTCA Clean	up Levels for S	Soil <sup>3</sup>				20	16,000 <sup>4</sup>	2	2,000	3,2004	250	1,6004	2	4004	24,000

### NOTES:

Results in **bold** and highlighted gold denote concentrations exceeding applicable cleanup levels.

ATC = ATC Environmental Inc.

Coatings = Coatings Unlimited, Inc.

Farallon = Farallon Consulting, L.L.C.

HLA = Harding Lawson Associates

ND = analyte not detected exceeding an unknown laboratory reporting limit

West Valley = West Valley Business Park

 $<sup>&</sup>lt;\!$  denotes analyte not detected at or exceeding the laboratory reporting limit listed.

<sup>---</sup> denotes sample not analyzed

<sup>&</sup>lt;sup>1</sup>Depth in feet below ground surface.

<sup>&</sup>lt;sup>2</sup>Analyzed by U.S. Environmental Protection Agency Methods 6020B/7471B or 7060/6010/7471 (1990-1996 samples).

<sup>&</sup>lt;sup>3</sup>Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013.

<sup>&</sup>lt;sup>4</sup>Washington State Department of Ecology Cleanup Levels and Risk Calculations, under the Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Standard Method B Formula Values for Soil (Unrestricted Land Use) - Direct Contact (Ingestion Only) and Leaching Pathway, https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Contamination-clean-up-tools/CLARC

## Table 9 Groundwater Analytical Results for Metals 18420 68th Avenue South Kent, Washington

								Anal	ytical Results (n	nicrograms per l	iter) <sup>1</sup>			
Sample Location	Location Area	Sampled By	Sample Date	Sample Identification	Total Arsenic	Dissolved Arsenic	Total Cadmium	Dissolved Cadmium	Total Chromium	Dissolved Chromium	Total Lead	Dissolved Lead	Total Mercury	Dissolved Mercury
						Reconnaissanc	e Boring Groun	dwater Samples	\$					
B-1	Coatings	Farallon	12/11/2019	B1-121119-GW	9.8		< 4.4		16		2.9		< 0.50	
B-2	Coatings	Farallon	12/11/2019	B2-121119-GW	3.4		< 4.4		< 11		1.9		< 0.50	
B-3	Coatings	Farallon	12/11/2019	B3-121119-GW	25		< 4.4		29		7.4		< 0.50	
B-4	Coatings	Farallon	12/11/2019	B4-121119-GW	16		< 4.4		14		3.9		< 0.50	
B-5	Coatings	Farallon	12/11/2019	B5-121119-GW	8.9		< 4.4		< 11		< 1.1		< 0.50	
B-6	Coatings	Farallon	12/12/2019	B6-121219-GW	8.3		< 4.4		24		5.5		< 0.50	
B-7	Coatings	Farallon	12/12/2019	B7-121219-GW	64		< 4.4		170		37		< 0.50	
B-9	Coatings	Farallon	12/12/2019	B9-121219-GW	17		< 4.4		54		13		< 0.50	
B-10	Coatings	Farallon	12/12/2019	B10-121219-GW	13		< 4.4		< 11		1.3		< 0.50	
B-11	Coatings	Farallon	12/12/2019	B11-121219-GW	710		< 4.4		930		190		1.5	
						Monitoring	Well Groundwa	ater Samples						
		Farallon	12/16/2019	FMW-1-121619	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
FD 6337 1	a i	Farallon	6/3/2020	FMW-1-06032020	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
FMW-1	Coatings	Farallon	3/10/2021	FMW-1-20210310	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	9/8/2021	FMW-1-090821	9.6	7.2	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	12/16/2019	FMW-2-121619	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	6/3/2020	FMW-2-06032020	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
FMW-2	Coatings	Farallon	9/29/2020	FMW-2-092920	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	3/10/2021	FMW-2-20210310	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	9/8/2021	FMW-2-090821	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	12/16/2019	FMW-3-121619	26	22	< 4.4	< 4.0	< 11	< 10	1.3	< 1.0	< 0.50	< 0.50
		Farallon	6/3/2020	FMW-3-06032020	45	45	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
FMW-3	Coatings	Farallon	9/29/2020	FMW-3-092920	31	32	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	3/10/2021	FMW-3-20210310	51	49	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	9/8/2021	FMW-3-090821	38	34	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	12/16/2019	FMW-4-121619	49	9.1	< 4.4	< 4.0	96	< 10	31	< 1.0	0.68	< 0.50
EMW 4	Castinas	Farallon	6/3/2020	FMW-4-060320	18	13	< 4.4	< 4.0	< 11	< 10	3.1	< 1.0	< 0.50	< 0.50
FMW-4	Coatings	Farallon	3/10/2021	FMW-4-20210310	17	15	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	9/8/2021	FMW-4-090821	22	17	< 4.4	< 4.0	< 11	< 10	4.2	< 1.0	< 0.50	< 0.50
		Farallon	12/16/2019	FMW-5-121619	5.0	5.3	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	6/3/2020	FMW-5-060320	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
FMW-5	Coatings	Farallon	9/29/2020	FMW-5-092920	8.8	7.6	< 4.4	< 4.0	< 11	< 10	1.4	< 1.0	< 0.50	< 0.50
		Farallon	3/10/2021	FMW-5-20210310	6.4	5.8	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	9/9/2021	FMW-5-090921	6.4	5.8	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	12/16/2019	FMW-6-121619	4.0	3.8	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	6/3/2020	FMW-6-06032020	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
FMW-6	Coatings	Farallon	9/29/2020	FMW-6-092920	4.2	4.3	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	3/10/2021	FMW-6-20210310	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	9/8/2021	FMW-6-090821	3.7	3.2	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
MTCA Clean	up Levels for	Groundwater	2			5	1.0f2	5	5	0		15	2	

## Table 9 Groundwater Analytical Results for Metals 18420 68th Avenue South Kent, Washington

Farallon PN: 2032-012

								Anal	lytical Results (n	nicrograms per l	iter) <sup>1</sup>			
Sample Location	Location Area	Sampled By	Sample Date	Sample Identification	Total Arsenic	Dissolved Arsenic	Total Cadmium	Dissolved Cadmium	Total Chromium	Dissolved Chromium	Total Lead	Dissolved Lead	Total Mercury	Dissolved Mercury
		Farallon	6/3/2020	FMW-7-060320	8.4	4.7	< 4.4	< 4.0	< 11	< 10	2.4	< 1.0	< 0.50	< 0.50
FMW-7	Coatings	Farallon	9/29/2020	FMW-7-092920	6.4	6.5	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
1 141 44 - /	Coatings	Farallon	3/10/2021	FMW-7-20210310	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	9/9/2021	FMW-7-090921	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	6/3/2020	FMW-8-06032020	5.2	3.7	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
FMW-8	Coatings	Farallon	9/29/2020	FMW-8-092920	5.0	5.6	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
LIMI M -0	Coatings	Farallon	3/10/2021	FMW-8-20210310	4.7	4.5	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	9/8/2021	FMW-8-090821	6.7	6.7	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	6/3/2020	FMW-9-06032020	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
FMW-9	Cantinan	Farallon	9/30/2020	FMW-9-093020	4.0	3.5	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
FM W -9	Coatings	Farallon	3/10/2021	FMW-9-20210310	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	9/8/2021	FMW-9-090821	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
FMW-12	Cantinan	Farallon	3/10/2021	FMW-12-20210310	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
FWIW-12	Coatings	Farallon	9/9/2021	FMW-12-090921	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
EMW 12	Castinas	Farallon	3/10/2021	FMW-13-20210310	3.5	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
FMW-13	Coatings	Farallon	9/9/2021	FMW-13-090921	3.7	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
FMW-15	Coatings	Farallon	9/9/2021	FMW-15-090921	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
FMW-16	Coatings	Farallon	9/8/2021	FMW-16-090821	8.1	7.2	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
FMW-17	Coatings	Farallon	9/8/2021	FMW-17-090821	4.3	3.6	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	12/17/2019	MW-1-121719	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
MW-1	Coatings	Farallon	6/3/2020	MW-1-060320	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	3/10/2021	MW-1-20210310	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	1.8	< 1.0	< 0.50	< 0.50
		Farallon	12/17/2019	MW-2-121719	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
MW-2	Coatings	Farallon	6/3/2020	MW-2-060320	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
		Farallon	3/10/2021	MW-2-20210310	< 3.3	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
MW 2	Cartina	Farallon	12/17/2019	MW-3-121719	13	13	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
MW-3	Coatings	Farallon	6/3/2020	MW-3-060320	14	12	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
SVE-1	Coatings	Farallon	3/10/2021	SVE-1-20210310	3.7	< 3.0	< 4.4	< 4.0	< 11	< 10	< 1.1	< 1.0	< 0.50	< 0.50
MTCA Clean	up Levels for	Groundwater	2			5		5	5	0		15	2	

NOTES:

Results in **bold** and highlighted yellow denote concentrations exceeding applicable cleanup levels.

Coatings = Coatings Unlimited, Inc. Farallon = Farallon Consulting, L.L.C.

<sup>&</sup>lt; denotes analyte not detected at or exceeding the reporting limit listed.

<sup>—</sup> denotes sample not analyzed.

<sup>&</sup>lt;sup>1</sup>Analyzed by U.S. Environmental Protection Agency Method 200.8/7470A.

<sup>&</sup>lt;sup>2</sup>Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013, unless otherwise noted.

## Table 10 Monitored Natural Attenuation and Water Quality Parameters 18420 68th Avenue South Kent, Washington

				Water Qu	ality Parameters			Electron Receptors	
						Oxidation-Reduction		•	
Monitoring Well	Date	Sample Identification	pH <sup>1</sup> (Standard Units)	Temperature <sup>1</sup> (degrees Celsius)	Specific Conductivity <sup>1</sup> (mS/cm)	Potential <sup>1</sup> (millivolts)	Dissolved Oxygen <sup>1</sup> (mg/L)	Chloride <sup>2</sup> (mg/L)	Nitrate <sup>3</sup> (mg/L-N)
MW 1	9/30/2020	MW-1-093020		•	Well went dry	during purging; sampled	after recharge.		•
MW-1	3/10/2021	MW-1-20210310	5.86	13.0	0.239	313.2	2.01		
MW	9/30/2020	MW-2-093020			Well went dry	during purging; sampled	after recharge.		•
MW-2	3/10/2021	MW-2-20210310	5.81	10.1	0.158	264.3	3.68		
MXV	9/30/2020	MW-3-093020		•	Well went dry	during purging; sampled	after recharge.		*
MW-3	3/10/2021	MW-3-20210310	6.05	10.7	0.156	63.4	0.29		
EN ANY 1	3/10/2021	FMW-1-031021	6.35	15.3	0.807	196.4	0.90		
FMW-1	9/8/2021	FMW-1-090821	5.84	19.2	0.389	-44.8	0.49	10	0.11
	9/29/2020	FMW-2-092920	6.26	15.9	0.809	-27.3	0.21		
FMW-2	3/10/2021	FMW-2-031021	6.40	13.5	1.056	132.4	0.57		
	9/8/2021	FMW-2-090821	5.91	17.7	0.612	-32.3	0.46	6.6	0.65
	9/29/2020	FMW-3-092920	6.67	15.8	0.640	-134.4	0.17		
FMW-3	3/10/2021	FMW-3-20210310	6.88	12.1	1.14	-147.4	0.27		
	9/8/2021	FMW-3-090821	6.23	17.9	0.605	-115.4	0.74	9.5	0.86
	9/30/2020	FMW-4-093020	6.39	16.6	0.245	-44.1	2.21		
FMW-4	3/10/2021	FMW-4-20210310	6.53	14.9	0.571	-68.6	0.38		
	9/8/2021	FMW-4-090821	6.42	21.5	0.261	-56.4	0.86	2.6	< 0.050
	9/29/2020	FMW-5-092920	6.35	15.3	0.866	-114.0	0.15		
FMW-5	3/10/2021	FMW-5-031021	6.44	13.8	1.049	-67.7	0.66		
	9/9/2021	FMW-5-090921	6.47	16.5	0.720	-83.6	0.66		
	9/29/2020	FMW-6-092920	6.22	17.1	0.350	-40.8	0.19		
FMW-6	3/10/2021	FMW-6-031021	5.83	15.1	0.372	201.5	0.67		
	9/8/2021	FMW-6-090821	5.85	16.8	0.285	-51.8	0.46	6.3	0.29
	9/29/2020	FMW-7-092920	6.05	15.3	0.517	26.9	0.25		
FMW-7	3/10/2021	FMW-7-031021	6.21	13.5	0.529	132.5	0.92		
	9/9/2021	FMW-7-090921	6.10	16.1	0.409	178.4	1.21		
	9/29/2020	FMW-8-092920	6.24	15.2	0.761	-103.8	0.17		
FMW-8	3/10/2021	FMW-8-031021	6.21	13.9	0.792	-11.2	0.72		
	9/8/2021	FMW-8-090821	6.31	18.3	0.745	-84.2	0.66	18	1.2
	9/30/2020	FMW-9-093020	6.54	15.3	0.416	13.4	0.17		
FMW-9	3/10/2021	FMW-9-031021	6.11	13.8	0.498	156.3	0.88		
1 1V1 VV -7	5/24/2021	FMW-9-20210524	6.19	14.7	0.346	152.9	0.66		
	9/8/2021	FMW-9-090821	5.66	17.7	0.341	92.5	0.58	2.8	0.22

## Table 10 Monitored Natural Attenuation and Water Quality Parameters 18420 68th Avenue South Kent, Washington

			Elect	ron Receptors (Conti	inued)	ı	Metabolic Byproduc	ts	Metals	Available Organic Carbon	Hardness a	nd Alkalinity
Monitoring Well	Date	Sample Identification	Nitrite <sup>3</sup> (mg/L-N)	Sulfate <sup>4</sup> (mg/L)	Sulfide <sup>5</sup> (mg/L)	Methane <sup>6</sup> (μg/L)	Ethane <sup>6</sup> (µg/L)	Ethene <sup>6</sup> (μg/L)	Ferrous Iron <sup>7</sup> (mg/L)	Total Organic Carbon <sup>8</sup> (mg/L)	Hardness <sup>9</sup> (mg/L-CaCO <sub>3</sub> )	Alkalinity <sup>10</sup> (mg/L-CaCO <sub>3</sub> )
MW-1	9/30/2020	MW-1-093020				Wel	l went dry during pur	ging; sampled after re	charge.			
IVI VV - I	3/10/2021	MW-1-20210310										
MW-2	9/30/2020	MW-2-093020				Wel	l went dry during pur	ging; sampled after re	charge.			
IVI VV - 2	3/10/2021	MW-2-20210310										
MW-3	9/30/2020	MW-3-093020				Wel	l went dry during pur	ging; sampled after re	charge.			
IVI VV - 3	3/10/2021	MW-3-20210310										
TENANY 1	3/10/2021	FMW-1-031021										
FMW-1	9/8/2021	FMW-1-090821	< 0.020	28	0.06	57	< 0.22	< 0.29	36.4	3.6	170	230
	9/29/2020	FMW-2-092920										
FMW-2	3/10/2021	FMW-2-031021										
	9/8/2021	FMW-2-090821	< 0.020	< 5.0	0.07	2,000	< 0.22	< 0.29	17.3	15	210	440
	9/29/2020	FMW-3-092920										
FMW-3	3/10/2021	FMW-3-20210310										
	9/8/2021	FMW-3-090821	< 0.020	< 5.0	0.07	1,200	< 0.22	< 0.29	64.1	13	120	380
	9/30/2020	FMW-4-093020										
FMW-4	3/10/2021	FMW-4-20210310										
111111	9/8/2021	FMW-4-090821	< 0.020	< 5.0	0.07	1,900	< 0.22	0.62	23.5	4.1	140	110
	9/29/2020	FMW-5-092920										
FMW-5	3/10/2021	FMW-5-031021										
	9/9/2021	FMW-5-090921										
	9/29/2020	FMW-6-092920										
FMW-6	3/10/2021	FMW-6-031021										
	9/8/2021	FMW-6-090821	< 0.020	< 5.0	< 0.05	440	< 0.22	< 0.29	26.9	4.3	83	170
	9/29/2020	FMW-7-092920										
FMW-7	3/10/2021	FMW-7-031021										
	9/9/2021	FMW-7-090921										
	9/29/2020	FMW-8-092920										
FMW-8	3/10/2021	FMW-8-031021										
	9/8/2021	FMW-8-090821	< 0.020	< 5.0	0.05	4,100	< 0.22	< 0.29	160	7.5	150	370
	9/30/2020	FMW-9-093020										
EMM	3/10/2021	FMW-9-031021										
FMW-9	5/24/2021	FMW-9-20210524										
	9/8/2021	FMW-9-090821	< 0.020	37	< 0.05	3.8	< 0.22	< 0.29	0.588	2.5	190	200

## Monitored Natural Attenuation and Water Quality Parameters 18420 68th Avenue South

Kent, Washington Farallon PN: 2032-012

				Water Qua	ality Parameters			Electron Receptors	
Monitoring Well	Date	Sample Identification	pH <sup>1</sup> (Standard Units)	Temperature <sup>1</sup> (degrees Celsius)	Specific Conductivity <sup>1</sup> (mS/cm)	Oxidation-Reduction Potential <sup>1</sup> (millivolts)	Dissolved Oxygen <sup>1</sup> (mg/L)	Chloride <sup>2</sup> (mg/L)	Nitrate <sup>3</sup> (mg/L-N)
FMW-12	3/10/2021	FMW-12-031021	6.08	14.4	0.981	187.6	2.25		
F1V1 VV -12	9/9/2021	FMW-12-090921	6.10	15.9	0.950	108.6	0.82		
FMW-13	3/10/2021	FMW-13-20210310	6.46	10.5	0.405	-96.8	1.04		
FIVI VV -13	9/9/2021	FMW-13-090921	6.39	13.9	0.321	20.9	0.84		
FMW-14	5/24/2021	FMW-14-20210524	7.01	14.6	0.325	-93.1	0.83		
FMW-15	5/24/2021	FMW-15-20210524	6.27	14.0	1.340	-119.8	1.29		
FIVI W -13	9/9/2021	FMW-15-090921	6.54	16.1	1.169	-3.3	0.79		
FMW-16	9/8/2021	FMW-16-090821	6.41	18.7	0.520	-28.5	0.80	7.1	0.15
FMW-17	9/8/2021	FMW-17-090821	6.37	20.1	0.601	-352.8	0.89	7.1	0.17
SVE-1	3/10/2021	SVE-1-20210310	6.32	14.3	0.341	240.2	2.89		

#### NOTE:

mS/cm = milliSiemens per centimeter

mg/L = milligrams per liter

mg/L-CaCO<sub>3</sub> = milligrams per liter as calcium carbonate

mg/L-N = milligrams per liter as nitrogen

mV = millivolts

NTU = nephelometric turbidity units

 $\mu g/L = micrograms per liter$ 

<sup>&</sup>lt; denotes analyte not detected at or exceeding the laboratory reporting limit listed.

<sup>---</sup> denotes sample not analyzed

<sup>&</sup>lt;sup>1</sup>Field collected parameter using multimeter.

<sup>&</sup>lt;sup>2</sup>Analyzed by standard method 4500-Cl E

<sup>&</sup>lt;sup>3</sup>Analyzed by U.S. Environmental Protection Agency (EPA) Method 353.2.

<sup>&</sup>lt;sup>4</sup>Analyzed by ASTM Method D516-11.

<sup>&</sup>lt;sup>5</sup>Analyzed by standard method 4500-S2-D

<sup>&</sup>lt;sup>6</sup>Analyzed by RSK 175.

<sup>&</sup>lt;sup>7</sup>Analyzed by standard method 3500FeB.

<sup>&</sup>lt;sup>8</sup>Analyzed by standard method 5310B.

 $<sup>^9</sup>$ Analyzed by EPA Method 200.7/standard method 2340B

<sup>&</sup>lt;sup>10</sup> Analyzed by standard method 2320B.

## Monitored Natural Attenuation and Water Quality Parameters 18420 68th Avenue South

## Kent, Washington Farallon PN: 2032-012

			Electr	ron Receptors (Conti	inued)	I	Metabolic Byproduc	t <b>s</b>	Metals	Available Organic Carbon		nd Alkalinity
Monitoring Well	Date	Sample Identification	Nitrite <sup>3</sup> (mg/L-N)	Sulfate <sup>4</sup> (mg/L)	Sulfide <sup>5</sup> (mg/L)	Methane <sup>6</sup> (μg/L)	Ethane <sup>6</sup> (μg/L)	Ethene <sup>6</sup> (μg/L)	Ferrous Iron <sup>7</sup> (mg/L)	Total Organic Carbon <sup>8</sup> (mg/L)	Hardness <sup>9</sup> (mg/L-CaCO <sub>3</sub> )	Alkalinity <sup>10</sup> (mg/L-CaCO <sub>3</sub> )
FMW-12	3/10/2021	FMW-12-031021										
FIVI VV - 1 2	9/9/2021	FMW-12-090921										
FMW-13	3/10/2021	FMW-13-20210310										
LIMI AA - 12	9/9/2021	FMW-13-090921										
FMW-14	5/24/2021	FMW-14-20210524										
FMW-15	5/24/2021	FMW-15-20210524										
LIM M -12	9/9/2021	FMW-15-090921										
FMW-16	9/8/2021	FMW-16-090821	0.040	< 5.0	0.08	4,300	< 0.22	< 0.29	44.8	6.7	170	280
FMW-17	9/8/2021	FMW-17-090821	< 0.020	< 5.0	0.09	3,100	< 0.22	< 0.29	77.6	9.8	170	310
SVE-1	3/10/2021	SVE-1-20210310										

#### NOTE:

< denotes analyte not detected at or exceeding the laboratory reporting limit listed.

mS/cm = milliSiemens per centimeter

mg/L = milligrams per liter

mg/L-CaCO<sub>3</sub> = milligrams per liter as calcium carbonate

mg/L-N = milligrams per liter as nitrogen

mV = millivolts

NTU = nephelometric turbidity units

 $\mu g/L = micrograms per liter$ 

<sup>---</sup> denotes sample not analyzed

<sup>&</sup>lt;sup>1</sup>Field collected parameter using multimeter.

<sup>&</sup>lt;sup>2</sup>Analyzed by standard method 4500-Cl E

<sup>&</sup>lt;sup>3</sup>Analyzed by U.S. Environmental Protection Agency (EPA) Method 353.2.

<sup>&</sup>lt;sup>4</sup>Analyzed by ASTM Method D516-11.

<sup>&</sup>lt;sup>5</sup>Analyzed by standard method 4500-S2-D

<sup>&</sup>lt;sup>6</sup>Analyzed by RSK 175.

<sup>&</sup>lt;sup>7</sup>Analyzed by standard method 3500FeB.

<sup>&</sup>lt;sup>8</sup>Analyzed by standard method 5310B.

<sup>&</sup>lt;sup>9</sup>Analyzed by EPA Method 200.7/standard method 2340B

<sup>&</sup>lt;sup>10</sup> Analyzed by standard method 2320B.

### Soil Gas Analytical Results for Halogenated Volatile Organic Compounds 18420 68th Avenue South Kent, Washington

**Farallon PN: 2032-012** 

				1		Analytical Results (micrograms per cubic meter) <sup>2</sup>				
Sample Location	Location Area	Sampled By	Sample Date	Sample Identification	Sample Depth (feet) <sup>1</sup>	PCE	тсе	cis-1,2- Dichloroethene	trans-1,2- Dichloroethene	Vinyl Chloride
SG-1	Coatings	Farallon	12/13/2019	SG1-2303-121319	1.5	< 53	5.4	< 3.1	< 3.1	< 2
SG-2	Coatings	Farallon	12/13/2019	SG2-4175-121319	1.5	< 53	7.5	< 3.1	< 3.1	< 2
SG-3	Coatings	Farallon	12/13/2019	SG3-2298-121319	0.5	< 54	2.2	< 3.1	< 3.1	< 2
SG-4	Coatings	Farallon	12/13/2019	SG4-2432-121319	0.5	< 54	< 2.1	< 3.2	< 3.2	< 2
F-1	Coatings	Farallon	5/27/2020	F-1-Soil Gas	5.0	< 750 <sup>3</sup>	5,400 <sup>3</sup>	670 <sup>3</sup>	61 <sup>3</sup>	< 28 <sup>3</sup>
F-2	Coatings	Farallon	5/27/2020	F-2-Soil Gas	5.0	84	81	9.8	5.2	< 0.89
F-3	Coatings	Farallon	5/27/2020	F-3-Soil Gas	5.0	160	16	< 1.4	< 1.4	< 0.89
F-4	Coatings	Farallon	5/27/2020	F-4-Soil Gas	5.0	85	42	< 1.3	< 1.3	< 0.82
F-5	Coatings	Farallon	5/27/2020	F-5-Soil Gas	5.0	< 22	3.8	< 1.3	< 1.3	< 0.84
F-6	Coatings	Farallon	5/28/2020	F-6-Soil Gas	5.0	< 22	< 0.89	< 1.3	< 1.3	< 0.84
F-7	Coatings	Farallon	5/28/2020	F-7-Soil Gas	5.0	< 23	< 0.91	< 1.3	< 1.3	< 0.87
F-8	Coatings	Farallon	5/28/2020	F-8-Soil Gas	5.0	55	28	< 1.3	< 1.3	< 0.87
F-9	Coatings	Farallon	5/28/2020	F-9-Soil Gas	5.0	46	92	< 1.5	< 1.5	< 0.95
F-10	Coatings	Farallon	5/27/2020	F-10-Soil Gas	5.0	< 23	2.4	< 1.3	< 1.3	< 0.87
F-11	Coatings	Farallon	5/28/2020	F-11-Soil Gas	5.0	79,000 <sup>3</sup>	4,500 <sup>3</sup>	< 44 <sup>3</sup>	150 <sup>3</sup>	< 28 <sup>3</sup>
F-12	Coatings	Farallon	5/29/2020	F-12-Soil Gas	5.0	130	120	< 6.7	< 6.7	< 4.3
F-13	Coatings	Farallon	5/29/2020	F-13-Soil Gas	5.0	27	72	< 1.3	< 1.3	< 0.82
F-14	Coatings	Farallon	5/29/2020	F-14-Soil Gas	5.0	< 120	72	170	11	12
MTCA Meth	MTCA Method B Soil Gas Screening Level - Residential Exposure Scenario <sup>4</sup>					320	11	NE	NE	9.5
MTCA Meth	od B Soil Ga	as Screening Lev	vel - Commercial	Exposure Scenario <sup>5</sup>		1,068	37	NE	NE	31

NOTES:
Results in **bold** and highlighted **yellow** denote concentrations exceeding commercial screening levels.

Coatings = Coatings Unlimited, Inc. Farallon = Farallon Consulting, L.L.C.

NE = not established PCE = tetrachloroethene TCE = trichloroethene

VOC = volatile organic compound

<sup>&</sup>lt; denotes analyte not detected at or exceeding the reporting limit listed.

<sup>&</sup>lt;sup>1</sup>Depth in feet below surface.

<sup>&</sup>lt;sup>2</sup>Analyzed by U.S. Environmental Protection Agency Method TO-15.

<sup>&</sup>lt;sup>3</sup>Laboratory dilution was necessary and is impacting the result.

<sup>&</sup>lt;sup>4</sup>Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Cleanup Levels and Risk Calculations, Standard Method B Values for Sub-Slab Soil Gas Screening Level, https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Contamination-clean-up-tools/CLARC

<sup>&</sup>lt;sup>5</sup>Washington State MTCA Method B cleanup level calculation with modified exposure parameters adjusted for commercial exposure per Section 750 of MTCA.

## MTCA Standard and Modified Method B Air Cleanup Level and Soil Gas Screening Level Calculations for PCE and Vinyl Chloride 18420 68th Avenue South

Kent, Washington Farallon PN: 2032-012

Equation 750-2 for Carcinoge	nic Compounds <sup>1</sup>		P	PCE	Vinyl Chloride	
Parameters		Units	Residential <sup>2</sup>	Commercial <sup>3</sup>	Residential <sup>2</sup>	Commercial <sup>3</sup>
Carcinogenic Risk	RISK	unitless	1.00E-06	1.00E-06	1.00E-06	1.00E-06
Inhalation Cancer Potency Factor	CPF1	kg-day/mg	0.00091 2	0.00091 2	0.031	0.031
Average Body Weight	ABW	kg	70	70	70	70
Averaging Time	AT	years	75	75	75	75
Exposure Duration	ED	years	30	30	30	30
Exposure Frequency	EF	unitless	1	0.30	1	0.30
Air Breathing Rate	BR	m <sup>3</sup> /day	20	20	20	20
Inhalation Absorption Fraction	ABS1	unitless	1	1	1	1
Unit Conversion Factor	UCF	μg/mg	1,000	1,000	1,000	1,000
MTCA Method B Air Cleanup Level <sup>1</sup>	CUL	μg/m3	9.6	32	0.28	0.9
MTCA Method B Soil Gas Screening Level <sup>4</sup>	SL	μg/m3	321	1,068	9.4	31
MTCA Method B Soil Gas Screening Level <sup>5</sup>	SL	μg/m3	962	3,205	28	94

#### **Exposure Frequency**

Default: 1 = 365 days assumed occupancy at 24 hours per day = 8,760 hours/year

Modified: 50 weeks per year at 50 hours per week = 2,500 hours/year

Modified Exposure Frequency = 2,500/8,760 = 0.30

#### NOTES:

<sup>1</sup> Equation 750-2 of Section 750 of Chapter 173-340 of the Washington Administrative Code, Model Toxics Control Act Cleanup Regulation (MTCA): CUL = (RISK\*ABW\*AT\*UCF)/(CPF\*BR\*ABS\*ED\*EF).

Soil Gas Screening Level = Air Cleanup Level/attenuation factor of 0.03 per revised Guidance for Evaluating Soil Vapor Intrusion in

Washington State: Investigation and Remedial Action, Review Draft, October 2009 and website link provided in Appendix B: Indoor Air Cleanup Levels, Groundwater Screening Levels, and Soil Gas Screening Levels, Revised February 2016 and April 2018.

Soil Gas Screening Level = Air Cleanup Level/attenuation factor of 0.01 per Guidance for Evaluating Soil Vapor Intrusion in

Washington State: Investigation and Remedial Action, Review Draft, October 2009 and website link provided in Appendix B: Indoor Air Cleanup Levels, Groundwater Screening Levels, and Soil Gas Screening Levels, Revised February 2016 and April 2018.

kg = kilograms

 $m^3/day = cubic meters per day$ 

mg/kg-day = milligrams per kilogram per day

 $\mu g/mg = micrograms \ per \ milligram$ 

 $\mu g/m^3 = micrograms per cubic meter$ 

PCE = tetrachloroethene

VOC = volatile organic compound

<sup>&</sup>lt;sup>2</sup> MTCA Method B cleanup level calculation default parameters for Standard Method B calculation protective of residential use.

<sup>&</sup>lt;sup>3</sup> MTCA Method B cleanup level calculation with modified exposure parameters adjusted for commercial exposure per Section 750 of MTCA.

<sup>&</sup>lt;sup>4</sup> Soil gas screening level for soil gas present beneath a building slab and to depths up to 15 feet below the ground surface that are not expected to result in exceedance of the air cleanup level in an overlying structure under most circumstances.

<sup>&</sup>lt;sup>5</sup> Soil gas screening level for soil gas present below 15 feet below the ground surface that are not expected to result in exceedance of the air cleanup level in an overlying structure under most circumstances.

## MTCA Standard and Modified Method B Air Cleanup Level and Soil Gas Screening Level Calculations for TCE 18420 68th Avenue South

Kent, Washington Farallon PN: 2032-012

Equation 750-2 for Carcinogenic Compounds Modifed for Early Life Exposure <sup>1</sup>	TCE			
Parameters		Units	Residential <sup>2</sup>	Commercial <sup>3</sup>
Total Early-Life Exposure Adjustment Factor Parameters				
Kidney Cancer				
Constant Parameters				
Toxicity Adjustment Factor for Mutagens - Kidney Cancer (CPFi Kidney / Total CPFi)	MAF	kg-day/mg	0.243	0.243
Age Dependent Parameters				
Age-Dependent Adjustment Factor (0-2 years)	ADAF <sub>0-2</sub>	unitless	10	10
Exposure Duration (0-2 years)	ED <sub>0-2</sub>	years	2	2
Breathing Rate (0-2 years)	BR <sub>0-2</sub>	m <sup>3</sup> /day	10	10
Body Weight (0-2 years)	BW <sub>0-2</sub>	kg	16	16
Age-Dependent Adjustment Factor (2-6 years)	ADAF <sub>2-6</sub>	unitless	3	3
Exposure Duration (2-6 years)	ED <sub>2-6</sub>	years	4	4
Breathing Rate (2-6 years)	BR <sub>2-6</sub>	m <sup>3</sup> /day	10	10
Body Weight (2-6 years)	BW <sub>2-6</sub>	kg	16	16
Age-Dependent Adjustment Factor (6-16 years)	ADAF <sub>6-16</sub>	unitless	3	3
Exposure Duration (6-16 years)	ED <sub>6-16</sub>		10	10
		years	20	20
Breathing Rate (6-16 years)	BR <sub>6-16</sub>	m <sup>3</sup> /day		
Body Weight (6-16 years)	BW <sub>6-16</sub>	kg	70	70
Age-Dependent Adjustment Factor (16-30 years)	ADAF <sub>16-30</sub>	unitless	1	1
Exposure Duration (16-30 years)	ED <sub>16-30</sub>	years	14	14
Breathing Rate (16-30 years)	BR <sub>16-30</sub>	m <sup>3</sup> /day	20	20
Body Weight (16-30 years)	BW <sub>16-30</sub>	kg	70	70
Non-Hodgkin Lymphoma (NHL) + Liver Cancer				
Constant Parameters				1
Toxicity Adjustment Factor for Carcinogens - NHL & Liver ((CPFi NHL + CPHL Liver) / Total CPFi)	CAF	kg-day/mg	0.729	0.729
Age Dependent Parameters	ED	ı		1 2
Exposure Duration (0-2 years)	ED <sub>0-2</sub>	years	2	2
Breathing Rate (0-2 years)	BR <sub>0-2</sub>	m <sup>3</sup> /day	10	10
Body Weight (0-2 years)	BW <sub>0-2</sub>	kg	16	16
Exposure Duration (2-6 years)	ED <sub>2-6</sub>	years	4	4
Breathing Rate (2-6 years)	BR <sub>2-6</sub>	m <sup>3</sup> /day	10	10
Body Weight (2-6 years)	BW <sub>2-6</sub>	kg	16	16
Exposure Duration (6-16 years)	ED <sub>6-16</sub>	years	10	10
Breathing Rate (6-16 years)	BR <sub>6-16</sub>	m <sup>3</sup> /day	20	20
Body Weight (6-16 years)	BW <sub>6-16</sub>	kg	70	70
Exposure Duration (16-30 years)	ED <sub>16-30</sub>	years	14	14
Breathing Rate (16-30 years)	BR <sub>16-30</sub>	m <sup>3</sup> /day	20	20
Body Weight (16-30 years)	BW <sub>16-30</sub>	kg	70	70
Total Early-Life Exposure Adjustment Factor	ELE	m³-year/kg-day	15.651	15.651
			30.001	12.001
Modified MTCA Equation 750-2 Parameters				1 0.20
Exposure Frequency	EF	unitless	1 007 05	0.30
Carcinogenic Risk	RISK	unitless	1.00E-06	1.00E-06
nhalation Cancer Potency Factor <sup>2</sup>	CPFi	kg-day/mg	0.0144	0.0144
Averaging Time	AT	years	75	75
nhalation Absorption Fraction	ABS1	unitless	1	1
Jnit Conversion Factor	UCF	μg/mg	1,000	1,000
MTCA Method B Air Cleanup Level <sup>1</sup>	CUL	μg/m3	0.33	1.1
MTCA Method B Soil Gas Screening Level <sup>4</sup>	SL	μg/m3	11	37
MTCA Method B Soil Gas Screening Level <sup>5</sup>				
74 CA ARCHIOG D DOIL GAS DELCEINING LEVEL	SL	μg/m3	33	111

## NOTES:

 $Soil\ Gas\ Screening\ Level = Air\ Cleanup\ Level/attenuation\ factor\ of\ 0.03\ per\ revised\ Guidance\ for\ Evaluating\ Soil\ Vapor\ Intrusion\ in$ 

Washington State: Investigation and Remedial Action, Review Draft, October 2009 and website link provided in Appendix B: Indoor Air Cleanup Levels,

Groundwater Screening Levels, and Soil Gas Screening Levels, Revised February 2016 and April 2018.

Soil Gas Screening Level = Air Cleanup Level/attenuation factor of 0.01 per Guidance for Evaluating Soil Vapor Intrusion in

Washington State: Investigation and Remedial Action, Review Draft, October 2009 and website link provided in Appendix B: Indoor Air Cleanup Levels,

Groundwater Screening Levels, and Soil Gas Screening Levels, Revised February 2016 and April 2018.

kg = kilograms

kg-kilograms
kg-day/mg = kilograms a day per milligram
m³/day = cubic meters per day
mg/kg-day = milligrams per kilogram per day
µg/mg = micrograms per milligram
µg/m³ = micrograms per cubic meter
TCE = trichloroethene
VOC = volatile organic compound

**Exposure Frequency** 

Default: 1 = 365 days assumed occupancy at 24 hours per day = 8,760 hours/year

Modified: 50 weeks per year at 50 hours per week = 2,500 hours/year

Modified Exposure Frequency = 2,500/8,760 = **0.3** 

<sup>&</sup>lt;sup>1</sup> Modified equation 750-2 of Section 750 of Chapter 173-340 of the Washington Administrative Code, Model Toxics Control Act Cleanup Regulation (MTCA): CUL = (RISK\*AT\*UCF)/(CPF\*ELE\*ABS\*EF).

 $<sup>^2\</sup> MTCA\ Method\ B\ cleanup\ level\ calculation\ default\ parameters\ for\ Standard\ Method\ B\ calculation\ protective\ of\ residential\ use.$ 

<sup>&</sup>lt;sup>3</sup> MTCA Method B cleanup level calculation with modified exposure parameters adjusted for commercial exposure per Section 750 of MTCA.

<sup>&</sup>lt;sup>4</sup> Soil gas screening level for soil gas present beneath a building slab and to depths up to 15 feet below the ground surface that are not expected to result in exceedance of the air cleanup level in an overlying structure under most circumstances.

<sup>&</sup>lt;sup>5</sup> Soil gas screening level for soil gas present below 15 feet below the ground surface that are not expected to result in exceedance of the air cleanup level in an overlying structure under most circumstances.

## Table 14 Cleanup Action Alternative Technology Screening

## 18420 68<sup>th</sup> Avenue South Kent, Washington Farallon PN: 2032-012

General Response Action	Technology	Medium	<b>Component Option</b>	Retained for Inclusion in Cleanup Action Alternatives?	Rationale for Retaining or Eliminating
No Action	None	Soil; Groundwater	None	No	Not retained because source areas and residual contaminants are left untreated.
Institutional Controls	Legal	Soil; Groundwater	Deed Restrictions (Environmental Covenant); Property Use Restrictions; Health Advisories	Yes	Retained to restrict future land use.
Monitored Natural Attenuation	Natural Degradation Processes; Monitoring	Groundwater	Sample Collection and Analysis	Yes	Retained to naturally attenuate halogenated volatile organic compounds (HVOCs) in groundwater.
Containment	Engineered Controls/ Engineered Barriers	Soil; Groundwater	Physical Barriers and Constructed Cover	Yes	Retained to limit potential leaching to groundwater.
	Engineered Barriers		Bioventing	No	
	Biological	Soil; Groundwater	Enhanced Bioremediation	No	Not retained because implementation of these technologies is not compatible with future land use at the site, and these components do not result in a reasonable restoration time frame.
		Soil; Groundwater	Phytoremediation	No	
	Chemical	Soil; Groundwater	Chemical Reduction	No	Not retained because in-situ chemical reduction is not as effective in treating HVOCs as in-situ chemical oxidation.
	Chemicai	Soil; Groundwater	Chemical Oxidation	Yes	Retained to treat HVOCs in groundwater.
		Soil	Solidification/Stabilization	No	Not retained because HVOCs are not readily treated using this technology.
In-Situ Treatment		Soil	Soil Flushing	No	Not retained because it is not cost-competitive with other technologies in this group, and is difficult to implement.
		Soil	Electrokinetic Separation	No	Not retained because it is not cost-competitive with other technologies in this group, and is difficult to implement.
	Physical	Groundwater	Air Sparging	Yes	Retained to treat HVOCs in groundwater.
	rnysicai	Soil; Groundwater	Soil Vapor Extraction	Yes	Retained to treat HVOCs in groundwater.
		Groundwater	Dual-Phase Extraction	No	Not retained due to site conditions.
		Groundwater	Passive/Reactive Treatment Walls	No	Not retained due to site conditions.
		Soil	Thermal Treatment	No	Not retained because it is not cost-competitive with other technologies in this group, and is difficult to implement.
		Soil	Biopile	No	Not retained because these technologies are not cost-competitive, are difficult to implement, and do not readily treat groundwater.
	Biological	Soil	Slurry-Phase Biological Remediation	No	- Not retained because these teenhologies are not cost-competitive, are difficult to implement, and do not readily treat groundwater.
		Groundwater	Constructed Wetlands	No	Not retained due to site conditions.
		Soil	Chemical Reduction/Oxidation	No	Not retained because these technologies are not cost-competitive, are difficult to implement, and do not readily treat groundwater.
Excavation and Treatment	Chemical	Soil	Chemical Extraction	No	- Not retained because these technologies are not cost-competitive, are difficult to implement, and do not readily treat groundwater.
or Containment on or off the Site		Groundwater	Granulated Activated Carbon/ Liquid-Phase Carbon Adsorption	No	Not retained because this technology is not cost-competitive, and is difficult to implement.
		Soil	Landfill Disposal	Yes	Retained to remove contaminated soil from select areas.
	Physical	Soil; Groundwater	Separation	No	
	Physical	Soil	Soil Washing	No	Not retained because these technologies are not cost-competitive, are difficult to implement, and do not readily treat groundwater.
		Soil	Thermal Desorption	No	

## **Summary of Remedial Alternatives**

## 18420 68<sup>th</sup> Avenue South

Kent, Washington

Farallon PN: 2032-012

Target Medium	Area Description	coc	Alternative 1 Institutional and Engineered Controls, Monitored Natural Attenuation	Alternative 2 In-Situ Chemical Oxidation, Limited Soil Excavation, Engineered Controls, Monitored Natural Attenuation	Alternative 3 Air Sparging and Soil Vapor Extraction, Limited Soil Excavation, Engineered Controls, Monitored Natural Attenuation	
Soil	Eastern area by sandblast booth with soil exceeding CULs for lead and cPAHs.	Lead; cPAHs	Engineered controls consist of capping the Property with a building foundation and an asphalt-paved parking lot for areas with COCs	operty with a building foundation and an		
Soli	Southern area with soil exceeding CULs for ORO.	ORO	exceeding CULs, to prevent potential future exposure.	Excavate, remove and dispose of soil with concentrations of ORO exceeding cleanup levels.		
Groundwater	Areas with groundwater exceeding CULs for cis-1,2-dichloroethene and vinyl chloride	cis-1,2- dichloroethene and vinyl chloride	Engineered controls consist of capping the Property with a building foundation and an asphalt-paved parking lot for areas with COCs exceeding CULs, to prevent potential future exposure. Annual foundation asphalt cap inspections and groundwater monitoring to be conducted over a 10-year period.	Injection of a permanganate solution in the four treatment areas where HVOCs have been detected at concentrations exceeding CULs.  Groundwater monitoring over a 5-year period.	Installation of an air sparge/soil vapor extraction system in the four treatment areas where HVOCs have been detected at concentrations exceeding CULs.  Groundwater monitoring over a 6-year period.	
Soil Vapor  Areas with soil gas exceeding CULs for PCE, TCE, and vinyl chloride  HVO		HVOCs	A vapor barrier will be installed under the building foundation as part of redevelopment.  An environmental covenant will be recorded on the Property.	Installation of a vapor barrier under the building foundation as part of redevelopment, to elimin the potential soil gas to indoor air exposure pathway.		

### NOTES:

COCs = constituents of concern

cPAHs = carcinogenic polycyclic aromatic hydrocarbons

CULs = cleanup levels

HVOCs = halogenated volatile organic compounds

ORO = total petroleum hydrocarbons as oil-range organics

PCBs = polychlorinated biphenyls

PCE = tetrachloroethene

TCE = trichloroethene

## Table 16 Remedial Alternative Cost Summary 18420 68<sup>th</sup> Avenue South

## Kent, Washington Farallon PN: 2032-012

Far	callon PN: 2032-012		
	Alternative 1 Institutional and Engineered Controls, Monitored Natural Attenuation	Alternative 2 In-Situ Chemical Oxidation, Limited Soil Excavation, Engineered Controls, Monitored Natural Attenuation	Alternative 3 Air Sparging and Soil Vapor Extraction, Limited Soil Excavation, Engineered Controls, Monitored Natural Attenuation
CONSTRUCTION AND REMEDIATION COSTS			
Development-Related Costs (Not included in totals)			
Building Vapor Barrier	\$360,000	\$360,000	\$360,000
Engineered Controls	\$1,100,000	\$0	\$0
Subtotal not included in total Cleanup Alternative Cost	\$1,460,000	\$360,000	\$360,000
Construction and Remediation			
Site Preparation	\$2,500	\$80,000	\$62,000
Excavation and Disposal	\$0	\$83,000	\$83,000
Temporary Excavation Dewatering	\$0	\$50,000	\$50,000
Injections	\$0	\$1,118,000	\$0
Air Sparge/Soil Vapor Extraction System Installation	\$0	\$0	\$784,000
Site Restoration	\$6,000	\$47,000	\$47,000
Record Environmental Covenant for Soil and Groundwater	\$6,500	\$0	\$0
Subtotal Construction and Remediation	\$15,000	\$1,378,000	\$1,026,000
Contingency and Taxes			
Contingency Percent	20%	30%	30%
Contingency Total	\$3,000	\$413,000	\$308,000
Subtotal Contingency and Construction and Remediation	\$18,000	\$1,791,000	\$1,334,000
Washington and Local Sales Tax (6.5% + 3.6%)	\$2,000	\$181,000	\$135,000
Total Construction and Remediation Cost	\$20,000	\$1,972,000	\$1,469,000
ENGINEERING COSTS			
Project Management (5% to 8% total Construction costs)	\$4,600	\$143,000	\$69,000
Remedial Design, Permitting, Engineering Control Monitoring Plan (6% to 15% total Construction costs)	\$5,600	\$178,000	\$83,000
Construction Management (6% to 10% total Construction costs)	\$5,600	\$143,000	\$83,000
Implementation, Field Observation	\$5,000	\$126,000	\$97,000
Subtotal Engineering and Project Management	\$21,000	\$590,000	\$332,000
TOTAL CAPITAL COST	\$41,000	\$2,562,000	\$1,801,000

## Table 16 Remedial Alternative Cost Summary

## 18420 68<sup>th</sup> Avenue South Kent, Washington Farallon PN: 2032-012

ONGOING PERIODIC AND FUTURE COSTS <sup>1</sup>	Present Worth Cost n = 20 years	Present Worth Cost n = 5 years	Present Worth Cost n = 5 years
Cleanup Action Plan	\$15,000	\$25,000	\$25,000
Annual Cap Inspections and Maintenance (20 years; reseal asphalt at year 10)	\$104,000	\$0	\$0
Air Sparge/Soil Vapor Extraction System Operation & Maintenance (5 years)	\$0	\$0	\$155,000
Compliance Groundwater Monitoring and Reporting (Alt 1: 20 years; Alt 2: 5 years; Alt 3: 6 years)	\$818,000	\$260,000	\$324,000
Annual Progress Reporting (Alt 1: 20 years; Alt 2: 5 years; Alt 3: 6 years)	\$37,000	\$18,000	\$21,000
Closure Report	\$10,000	\$25,000	\$25,000
TOTAL ONGOING PERIODIC and FUTURE COST	\$984,000	\$328,000	\$550,000
CLEANUP ALTERNATIVE TOTAL COST	\$1,025,000	\$2,890,000	\$2,351,000

### NOTES:

Cost Estimating References:

A Guide to Developing and Documenting Cost Estimates During the Feasibility Study dated July 2000, prepared by the U.S. Environmental Protection Agen

<sup>1</sup>OMB Circular No. A-94, *Discount Rates for Cost-Effectiveness, Lease Purchase, and Related Analyses*: https://www.whitehouse.gov/wp-content/uploads/2019/11/Appendix-C-revised.pdf Net present value evaluation used a real discount rate of 0% for 10 years; -0.3% for 5 years.

## **Summary of Remedial Alternatives Evaluation**

## 18420 68<sup>th</sup> Avenue South Kent, Washington

Farallon PN: 2032-012

	Alternative 1 Institutional and Engineered Controls, Monitored Natural Attenuation	Alternative 2 In-Situ Chemical Oxidation, Limited Soil Excavation, Engineered Controls, Monitored Natural Attenuation	Alternative 3 Air Sparging and Soil Vapor Extraction, Limited Soil Excavation, Engineered Controls, Monitored Natural Attenuation
Description	for areas with COCs exceeding soil and/or groundwater CULs, to prevent potential future exposure. An environmental covenant will be recorded, annual asphalt cap inspections will be performed, and compliance groundwater monitoring will be conducted over a 20-year	Soil with COCs at concentrations exceeding CULs will be excavated and disposed of. Compliance groundwater monitoring will be performed over a 5-year period. A	An air sparge/soil vapor extraction system will be installed in four treatment areas where HVOCs have been detected at concentrations exceeding groundwater CULs. Soil with COCs exceeding CULs will be excavated and disposed of. Compliance groundwater monitoring will be performed over a 6-year period. A vapor barrier will be installed under the building foundation as part of redevelopment.
Amount of Contaminated Soil Removal (tons)	0	700	700
(tons)	THRESH	OLD REQUIREMENTS	
	Yes - Alternative will protect human health and the	Yes - Alternative will protect human health and the	Yes - Alternative will protect human health and the
Protection of Human Health and the Environment	environment by limiting future exposure to COCs by means of engineered and institutional controls.	environment by treating groundwater and physically removing contaminated soil.	environment by treating groundwater and physically removing contaminated soil.
Compliance with Cleanup Standards	No - Alternative will not comply with cleanup standards. COCs will remain at concentrations exceeding CULs across the Site long-term.	groundwater treatment.	Yes - Cleanup standards will be met for the Site long- term through limited soil source removal and active groundwater treatment.
Compliance with Applicable State and Federal Laws	<b>Yes -</b> Alternative complies with applicable laws.	Yes - Alternative complies with applicable laws.	Yes - Alternative complies with applicable laws.
Provision for Compliance Monitoring	<b>Yes</b> - Alternative includes provision for compliance monitoring.	<b>Yes</b> - Alternative includes provision for compliance monitoring.	<b>Yes</b> - Alternative includes provision for compliance monitoring.
	ОТНЕ	R REQUIREMENTS	
	Alternative is not permanent to the maximum extent	<u> </u>	Alternative is permanent and protective to the maximum
Permanent to the Maximum Extent Practicable (see detail below)	environment.	treated to the extent practicable. Soil exceeding CULs will be excavated and removed.	extent practicable. Groundwater exceeding CULs will be treated to the extent practicable. Soil exceeding CULs will be excavated and removed.
Reasonable Restoration Time Frame	installation of a new building foundation and an asphalt- paved parking surface. As additional protective measures, annual inspections of engineered controls will be performed, and compliance groundwater monitoring will	Restoration time frame is moderate, requiring approximately three separate 3-week injection events over a 18- to 24-month time frame. Spot excavations of areas where COCs exceed CULs will take approximately 1 week. As additional protective controls, inspections and monitoring will be conducted. No off-Site effects of COCs are anticipated. Shallow groundwater is not considered to be a potable water supply. The restoration time frame is considered reasonable under MTCA.	Restoration time frame for system installation is 1 month, with 5 years of system operation. Spot excavations of areas where COCs exceed CULs will take approximately 1 week. As additional protective controls, inspections and monitoring will be conducted. No off-Site effects of COCs are anticipated. Shallow groundwater is not considered to be a potable water supply. The restoration time frame is considered reasonable under MTCA.
	Evaluation Criteria for Perma	anence to the Maximum Extent Practicable <sup>1</sup>	
Protectiveness (30% weighting factor)	Alternative would not provide additional protectiveness beyond that provided by the existing impervious cap and new asphalt seal. Soil exceeding CULs would be contained by engineered and institutional controls. = 4	Alternative would achieve overall protection of human health and the environment. Soil exceeding CULs would be excavated and removed from the Property, groundwater would be treated, and an engineered barrier would be implemented.  = 7	Alternative would achieve overall protection of human health and the environment. Soil exceeding CULs would be excavated and removed from the Property, groundwater would be treated, and an engineered barrier would be implemented.  = 8
Permanence (20% weighting factor)	Alternative would not be permanent to the maximum extent practicable. Groudwater and soil exceeding the industrial CULs would remain in-place.  = 2	Alternative would be permanent to the maximum extent practicable. Groundwater exceeding CULs would be treated. Soil exceeding CULs would be excavated and removed.  = 7	Alternative would be permanent to the maximum extent practicable. Groundwater exceeding CULs would be treated. Soil exceeding CULs would be excavated and removed.  = 8
Long-Term Effectiveness (20% weighting factor)	Alternative would not be effective over the long-term.  Natural attenuation of COCs in soil at the site is not expected to occur. Existing and new impervious cap on the site would remain in-place.  = 4	Alternative would be effective over the long-term by treating groundwater exceeding CULs, and removing and disposing of soil with COCs exceeding CULs.  Institutional controls and engineered barriers would be implemented for soil gas.  = 6	Alternative would be effective over the long-term by treating groundwater exceeding CULs, and removing and disposing of soil with COCs exceeding CULs.  Institutional controls and engineered barriers would be implemented for soil gas.  = 7
Short-Term Risk Management (10% weighting factor)	Alternative does not require disturbing contaminated media or other construction activities. No short-term risk-management is needed. = 9	Alternative involves injection of an oxidant, and disturbs affected media, presenting short-term risk to workers, and a nuisance to the public during construction and off-Site transport.	Alternative disturbs affected media, presenting short- term risk to workers, and a nuisance to adjacent property owners during construction and off-Site transport. = 6
Implementability (10% weighting factor)	Implementation of institutional controls is administratively feasible for the Site, and periodic inspection of the engineered barrier is implementable. = 9	Implementation is feasible because existing structures will be demolished as part of redevelopment.  Implementation of institutional controls is administratively feasible for the Site, and periodic inspection of the engineered barrier is implementable.  = 6	Implementation is feasible because existing structures will be demolished as part of redevelopment.  Implementation of institutional controls is administratively feasible for the Site, and periodic inspection of the engineered barrier is implementable.  = 7
Public Concerns (10% weighting factor)	Alternative results in minimal public disturbance, but does not treat groundwater exceeding cleanup limits, and leaves impacted soil in-place. The Site is in an area zoned for industrial use; public access is restricted. Public exposure will not occur; limited public concern is anticipated.  = 8	Alternative includes injection of an oxidant, which may cause public concern. The Site is in an area zoned for industrial use; public access is restricted. The alternative may result in short-term construction disturbance at the Site.  = 8	The Site is in an area zoned for industrial use; public access is restricted. The alternative may result in short-term construction disturbance at the Site.  = 8
MTCA Composite Benefit Score <sup>1</sup>	5	6.5	7.5
Overall Alternative Ranking <sup>2</sup>	3	2	1
Cost	\$1,025,000	\$2,890,000	\$2,351,000
NOTES:			

COCs = contaminants of concern

CULs = cleanup levels

HVOCs = halogenated volatile organic compounds

<sup>&</sup>lt;sup>1</sup> Basis for overall Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Composite Benefit Score provided quantitatively with a score from 1 (least favorable) to 10 (most favorable) for each of the six evaluation criteria for permanence to the Maximum Extent Practicable above. MTCA Composite Benefit Scores were calculated by summing the mathematical product of the score multiplied by the indicated weighting factor for each of the six criteria. The basis for the weighting factors for the six criteria to evaluate permanence to the maximum extent practicable were obtained from the Washington State  $Department\ of\ Ecology\ guidance\ cited\ in\ Remedial\ Investigation/Feasibility\ Study\ Report\ text.$ 

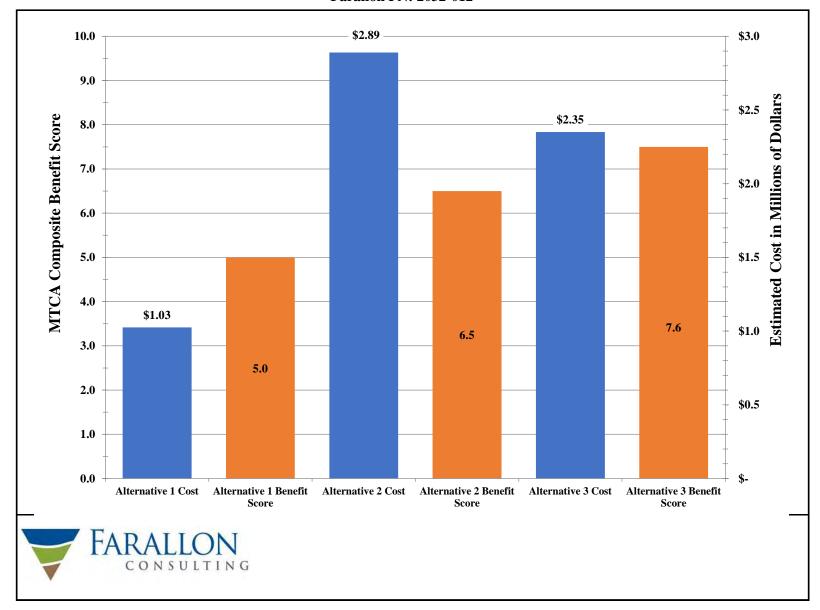
<sup>&</sup>lt;sup>2</sup> Overall Alternative Ranking from 1 (most favorable) to 3 (least favorable).

### **CHART**

REMEDIAL INVESTIGATION AND FEASIBILITY STUDY REPORT 18420 68<sup>th</sup> Avenue South Kent, Washington

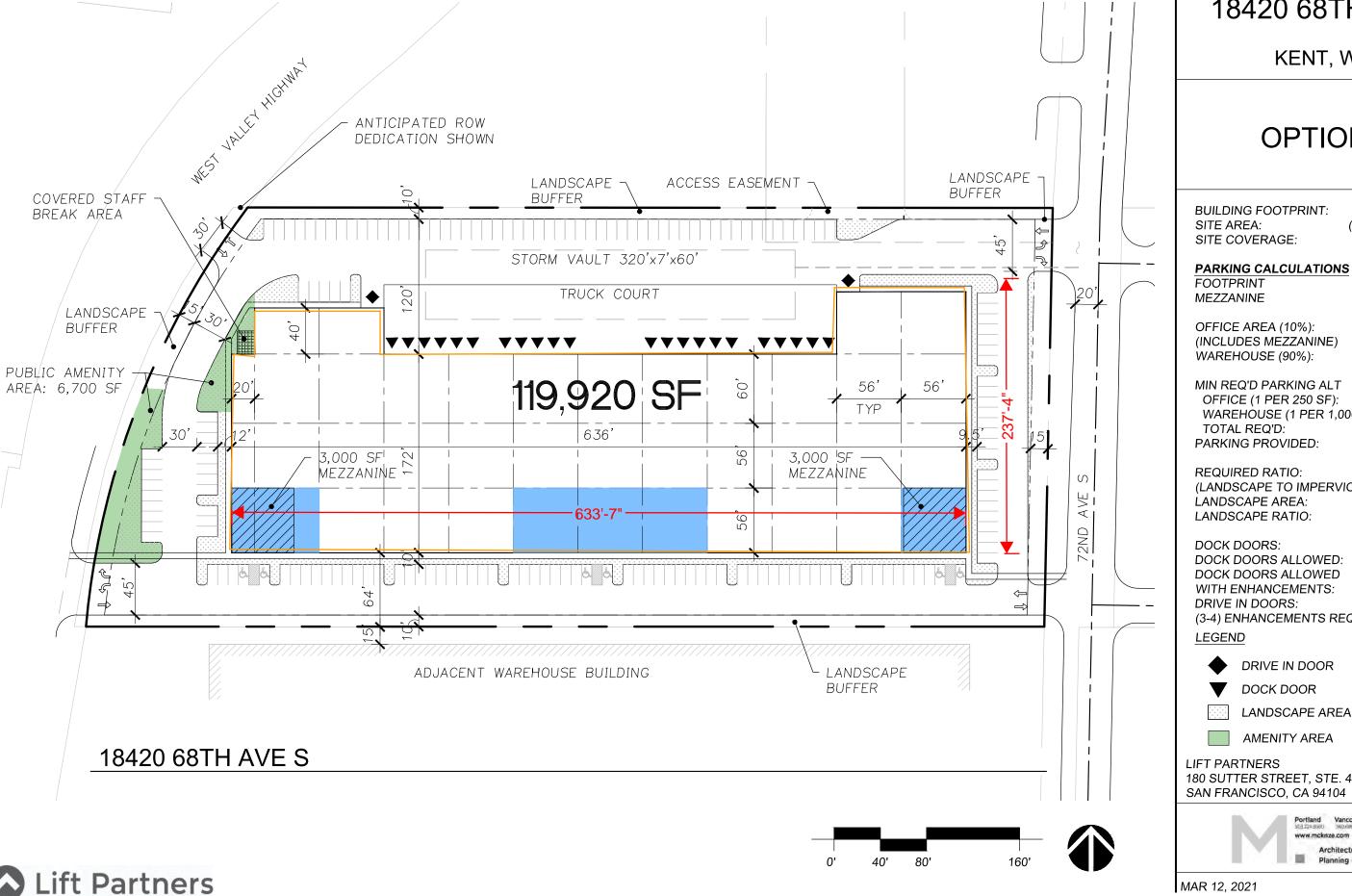
Chart 1
Disproportionate Cost Analysis Results
18420 68<sup>th</sup> Avenue South

Kent, Washington Farallon PN: 2032-012



## APPENDIX A PRELIMINARY CONCEPTUAL REDEVELOPMENT PLAN

REMEDIAL INVESTIGATION AND FEASIBILITY STUDY REPORT 18420 68<sup>th</sup> Avenue South Kent, Washington



18420 68TH AVE.

KENT, WA

## **OPTION A**

**BUILDING FOOTPRINT:** 119,920 SF (6.6 ac) 288,046 SF 41.6%

119,920 SF 6,000 SF

OFFICE AREA (10%): 12.592 SF

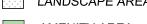
113,328 SF

51 SPACES WAREHOUSE (1 PER 1,000SF):114 SPACES 165 SPACES PARKING PROVIDED: 168 SPACES

(LANDSCAPE TO IMPERVIOUS SURFACE) LANDSCAPE AREA: 14,522 SF 12.2%

22 DOCK DOORS ALLOWED: 16 DOCK DOORS ALLOWED WITH ENHANCEMENTS: 22 (3-4) ENHANCEMENTS REQ'D

DRIVE IN DOOR



180 SUTTER STREET, STE. 400



2200433.01

## APPENDIX B BORING LOGS

REMEDIAL INVESTIGATION AND FEASIBILITY STUDY REPORT 18420 68<sup>th</sup> Avenue South Kent, Washington

Farallon PN: 2032-012

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Page 1 of 1

Client: **Center Point** 

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 1353-032

12/11/19 @ 845 Date/Time Started:

Date/Time Completed: 12/11/19 @ 955

**Equipment:** 

Bobcat 9100-SK

**Drilling Company: ESN Drilling Drilling Foreman:** Casey Newman Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto

Depth of Water ATD (ft bgs): 14.5 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0 (Temp.)

Log	gge	ed By: K. Scott	Drilling Method: Direct			Direct Push					
Depth (feet bgs.)	Sample Interval	Lithologic Description	1	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Col	oring/Well nstruction Details
0 -	/	0.0-1.7': Silty SAND with gravel (65% sand, 20% silt fine to coarse sand, fine and coarse gravel, brown, r no sheen. Subrounded gray gravel. Hand auger to 2 for utilities. (Fill).  1.7-5.0': Poorly graded SAND (90% sand, 5% silt, 5)	noist, no odor, .0' bgs to clear	SM		100	0.0				Soil
-	/ \	to medium sand, fine and coarse gravel, brown, moi sheen.	st, no odor, no			100					
5-		5.0-6.8': Poorly graded SAND (90% sand, 5% silt, 5' to medium sand, fine and coarse gravel, brown, moi sheen.		SP			0.0	B1-5.0	x		Bentonite
-		6.8-8.8': SILT (100% silt), gray, wet, no odor, no she	en.	ML		100					
-	$\left  \cdot \right $	8.8-10.0': Poorly graded SAND (95% sand, 5% silt), sand, brown, moist, no odor, no sheen.	fine to medium	SP							
10 -	1	10.0-11.5': Poorly graded SAND (95% sand, 5% silt) medium sand, brown, moist, no odor, no sheen.	, fine to	SP			0.0				
-	$\left\{ \left\{ \right\} \right\} $	11.5-14.4': SILT (100% silt), gray, wet from 11.5-12. moist, no odor, no sheen.	5' bgs than	ML		100					
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-	1\/	brown, wet, no odor, no sheen.  16.5-20.0': Silty SAND (80% sand, 20% silt), fine sa		SM				B1-121119-GW	x		
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20 -							0.0				

### **Well Construction Information**

**Bentonite** 

Monument Type: NA Casing Diameter (inches): NA 0.010 Screen Slot Size (inches): Screened Interval (ft bgs): 15-20 (Temp.)

Filter Pack: Surface Seal:

Boring Abandonment:

10/20 Sand NA NA Annular Seal:

Ground Surface Elevation (ft): NA Top of Casing Elevation (ft): NA Surveyed Location: X: NA

Unique Well ID: NA



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Client: **Center Point** 

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 1353-032

Logged By: K. Scott

12/11/19 @ 1010 Date/Time Started:

Date/Time Completed: 12/11/19 @ 1125

**Equipment:** Bobcat 9100-SK

**Drilling Company: ESN Drilling Drilling Foreman:** Cole Pickering

**Drilling Method: Direct Push**  Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): 14.5 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0 (Temp.)

Depth (feet bgs.) Sample Interval	Lithologic Description	SOSI	JSCS Graphic	% Recovery	olD (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Depth	Sampl		nscs	nscs	% Rec	PID (pi	Sample ID	Sampl	[	Details
0		0.0-0.6': Concrete. Hand auger to 1.0' bgs to clear utilities.	СО	$\equiv$				Τ		
-		0.6-1.0': Glass Fill (100% glass), broken glass, clear, moist, no odor, no sheen.	FILL		100					Concrete
_	1\ /	1.0-1.4': Asphalt.	SM							
	V	1.4-2.8': Silty SAND with gravel (60% sand, 25% silt, 15% gravel),		ilili		0.0				
-	1	fine to coarse sand, fine and coarse gravel, brown, moist, no odor, no sheen. Subrounded gray gravel. (Fill).	SP			0.0				
5-	$\left  \cdot \right  $	2.8-5.0': Poorly graded SAND (90% sand, 5% silt, 5% gravel), fine to medium sand, fine and coarse gravel, brown, moist, no odor, no sheen. Subrounded gray gravel.			100					
-		5.0-8.3': Poorly graded SAND (90% sand, 5% silt, 5% gravel), fine to medium sand, fine and coarse gravel, brown, moist, no odor, no sheen. Subrounded gray gravel.	SP		100	0.0	B2-5.0	X		Bentonite
-		8.3-8.7': SILT (100% silt), brown, moist, no odor, no sheen.	ML		100					
_	1/\	8.7-9.1': WOOD (100% wood), tan, moist, no odor, no sheen.	WD							
	\	Laminated wood.	ML	11111						
10 –		9.1-10.0': SILT (100% silt), gray, moist, no odor, no sheen.	ML			0.0				
-	1 /	10.0-11.5': SILT (100% silt), gray, moist, no odor, no sheen.								
-	\	11.5-12.8': Poorly graded SAND (95% sand, 5% silt), fine sand, brown, moist, no odor, no sheen.	SP		100					
-	1/\	12.8-13.4': SILT (100% silt), gray, moist, no odor, no sheen.	ML	Ш	100	0.0	B2-13.0			
-	<u> </u>	13.4-15.0': Silty SAND (70% sand, 30% silt), fine sand, blackish-brown, moist, wet at 14.5' bgs, no odor, no sheen.	SM			0.0	32 10.0			▼ Water Level
15 -	\ /	15.0-16.2': SILT (100% silt), gray, wet, no odor, no sheen.	ML			0.0				
- 20 –		16.2-20.0': Silty SAND (70% sand, 30% silt), fine sand, dark brown, wet, no odor, no sheen.	SM		100		B2-121119-GW	x		
20						0.0				

### **Well Construction Information**

Monument Type: NA NA Casing Diameter (inches): Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 15-20 (Temp.) Filter Pack: Surface Seal: Annular Seal:

10/20 Sand Concrete NA **Boring Abandonment:** Bentonite

Ground Surface Elevation (ft): NA Top of Casing Elevation (ft): NA Surveyed Location: X: NA

Unique Well ID: NA



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Client: Center Point

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 1353-032

Logged By: K. Scott

Date/Time Started: 12/11/19 @ 1130

Date/Time Completed: 12/11/19 @ 1235

Equipment: Bobcat 9100-SK

Drilling Company: ESN Drilling
Drilling Foreman: Cole Pickering

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto
Depth of Water ATD (ft bgs): 13.5
Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0 (Temp.)

LU	yy	ed By: K. Scott					1			
Depth (feet bgs.)	Sample Interval	Lithologic Description	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Boring/We Constructi Details	on
0	-\/	0.0-1.7': Silty SAND with gravel (60% sand, 20% silt, 20% gravel), fine to coarse sand, fine and coarse gravel, brown, moist, no odor, no sheen. Subrounded gray gravel. Hand auger to 5.0' bgs to clear utilities. (Fill).	SM						Soil	
	- - - - - - - - -	1.7-5.0': Sandy SILT (60% silt, 40% sand), fine sand, brown, moist, no odor, no sheen.	ML		100	0.0				
5-		5.0-5.7': Silty SAND (80% sand, 20% silt), fine to medium sand, brown, moist, no odor, no sheen.	SM			0.0	B3-5.0	x		
	$\left  \right $	5.7-7.6': SILT (100% silt), brown, moist, no odor, no sheen.							Benton	ite
	1/\	7.6-9.3': SILT (100% silt), gray, moist, no odor, no sheen.	ML		100					
10 -	_	9.3-10.0': Poorly graded SAND (95% sand, 5% silt), fine to medium sand, blackish-brown, moist, no odor, no sheen.	SP							
	$\frac{1}{2}$	10.0-11.7': Poorly graded SAND (95% sand, 5% silt), fine to medium sand, blackish-brown, moist, no odor, no sheen.	SP			0.0				
	-	11.7-13.5': SILT (100% silt), gray, moist, no odor, no sheen.	ML		100	0.0	B3-12.0		_	
	$\left  \left\langle \cdot \right\rangle \right\rangle$	13.5-15.0': Silty SAND (70% sand, 30% silt), fine sand, blackish-brown, wet, no odor, no sheen.	SM						Water	Level
15 -		15.0-19.2': Silty SAND (70% sand, 30% silt), fine sand, blackish-brown, wet, no odor, no sheen.	SM		100	0.0	B3-121119-GW	×		
20 -		19.2-20.0': Sandy SILT (60% silt, 40% sand), fine sand, brown, moist, no odor, no sheen.	ML			0.0				

### **Well Construction Information**

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 15-20 (Temp.)

Filter Pack: 10/20 Sand
Surface Seal: Soil
Annular Seal: NA
Boring Abandonment: Bentonite

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Surveyed Location: X: NA
Unique Well ID: NA



Page 1 of 1

Client: Center Point

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 1353-032

Logged By: K. Scott

Date/Time Started: 12/11/19 @ 1240

Date/Time Completed: 12/11/19 @ 1405

Equipment: Bobcat 9100-SK

Drilling Company: ESN Drilling

Drilling Foreman: Cole Pickering

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto
Depth of Water ATD (ft bgs): 13.5

Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0 (Temp.)

Lithologic Description

SCS Graphic SCS Graphic D (ppm)

Paging Analyzed Analyzed Analyzed Public Post Recovery Public Pu

Depth (fee	Sample In	Lithologic Description	nscs	USCS Gra	% Recove	PID (ppm)	Sample ID	Sample A	struction etails
0		0.0-2.0': Silty SAND with gravel Fill (60% sand, 20% silt, 20% gravel), fine to coarse sand, fine and coarse gravel, reddish-brown, moist, no odor, no sheen. Subrounded gray gravel. Hand auger to 2.0' bgs to clear utilities. (Fill).	SM			0.0	B4-1.0		Concrete
'	\ /	2.0-2.3': Asphalt.	AC	KKKKKKKK				Ш	
		2.3-5.0': Silty SAND with gravel (60% sand, 25% silt, 15% gravel), fine to medium sand, fine and coarse gravel, brown, moist, no odor, no sheen. Subrounded gray gravel.	SM		100	0.0			
5-		5.0-7.2': Silty SAND (70% sand, 30% silt), fine to medium sand, brown, wet, no odor, no sheen.	SM			0.0	B4-5.0	X	Bentonite
		7.2-9.1': SILT (100% silt), gray, moist, no odor, no sheen.	ML		100				
10 -	\	9.1-10.0': Silty SAND (80% sand, 20% silt), fine to medium sand, brown, moist, no odor, no sheen.	SM						
	-\/	10.0-12.2': Silty SAND (80% sand, 20% silt), fine to medium sand, brown, moist, no odor, no sheen.	SM			0.0			
	I X	12.2-12.9': SILT (100% silt), gray, moist, no odor, no sheen.	ML		100	0.0	B4-12.0	Ш	
	1/\	12.9-14.5': Sandy SILT (60% silt, 40% sand), fine sand, brown, moist, wet at 13.5' bgs, no odor, no sheen.	ML		100				▼ Water Level
15 -		14.5-15.0': SILT with sand (80% silt, 20% sand), fine sand, gray, wet, no odor, no sheen.	ML ML			0.0			
	1\/	15.0-16.7': SILT with sand (80% silt, 20% sand), fine sand, gray, wet, no odor, no sheen.					B4-121119-GW	x	
	1	16.7-18.5': Silty SAND (70% sand, 30% silt), fine sand, gray, wet, no odor, no sheen.	SM		100				
20 -		18.5-20.0': Sandy SILT (60% silt, 40% sand), fine sand, gray, wet, no odor, no sheen.	ML						
						0.0			

#### **Well Construction Information**

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 15-20 (Temp.)

Filter Pack: Surface Seal: Annular Seal:

Boring Abandonment:

10/20 Sand NA NA

**Bentonite** 

Ground Surface Elevation (ft):
Top of Casing Elevation (ft):

Surveyed Location: X: NA Unique Well ID: NA NA Y: NA

NA



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Client: Center Point

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 1353-032

Date/Time Started: 12/11/19 @ 1455

Date/Time Completed: 12/11/19 @ 1610

Equipment: Bobcat 9100-SK

Drilling Company: ESN Drilling
Drilling Foreman: Cole Pickering

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (Ibs.): Auto

Depth of Water ATD (ft bgs): 11.0 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0 (Temp.)

Lo	gge	ed By: K. Scott	Drilling Method	d:	Dire	ct Pus	h				
Depth (feet bgs.)	Sample Interval	Lithologic Descriptio	n	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Con	ring/Well struction Details
0	\ /	0.0-0.5': Concrete. Hand auger to 2.0' bgs to clear u	utilities.	СО					П		
-		0.5-2.0': Silty SAND with gravel (65% sand, 20% sil fine to coarse sand, fine and coarse gravel, light bro odor, no sheen. Subrounded gray gravel. large rock (Fill).	own, moist, no	SM		100	0.8	B5-1.0			Concrete
-	1	2.0-3.5': Silty SAND with gravel (65% sand, 20% sil fine to coarse sand, fine and coarse gravel, light bro odor, no sheen. Subrounded gray gravel. (Fill).		SP		100					
-	$1/\setminus$	3.5-5.0': Poorly graded SAND (95% sand, 5% silt), sand, dark brown, moist, sweet odor, sheen.	fine to medium	31		100					
5-	1	5.0-6.7': Poorly graded SAND (95% sand, 5% silt), sand, dark brown, moist, sweet odor to 6.5' bgs, slig		SP			1.2	B5-5.0	х		Bentonite
-		6.7-10.0': SILT (100% silt), gray, moist, no odor, no	sheen.	ML		100					
10 -		10.0-11.5': SILT (100% silt), gray, moist to wet at 1 no sheen.	1.0' bgs, no odor,	ML			0.0	B5-10.0			<b>▼</b> Water Level
-	- //	11.5-13.5': Sandy SILT (60% silt, 40% sand), fine s no odor, no sheen.	and, brown, wet,	ML		100		B5-121119-GW	x		
-	$\left  \left\langle \cdot \right\rangle \right\rangle$	13.5-15.0': Silty SAND (70% sand, 30% silt), fine sa blackish-brown, wet, no odor, no sheen.	and,	SM							
15 -		15.0-16.2': Silty SAND (70% sand, 30% silt), fine sa blackish-brown, wet, no odor, no sheen.	and,	SM			0.0	B5-15.0			
-		16.2-20.0': SILT with sand (80% silt, 20% silt), fine no odor, no sheen.	sand, gray, wet,	ML		100					
20 -							0.0				

### **Well Construction Information**

**Bentonite** 

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 10-15 (Temp.)

Filter Pa Surface Annular

Filter Pack: 10/20 Sand Surface Seal: Concrete Annular Seal: NA

Boring Abandonment:

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Surveyed Location: X: NA

Unique Well ID: NA



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Client: **Center Point** 

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 1353-032

12/12/19 @ 900 Date/Time Started:

Date/Time Completed: 12/12/19 @ 955

**Equipment:** Bobcat 9100-SK

**Drilling Company: ESN Drilling Drilling Foreman:** 

Cole Pickering

Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): 11.0

Total Boring Depth (ft bgs): 15.0 Total Well Depth (ft bgs): 15.0 (Temp.)

Lo	gge	ed By: K. Scott	Drilling Method	i:	Dire	ct Pus	h				
Depth (feet bgs.)	Sample Interval	Lithologic Description	ı	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Cons	ing/Well struction etails
0		0.0-0.5': Concrete. Hand auger to 2.0' bgs to clear uti 0.5-1.7': Silty SAND with gravel (60% sand, 20% silt, fine to coarse sand, fine and coarse gravel, brown, m no sheen. Subrounded gray gravel. (Fill).  1.7-5.0': Poorly graded SAND (95% sand, 5% silt), fire	20% gravel), noist, no odor,	SM SP		100	0.0				Concrete
- -		moist, no odor, no sheen.	, g,,			100					
5-		5.0-7.2': Poorly graded SAND (95% sand, 5% silt), fir moist, no odor, no sheen.		SP			0.0	B6-5.0	x		Bentonite
-		7.2-9.1': SILT (100% silt), gray, moist, no odor, no sh 9.1-9.6': Silty SAND (70% sand, 30% silt), fine sand,		ML SM	444	95					
10 -		odor, no sheen.  9.6-10.0': No Recovery.  10.0-11.5': Silty SAND (70% sand, 30% silt), fine san to wet at 11.0' bgs, no odor, no sheen.	id, gray, moist	SM			0.0	B6-10.0			<b>≖</b> Water Level
-		11.5-15.0': Silty SAND (60% sand, 40% silt), fine san blackish-brown, wet, no odor, no sheen.	id,	SIVI		100		B6-121219-GW	x		
15 -					11111		0.0			•	
20 -											

### **Well Construction Information**

Monument Type: NA Casing Diameter (inches): NA Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 10-15 (Temp.)

Filter Pack: Surface Seal: Annular Seal:

Boring Abandonment:

10/20 Sand Concrete NA

**Bentonite** 

Ground Surface Elevation (ft): NA Top of Casing Elevation (ft): NA Surveyed Location: X: NA

Unique Well ID: NA



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Client: **Center Point** 

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 1353-032

Logged By: K. Scott Date/Time Started: 12/12/19 @ 1015

Date/Time Completed: 12/12/19 @ 1130

**Equipment:** Bobcat 9100-SK **Drilling Company: ESN Drilling** 

**Drilling Foreman:** Cole Pickering

**Drilling Method: Direct Push**  Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): 12.0 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0 (Temp.)

Depth (feet bgs.)	Lithologic Description	sosr	JSCS Graphic	% Recovery	(mdd) Olo	Sample ID	Sample Analyzed	Boring/Well Construction Details
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Depth (f	Sample		nscs	uscs G	% Recov	PID (ppr	Sample ID	Sample		etails
0	\ /	0.0-0.6': Concrete. Hand auger to 2.0' bgs to clear utilities.	СО					П		
-	1	0.6-1.5': Silty SAND with gravel (60% sand, 20% silt, 20% gravel), fine to coarse sand, fine and coarse gravel, brown, moist, no odor,	SM	<u>i i i</u>	100	0.0				Concrete
	$/\setminus$	no sheen. Subrounded gray gravel. (Fill).	SP		100	0.0			Ī	Concrete
-	1/	1.5-2.0': Poorly graded SAND (90% sand, 5% silt, 5% gravel), fine to medium sand, fine and coarse gravel, brown, moist, no odor, no sheen.	SP							
5-		2.0-5.0': Poorly graded SAND (90% sand, 5% silt, 5% gravel), fine to medium sand, fine and coarse gravel, brown, moist, no odor, no sheen.			100					
-	]\/	5.0-7.8': Poorly graded SAND (90% sand, 5% silt, 5% gravel), fine to medium sand, fine and coarse gravel, brown, moist, no odor, no sheen.	SP			0.0	B7-5.0	X		Bentonite
_	-	7.8-10.0': SILT (100% silt), gray, moist, no odor, no sheen.	ML		100					
10 -										
-	  -	10.0-12.5': SILT (100% silt), gray, moist, wet at 12.0' bgs, no odor, no sheen.	ML			0.0	B7-10.0			▼ Water Level
-	/ \ /	12.5-15.0': Silty SAND (70% sand, 30% silt), fine sand, blackish-brown, wet, no odor, no sheen.	SM		100		B7-121220-GW	x		
15 -		15.0-17.6': Silty SAND (70% sand, 30% silt), fine sand, gray, wet, no odor, no sheen.	SM			0.0				
-	!     	17.6-20.0': SILT (100% silt), gray, moist, no odor, no sheen.	ML		100					
20 –						0.0			_	

### **Well Construction Information**

Monument Type: NA Casing Diameter (inches): NA Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 15-20 (Temp.)

Filter Pack: Surface Seal: Annular Seal:

10/20 Sand Concrete NA Boring Abandonment: **Bentonite** 

Ground Surface Elevation (ft): NA Top of Casing Elevation (ft): NA Surveyed Location: X: NA

Unique Well ID: NA



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Client: **Center Point** 

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 1353-032

Logged By: K. Scott Date/Time Started: 12/12/19 @ 1150

Date/Time Completed: 12/12/19 @ 1315

**Equipment:** Bobcat 9100-SK

**Drilling Company: ESN Drilling Drilling Foreman:** Cole Pickering

**Drilling Method: Direct Push**  Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): 11.5

Total Boring Depth (ft bgs): 20.0 Total Well Depth (ft bgs): 20.0 (Temp.)

Imple Analyzed pth (feet bgs.) ample Interval SCS Graphic Boring/Well **Lithologic Description** Construction Sample ID **Details** 

Det	Sar		Š	nS	% E	B .		Sar		
0	1	0.0-0.6': Concrete. Hand auger to 2.0' bgs to clear utilities.	СО					П		
	$\bigvee$	0.6-1.7': Silty SAND with gravel (60% sand, 20% silt, 20% gravel), fine to coarse sand, fine and coarse gravel, brown, moist, no odor, no sheen. Subrounded gray gravel. Subrounded gray rock at 2' bgs. (Fill).	SM		100	0.0			Ī	Concrete
. 5-		1.7-5.0': Poorly graded SAND (95% sand, 5% silt), fine to medium sand, brown, moist, no odor, no sheen.			100					
	-\/	5.0-7.7': Poorly graded SAND (95% sand, 5% silt), fine to medium sand, brown, moist, no odor, no sheen.	SP		100	0.0	B9-5.0	×		Bentonite
-	<del> </del>	7.7-9.5': SILT (100% silt), gray, moist, no odor, no sheen.	ML		100					
10 -		9.5-10.0': Poorly graded SAND (95% sand, 5% silt), fine to medium sand, brown, moist, no odor, no sheen.	SP			0.0				
-	$\frac{1}{2}$	10.0-11.6': SILT (100% silt), brown, moist, wet at 11.5' bgs, no odor, no sheen.				0.0	B9-11.0			_
-	$  \bigvee  $	11.6-12.6': SILT (100% silt), gray, wet, no odor, no sheen.	ML							Water Level
-		12.6-15.0': Silty SAND (70% sand, 30% silt), fine sand, gray, wet, no odor, no sheen.	SM		100		B9-121220-GW	х		
15 -		15.0-18.5': Silty SAND (70% sand, 30% silt), fine sand, gray, wet, no odor, no sheen.	SM		100	0.0				
20 -		18.5-20.0': SILT (100% silt), gray, wet, no odor, no sheen.	ML							
						0.0				
_		Wall Construction		41						

#### **Well Construction Information**

Monument Type: NA Casing Diameter (inches): NA Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 15-20 (Temp.) Filter Pack: Surface Seal: Annular Seal:

10/20 Sand Concrete NA Boring Abandonment: **Bentonite** 

Ground Surface Elevation (ft): NA Top of Casing Elevation (ft): NA Surveyed Location: X: NA

Unique Well ID: NA



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Client: Center Point

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 1353-032

Logged By: K. Scott

Date/Time Started: 12/12/19 @ 1320

Date/Time Completed: 12/12/19 @ 1430

Equipment: Bobcat 9100-SK

Drilling Company: ESN Drilling

Drilling Foreman: Cole Pickering

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (Ibs.): Auto

Depth of Water ATD (ft bgs): 12.5 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0 (Temp.)

Lithologic Description

Lithologic Description

SCS Graphic (mdd) (lip (md) (lip (md)

Depth (	Sample		nscs	nscs o	% Reco	PID (pp	Sample ID	Sample	D	etails
0	\ /	0.0-0.5': Concrete. Hand auger to 2.0' bgs to clear utilities.	СО					П		
-		0.5-1.6': Silty SAND with gravel (60% sand, 20% silt, 20% gravel), fine to coarse sand, fine and coarse gravel, brown, moist, no odor, no sheen. Subrounded gray gravel. (Fill).	SM		100	0.0				Concrete
-		1.6-5.0': Poorly graded SAND (95% sand, 5% silt), fine to medium sand, brown, moist, no odor, no sheen.	58		100					
5-		5.0-7.9': Poorly graded SAND (95% sand, 5% silt), fine to medium sand, brown, moist, no odor, no sheen.	SP		100	0.0	B10-5.0	×		Bentonite
10 -		7.9-10.0': SILT (100% silt), gray, moist, no odor, no sheen.	ML		100					
-	/	10.0-12.5': SILT (100% silt), gray, moist, wet at 12.5' bgs, no odor, no sheen.	ML			0.0				
-	     	12.5-15.0': Silty SAND (70% sand, 30% silt), fine sand, gray, wet, no odor, no sheen.	SM		100	0.0	B10-12.0 B10-121219-GW	×		▼ Water Level
15 -		15.0-17.2': Silty SAND (70% sand, 30% silt), fine sand, gray, wet, no odor, no sheen.	SM			0.0	2.0 12.2.0 011			
-		17.2-20.0': Silty SAND (60% sand, 40% silt), fine sand, dark brown, wet, no odor, no sheen.	SM		100					
20 -						0.0				

### Well Construction Information

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 15-20 (Temp.)

Filter Pack: 10/20 Sand
Surface Seal: Concrete
Annular Seal: NA
Boring Abandonment: Bentonite

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Surveyed Location: X: NA
Y: NA

Unique Well ID: NA



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Client: **Center Point** 

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 1353-032

12/12/19 @ 1440 Date/Time Started:

Date/Time Completed: 12/12/19 @ 1625

**Equipment:** Bobcat 9100-SK **Drilling Company: ESN Drilling** 

**Drilling Foreman:** Cole Pickering

**Drilling Method: Direct Push**  Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): 14.5

Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0 (Temp.)

Lo	gge	ed By: K. Scott	Drilling Method		Dile	Ct Pus					
Depth (feet bgs.)	Sample Interval	Lithologic Description	ı	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Con	ring/Well estruction Details
0 -		0.0-0.5': Concrete. Hand auger to 2.0' bgs to clear uti 0.5-1.7': Silty SAND with gravel (60% sand, 20% silt, fine to coarse sand, fine and coarse gravel, brown, mo sheen. Subrounded gray gravel. (Fill).	20% gravel), noist, no odor,	CO SM		100	0.0			Ī	Concrete
-		1.7-2.0': Poorly graded SAND (90% sand, 5% silt, 5% to medium sand, fine and coarse gravel, brown, mois sheen. Subrounded gray gravel.  2.0-5.0': Poorly graded SAND (90% sand, 5% silt, 5% to medium sand, fine and coarse gravel, brown, mois sheen. Subrounded gray gravel.	st, no odor, no 6 gravel), fine	SP		100					
5-		5.0-8.0': Poorly graded SAND (90% sand, 5% silt, 5% to medium sand, fine and coarse gravel, brown, mois sheen. Subrounded gray gravel.		SP			0.0	B11-5.0	x		Bentonite
-	! !/\ !/\\	8.0-10.0': SILT (100% silt), brown, moist, no odor, no	sheen.	ML		100					
10		10.0-13.5': SILT (100% silt), brown, moist, no odor, n	o sheen.	ML			0.0				
-		13.5-15.0': Silty SAND (70% sand, 30% silt), fine san moist, wet at 14.5' bgs, no odor, no sheen.	id, dark brown,	SM		100	0.0	B11-13.0			Ξ,,,,
15 — -	. /	15.0-16.8': Silty SAND (70% sand, 30% silt), fine san wet, no odor, no sheen.	d, dark brown,	SM			0.0	B11-121219-GW	x		Water Level
-	1	16.8-17.9': SILT (100% silt), gray, wet, no odor, no sh	neen.	ML		100					
-	!/\ !/\	17.9-20.0': Silty SAND (60% sand, 40% silt), fine san blackish-brown, wet, no odor, no sheen.	d,	SM		100					
20 –							0.0				

**Well Construction Information** 

Monument Type: NA NA Casing Diameter (inches): 0.010 Screen Slot Size (inches): Screened Interval (ft bgs):

15-20 (Temp.)

Filter Pack: Surface Seal: Annular Seal:

10/20 Sand Concrete NA Boring Abandonment: Bentonite

Ground Surface Elevation (ft): Top of Casing Elevation (ft): Surveyed Location: X: NA

NA Y: NA

NA

Unique Well ID: NA



Page 1 of 1

Client: Center Point

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 1353-032

Date/Time Started: 12/9/19 @ 1100

Date/Time Completed: 12/9/19 @ 1220

**Equipment:** Power probe 9500

Drilling Company: ESN Drilling
Drilling Foreman: Casey Newman

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (Ibs.): Auto

Depth of Water ATD (ft bgs): 12.0 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

Lo	gge	ed By: K. Scott	Drilling Method	1:	Dire	ct Pus	h				
Depth (feet bgs.)	Sample Interval	Lithologic Descriptio	n	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Con	ing/Well struction Details
0	\ /	0.0-0.3': Asphalt. Hand auger to 5.0' bgs to clear for	utilities.	AC					Τ		
-	<i>\                                    </i>	0.3-0.6': Concrete.		CO ]	ijij						C
	$\mathbb{N}$	0.6-1.5': Silty SAND with gravel (60% sand, 20% sil fine to coarse sand, fine to coarse gravel, reddish-b	t, 20% gravel), rown, moist, no	SM ML							Concrete
	I X	odor, no sheen. Subangular gray gravel. (Fill).				100					
-		1.5-5.0': SILT (100% silt), brown, moist, no odor, no	sneen.			100	0.0				
_	<i>ا  </i>										
	$/ \setminus$										
5-		5.0-8.7': SILT (100% silt), brown, moist, no odor, no	sheen.	ML			0.0	FMW1-5.0	x		
-	∤ /										Bentonite
	$  \rangle /  $										Denionite
-	1 1										
-	$\{ \land \}$					100	0.0				
_	$]/\setminus$	8.7-10.0': Poorly graded SAND (95% sand, 5% silt),	fine to medium	SP							
	$  \rangle $	sand, dark brown, moist, no odor, no sheen.	ine to mediam	01							Sand
10 –		10.0-11.1': Poorly graded SAND (95% sand, 5% silt	), fine to	SP			0.0	FMW1-10.0			
_	1\ /	medium sand, dark brown, moist, wet at 11.0' bgs, it sheen.									
	$  \setminus  $	11.1-12.3': SILT (100% silt), gray, wet, no odor, no	/ sheen.	ML							
-	1 /	42.2.45.0b Daarby araded CAND (000) acard, 400) a	H) fine cond	SP							₩ Water Level
-		12.3-15.0': Poorly graded SAND (90% sand, 10% si blackish-brown, wet, no odor, no sheen.	it), fine sand,	5P		100					
	$I/\backslash I$						0.0				
-	1/\										
15 -		15.0-20.0': Silty SAND (85% sand, 15% silt), fine to	medium sand	SM	::::: ! ! !		0.0	FMW1-15.0			
_	$\Lambda /$	brown, wet, no odor, no sheen.	medium sand,	OW			0.0	1 10100 1-13.0			
	$  \rangle /  $										
-	$  \bigvee  $					1					
_						100					
	/										Screen
-	$\ \cdot\ $										
20 -					ilili						End Cap
							0.0				

#### **Well Construction Information**

Monument Type: Morris
Casing Diameter (inches): 2-inch
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 10 to 20'

Filter Pack: 10/20 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): 26.61
Top of Casing Elevation (ft): 26.24
Surveyed Location: X: 1290990.7 Y: 162895.8



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Auto

Client: Center Point

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 1353-032

Logged By: K. Scott

Date/Time Started: 12/9/19 @ 1435

Date/Time Completed: 12/9/19 @ 1505

Equipment: Power probe 9500

Drilling Company: ESN Drilling
Drilling Foreman: Casey Newman

Drilling Method: Direct Push

Total Boring Depth (ft bgs): 20.0

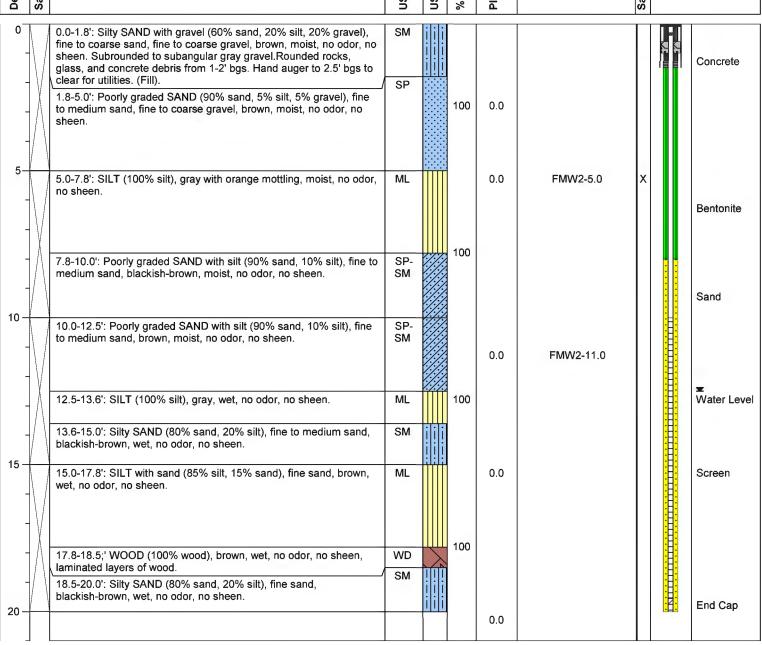
Drive Hammer (lbs.):

Total Well Depth (ft bgs): 20.0

Depth of Water ATD (ft bgs): 12.5

Sampler Type: 5' Macrocore

Depth (feet bgs.)	Sample Interval	Lithologic Description	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample Analyzed	Boring/Well Construction Details
0	\ /	0.0-1.8': Silty SAND with gravel (60% sand, 20% silt, 20% gravel), fine to coarse sand, fine to coarse gravel, brown, moist, no odor, no	SM	ilili				



### Well Construction Information

Monument Type: Morris
Casing Diameter (inches): 2-inch
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 10 to 20'

Filter Pack: 10/20 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): 26.87 Top of Casing Elevation (ft): 26.34

Surveyed Location: X: 1291267.7 Y: 162864.9



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Client: **Center Point** 

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 1353-032

12/10/19 @ 850 Date/Time Started:

Date/Time Completed: 12/10/19 @ 920

**ESN Drilling** 

**Equipment:** Power probe 9500 **Drilling Company:** 

**Drilling Foreman:** Casey Newman

Drilling Method: Direct Push Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto

Depth of Water ATD (ft bgs): 11.5 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

Lo	gge	ed By: K. Scott	Drilling Method	d:	Dire	ct Pus	h				
Depth (feet bgs.)	Sample Interval	Lithologic Descriptio	n	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Con	ing/Well struction Details
0		0.0-2.2': Silty SAND with gravel (60% sand, 20% silfine to coarse sand, fine to coarse gravel, brown, m sheen. Subrounded to subangular gray gravel. Han to clear for utilities. (Fill).	oist, no odor, no	SM							Concrete
		2.2-5.0': Poorly graded SAND (90% sand, 5% silt, 5 to medium sand, fine to coarse gravel, brown, mois sheen. Subrounded gray gravel.		SP		100	0.0				
5-		5.0-8.1': Poorly graded SAND (90% sand, 5% silt, 5 to medium sand, fine to coarse gravel, brown, mois sheen. Subrounded gray gravel.	5% gravel), fine t, no odor, no	SP			0.0	FMW3-5.0	x		Bentonite
-		8.1-9.5': SILT (100% silt), gray, moist, no odor, no s	sheen.	ML		100					Sand
10 -		9.5-10.0': Silty SAND (80% sand, 20% silt), fine to it brown, moist, no odor, no sheen.	medium sand,	SM							
-	.\/	10.0-12.5': Silty SAND (80% sand, 20% silt), fine to brown, moist, wet at 11.5' bgs, no odor, no sheen.	medium sand,	· · · ·			0.0	FMW3-11.0			<b>▼</b> Water Level
-	$\left\{ \left\langle \cdot \right\rangle \right\}$	12.5-13.2': SILT with sand (80% silt, 20% sand), fin wet, no odor, no sheen.	e sand, gray,	ML ML		100					
-	$\left  \cdot \right  \left\langle \cdot \right $	13.2-13.6': SILT (100% silt), gray, wet, no odor, no 13.6-15.0': Silty SAND (80% sand, 20% silt), fine sa		SM							
15 -		no odor, no sheen.  15.0-18.2': Silty SAND (80% sand, 20% silt), fine sano odor, no sheen.		SM			0.0				Screen
						100					
-	//\	18.2-20.0': SILT (100% silt), brown, wet, no odor, no	o sheen.	ML							End Cap
20 -	0						0.0				

### **Well Construction Information**

Monument Type: Morris Casing Diameter (inches): 2-inch Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 10 to 20'

Filter Pack: Surface Seal: Annular Seal:

Boring Abandonment:

10/20 Sand Concrete Bentonite

Ground Surface Elevation (ft): 26.61 Top of Casing Elevation (ft): 69.19 Surveyed Location: X: 1291269.5 Y: 162620.8



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Client: **Center Point** 

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 1353-032

12/10/19 @ 1030 Date/Time Started:

Date/Time Completed: 12/10/19 @ 1115

**Equipment:** Power probe 9500

**Drilling Company: ESN Drilling Drilling Foreman:** Casey Newman

**Drilling Method: Direct Push**  Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto

Depth of Water ATD (ft bgs): 14.0 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

Log	ogged By: K. Scott			1:	Direc	ct Pusi	П				
Depth (feet bgs.)	Sample Interval	Lithologic Description		nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Cons	ing/Well struction etails
0 -		0.0-0.3': Asphalt. Hand auger to 5.0' bgs to clear for 0.3-1.5': Silty SAND with gravel (60% sand, 20% silt fine to coarse sand, fine to coarse gravel, brown, mosheen. Subrounded gray gravel. Hand auger to 5.0' utilities. (Fill).  1.5-5.0': Poorly graded SAND (95% sand, 5% silt), fi sand, brown, moist, no odor, no sheen.	, 20% gravel), oist, no odor, no bgs to clear for	SM SP		100	0.0			2 E	Concrete
5		5.0-8.1': Poorly graded SAND (90% sand, 5% silt), fi sand, brown, moist, no odor, no sheen.	ine to medium	SP			0.0	FMW4-5.0	×		Bentonite
10		8.1-8.8': SILT (100% silt), brown, moist, no odor, no 8.8-9.6': SILT (100% silt), gray, moist, no odor, no si 9.6-10.0': Silty SAND (70% sand, 30% silt), fine sand no odor, no sheen.	heen.	ML ML SM ML		100	0.0				Sand
-		10.0-12.7': SILT (100% silt), brown, moist, no odor, in the same silt of t	nd,	SM		100	0.0				
15		15.0-17.8': Silty SAND (60% sand, 40% silt), fine sa blackish-brown, wet, no odor, no sheen.		SM				FMW4-13.0		1.1	Water Level
- - -/		17.8-20.0': SILT (100% silt), grayish-brown, wet, no	odor, no sheen.	ML		100					Screen
20	1						0.0			<u>:H:</u>	End Cap

#### **Well Construction Information**

Monument Type: Morris Casing Diameter (inches): 2-inch Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 10 to 20'

10/20 Sand Filter Pack: Concrete Surface Seal: Annular Seal: Bentonite Boring Abandonment:

Ground Surface Elevation (ft): 27.37 Top of Casing Elevation (ft): 26.91

Surveyed Location: X: 1290836.1 Y: 162621.1



Page 1 of 1

Client: **Center Point** 

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 1353-032

Logged By: K. Scott

12/10/19 @ 1150 Date/Time Started:

Date/Time Completed: 12/10/19 @ 1225

**Equipment:** Power probe 9500

**Drilling Company: ESN Drilling Drilling Foreman:** Casey Newman

**Drilling Method: Direct Push**  Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): 14.5 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

h (feet bgs	Lithologic Description	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
			AAAAAA					

Concrete
-5.0 X Bentonite
Sand
13.0 Water Level  Screen
₩ Water Level
Screen
End Cap

### **Well Construction Information**

Monument Type: Morris Casing Diameter (inches): 2-inch Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 10 to 20'

Filter Pack: Surface Seal: Annular Seal:

Boring Abandonment:

10/20 Sand Concrete Bentonite

Ground Surface Elevation (ft): 27.58 Top of Casing Elevation (ft): 27.26

Unique Well ID: BJR-898

Surveyed Location: X: 1290522.8 Y: 162646.0



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Client: **Center Point** 

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 1353-032

12/10/19 @ 1315 Date/Time Started:

Date/Time Completed: 12/10/19 @ 1350

**Equipment:** Power probe 9500 **Drilling Company: ESN Drilling** 

**Drilling Foreman:** Casey Newman Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto

Depth of Water ATD (ft bgs): 15.0 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

	ged By: K. Scott	Drilling Method	l:	Dire	ct Pus	h				
Depth (feet bgs.)	Lithologic Descriptio	n	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Con	ring/Well estruction Details
0		r utilities.	AC	MANAN				П		
-\	0.3-1.7': Silty SAND with gravel (65% sand, 20% si fine to coarse sand, fine to coarse gravel, brown, m sheen. Subrounded gray gravel. (Fill).	lt, 15% gravel),	SM						2 %	Concrete
	1.7-5.0': Silty SAND (80% sand, 15% silt, 5% grave medium sand, light brown, moist, no odor, no sheet gray gravel.		SM		100	0.2				
5	5.0-8.2': Silty SAND (70% sand, 30% silt), fine to milight brown, moist, no odor, no sheen.	ledium sand,	SM			0.0	FMW6-5.0	×		Bentonite
- /	8.2-10.0': SILT (100% silt), brown, moist, no odor, r	no sheen.	ML		100					Sand
10	10.0-12.2': Sandy SILT (60% silt, 40% sand), fine s moist, no odor, no sheen.	and, brown,	ML			0.0				
	12.2-14.2': SILT (100% silt), gray, moist, no odor, n	o sheen.	ML		100					
15	14.2-15.0': Silty SAND (80% sand, 20% silt), fine to blackish-brown, moist, wet at 15.0' bgs, no odor, no		SM			0.0	FMW6-14.0			<b>x</b>
	15.0-17.2': Silty SAND (80% sand, 20% silt), fine to blackish-brown, wet, no odor, no sheen.	medium sand,	SM			0.0				Water Level
	17.2-18.6': SILT (100% silt), gray, wet, no odor, no	sheen.	ML		100					Screen
- /	18.6-20.0': Silty SAND (80% sand, 20% silt), fine sa	and,	SM							

**Well Construction Information** 

Monument Type: Morris Casing Diameter (inches): 2-inch 0.010 Screen Slot Size (inches): Screened Interval (ft bgs): 10 to 20'

20

blackish-brown, wet, no odor, no sheen.

Filter Pack: Surface Seal: Annular Seal:

Boring Abandonment:

10/20 Sand Concrete Bentonite

Ground Surface Elevation (ft): Top of Casing Elevation (ft): 27.39 Surveyed Location: X: 1290693.2 Y: 162819.0

End Cap

Unique Well ID: BJR-899

0.0



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Client: Lift Real Estate Partners, LLC

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 2032-012

Logged By: K. Scott

Date/Time Started: 12/11/19 @ 845

Date/Time Completed: 12/11/19 @ 955

Equipment: Bobcat 9100-SK

Drilling Company: ESN Drilling
Drilling Foreman: Casey Newman

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto
Depth of Water ATD (ft bgs): 14.5

Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0 (Temp.)

Depth (	Sample		nscs	nscs	% Rec	PID (pr	Sample ID	Sample	D	etails
0 -	-\//	0.0-1.7': Silty SAND with gravel (65% sand, 20% silt, 15% gravel), fine to coarse sand, fine and coarse gravel, brown, moist, no odor, no sheen. Subrounded gray gravel. Hand auger to 2.0' bgs to clear for utilities. (Fill).	SM		100	0.0				Soil
-	1	1.7-5.0': Poorly graded SAND (90% sand, 5% silt, 5% gravel), fine to medium sand, fine and coarse gravel, brown, moist, no odor, no sheen.	SP		100					
5-		5.0-6.8': Poorly graded SAND (90% sand, 5% silt, 5% gravel), fine to medium sand, fine and coarse gravel, brown, moist, no odor, no sheen.	SP			0.0	B1-5.0	x		Bentonite
-		6.8-8.8': SILT (100% silt), gray, wet, no odor, no sheen.	ML		100					
10	$/ \setminus$	8.8-10.0': Poorly graded SAND (95% sand, 5% silt), fine to medium sand, brown, moist, no odor, no sheen.	SP							
10 –	\ /	10.0-11.5': Poorly graded SAND (95% sand, 5% silt), fine to medium sand, brown, moist, no odor, no sheen.	SP			0.0				
-	$\frac{1}{}$	11.5-14.4': SILT (100% silt), gray, wet from 11.5-12.5' bgs than moist, no odor, no sheen.	ML		100					
-	1/\				100	0.0	B1-13.0			
15 –		14.4-15.0': Silty SAND (80% sand, 20% silt), fine sand, dark brown, wet, no odor, no sheen.	SM ML			0.0				Water Level
-	1 /	15.0-16.5': Sandy SILT (60% silt, 40% sand), fine to medium sand, brown, wet, no odor, no sheen.					B1-121119-GW	x		
-		16.5-20.0': Silty SAND (80% sand, 20% silt), fine sand, blackish-brown, wet, no odor, no sheen.	SM		100					
20 –				ilili		0.0			J	

### **Well Construction Information**

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 15-20 (Temp.)

Filter Pack: Surface Seal: Annular Seal:

**Boring Abandonment:** 

10/20 Sand NA

**Bentonite** 

NA

Ground Surface Elevation (ft): Top of Casing Elevation (ft): Surveyed Location: X: NA

(ft): NA t): NA

Unique Well ID: NA



Page 1 of 1

Client: Lift Real Estate Partners, LLC

Project: 18420 68th Avenue

Location: Kent, WA

Date/Time Started: 12/11/19 @ 1010

Date/Time Completed: 12/11/19 @ 1125

Equipment: Bobcat 9100-SK

**Drilling Company: ESN Drilling**  Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): 14.5 Total Boring Depth (ft bgs): 20.0

Fai	rall	on PN: 2032-012	Drilling Forema	an:	Cole	Picke	ering	Total Well Depth	(ft l	ogs):20.0 (Temp.)	
Lo	gge	ed By: K. Scott	Drilling Method	d:	Dire	ct Pus	h				
Depth (feet bgs.)	Sample Interval	Lithologic Descriptio	n	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details	
0	V	0.0-0.6': Concrete. Hand auger to 1.0' bgs to clear u	utilities.	СО					П		
-		0.6-1.0': Glass Fill (100% glass), broken glass, clea odor, no sheen.	r, moist, no	FILL	$\bowtie$	100			Ш	Concrete	
_	]\ /	1.0-1.4': Asphalt.		AC SM		100			Ш	Concrete	
	$  \rangle  $	1.4-2.8': Silty SAND with gravel (60% sand, 25% sil		SIVI					Ш		
-	1 )	fine to coarse sand, fine and coarse gravel, brown, no sheen. Subrounded gray gravel. (Fill).	moist, no odor,	SP			0.0		Ш		
-	{/\	2.8-5.0': Poorly graded SAND (90% sand, 5% silt, 5 to medium sand, fine and coarse gravel, brown, mo sheen. Subrounded gray gravel.				100					
5-		5.0-8.3': Poorly graded SAND (90% sand, 5% silt, 5 to medium sand, fine and coarse gravel, brown, mo sheen. Subrounded gray gravel.		SP			0.0	B2-5.0	X	Bentonite	
	IX					100			Ш		
-	1/\	8.3-8.7': SILT (100% silt), brown, moist, no odor, no	sheen	ML					Ш		
-	{/ \	8.7-9.1': WOOD (100% wood), tan, moist, no odor,	/	WD					Ш		
10 -		Laminated wood.		ML	Ш				Ш		
	\ /	9.1-10.0': SILT (100% silt), gray, moist, no odor, no 10.0-11.5': SILT (100% silt), gray, moist, no odor, n		ML			0.0		Ш		
-	1\ /	Total Title : Ole (100% oliv), gray, molet, no odor, n	o onoon.						Ш		
-	1	11.5-12.8': Poorly graded SAND (95% sand, 5% sill brown, moist, no odor, no sheen.	t), fine sand,	SP		100					
-	$\left  \right $	12.8-13.4': SILT (100% silt), gray, moist, no odor, n	o sheen.	ML		100	0.0	B2-13.0			
-	$\left  \left  \cdot \right  \right $	13.4-15.0': Silty SAND (70% sand, 30% silt), fine sa blackish-brown, moist, wet at 14.5' bgs, no odor, no		SM							

**Well Construction Information** 

ML

0.0

0.0

100

Monument Type: NA Casing Diameter (inches): NA Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 15-20 (Temp.)

wet, no odor, no sheen.

15

20

Filter Pack: Surface Seal: Annular Seal:

15.0-16.2': SILT (100% silt), gray, wet, no odor, no sheen.

16.2-20.0': Silty SAND (70% sand, 30% silt), fine sand, dark brown,

10/20 Sand Concrete NA Boring Abandonment: Bentonite

Ground Surface Elevation (ft): NA Top of Casing Elevation (ft): NA Surveyed Location: X: NA

B2-121119-GW

Unique Well ID: NA

Y: NA

Water Level



Page 1 of 1

Client: Lift Real Estate Partners, LLC

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 2032-012

Logged By: K. Scott

Date/Time Started: 12/11/19 @ 1130

Date/Time Completed: 12/11/19 @ 1235

Equipment: Bobcat 9100-SK

Drilling Company: ESN Drilling
Drilling Foreman: Cole Pickering

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto
Depth of Water ATD (ft bgs): 13.5
Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0 (Temp.)

LO	yye	a By: K. Scott					1			
Depth (feet bgs.)	Sample Interval	Lithologic Description	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Co	oring/Well nstruction Details
0	.//	0.0-1.7': Silty SAND with gravel (60% sand, 20% silt, 20% gravel), fine to coarse sand, fine and coarse gravel, brown, moist, no odor, no sheen. Subrounded gray gravel. Hand auger to 5.0' bgs to clear utilities. (Fill).	SM							Soil
		1.7-5.0': Sandy SILT (60% silt, 40% sand), fine sand, brown, moist, no odor, no sheen.	ML		100	0.0				
5-		5.0-5.7': Silty SAND (80% sand, 20% silt), fine to medium sand, brown, moist, no odor, no sheen.	SM			0.0	B3-5.0	x		
_		5.7-7.6': SILT (100% silt), brown, moist, no odor, no sheen.	IVIL							Bentonite
-	./\	7.6-9.3': SILT (100% silt), gray, moist, no odor, no sheen.	ML		100					
10 -		9.3-10.0": Poorly graded SAND (95% sand, 5% silt), fine to medium sand, blackish-brown, moist, no odor, no sheen.	SP			0.0			ı	
-	\	10.0-11.7': Poorly graded SAND (95% sand, 5% silt), fine to medium sand, blackish-brown, moist, no odor, no sheen.	38			0.0				
-	- \	11.7-13.5': SILT (100% silt), gray, moist, no odor, no sheen.	ML		100	0.0	B3-12.0			
-	$\left  \frac{1}{2} \right $	13.5-15.0': Silty SAND (70% sand, 30% silt), fine sand, blackish-brown, wet, no odor, no sheen.	SM							Water Level
15 -		15.0-19.2': Silty SAND (70% sand, 30% silt), fine sand, blackish-brown, wet, no odor, no sheen.	SM		100	0.0	B3-121119-GW	×		
-	$\left  \left/ \cdot \right  \right $									
20 -	\	19.2-20.0': Sandy SILT (60% silt, 40% sand), fine sand, brown, moist, no odor, no sheen.	ML			0.0				
_										

#### **Well Construction Information**

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 15-20 (Temp.)

Filter Pack: Surface Seal: Annular Seal:

Boring Abandonment:

10/20 Sand Soil NA

**Bentonite** 

Ground Surface Elevation (ft): Top of Casing Elevation (ft): Surveyed Location: X: NA

Unique Well ID: NA

NA Y: NA

NA



Page 1 of 1

Client: Lift Real Estate Partners, LLC

18420 68th Avenue Project:

Location: Kent, WA

Farallon PN: 2032-012

Loggod By:

Date/Time Started: 12/11/19 @ 1240

Date/Time Completed: 12/11/19 @ 1405

**Equipment:** Bobcat 9100-SK

**Drilling Company: ESN Drilling Drilling Foreman:** Cole Pickering

**Drilling Method: Direct Push**  Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): 13.5 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0 (Temp.)

Lo	gge	ed By: K. Scott									
Depth (feet bgs.)	Sample Interval	Lithologic Description	n	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed		oring/Well nstruction Details
0		0.0-2.0': Silty SAND with gravel Fill (60% sand, 20% gravel), fine to coarse sand, fine and coarse gravel, moist, no odor, no sheen. Subrounded gray gravel. 2.0' bgs to clear utilities. (Fill).	reddish-brown,	SM			0.0	B4-1.0			Concrete
-		2.0-2.3': Asphalt.  2.3-5.0': Silty SAND with gravel (60% sand, 25% silt fine to medium sand, fine and coarse gravel, brown, no sheen. Subrounded gray gravel.		SM		100	0.0				
5-		5.0-7.2': Silty SAND (70% sand, 30% silt), fine to me brown, wet, no odor, no sheen.	edium sand,	SM			0.0	B4-5.0	x		Bentonite
-		7.2-9.1': SILT (100% silt), gray, moist, no odor, no s	heen.	ML		100					
10 -	$\backslash\!\!/ \backslash\!\!\!/$	9.1-10.0': Silty SAND (80% sand, 20% silt), fine to n brown, moist, no odor, no sheen.	nedium sand,	SM							
-		10.0-12.2': Silty SAND (80% sand, 20% silt), fine to brown, moist, no odor, no sheen.	medium sand,	SM			0.0				
	I X	12.2-12.9': SILT (100% silt), gray, moist, no odor, no	sheen.	ML		100	0.0	B4-12.0			
-	1/\	12.9-14.5': Sandy SILT (60% silt, 40% sand), fine sa moist, wet at 13.5' bgs, no odor, no sheen.	and, brown,	ML							w Water Level
15 –		14.5-15.0': SILT with sand (80% silt, 20% sand), fine wet, no odor, no sheen.	e sand, gray,	ML			0.0				
-	1/	15.0-16.7': SILT with sand (80% silt, 20% sand), fine wet, no odor, no sheen.	e sand, gray,	ML			0.0	B4-121119-GW	х		
-	- /	16.7-18.5': Silty SAND (70% sand, 30% silt), fine sa no odor, no sheen.	nd, gray, wet,	SM		100					
-	$\left  \left\langle \cdot \right\rangle \right\rangle$	18.5-20.0': Sandy SILT (60% silt, 40% sand), fine sa no odor, no sheen.	and, gray, wet,	ML							
20 -							0.0			•	

#### **Well Construction Information**

Monument Type: NA NA Casing Diameter (inches): Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 15-20 (Temp.)

Filter Pack: Surface Seal: Annular Seal:

10/20 Sand NA

NA Boring Abandonment: **Bentonite**  Ground Surface Elevation (ft): Top of Casing Elevation (ft): Surveyed Location: X: NA

NA Y: NA

NA

Unique Well ID: NA



Page 1 of 1

Client: Lift Real Estate Partners, LLC

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 2032-012

Date/Time Started: 12/11/19 @ 1455

Date/Time Completed: 12/11/19 @ 1610

Equipment: Bobcat 9100-SK

Drilling Company: ESN Drilling
Drilling Foreman: Cole Pickering

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (Ibs.): Auto
Depth of Water ATD (ft bgs): 11.0
Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0 (Temp.)

Logged By: K. Scott				1:	Dire	ct Pus	n				
Depth (feet bgs.)	Sample Interval	Lithologic Description	1	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Con	ing/Well struction Details
0	\ /	0.0-0.5': Concrete. Hand auger to 2.0' bgs to clear ut	ilities.	СО					П		
-		0.5-2.0': Silty SAND with gravel (65% sand, 20% silt, fine to coarse sand, fine and coarse gravel, light brown odor, no sheen. Subrounded gray gravel. large rock (Fill).	wn, moist, no	SM		100	0.8	B5-1.0			Concrete
-		2.0-3.5': Silty SAND with gravel (65% sand, 20% silt, fine to coarse sand, fine and coarse gravel, light brown odor, no sheen. Subrounded gray gravel. (Fill).		SP		100					
-	$\left  \cdot \right $	3.5-5.0': Poorly graded SAND (95% sand, 5% silt), fi sand, dark brown, moist, sweet odor, sheen.	ne to medium	SF.		100					
5-		5.0-6.7': Poorly graded SAND (95% sand, 5% silt), fi sand, dark brown, moist, sweet odor to 6.5' bgs, slight		SP			1.2	B5-5.0	x		Bentonite
-		6.7-10.0': SILT (100% silt), gray, moist, no odor, no s	sheen.	ML		100					
10 -	\ /	10.0-11.5': SILT (100% silt), gray, moist to wet at 11 no sheen.	0' bgs, no odor,	ML			0.0	B5-10.0			<b>▼</b> Water Level
-		11.5-13.5': Sandy SILT (60% silt, 40% sand), fine sa no odor, no sheen.	nd, brown, wet,	ML		100		B5-121119-GW	x		
- -	$\left  \left\langle \cdot \right\rangle \right\rangle$	13.5-15.0': Silty SAND (70% sand, 30% silt), fine san blackish-brown, wet, no odor, no sheen.	nd,	SM				B3-121119-GVV	r		
15 –		15.0-16.2': Silty SAND (70% sand, 30% silt), fine sat blackish-brown, wet, no odor, no sheen.	nd,	SM			0.0	B5-15.0			
-		16.2-20.0': SILT with sand (80% silt, 20% silt), fine s no odor, no sheen.	and, gray, wet,	ML		100					
20 –							0.0				

### **Well Construction Information**

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 10-15 (Temp.)

Filter Pack: Surface Seal: Annular Seal:

Boring Abandonment:

10/20 Sand Concrete NA

**Bentonite** 

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Surveyed Location: X: NA

Unique Well ID: NA



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Client: Lift Real Estate Partners, LLC

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 2032-012

Date/Time Started: 12/12/19 @ 900

Date/Time Completed: 12/12/19 @ 955

Equipment: Bobcat 9100-SK

Drilling Company: ESN Drilling
Drilling Foreman: Cole Pickering

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (Ibs.): Auto
Depth of Water ATD (ft bgs): 11.0
Total Boring Depth (ft bgs): 15.0

Total Well Depth (ft bgs): 15.0 (Temp.)

Lo	gge	ed By: K. Scott	Drilling Method	d:	Dire	ct Pus	h				
Depth (feet bgs.)	Sample Interval	Lithologic Descriptio	n	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Cons	ng/Well truction etails
0		0.0-0.5': Concrete. Hand auger to 2.0' bgs to clear to 0.5-1.7': Silty SAND with gravel (60% sand, 20% silfine to coarse sand, fine and coarse gravel, brown, no sheen. Subrounded gray gravel. (Fill).	t, 20% gravel), moist, no odor,	CO SM		100	0.0			•	Concrete
-		1.7-5.0': Poorly graded SAND (95% sand, 5% silt), moist, no odor, no sheen.	ilile sanu, gray,			100					
5-		5.0-7.2': Poorly graded SAND (95% sand, 5% silt), moist, no odor, no sheen.	fine sand, gray,	SP			0.0	B6-5.0	x		Bentonite
-	./\	7.2-9.1': SILT (100% silt), gray, moist, no odor, no s		ML		95					
10 -		9.1-9.6': Silty SAND (70% sand, 30% silt), fine sand odor, no sheen.  9.6-10.0': No Recovery.  10.0-11.5': Silty SAND (70% sand, 30% silt), fine satto wet at 11.0' bgs, no odor, no sheen.  11.5-15.0': Silty SAND (60% sand, 40% silt), fine satto wet at 11.0' bgs, no odor, no sheen.	and, gray, moist	SM			0.0	B6-10.0			▼ Water Level
-	//\	blackish-brown, wet, no odor, no sheen.				100		B6-121219-GW	х		
15 -				3.1			0.0				
-											
20 –											

### Well Construction Information

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 10-15 (Temp.)

Filter Pack: Surface Seal: Annular Seal:

Boring Abandonment:

rack: 10/20 Sand e Seal: Concrete rr Seal: NA

Bentonite

Ground Surface Elevation (ft): Top of Casing Elevation (ft): Surveyed Location: X: NA

NA Y: NA

NA

Unique Well ID: NA



Page 1 of 1

Client: Lift Real Estate Partners, LLC

18420 68th Avenue Project:

Location: Kent, WA

Farallon PN: 2032-012

Date/Time Started: 12/12/19 @ 1015

Date/Time Completed: 12/12/19 @ 1130

**Equipment:** Bobcat 9100-SK

**Drilling Company: ESN Drilling Drilling Foreman:** Cole Pickering

**Drilling Method: Direct Push**  Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto

Depth of Water ATD (ft bgs): 12.0 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0 (Temp.)

Lo	gge	d By: K. Scott	Drilling Wethor		Dile	cirus					
Depth (feet bgs.)	Sample Interval	Lithologic Descriptio	n	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Con	ring/Well struction Details
0	Ν /	0.0-0.6': Concrete. Hand auger to 2.0' bgs to clear to	ıtilities.	СО					П		
-		0.6-1.5': Silty SAND with gravel (60% sand, 20% sil fine to coarse sand, fine and coarse gravel, brown, no sheen. Subrounded gray gravel. (Fill).	t, 20% gravel), moist, no odor,	SM		100	0.0			=	Concrete
_	$\left  \cdot \right $	1.5-2.0': Poorly graded SAND (90% sand, 5% silt, 5 to medium sand, fine and coarse gravel, brown, mo sheen.	% gravel), fine ist, no odor, no	SP							
-		2.0-5.0': Poorly graded SAND (90% sand, 5% silt, 5 to medium sand, fine and coarse gravel, brown, mo sheen.				100					
5-		5.0-7.8': Poorly graded SAND (90% sand, 5% silt, 5 to medium sand, fine and coarse gravel, brown, mo sheen.		SP			0.0	B7-5.0	×		Bentonite
-		7.8-10.0': SILT (100% silt), gray, moist, no odor, no	sheen.	ML		100					
10 -		10.0-12.5': SILT (100% silt), gray, moist, wet at 12.0 no sheen.	o' bgs, no odor,	ML			0.0	B7-10.0			▼ Water Level
-		12.5-15.0': Silty SAND (70% sand, 30% silt), fine sa blackish-brown, wet, no odor, no sheen.	and,	SM		100		B7-121220-GW	x		<b>Water 2010</b>
15 -		15.0-17.6': Silty SAND (70% sand, 30% silt), fine sa no odor, no sheen.	and, gray, wet,	SM			0.0				
-		17.6-20.0': SILT (100% silt), gray, moist, no odor, n	o sheen.	ML		100					
20 -							0.0			all .	

### **Well Construction Information**

Monument Type: NA NA Casing Diameter (inches): Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 15-20 (Temp.)

Filter Pack: Surface Seal: Annular Seal:

10/20 Sand Concrete NA Boring Abandonment: **Bentonite** 

Ground Surface Elevation (ft): NA Top of Casing Elevation (ft): NA Surveyed Location: X: NA

Unique Well ID: NA



Page 1 of 1

Client: Lift Real Estate Partners, LLC

18420 68th Avenue Project:

Location: Kent, WA

Farallon PN: 2032-012

Date/Time Started: 12/12/19 @ 1150

Date/Time Completed: 12/12/19 @ 1315

**Equipment:** Bobcat 9100-SK

**Drilling Company: ESN Drilling Drilling Foreman:** Cole Pickering

**Drilling Method: Direct Push**  Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): 11.5 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0 (Temp.)

Logged By: K. Scott			Drilling Method	d:	Dire	ct Pus	h				
Depth (feet bgs.)	Sample Interval	Lithologic Description	n	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Cons	ing/Well struction etails
0	N /	0.0-0.6': Concrete. Hand auger to 2.0' bgs to clear u	tilities.	СО					П		
-		0.6-1.7': Silty SAND with gravel (60% sand, 20% silt fine to coarse sand, fine and coarse gravel, brown, no sheen. Subrounded gray gravel. Subrounded gray (Fill).	moist, no odor,	SM SP		100	0.0				Concrete
_		1.7-5.0': Poorly graded SAND (95% sand, 5% silt), 1 sand, brown, moist, no odor, no sheen.	ine to medium			100					
5-		5.0-7.7': Poorly graded SAND (95% sand, 5% silt), 1 sand, brown, moist, no odor, no sheen.	ine to medium	SP			0.0	B9-5.0	x		Bentonite
-		7.7-9.5': SILT (100% silt), gray, moist, no odor, no s	heen.	ML		100					
10 -		9.5-10.0': Poorly graded SAND (95% sand, 5% silt), sand, brown, moist, no odor, no sheen.	fine to medium	SP							
-	\ /	10.0-11.6': SILT (100% silt), brown, moist, wet at 11 no sheen.	.5' bgs, no odor,	ML			0.0	B9-11.0			_
-	.	11.6-12.6': SILT (100% silt), gray, wet, no odor, no s	sheen.	ML					Ш		Water Level
-	   	12.6-15.0': Silty SAND (70% sand, 30% silt), fine sa no odor, no sheen.	ind, gray, wet,	SM		100		B9-121220-GW	x		
15		15.0-18.5': Silty SAND (70% sand, 30% silt), fine sa no odor, no sheen.	ind, gray, wet,	SM			0.0				
-	$\left[ \left[ \right] \right]$					100					
-	$\left  \left  \cdot \right  \right $	18.5-20.0': SILT (100% silt), gray, wet, no odor, no s	sheen.	ML							
20 –							0.0				

#### **Well Construction Information**

Monument Type: NA NA Casing Diameter (inches): Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 15-20 (Temp.)

10/20 Sand Filter Pack: Concrete Surface Seal: Annular Seal: NA Boring Abandonment: **Bentonite** 

Ground Surface Elevation (ft): NA Top of Casing Elevation (ft): NA Surveyed Location: X: NA

Unique Well ID: NA



Page 1 of 1

Client: Lift Real Estate Partners, LLC

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 2032 012

Date/Time Started: 12/12/19 @ 1320

Date/Time Completed: 12/12/19 @ 1430

Bobcat 9100-SK **Equipment:** 

**Drilling Company: ESN Drilling** Drilling Foreman: Cole Pickering Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): 12.5 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0 (Temp.)

Fa	rall	on PN: 2032-012	Drilling Forema			Picke	_	Total Well Depth	ı (ft bo	g <b>s</b> ):20	.0 (Temp.)
Lo	gge	ed By: K. Scott	Drilling Method	d:	Dire	ct Pusi	n				
Depth (feet bgs.)	Sample Interval	Lithologic Descriptio	n	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Cons	ing/Well struction etails
0	1 /	0.0-0.5': Concrete. Hand auger to 2.0' bgs to clear u	ıtilities.	со							
-		0.5-1.6': Silty SAND with gravel (60% sand, 20% silt fine to coarse sand, fine and coarse gravel, brown, no sheen. Subrounded gray gravel. (Fill).	t, 20% gravel), moist, no odor,	SM		100	0.0				Concrete
5-		1.6-5.0': Poorly graded SAND (95% sand, 5% silt), t sand, brown, moist, no odor, no sheen.	fine to medium	9.		100					
		5.0-7.9': Poorly graded SAND (95% sand, 5% silt), the sand, brown, moist, no odor, no sheen.	fine to medium	SP		100	0.0	B10-5.0	×		Bentonite
10 -		7.9-10.0': SILT (100% silt), gray, moist, no odor, no	sheen.	ML							
	-	10.0-12.5': SILT (100% silt), gray, moist, wet at 12.5 no sheen.	5' bgs, no odor,	ML			0.0	B10-12.0	x		
		12.5-15.0': Silty SAND (70% sand, 30% silt), fine sa no odor, no sheen.	and, gray, wet,	SM		100	0.0	B10-1219-GW			Water Level

**Well Construction Information** 

Monument Type: NA Casing Diameter (inches): NA Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 15-20 (Temp.)

20

no odor, no sheen.

wet, no odor, no sheen.

Filter Pack: Surface Seal: Annular Seal:

15.0-17.2': Silty SAND (70% sand, 30% silt), fine sand, gray, wet,

17.2-20.0': Silty SAND (60% sand, 40% silt), fine sand, dark brown,

10/20 Sand Concrete NA Boring Abandonment: **Bentonite** 

SM

0.0

0.0

100

Ground Surface Elevation (ft): Top of Casing Elevation (ft): Surveyed Location: X: NA

Unique Well ID: NA

Y: NA

NA

NA



Page 1 of 1

Client: Lift Real Estate Partners, LLC

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 2032-012

Loggod By:

Date/Time Started: 12/12/19 @ 1440

Date/Time Completed: 12/12/19 @ 1625

**Equipment:** Bobcat 9100-SK

**Drilling Company: ESN Drilling Drilling Foreman:** Cole Pickering

**Drilling Method: Direct Push**  Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): 14.5 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0 (Temp.)

Lo	gge	ed By: K. Scott									
Depth (feet bgs.)	Sample Interval	Lithologic Descriptio	n	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Col	oring/Well nstruction Details
0	1 /	0.0-0.5': Concrete. Hand auger to 2.0' bgs to clear u	itilities.	СО					П		
-		0.5-1.7': Silty SAND with gravel (60% sand, 20% silting to coarse sand, fine and coarse gravel, brown, in sheen. Subrounded gray gravel. (Fill).	t, 20% gravel), moist, no odor,	SM		100	0.0			Ī	Concrete
-		1.7-2.0': Poorly graded SAND (90% sand, 5% silt, 5 to medium sand, fine and coarse gravel, brown, mo sheen. Subrounded gray gravel.	% gravel), fine ist, no odor, no	SP SP							
_	$\left  \right\rangle$	2.0-5.0': Poorly graded SAND (90% sand, 5% silt, 5 to medium sand, fine and coarse gravel, brown, mo sheen. Subrounded gray gravel.	% gravel), fine ist, no odor, no			100					
5-		5.0-8.0': Poorly graded SAND (90% sand, 5% silt, 5 to medium sand, fine and coarse gravel, brown, mo sheen. Subrounded gray gravel.		SP		100	0.0	B11-5.0	X		Bentonite
-	<del> </del>	8.0-10.0': SILT (100% silt), brown, moist, no odor, n	o sheen.	ML		100					
10 -		10.0-13.5': SILT (100% silt), brown, moist, no odor,	no sheen.	ML		100	0.0				
	1/\	13.5-15.0': Silty SAND (70% sand, 30% silt), fine sa moist, wet at 14.5' bgs, no odor, no sheen.	ınd, dark brown,	SM			0.0	B11-13.0			<b>▼</b>
15 -		15.0-16.8': Silty SAND (70% sand, 30% silt), fine sa wet, no odor, no sheen.	nd, dark brown,	SM			0.0	B11-121219-GW	x		Water Level
-	1	16.8-17.9': SILT (100% silt), gray, wet, no odor, no s	sheen.	ML		100					
	1/\	17.9-20.0': Silty SAND (60% sand, 40% silt), fine sa blackish-brown, wet, no odor, no sheen.	ind,	SM		. 30					
20 -							0.0				

#### **Well Construction Information**

Monument Type: NA NA Casing Diameter (inches): Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 15-20 (Temp.) Filter Pack: Surface Seal: Annular Seal:

10/20 Sand Concrete NA Boring Abandonment: **Bentonite** 

Ground Surface Elevation (ft): NA Top of Casing Elevation (ft): NA Surveyed Location: X: NA

Unique Well ID: NA



Page 1 of 1

Client: Lift Real Estate Partners, LLC

**Project:** 68th Ave South **Location:** Kent, Washington

Farallon PN: 2032-012

**Logged By:** G.Mckenney

Date/Time Started: 3/3/2021 @ 1140

Date/Time Completed: 3/3/2021 @ 1200 Equipment: Hand Auger

Drilling Company: Holt Services

Drilling Foreman: Trevor

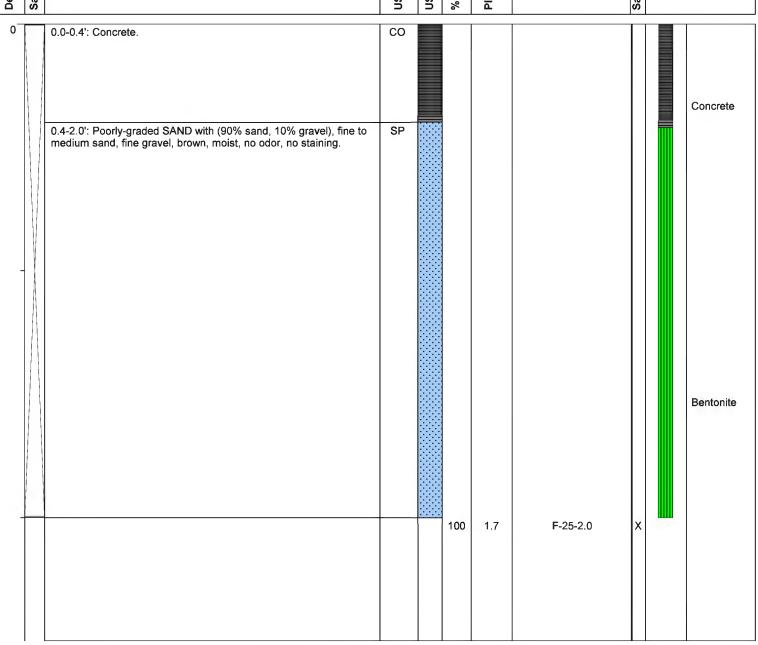
Drilling Method: Hand Auger

Sampler Type: Hand Auger

Drive Hammer (lbs.): NA
Depth of Water ATD (ft bgs): NA
Total Boring Depth (ft bgs): 2.0

Total Well Depth (ft bgs): NA

	Depth (feet bgs.)	Sample Interval	Lithologic Description	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample Analyzed	Boring/Well Construction Details
Ī									
	0		0.0-0.4': Concrete.	co					



### Well Construction Information

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): NA
Screened Interval (ft bgs): NA

Filter Pack: NA
Surface Seal: NA
Annular Seal: NA
Boring Abandonment: Bentonite

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Surveyed Location: X: NA
Unique Well ID: NA



Page 1 of 1

Client: Lift Real Estate Partners, LLC

Project: 68th Ave South Location: Kent, Washington

Farallon PN: 2032-012

Logged By: G.Mckenney

**Date/Time Started:** 3/4/2021 @ 1500 **Date/Time Completed:** 3/4/2021 @ 1515

Trevor

**Equipment:** Geoprobe 7822 **Drilling Company:** Holt Services

**Drilling Foreman:** 

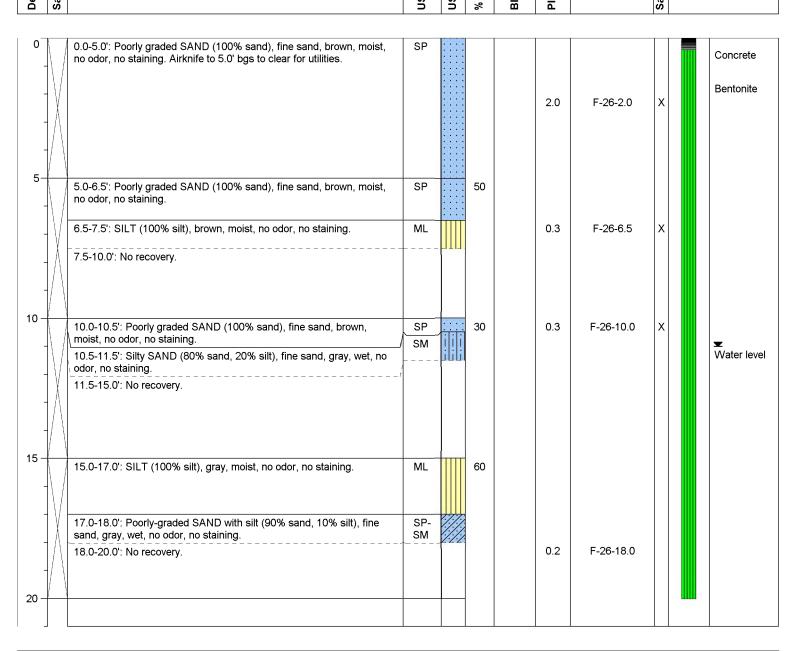
Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (lbs.):AutoDepth of Water ATD (ft bgs):11.0Total Boring Depth (ft bgs):20.0

Total Well Depth (ft bgs): NA

epth (feet bgs.) ample Interval	Lithologic Description	scs	SCS Graphic	Recovery	low Counts 8/8/8	ID (ppm)	Sample ID	ample Analyzed	Boring/Well Construction Details
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Well Construction Information

Monument Type: NA Ground Surface Elevation (ft): Filter Pack: NA NA Top of Casing Elevation (ft): Casing Diameter (inches): NA NΑ Surface Seal: NΑ Screen Slot Size (inches): NA Annular Seal: NA Surveyed Location: X: NA Y: NA

Screened Interval (ft bgs): NA Boring Abandonment: Bentonite Unique Well ID: NA



Page 1 of 1

Client: Lift Real Estate Partners, LLC

Project: 68th Ave South Location: Kent, Washington

Farallon PN: 2032-012

3/4/2021 @ 1420 Date/Time Started:

Date/Time Completed: 3/4/2021 @ 1445

**Equipment:** Geoprobe 7822 **Drilling Company:** Holt Services

**Drilling Foreman:** Trevor Sampler Type: 5' Macrocore

Auto Drive Hammer (lbs.): Depth of Water ATD (ft bgs): 15.5 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): NA

Log	gge	d By: G.Mckenney	Drilling Method: Direct Push							
Depth (feet bgs.)	Sample Interval	Lithologic Descriptio	n	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
-		0.0-5.0': Poorly graded SAND (100% sand), brown, no staining. Airknife to 5.0' bgs to clear for utilities.	moist, no odor,	SP			2.6	F-27-2.0	x	Concrete  Bentonite
5		5.0-7.0': Poorly graded SAND (100% sand), brown, no staining.  7.0-8.0': SILT (100% silt), brown, moist, no odor, no 8.0-10.0': No recovery.		SP ML		60	0.2	F-27-7.0	x	

5	5.0-7.0': Poorly graded SAND (100% sand), brown, moist, no odor, no staining.  7.0-8.0': SILT (100% silt), brown, moist, no odor, no staining.  8.0-10.0': No recovery.	SP ML	60	0.2	F-27-7.0	x	
	10.0-15.0': No recovery.		0				
15 -	15.0-16.0': Poorly-graded SAND (95% sand, 5% silt), gray-brown, moist, wet at 15.5', no odor, no staining.  16.5-20.0': No recovery.	SP	30	0.3	F-27-16.5	x	<b>▼</b> Water level

### **Well Construction Information**

Monument Type: NA Casing Diameter (inches): NA Screen Slot Size (inches): NA Screened Interval (ft bgs): NA Filter Pack: NA NA Surface Seal: NA Annular Seal: Boring Abandonment: **Bentonite** 

Ground Surface Elevation (ft): NA Top of Casing Elevation (ft): NA Y: NA Surveyed Location: X: NA Unique Well ID: NA



Page 1 of 1

Client: Lift Real Estate Partners, LLC

Project: 68th Ave South Location: Kent, Washington

Farallon PN: 2032-012

Screened Interval (ft bgs):

NA

Logged By: G.Mckenney

**Date/Time Started:** 3/4/2021 @ 1245 **Date/Time Completed:** 3/4/2021 @ 1410

Equipment: Geoprobe 7822

Holt Services

Drilling Foreman: Trevor

**Drilling Company:** 

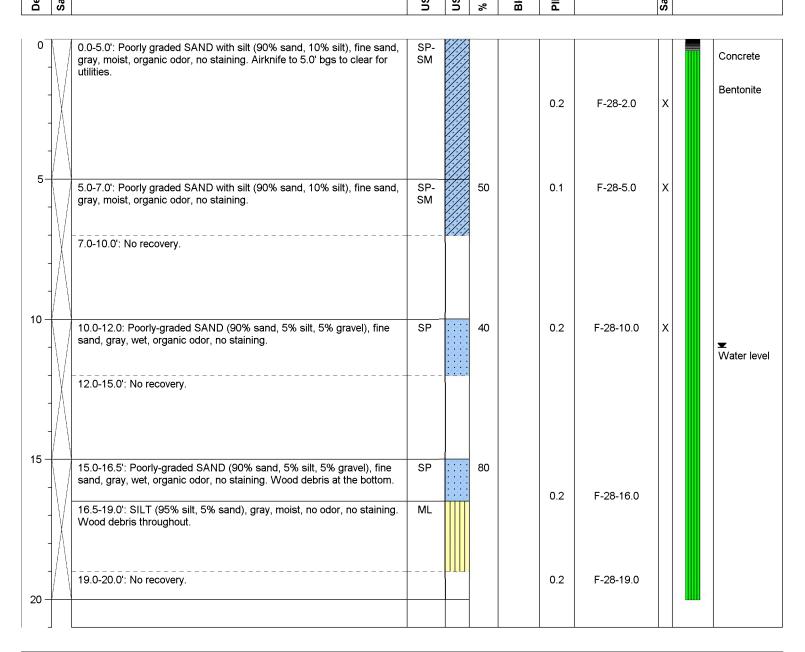
Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (lbs.):AutoDepth of Water ATD (ft bgs):11.0Total Boring Depth (ft bgs):20.0

Total Well Depth (ft bgs): NA

Lithologic Description	scs	SCS Graphic	N COI	D (ppm)	Sample ID	Boring/Well Construction Details
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Well Construction Information

Bentonite

Monument Type: NA Ground Surface Elevation (ft): Filter Pack: NA NA NA Casing Diameter (inches): NΑ Surface Seal: Top of Casing Elevation (ft): NΑ Screen Slot Size (inches): NA Annular Seal: NA Surveyed Location: X: NA

**Boring Abandonment:** 

Unique Well ID: NA



Page 1 of 1

Client: Lift Real Estate Partners, LLC

**Project:** 68th Ave South **Location:** Kent, Washington

Farallon PN: 2032-012

Logged By: G.Mckenney

Date/Time Started: 3/5/2021 @ 1115

**Date/Time Completed:** 3/5/2021 @ 1140

Equipment: Geoprobe 7822

Drilling Company: Holt Services

Drilling Foreman: Trevor

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (Ibs.): Auto
Depth of Water ATD (ft bgs): 15.0
Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): NA

Depth (	Sample		nscs	nscs (	% Reco	PID (pp	Sample ID	Sample	Details
0	-	0.0-3.0': Poorly graded SAND (100% sand), fine sand, brown, moist, no odor, no staining. Hand clear to 3.0' bgs to clear for utilities.	SP			0.2	F-29-2.0	x	Concrete  Bentonite
5-		3.0-5.0': Poorly graded SAND (100% sand), fine sand, brown, moist, no odor, no staining.	SP						
		5.0-8.0': Poorly graded SAND (100% sand), fine sand, brown, moist, no odor, no staining.	SP		80				
10 -		8.0-9.0': SILT (100% silt), mottled brown and orange, moist, no odor, no staining.  9.0-10.0': No recovery.	ML 			0.0	F-29-8.0	X	
-		10.0-11.0": SILT (100% silt), brown, moist, no odor, no staining.  11.0-15.0': No recovery.	ML 		20				
15 -	-	15.0-19.0': Poorly-graded SAND with silt (90% sand, 10% silt), fine sand, brown-gray, wet, no odor, no staining. Wood debris observed @ 17.0' bgs.	SP- SM		80				₩ater level
20 -	\	19.0-20.0': No recovery.	~	4./ <sub>4</sub> / <sub>1.2</sub>		0.0	F-29-19.0		

### **Well Construction Information**

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): NA
Screened Interval (ft bgs): NA

Filter Pack: NA
Surface Seal: NA
Annular Seal: NA
Boring Abandonment: Bentonite

Ground Surface Elevation (ft): NA
Top of Casing Elevation (ft): NA
Surveyed Location: X: NA
Unique Well ID: NA



Geoprobe 7822

Trevor

Page 1 of 1

Client: Lift Real Estate Partners, LLC

Project: 68th Ave South Location: Kent, Washington

Farallon PN: 2032-012

Date/Time Started: 3/5/2021 @ 1025

Date/Time Completed: 3/5/2021 @ 1055

**Drilling Company:** Holt Services

**Equipment:** 

**Drilling Foreman:** 

**Drilling Method: Direct Push** 

Sampler Type: 5' Macrocore

Auto Drive Hammer (lbs.): Depth of Water ATD (ft bgs): 10.0 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): NA

Logge	Logged By: G.Mckenney									
Depth (feet bgs.) Sample Interval	Lithologic Description  0.0-5.0': Poorly graded SAND (100% sand), brown, moist, no odd		nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Cons	ing/Well struction etails
	0.0-5.0': Poorly graded SAND (100% sand), brown, rostaining. Airknife to 5.0' bgs to clear for utilities.	moist, no odor,	SP			0.1	F-30-2.0	x		Concrete Bentonite
5	5.0-5.5': Poorly graded SAND (100% sand), brown, roo staining. 5.5-7.5': SILT (100% silt), gray-brown, moist, no odo 7.5-8.5': Poorly-graded SAND (95% sand, 5% silt), g staining. 8.5-10.0': No recovery.	r, no staining.	SP :		60	0.0	F-30-5.0			
10	10.0-13.0': Poorly-graded SAND (95% sand, 5% silt) odor, no staining, wood debris present.  13.0-15.0': SILT (95% silt, 5% sand), fine sand, gray odor, no staining.		SP .		100	0.0	F-30-13.0	×		▼ Water level
15	15.0-20.0': Poorly-graded SAND (95% sand, 5% silt) dark gray, moist, no odor, no staining. Wood debris		SP		100		F 20 20 0			
						0.0	F-30-20.0			

#### **Well Construction Information**

Monument Type: NA Casing Diameter (inches): NA Screen Slot Size (inches): NA Screened Interval (ft bgs): NA Filter Pack: NA NA Surface Seal: NA Annular Seal: Boring Abandonment: **Bentonite** 

Ground Surface Elevation (ft): NA Top of Casing Elevation (ft): NA Surveyed Location: X: NA

Unique Well ID: NA

Y: NA



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Client: Lift Real Estate Partners, LLC

Project: 68th Avenue South Location: Kent, Washington

05/19/2021 1520 Date/Time Started:

Date/Time Completed: 05/19/2021 1600

**Equipment:** Geoprobe 7822

**Drilling Company:** Holt Sampler Type: 5' Macrocore

Auto Drive Hammer (lbs.):

Depth of Water ATD (ft bgs): 11.0 Total Boring Depth (ft bgs): 20.0

Fa	Farallon PN: 2032-012		Drilling Foreman:		Mike Total Well Depth (ft bgs): NA					
Lo	gge	ed By: G. McKenney	Drilling Method	d:	Dire	ct Pus	h			
Depth (feet bgs.)	Sample Interval	Lithologic Descriptio	n	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Boring/Well Construction Details
5-		0.0-5.0': Air knife to 5' bgs for utilities.  5.0-7.0': Silty SAND (80% sand, 20% silt), fine sand no odor, no staining. Roots throughout.  7.0-7.5': SILT with sand (70% silt, 30% sand), fine subrown, moist, no odor, no staining.  7.5-10.0': No Recovery.		SM		50	1.0	F-31-5.0	×	Cold Patch
-		10.0-12.0': SILT (100% silt), mottled brown, wet, no staining.		ML		70	0.2	F-31-10.0	X	<b>▼</b> Water Level
-	1 /	12.0-13.5': SILT (100% silt), mottled gray, wet, no o	dor, no staining.	ML			0.7	F-31-12.0	×	Bentonite

**Well Construction Information** 

Monument Type: NA Casing Diameter (inches): NA Screen Slot Size (inches): NA Screened Interval (ft bgs): NA

13.5-15.0': No Recovery.

19.5-20.0': No Recovery.

dark gray, wet, no odor, no staining.

15

Filter Pack: Surface Seal: Annular Seal:

Boring Abandonment:

15.0-19.5': Poorly graded SAND (100% sand), fine to medium sand,

NA Cold Patch NA

**Bentonite** 

90

0.9

0.2

Ground Surface Elevation (ft): Top of Casing Elevation (ft): Surveyed Location: X: NA

F-31-15.0

F-31-19.5

NA Y: NA

NA

Unique Well ID: NA



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Client: Lift Real Estate Partners, LLC

**Project:** 68th Avenue South **Location:** Kent, Washington

Farallon PN: 2032-012

Date/Time Started: 05/19/2021 1335

**Date/Time Completed:** 05/19/2021 1515

**Equipment:** Geoprobe 7822

Drilling Company: Holt
Drilling Foreman: Mike

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (Ibs.): Auto

Depth of Water ATD (ft bgs): 11.0 Total Boring Depth (ft bgs): 35.0

Total Well Depth (ft bgs): NA

Log	gge	ed By: G. McKenney	Drilling Method:	:	Dire	ct Pus	h				
Depth (feet bgs.)	Sample Interval	Lithologic Description	ſ	uscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Cons	ng/Well struction etails
0 -		0.0-5.0': Air knife to 5' bgs to clear for utilities.									Cold Patch
-		5.0-7.0': Poorly-graded SAND (100% Sand), fine sand moist, no odor, no staining.  7.0-8.5': SILT (90% silt, 10% sand), fine sand, mottled moist, no odor, no staining.  8.5-10.0': No Recovery.		SP ML		70					
-		10.0-11.0': Silty SAND (70% sand, 30% silt), fine sand moist, no odor, no staining.  11.0-13.0': Poorly-graded SAND (95% sand, 5% silt), gray, wet, no odor, no staining.  13.0-15.0': No Recovery.		SM SP		60					▼ Water Level
15 —		15.0-17.0': Silty SAND (70% sand, 30% silt), fine sand wet, no odor, no staining. 4" wood at lower contact.  17.0-19.5': SILT with sand (80% silt, 20% sand), gray, no staining.		SM		90		F-32-15.0			Domorino
20		19.5-20.0': No Recovery.  20.0-22.5': SILT (90% silt, 10% sand), fine sand, tan t moist, no odor, no staining, wood debris throughout.  22.5-23.5': SILT (90% silt, 10% sand), gray, moist, no staining, wood debris throughout.  23.5-25.0': No Recovery.		ML ML		70					
25 — - - -		25.0-26.5': SILT (100% silt), mottled brown, gray, moi staining.  26.5-28.0': Silty SAND (70% sand, 30% silt), fine sand gray, moist, no odor, no staining.  28.0-30.0': SILT (90% silt, 10% sand), fine sand, dark	d, brown and	ML SM ML		100					Bentonite
30		no odor, no staining, wood debris throughout.  30.0-33.0': Silty SAND (70% sand, 30% silt), gray, fine to wet, no odor, no staining.	e sand, moist	SM		100					
35 —		33.0-35.0': Poorly graded SAND (100% sand), fine to dark gray, wet, no odor, no staining.	medium sand,	SP				F-32-35.0			

#### **Well Construction Information**

Monument Type: NA
Casing Diameter (inches): NA
Screen Slot Size (inches): NA
Screened Interval (ft bgs): NA

Filter Pack: Surface Seal: Annular Seal:

Boring Abandonment:

NA Cold Patch NA

**Bentonite** 

Ground Surface Elevation (ft): Top of Casing Elevation (ft): Surveyed Location: X: NA

NA NA Y: NA

Unique Well ID: NA



Page 1 of 1

Client: Lift Real Estate Partners, LLC

18420 68th Avenue Project:

Location: Kent, WA

Farallon PN: 2032-012

Date/Time Started: 12/9/19 @ 1100

Date/Time Completed: 12/9/19 @ 1220

**Equipment:** 

Power probe 9500

**Drilling Company: ESN Drilling Drilling Foreman:** Casey Newman

**Drilling Method: Direct Push**  Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): 12.0

Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

Logged By: K. Scott Direct Push											
Depth (feet bgs.)	Sample Interval	Lithologic Descriptio	n	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Cons	ing/Well struction Details
0	\ /	0.0-0.3': Asphalt. Hand auger to 5.0' bgs to clear fo	r utilities.	AC ,	KKKKKK				Т		
_	1\ /	0.3-0.6': Concrete.		co	ilili					22	
_		0.6-1.5': Silty SAND with gravel (60% sand, 20% si fine to coarse sand, fine to coarse gravel, reddish-bodor, no sheen. Subangular gray gravel. (Fill).		SM ML							Concrete
-	   	1.5-5.0': SILT (100% silt), brown, moist, no odor, no	sheen.			100	0.0				
5-		5.0-8.7': SILT (100% silt), brown, moist, no odor, no	sheen.	ML	Ш		0.0	FMW1-5.0	x		
-						100	0.0			: :	Bentonite
-	$\left\langle \cdot \right\rangle$	8.7-10.0': Poorly graded SAND (95% sand, 5% silt) sand, dark brown, moist, no odor, no sheen.	, fine to medium	SP							Sand
10 -		10.0-11.1': Poorly graded SAND (95% sand, 5% sil medium sand, dark brown, moist, wet at 11.0' bgs, sheen.	t), fine to no odor, no	SP			0.0	FMW1-10.0			
_	.\/	11.1-12.3': SILT (100% silt), gray, wet, no odor, no	sheen.	ML							<b>x</b>
	I X	12.3-15.0': Poorly graded SAND (90% sand, 10% s	ilt), fine sand,	SP		100					Water Level
-		blackish-brown, wet, no odor, no sheen.					0.0				
15 -	. /	15.0-20.0': Silty SAND (85% sand, 15% silt), fine to brown, wet, no odor, no sheen.	medium sand,	SM			0.0	FMW1-15.0			
-					ijij	1					
-						100					Screen
20 –							0.0				End Cap

#### **Well Construction Information**

Monument Type: Morris Casing Diameter (inches): 2-inch Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 10 to 20'

Filter Pack: Surface Seal: Annular Seal:

10/20 Sand Concrete Bentonite Boring Abandonment:

Ground Surface Elevation (ft): 26.61 Top of Casing Elevation (ft): 26.24 Surveyed Location: X: 1290990.7 Y: 162895.8



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Client: Lift Real Estate Partners, LLC

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 2032-012

Date/Time Started: 12/9/19 @ 1435

Date/Time Completed: 12/9/19 @ 1505

**Equipment:** Power probe 9500

Drilling Company: ESN Drilling
Drilling Foreman: Casey Newman

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (Ibs.): Auto

Depth of Water ATD (ft bgs): 12.5 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

Log	Logged By: K. Scott Direct Push										
Depth (feet bgs.)	Sample Interval	Lithologic Descriptio	n	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Cons	ing/Well struction Petails
0 -		0.0-1.8': Silty SAND with gravel (60% sand, 20% siltine to coarse sand, fine to coarse gravel, brown, m sheen. Subrounded to subangular gray gravel.Rour glass, and concrete debris from 1-2' bgs. Hand aug clear for utilities. (Fill).  1.8-5.0': Poorly graded SAND (90% sand, 5% silt, 5 to medium sand, fine to coarse gravel, brown, mois sheen.	oist, no odor, no nded rocks, er to 2.5' bgs to 6% gravel), fine	SM		100	0.0				Concrete
5-		5.0-7.8': SILT (100% silt), gray with orange mottling no sheen.	, moist, no odor,	ML			0.0	FMW2-5.0	x		Bentonite
- - 10 –		7.8-10.0': Poorly graded SAND with silt (90% sand, medium sand, blackish-brown, moist, no odor, no s		SP- SM		100					Sand
-		10.0-12.5': Poorly graded SAND with silt (90% sand to medium sand, brown, moist, no odor, no sheen.	d, 10% silt), fine	SP- SM			0.0	FMW2-11.0			
- -		12.5-13.6': SILT (100% silt), gray, wet, no odor, no 13.6-15.0': Silty SAND (80% sand, 20% silt), fine to blackish-brown, wet, no odor, no sheen.		ML		100					Water Level
15 — -		15.0-17.8': SILT with sand (85% silt, 15% sand), fin wet, no odor, no sheen.	e sand, brown,	ML			0.0				Screen
-		17.8-18.5; WOOD (100% wood), brown, wet, no od laminated layers of wood. 18.5-20.0': Silty SAND (80% sand, 20% silt), fine sa		WD SM		100					
20 –		blackish-brown, wet, no odor, no sheen.			iiii		0.0				End Cap

#### **Well Construction Information**

Monument Type: Morris
Casing Diameter (inches): 2-inch
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 10 to 20'

Filter Pack: Surface Seal: Annular Seal:

Boring Abandonment:

10/20 Sand Concrete Bentonite Ground Surface Elevation (ft): 26.87
Top of Casing Elevation (ft): 26.34
Surveyed Location: X: 1291267.7 Y: 162864.9



Page 1 of 1

Client: Lift Real Estate Partners, LLC

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 2032-012

Date/Time Started: 12/10/19 @ 850

Date/Time Completed: 12/10/19 @ 920

Equipment: Power probe 9500

Drilling Company: ESN Drilling

Drilling Foreman: Casey Newman

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (Ibs.): Auto
Depth of Water ATD (ft bgs): 11.5
Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

Lithologic Description	ng/Well struction etails
0.0-2.2': Silty SAND with gravel (60% sand, 20% silt, 20% gravel), fine to coarse sand, fine to coarse gravel, brown, moist, no odor, no sheen. Subrounded to subangular gray gravel. Hand dig to 3.0' bg to clear for utilities. (Fill).	Concrete
2.2-5.0': Poorly graded SAND (90% sand, 5% silt, 5% gravel), fine to medium sand, fine to coarse gravel, brown, moist, no odor, no sheen. Subrounded gray gravel.	
5.0-8.1': Poorly graded SAND (90% sand, 5% silt, 5% gravel), fine to medium sand, fine to coarse gravel, brown, moist, no odor, no sheen. Subrounded gray gravel.	Bentonite
8.1-9.5': SILT (100% silt), gray, moist, no odor, no sheen.	Sand
9.5-10.0': Silty SAND (80% sand, 20% silt), fine to medium sand, brown, moist, no odor, no sheen.	Cund
10.0-12.5': Silty SAND (80% sand, 20% silt), fine to medium sand, brown, moist, wet at 11.5' bgs, no odor, no sheen.	▼ Water Level
12.5-13.2': SILT with sand (80% silt, 20% sand), fine sand, gray, wet, no odor, no sheen.	
13.2-13.6': SILT (100% silt), gray, wet, no odor, no sheen.	
13.6-15.0': Silty SAND (80% sand, 20% silt), fine sand, brown, wet,	
15 15.0-18.2': Silty SAND (80% sand, 20% silt), fine sand, brown, wet, no odor, no sheen.	Screen
18.2-20.0': SILT (100% silt), brown, wet, no odor, no sheen.  ML	End Cap

#### **Well Construction Information**

Monument Type: Morris
Casing Diameter (inches): 2-inch
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 10 to 20'

Filter Pack: Surface Seal: Annular Seal:

Boring Abandonment:

10/20 Sand Concrete Bentonite

Ground Surface Elevation (ft): 26.61
Top of Casing Elevation (ft): 69.19
Surveyed Location: X: 1291269.5 Y: 162620.8



Page 1 of 1

Client: Lift Real Estate Partners, LLC

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 2032-012

Logged By: K. Scott

Date/Time Started: 12/10/19 @ 1030

Date/Time Completed: 12/10/19 @ 1115

Equipment: Power probe 9500

Drilling Company: ESN Drilling

Drilling Foreman: Casey Newman

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (Ibs.): Auto
Depth of Water ATD (ft bgs): 14.0
Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

Log	gge	d By: K. Scott							_	
Depth (feet bgs.)	Sample Interval	Lithologic Description	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Cons	ing/Well struction Oetails
0	\ /	0.0-0.3': Asphalt. Hand auger to 5.0' bgs to clear for utilities.	AC	ANNA				Τ		
-		0.3-1.5': Silty SAND with gravel (60% sand, 20% silt, 20% gr fine to coarse sand, fine to coarse gravel, brown, moist, no o sheen. Subrounded gray gravel. Hand auger to 5.0' bgs to clutilities. (Fill).	dor, no ear for SP							Concrete
-		1.5-5.0": Poorly graded SAND (95% sand, 5% silt), fine to me sand, brown, moist, no odor, no sheen.	edium		100	0.0				
5-		5.0-8.1': Poorly graded SAND (90% sand, 5% silt), fine to me sand, brown, moist, no odor, no sheen.	edium SP			0.0	FMW4-5.0	×		Bentonite
_					100	0.0				
		8.1-8.8': SILT (100% silt), brown, moist, no odor, no sheen.	ML	Ш						
-	$   \cdot   $	8.8-9.6': SILT (100% silt), gray, moist, no odor, no sheen.	ML							Sand
10 —		9.6-10.0': Silty SAND (70% sand, 30% silt), fine sand, brown no odor, no sheen.	1/	<u> </u>		0.0				
_		10.0-12.7': SILT (100% silt), brown, moist, no odor, no sheen	ML.			0.0				
-	$\left  \left\langle \cdot \right\rangle \right\rangle$	12.7-15.0': Silty SAND (60% sand, 40% silt), fine sand, blackish-brown, moist, wet at 14.0' bgs, no odor, no sheen.	SM		100	0.0	FMW4-13.0			▼ Water Level
15 —		15.0-17.8': Silty SAND (60% sand, 40% silt), fine sand, blackish-brown, wet, no odor, no sheen.	SM							Screen
-		17.8-20.0': SILT (100% silt), grayish-brown, wet, no odor, no	sheen. ML		100					End Cap
20 –						0.0				

#### **Well Construction Information**

Monument Type: Morris
Casing Diameter (inches): 2-inch
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 10 to 20'

Filter Pack: 10/20 Sand
Surface Seal: Concrete
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): 27.37

Top of Casing Elevation (ft): 26.91

Surveyed Location: X: 1290836.1 Y: 162621.1



Page 1 of 1

Client: Lift Real Estate Partners, LLC

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 2032-012

Logged By: K. Scott

Date/Time Started: 12/10/19 @ 1150

Date/Time Completed: 12/10/19 @ 1225

**Equipment:** Power probe 9500

Drilling Company: ESN Drilling
Drilling Foreman: Casey Newman

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (Ibs.): Auto
Depth of Water ATD (ft bgs): 14.5
Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

Lo	gge	d By: K. Scott									
Depth (feet bgs.)	Sample Interval	Lithologic Descriptio	n	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Con	ring/Well struction Details
0	1	0.0-0.3': Asphalt. Hand auger to 5.0' bgs to clear for	r utilities.	AC	ANAMA						
-		0.3-1.7': Silty SAND with gravel (65% sand, 20% sil fine to coarse sand, fine to coarse gravel, brown, m sheen. Subrounded gray gravel. (Fill).		SM							Concrete
-		1.7-5.0': Poorly graded SAND (95% sand, 5% silt), sand, brown, moist, no odor, no sheen.	line to medium	SP		100	0.0				
	$V \setminus$										
5-		5.0-6.5': Poorly graded SAND (95% sand, 5% silt), sand, brown, moist, no odor, no sheen.	fine to medium	SP			0.0	FMW5-5.0	×		Bentonite
-		6.5-8.5': SILT (100% silt), brown, moist, no odor, no	sheen.	ML		100					Bentonite
-	$\{ / \} $					100	0.0				
-	$\left  \cdot \right  $	8.5-10.0": Poorly graded SAND (95% sand, 5% silt), sand, blackish-brown, moist, no odor, no sheen.	, fine to medium	SP							Sand
10 -		10.0-12.1': Poorly graded SAND (95% sand, 5% sill medium sand, blackish-brown, moist, no odor, no s		SP			0.0				
_		12.1-12.8': Sandy SILT (60% silt, 40% sand), fine s moist, no odor, no sheen.	and, brown,	ML ML		100					
	$ /\rangle $	12.8-13.2': SILT (100% silt), brown, moist, no odor,		SM	IIII		0.0	FMW5-13.0			
15 -	$/ \setminus$	13.2-15.0': Silty SAND (70% sand, 30% silt), fine sa blackish-brown, moist, wet at 14.5' bgs, no odor, no									▼ Water Level
-		15.0-17.2': Silty SAND (70% sand, 30% silt), fine sa no odor, no sheen.	ınd, brown, wet,	SM			0.0			l   <del>:</del> ∃:	
-		17.2-19.2': SILT (100% silt), gray, wet, no odor, no	sheen.	ML		100					Screen
20 –	\	19.2-20.0': Silty SAND (80% sand, 20% silt), fine sa blackish-brown, wet, no odor, no sheen.	and,	SM	iiii		0.0				End Cap
(	, ,		J		1		I	l		ı	1

#### **Well Construction Information**

Monument Type: Morris
Casing Diameter (inches): 2-inch
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 10 to 20'

Filter Pack: Surface Seal: Annular Seal:

Boring Abandonment:

10/20 Sand Concrete Bentonite Ground Surface Elevation (ft): 27.58 Top of Casing Elevation (ft): 27.26

Unique Well ID: BJR-898

Surveyed Location: X: 1290522.8 Y: 162646.0



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Client: Lift Real Estate Partners, LLC

Project: 18420 68th Avenue

Location: Kent, WA

Farallon PN: 2032-012

Logged By: K Scott

12/10/19 @ 1315 Date/Time Started:

Date/Time Completed: 12/10/19 @ 1350

**Equipment:** Power probe 9500

**Drilling Company: ESN Drilling Drilling Foreman:** Casey Newman

**Drilling Method: Direct Push**  Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto

Depth of Water ATD (ft bgs): 15.0 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

Log	ge	d By: K. Scott								
Depth (feet bgs.)	Sample Interval	Lithologic Description	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Con	ring/Well struction Details
0		0.0-0.3': Asphalt. Hand auger to 5.0' bgs to clear for utilities.	AC	A THE TOTAL PARTY				Τ		
-	/	0.3-1.7': Silty SAND with gravel (65% sand, 20% silt, 15% gravel fine to coarse sand, fine to coarse gravel, brown, moist, no odd sheen. Subrounded gray gravel. (Fill).	or, no						7. X	Concrete
	$\left\langle \right\rangle$	1.7-5.0': Silty SAND (80% sand, 15% silt, 5% gravel), fine to medium sand, light brown, moist, no odor, no sheen. Subround gray gravel.	led SM		100	0.2				
5		5.0-8.2': Silty SAND (70% sand, 30% silt), fine to medium sand	I. SM			0.0	FMW6-5.0	×		
_\	$\sqrt{ }$	light brown, moist, no odor, no sheen.	i, Sivi			0.0	FMVV0-5.0	Î		Bentonite
	$\Lambda$				100					
-//	/\ <u> </u>	8.2-10.0': SILT (100% silt), brown, moist, no odor, no sheen.	ML							Sand
10		10.0-12.2': Sandy SILT (60% silt, 40% sand), fine sand, brown moist, no odor, no sheen.	ML			0.0				
-	$\left\langle \cdot \right\rangle$	12.2-14.2': SILT (100% silt), gray, moist, no odor, no sheen.	ML		100					
45	$\setminus$	14.2-15.0': Silty SAND (80% sand, 20% silt), fine to medium sa blackish-brown, moist, wet at 15.0' bgs, no odor, no sheen.	and, SM			0.0	FMW6-14.0			_
15		15.0-17.2': Silty SAND (80% sand, 20% silt), fine to medium sa blackish-brown, wet, no odor, no sheen.	and, SM			0.0			·   ·	Water Leve
-	$\left  \begin{array}{c} \\ \\ \end{array} \right $	17.2-18.6': SILT (100% silt), gray, wet, no odor, no sheen.	ML		100					Screen
	/ \ \	18.6-20.0': Silty SAND (80% sand, 20% silt), fine sand, blackish-brown, wet, no odor, no sheen.	SM							End Cap
20 —						0.0			•	

#### **Well Construction Information**

Monument Type: Morris Casing Diameter (inches): 2-inch Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 10 to 20'

Filter Pack: Surface Seal: Annular Seal:

Boring Abandonment:

10/20 Sand Concrete Bentonite

Ground Surface Elevation (ft): 27.76 Top of Casing Elevation (ft): 27.39 Surveyed Location: X: 1290693.2 Y: 162819.0



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Client: Lift Real Estate Partners, LLC

Project: 68th Ave South Location: Kent, Washington

Farallon PN: 2032-012

Date/Time Started: 3/4/2021 @ 1605

Date/Time Completed: 3/4/2021 @ 1635 **Equipment:** Geoprobe 7822

**Drilling Company: Holt Services Drilling Foreman:** Louise Fehner

**Drilling Method: Direct Push**  Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): 11.0 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

Logged By: G.Mckenney	Drilling Metho	ng Method: Direct Push						
Depth (feet bgs.) Sample Interval C	escription	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID		oring/Well enstruction Details
0.0-5.0': Poorly graded SAND (100% s moist, no odor, no staining. Airknife to	and), fine sand, brown, 5.0' bgs to clear for utilities.	SP						Concrete
					0.0	FMW-10-2.0		Bentonite
5.0-6.0': Poorly graded SAND (100% s	and), fine sand, brown,	SP		60	0.0	FMW-10-5.0		Sand Pack
moist, no odor, no staining.  6.0-8.0': SILT (100% silt), mottled gray staining.	-brown, moist, no odor, no	ML						
8.0-10.0': No recovery.								
10.0-14.0': Silty SAND (80% sand, 20% moist, wet at 11.0' bgs, no odor, no sta	% silt), fine sand, gray-brown, iining.	SM		90	0.1	FMW-10-13.0		<b>▼</b> Water level
14.0-15.0': No recovery.			نانانا					
15.0-16.5': Silty SAND (80% sand, 209 wet, no odor, no staining.	% silt), fine sand, gray-brown,	SM		100				Well Screen
16.5-20.0': SILT (80% silt, 20% sand), no staining.	fine sand, gray, wet, no odor,	ML			0.1			
20			1111		0.0	FMW-10-20.0		

#### **Well Construction Information**

Monument Type: Flush mount Casing Diameter (inches): Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 5.0-20.0

12/20 Sand Filter Pack: Surface Seal: Concrete Annular Seal: Bentonite Boring Abandonment:

Ground Surface Elevation (ft): 26.91 Top of Casing Elevation (ft): 26.42 Surveyed Location: X: 1290801.6 Y: 162595.7

Unique Well ID: BNN 003



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Client: Lift Real Estate Partners, LLC

**Project:** 68th Ave South **Location:** Kent, Washington

Farallon PN: 2032-012

Logged By: G.Mckenney

Date/Time Started: 3/5/2021 @ 1425

**Date/Time Completed:** 3/5/2021 @ 1500

Equipment: Geoprobe 7822

Drilling Company: Holt Services

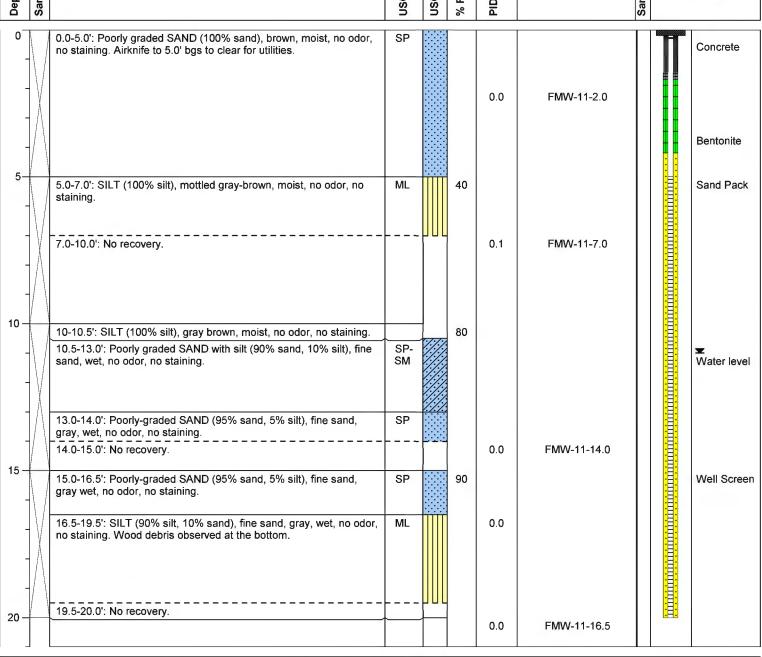
Drilling Foreman: Trevor

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (Ibs.): Auto
Depth of Water ATD (ft bgs): 11.0
Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0



#### **Well Construction Information**

Monument Type: Flush mount
Casing Diameter (inches): 2.0
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 5.0-20.0

Filter Pack: 12/20 Sand
Surface Seal: Concrete
Annular Seal: Concrete
Boring Abandonment: Bentonite

Ground Surface Elevation (ft): 26.90
Top of Casing Elevation (ft): 26.54
Supposed Leasting V. 1200843.7

Surveyed Location: X: 1290843.7 Y: 162595.6

Unique Well ID: BMP 467



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Client: Lift Real Estate Partners, LLC

Project: 68th Ave South Location: Kent, Washington

Farallon PN: 2032-012

Date/Time Started: 3/5/2021 @ 845

Date/Time Completed: 3/5/2021 @ 915 **Equipment:** Geoprobe 7822

**Drilling Company:** Holt Services

Trevor

**Drilling Method:** Direct Push

**Drilling Foreman:** 

Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): 15.5 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

Logge	ed By: G.Mckenney	Drilling Method:		Direc	t Pusi	П					
Depth (feet bgs.) Sample Interval	Lithologic Descriptio	on .	nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Cons	ng/Well truction etails	
5	0.0-5.0': Poorly graded SAND (100% sand), brown, no staining. Airknife to 5.0' bgs to clear for utilities.	moist, no odor,	SP		0	4.4	FMW-12-2.0	x		Concrete  Bentonite  Sand Pack	
10	10.0-11.0': Poorly-graded SAND (90% sand, 5% silfine sand, gray, moist, no odor, no staining.  11.0-15.0': No recovery.	t, 5% gravel),	SP		15	1.5	FMW-12-10.0	×		Well Screen	
15	15.0-18.5': Poorly-graded SAND (95% sand, 5% sil dark gray, wet, no odor, no staining.  18.5-20.0': No recovery.	t), fine sand,	SP		60	0.1	FMW-12-18.5			▼ Water level	

#### **Well Construction Information**

Monument Type: Flush mount Casing Diameter (inches): Screen Slot Size (inches): 0.010 Screened Interval (ft bgs): 5.0-20.0

12/20 Sand Filter Pack: Concrete Surface Seal: Annular Seal: Bentonite Boring Abandonment:

Ground Surface Elevation (ft): 27.95 Top of Casing Elevation (ft): 27.66 Surveyed Location: X: 1291037.7 Y: 162776.1

Unique Well ID: BND 378



Page 1 of 1

Client: Lift Real Estate Partners, LLC

**Project:** 68th Ave South **Location:** Kent, Washington

Farallon PN: 2032-012

Date/Time Started: 3/5/2021 @ 1305

Date/Time Completed: 3/5/2021 @ 1330 Equipment: Geoprobe 7822

Drilling Company: Holt Services

Drilling Foreman: Trevor

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (Ibs.): Auto
Depth of Water ATD (ft bgs): 11.0
Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

Logg	ed By: G.Mckenney	Drilling Method	l:	Direc	ct Pus	n				
Depth (feet bgs.)	Lithologic Description		nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Cons	ing/Well struction etails
0	0.0-5.0': Poorly graded SAND (100% sand), brown, no staining. Airknife to 5.0' bgs to clear for utilities.	moist, no odor,	SP							Concrete
						0.3	FMW-13-2.0	x		Bentonite
5	5.0-7.5': Poorly-graded SAND (95% sand, 5% silt), brown, moist, no odor, no staining.	fine sand,	SP		0					
- / ^	7.5-9.5': SILT (100% silt), gray-brown, moist, no ode	or, no staining.	ML			0.0	FMW-13-7.5			
10	9.5-10.0': No recovery.									Sand Pack
	10.0-13.0': Silty SAND (80% sand, 20% silt), fine sa no odor, no staining.	and, gray, wet,	SM		90					
	13.0-15.0': No recovery.		+	111111		0.0	FMW-13-13.0			
15	15.0-17.5': Silty SAND (80% sand, 20% silt), fine sa no odor, no staining. Wood debris at lower contact.	and, gray, wet,	SM		60					▼ Water level
	17.5-19.0': SILT (90% silt, 10% sand), fine sand, gray, wet, no odo no staining. Wood debris throughout.		ML			0.1	FMW-13-17.5			Well Screen
20										
					80					

#### **Well Construction Information**

Monument Type: Flush mount
Casing Diameter (inches): 2.0
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 10.0-20.0

Filter Pack: 12/20 Sand Surface Seal: Concrete Annular Seal: Bentonite Boring Abandonment: NA

Ground Surface Elevation (ft): 26.66
Top of Casing Elevation (ft): 26.13
Surveyed Location: X: 1291153.7 Y: 162553.6

Unique Well ID: BND 379



Page 1 of 1

Client: Lift Real Estate Partners, LLC

**Project:** 68th Avenue South **Location:** Kent, Washington

Farallon PN: 2032-012

Date/Time Started: 05/19/2021 0900

**Date/Time Completed:** 05/19/2021 0945

Equipment: Geoprobe 7822

Drilling Company: Holt

Drilling Foreman: Mike

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (Ibs.): Auto
Depth of Water ATD (ft bgs): 12.5
Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

Lo	gge	ed By: G. McKenney	Drilling Method	1:	Direc	ct Pus	П				
Depth (feet bgs.)	Sample Interval	Lithologic Description		nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Con	ring/Well struction Details
-		0.0-5.0': Poorly graded SAND (90% sand, 10% grav brown, moist, no odor, no staining. Air knife to 5' bg	vel), fine sand, s for utilities.	SP						11.	Cement
5-		5.0-6.0': Poorly graded SAND (90% sand, 10% grave brown, moist, no odor, no staining.  6.0-7.5': Poorly graded SAND with silt (90% sand, 1 sand, brown, moist, no odor, no staining.  7.5-10.0': No Recovery.		SP- SM		50	0.0	FMW-14-6.0	x		Bentonite
10 -		10.0-11.0': Sandy SILT (60% silt, 40% sand), fine simoist, no odor, no staining.  11.0-12.0': Silty SAND (60% sand, 40% silt), fine samoist, no odor, no staining.  12.0-13.0': Sandy SILT (70% silt, 30% sand), fine sibrown, wet, no odor, no staining.  13.0-15.0': No Recovery.	and, brown,	ML SM ML		60	0.1	FMW-14-12.0	×		▼ Water Level
15		15.0-16.0': SILT (90% silt, 10% sand), brown and groo odor, no staining.  16.0-18.0': Silty SAND (65% sand, 35% silt), fine sa organic odor, no staining.		ML SM		60	0.1	FMW-14-18.0			Juna

#### **Well Construction Information**

Monument Type: Flush Mount
Casing Diameter (inches): 2
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 10-20

Filter Pack: Pre-pack
Surface Seal: Cement
Annular Seal: Bentonite
Boring Abandonment: NA

Ground Surface Elevation (ft): 33.02
Top of Casing Elevation (ft): 32.25
Surveyed Location: X: 1290712.9 Y: 163119.5

Unique Well ID: BNN 031



Page 1 of 1

Client: Lift Real Estate Partners, LLC

Project: 68th Avenue South Location: Kent, Washington

Farallon PN: 2032-012

Date/Time Started: 05/19/2021 1135

Date/Time Completed: 05/19/2021 1240

**Equipment:** Geoprobe 7822 **Drilling Company:** Holt

**Drilling Foreman:** Mike

**Drilling Method: Direct Push**  Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): 10.5 Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

Lo	gge	ed By: G. McKenney	Drilling Method:		Direc	t Pusi	П				
Depth (feet bgs.)	Sample Interval	Lithologic Description		nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Cons	ing/Well struction etails
5—		0.0-5.0': Air knife to 5' bgs for utilities.  5.0-7.0': Sandy SILT (70% silt, 30% sand), fine san brown, moist, no odor, no staining.  7.0-8.0': Poorly graded SAND (100% sand), fine samoist, no odor, no staining.  8.0-10.0': No Recovery.		ML SP		60	0.2	FMW-15-5.0	×		Cement
10		10.0-10.5': Poorly graded SAND (100% sand), fine moist, no odor, no staining.  10.5-12.0': Sandy SILT (70% silt, 30% sand), fine s brown, wet, no odor, no staining.  12.0-14.0': Poorly graded SAND with silt (90% sand sand, brown, wet, no odor, no staining.  14.0-15.0': No Recovery.  15.0-20.0': Poorly graded SAND with silt (90% sand sand, gray, wet, no odor, no staining. Wood debris	and, mottled d, 10% silt), fine	SP- SM SP- SM		100	0.2	FMW-15-10.0 FMW-15-14.0	x		Water Level  Pre-pack Sand
20 -							0.1	FMW-15-20.0			

#### **Well Construction Information**

Monument Type: Flush Mount Casing Diameter (inches): 0.010 Screen Slot Size (inches): Screened Interval (ft bgs): 10-20

Pre-pack Filter Pack: Surface Seal: Cement Annular Seal: Bentonite Boring Abandonment:

Ground Surface Elevation (ft): 26.78 Top of Casing Elevation (ft): 26.25 Surveyed Location: X: 1291219.1 Y: 162901.4

Unique Well ID: BNN 032



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Client: Lift Real Estate Partners, LLC

**Project:** 68th Avenue South **Location:** Kent, Washington

Farallon PN: 2032-012

Date/Time Started: 09/03/2021 0845

Date/Time Completed: 09/03/2021 1040

Geoprobe 7822

Equipment:

Drilling Company: Cascade

Drilling Foreman: Tim Watson

Sampler Type: 5' Macrocore

Drive Hammer (Ibs.): Auto
Depth of Water ATD (ft bgs): 12.0
Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

га	rali	on PN: 2032-012	Drilling Foreman:			vvaisc		Total Well Depth (it bgs).20.0			0.0	
Lo	gge	ed By: K. Zygas	Drilling Method	d: 	Direc	t Pus	n 					
Depth (feet bgs.)	Sample Interval			nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Con	ring/Well estruction Details	
0		0.0-0.3': Concrete. Airknife to 5' bgs to clear for utili	ties.	со					П	i		7
-		0.3-1.0': Poorly graded SAND (100% sand), fine an brown.	d medium sand,	SP					Ш	Ī	Cement	
5-		1.0-3.5': Silty SAND with gravel (45% sand, 30% si fine to coarse sand and gravel, some cobbles, browno odor, no staining.      5.0-7.0': Poorly graded SAND (100% sand), fine sa loose, brown, moist, no odor, no staining, trace organization.      7.0-9.0': Elastic SILT (100% silt), gray-brown, moist mottling, no odor, no staining.	vn-gray, moist,	SP		100	2.9	FMW-16-3.0 FMW-16-6.5		<b>-</b> (1)	Bentonite	
10 -		9.0-10.0': No recovery.  10.0-10.2': Elastic SILT (100% silt), gray-brown, monthly model, no odor, no staining.  10.2-11.0': Poorly graded SAND (100% sand), fine		MH SP SM		50						
-		loose, brown, moist, no odor, no staining, trace organization of the state of the s					0.4	FMW-16-11.5			▼ Water Level	

14/-11	Construction	1-6
vveii	Construction	intermation

Monument Type: Flush Mount
Casing Diameter (inches): 2
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 10-20

12.5-15.0': No recovery.

15.0-17.0': Silty SAND (70% sand, 30% silt), fine sand, wet, gray,

17.0-18.0': Elastic SILT (100% silt), estimated soft, gray, wet.

sand, dark gray, wet, no odor, no staining.

no odor, no staining. Thin layer of black organic detritus at 17.0' bgs.

18.0-20.0': Poorly graded SAND with silt (90% sand, 10% silt), fine

15

20

Filter Pack: Surface Seal: Annular Seal:

**Boring Abandonment:** 

Pre-pack Cement Bentonite

MH

SP-

100

0.3

Ground Surface Elevation (ft): Top of Casing Elevation (ft): Surveyed Location: X: NM

FMW-16-18.5

NM NM

Pre-pack Sand

PVC Screen

Unique Well ID: BMN 863

Y: NM



Page 1 of 1

Client: Lift Real Estate Partners, LLC

Project: 68th Avenue South Location: Kent, Washington

Farallon PN: 2032-012

09/03/2021 0945 Date/Time Started:

Date/Time Completed: 09/03/2021 1130

**Equipment:** Geoprobe 7822

**Drilling Company:** Cascade **Drilling Foreman:** Tim Watson

**Drilling Method: Direct Push**  Sampler Type: 5' Macrocore

Drive Hammer (lbs.): Auto Depth of Water ATD (ft bgs): 11.0

Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

Lo	gge	ed By: K. Zygas	Drilling Method	J.	Dile	ct Pus	l I			
Depth (feet bgs.)	Sample Interval	Lithologic Description		nscs	USCS Graphic	% Recovery	PID (ppm)	Sample ID		oring/Well nstruction Details
0 -		0.0-0.2': Asphalt. Airknife to 5' bgs to clear for utilities 0.2-1.0': Silty SAND with gravel, some cobbles, mois		AC SM						Cement
-	X	3.0-3.5': Poorly graded SAND (100% sand), fine san estimated loose, moist.	 d, brown, 	SP		100	0.3	FMW-17-3.0		
5-		5.0-8.0': Poorly graded SAND (100% sand), fine san loose, brown, oragne-brown mottling, moist, no odor		SP		100	0.7	FMW-17-7.0		Bentonite
-		8.0-9.5': Elastic SILT (90% silt, 10% sand), estimate sand, brown, gray at 8.5 feet with orange mottling, mo staining.	noist, no odor,	MH						
10 -		9.5-11.5: Poorly graded SAND with silt (90% sand, 1 sand, estimated loose, gray-brown, moist, wet at 11 staining.	0% silt), fine 0', no odor, no	SP- SM		100				×
-		11.5-14.5': Elastic SILT (100% silt), estimated soft, gorganic odor, no staining.	gray, wet, faint	MH			1.3	FMW-17-12.0		Water Level
15 -		14.5-20.0': Poorly graded SAND (100% sand), fine swet, no odor, no staining	and, black,	SP		100			<del>         </del>	Pre-pack Sand PVC Screen
20 –							0.3	FMW-17-18.0		

#### **Well Construction Information**

Monument Type: Flush Mount Casing Diameter (inches): 0.010 Screen Slot Size (inches): Screened Interval (ft bgs): 10-20

Pre-pack Filter Pack: Cement Surface Seal: Annular Seal: Bentonite Boring Abandonment:

Ground Surface Elevation (ft): NM Top of Casing Elevation (ft): NM Surveyed Location: X: NM

Unique Well ID: BMN 864

Y: NM



## Log of Boring: SVE-1

Page 1 of 1

Client: Lift Real Estate Partners, LLC

**Project:** 68th Ave South **Location:** Kent, Washington

**Farallon PN**: 2032-012

Logged By: G.Mckenney

Date/Time Started: 3/4/2021 @ 1145

**Date/Time Completed: 3/3/2021 @ 1205** 

Equipment: Geoprobe 7822

Drilling Company: Holt Services

Drilling Foreman: Louie

Drilling Method: Direct Push

Sampler Type: 5' Macrocore

Drive Hammer (Ibs.): Auto
Depth of Water ATD (ft bgs): 11.0
Total Boring Depth (ft bgs): 20.0

Total Well Depth (ft bgs): 20.0

Logge	ed By: G.Mckenney								
Depth (feet bgs.) Sample Interval	Lithologic Description	n sosn	USCS Graphic	% Recovery	PID (ppm)	Sample ID	Sample Analyzed	Cons	ing/Well struction Details
0	0.0-0.4': Concrete.  0.4-5.0': Poorly-graded SAND (100% sand). Airknife for utilities.	to 5.0' to clear SP	_/\.```		0.1	SVE-1-2.0			Concrete Bentonite Seal
5	5.0-7.0': SILT (95% silt, 5% sand), gray-brown, mottodor, no staining.  7.0-10.0': No recovery.	eled, moist, no ML	~ ]	40	0.1	SVE-1-5.0	×		Sand Pack Well Screen
10	10.0-10.5': Silty SAND (85% sand, 15% silt), fine sa wet, no odor, no staining. 10.5-14.5': Poorly-graded SAND (95% sand, 5% silt sand, gray-brown, wet, no odor, orange staining.	SP		90	0.0	SVE-1-10.0			<b>▼</b> Water level
15	14.5-15.0': No recovery.  15.0-17.0': Poorly-graded SAND (95% sand, 5% silt gray-brown, wet, no odor, orange staining. Wood de 16.0' bgs.  17.0-19.0': SILT (95% silt, 5% sand), fine sand, gray no staining.  19.0-20.0': Silty SAND (85% sand, 15% silt), fine sand odor, no staining.	y, wet, no odor, ML		100	0.0	SVE-1-17.0 SVE-1-20.0	×		Sand Pack Bentonite
					0.1	3VL-1-20.0	^		

#### **Well Construction Information**

Monument Type: Flush Mount
Casing Diameter (inches): 2.0
Screen Slot Size (inches): 0.010
Screened Interval (ft bgs): 3.0-18.0

Filter Pack: Surface Seal: Annular Seal:

Boring Abandonment:

Sand pack Concrete Bentonite

Ground Surface Elevation (ft): 27.41
Top of Casing Elevation (ft): 27.06
Surveyed Location: X: 1290813.8 Y: 162615.1

Unique Well ID: NA



## Log of Boring: AS-1

Page 1 of 1

Sampler Type: 5' Macrocore

Client: Lift Real Estate Partners, LLC

Project: 68th Ave South Location: Kent, Washington

3/4/2021 @ 1100 Date/Time Started:

Date/Time Completed: 3/4/2021 @ 1130

Auto Drive Hammer (lbs.): Depth of Water ATD (ft bgs): 11.0 Equipment: Geoprobe 7822 Total Boring Depth (ft bgs): 20.0 **Drilling Company:** Holt Services Total Well Depth (ft bgs): 20.0 Farallon PN: 2032-012 **Drilling Foreman:** Louie Fehner **Drilling Method:** Direct Push/Hollow Stem Auger Logged By: G.Mckenney

Sample Analyzed Depth (feet bgs. Sample Interval **USCS** Graphic Boring/Well Recovery **Lithologic Description** D (ppm) Construction Sample ID **USCS Details** 0 0.0-0.4': Concrete. CO 0.4-5.0': Poorly-graded SAND (100% sand), fine sand, brown, moist, no odor, no staining. Airknife to 5.0' to clear for utilities. Monument 0.0 AS-1-2.0 Cement (とこと)とことことことことことことことことことこと 5.0-5.5': Poorly-graded SAND (90% sand, 10% gravel), fine sand, SP 40 0.0 AS-1-5.0 fine gravel, moist, no odor, no staining. ML 5.5-7.0': SILT (100% Silt), gray, moist, no odor, no staining. 7.0-10.0': No recovery. Grout 10 10.0-14.0': Silty SAND (70% sand, 30% silt), fine sand, gray, 80 0.1 AS-1-10.0 mottled brown, wet, no odor, no staining. Water level Bentonite 14.0-15.0': No recovery. 15 15.0-17.5': Silty SAND (70% sand, 30% silt), fine sand, gray, wet, SM 100 no odor, no staining. Wood debris observed at 16.5' bgs. Well Screen 0.2 AS-1-16 0 Sand Pack 17.5-20.0': SILT (95% silt, 5% sand), fine sand, gray, wet, no odor, ML no staining. 20 AS-1-20.0

#### **Well Construction Information**

Monument Type: Flush Mount Casing Diameter (inches): Screen Slot Size (inches): 0.020 Screened Interval (ft bgs): 15.0-16.5

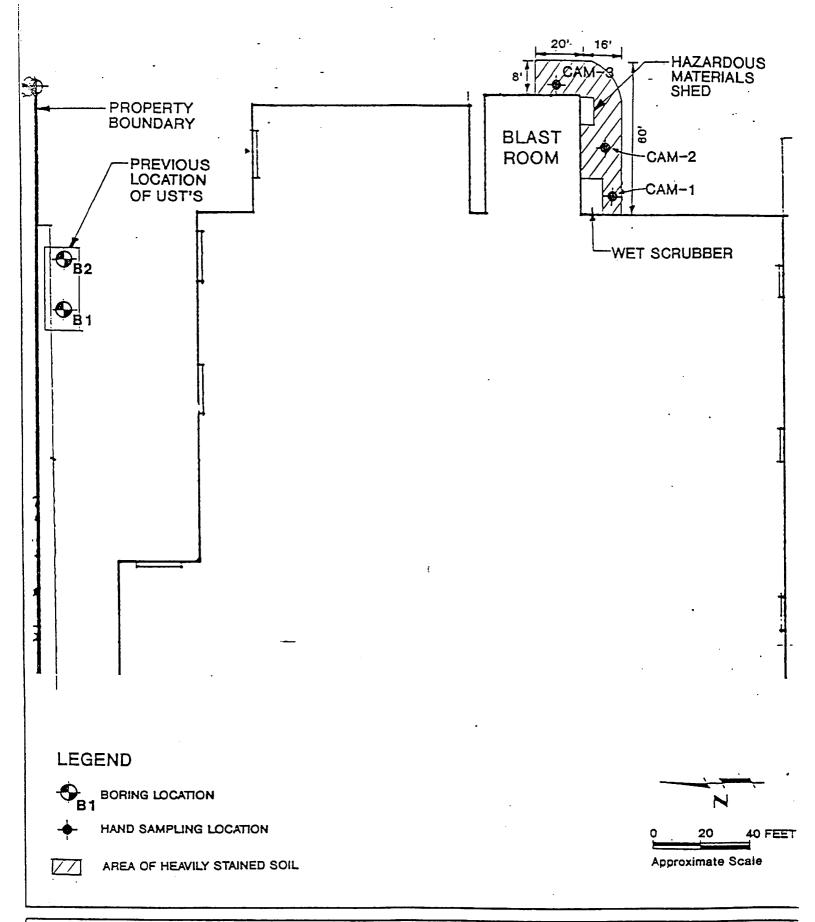
Sand pack Filter Pack: Concrete Surface Seal: Annular Seal: Cement Boring Abandonment:

Ground Surface Elevation (ft): NA Top of Casing Elevation (ft): NA Surveyed Location: X: NA Y: NA Unique Well ID: BNN004

# APPENDIX C PREVIOUS ENVIRONMENTAL INVESTIGATION TABLES AND FIGURES

REMEDIAL INVESTIGATION AND FEASIBILITY STUDY REPORT 18420 68<sup>th</sup> Avenue South Kent, Washington

Farallon PN: 2032-012





Harding Lawson Associates

Engineering and Environmental Services

BORING LOCATION PLAN

18250 68TH AVENUE SOUTH KENT, WASHINGTON Figure 1

TABLE 1 - SUNHARY OF ANALYTICAL RESULTS

Analyte	STIKU	CAH-15 (0-3")	CAH-1D (6-9")	CAH-2S (0-3")	CAK-2D (6-9")	CAH-3S (0-3")	CAH-3D (6-9")	(10-11.5°	)(10-11.5')	Proposed HTCA Clean up Level fo Industrial Sites
Sethylene Chloride	ppb	3,1	HD	{;}	IJ	ND	ND	NA	AK ;	500
cetone	ppb	6BJ	4 J B	5 J B	ND	8JB	: 11B	NA	11.4	
hloroform	ppb	DK	RD	HD	5 J	ND	: ND	HA	HA ;	
-Butanone	ppb	HD	ND	ND	ND	ND	į 2J	HA	. HA :	
lenzene	ppb	3J	ND	IJ	ND	2 J	, ND	ND	י סא	500
thylbenzene	ppb	ND	HD	DK	HD	1J	: ND	ND .	nd !	20,000
oluene	ppb	18	3 J	6	3 J	31	: {J	5 J	, dk	40,000
ylenes (total)	ppb	17	<b>4</b> J	51	31	6	5 J	7	ND ;	20,000
arium	i ppa	4720	45.1	1,650	245	370	259	NA	AK .	
ndaiua	ррп	ND	ND	HD	ND	ND	: ND	AK	NA !	10
roniun	ppa	1,640	61.6	1,280	223	1,170	39.3	HA	HA !	500
pper	ppn	1,000	122	615	213	716	667	N A	AK	
ad	ppa	4,160	73.7	3,210	680	1,000	686	HA	HA !	1,000
ickel	ррп	567	18.3	182	116	935	32.7	NA	AK :	
inc	ppn	19,700	2 { 1	14,700	1,550	116	2,260	NA	HA	
PII	ppa	NA	XY	HA	HA	HA	i Na	ND	580	200

#### Notes:

ppb - parts per billion (ug/kg)

ppm - parts per million (mg/kg)

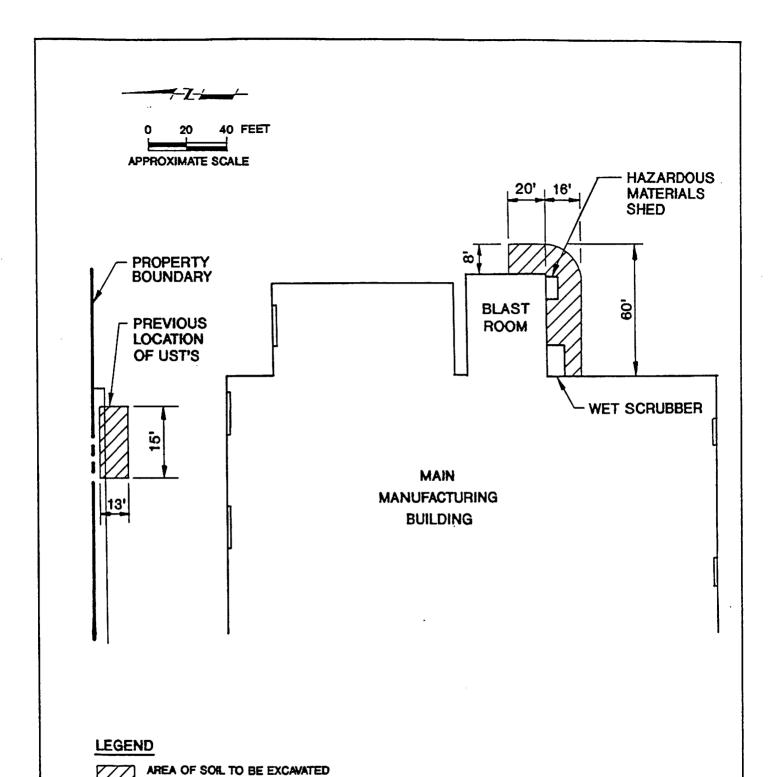
B - Indicates compound was found in the associated laboratory blank as well as the sample.

J - Indicates estinated value. Presence of compound meets laboratory identification criteria but is less than the sample quantitation limit but greater than zero.

NA - Compand not analyzed.

ND - Not detected.

<sup>-- -</sup> Proposed NTCA clean up level not available.





**Harding Lawson Associates** 

Engineering and **Environmental Services**  PLANNED SOIL EXCAVATION AREAS 18250 68TH AVENUE SOUTH KENT, WASHINGTON

FIGURE

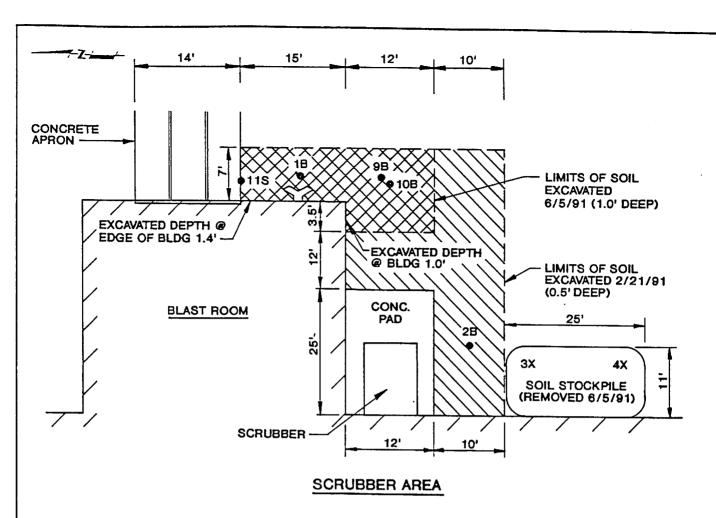
2

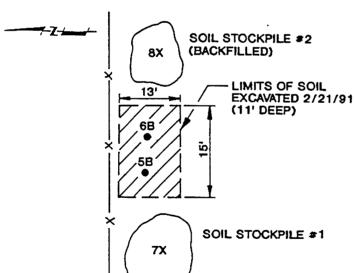
DRAWN PS

APPROVED

DATE

REVISED DATE





## LEGEND

 SAMPLING LOCATION 2B SOIL SAMPLE ID No.

## FORMER UST LOCATION



**Harding Lawson Associates** 

20184,003.09

Engineering and **Environmental Services**  SOIL EXCAVATION & SAMPLING LOCATIONS

KENT, WASHINGTON

FIGURE 3

-OB NUMBER APPROVED

DATE 7/91 REVISED DATE

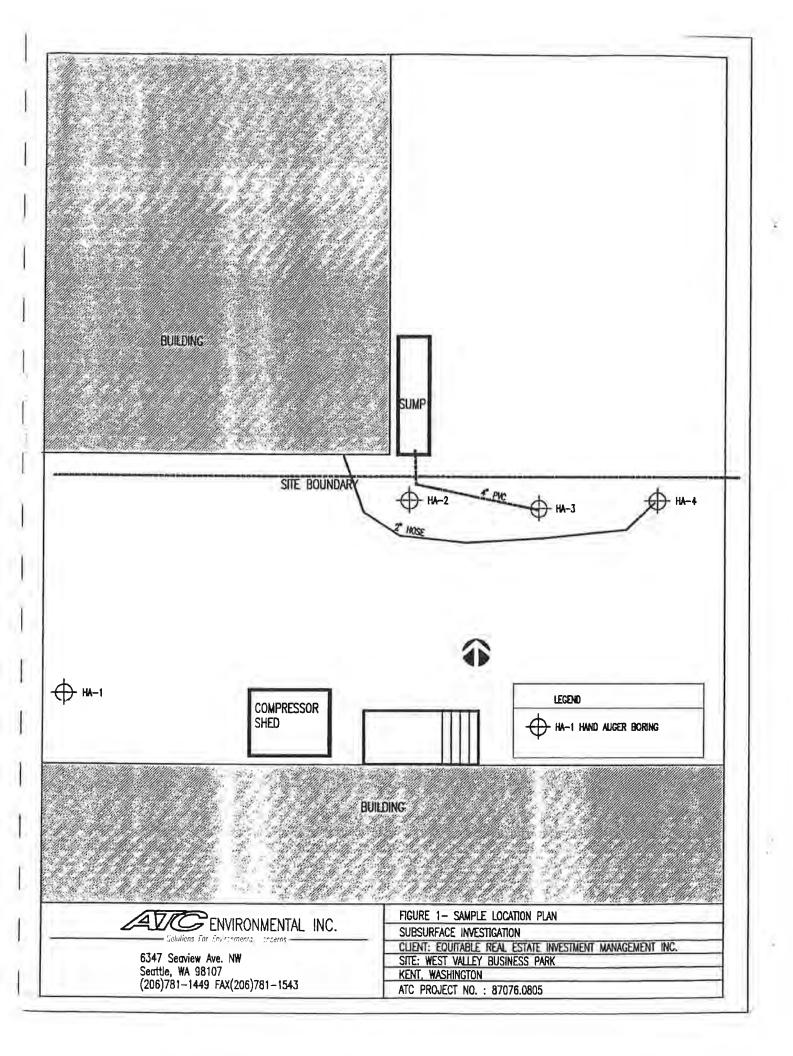


TABLE 1. ANALYTICAL RESULTS - TOTAL PETROLEUM HYDROCARBON IDENTIFICATION

Sample No. (Depth)	Gasoline	Diesel	Oil
HA-1-2.0 (2 feet BGS)	None detected	None detected	None detected
HA-2-2.0 (2 feet BGS)	None detected	Detected	Detected
HA-3-2.0 (2 feet BGS)	None detected	Detected	Detected
HA-4-2.0 (2 feet BGS)	None detected	None detected	None detected
Laboratory Method Reporting Limit (MRL) in parts per million (ppm)	20	50	100
MTCA Method A Cleanup Level in parts per million (ppm)	100	200	200

TABLE 2. ANALYTICAL RESULTS - TOTAL PETROLEUM HYDROCARBONS - DIESEL AND OIL (in parts per million)

THE POSITION POR TENING	- TIL	
Sample No. (Depth)	Diesel	Oil
HA-2-2.0 (2 feet BGS)	5,190	4,590
HA-2-4.0 (4 feet BGS)	321	300
HA-3-2.0 (2 feet BGS)	240	330
HA-3-4.0 (4 feet BGS)	146	160
Laboratory Method Reporting Limit (MRL)	25	100
MTCA Method A Cleanup Level	200	200

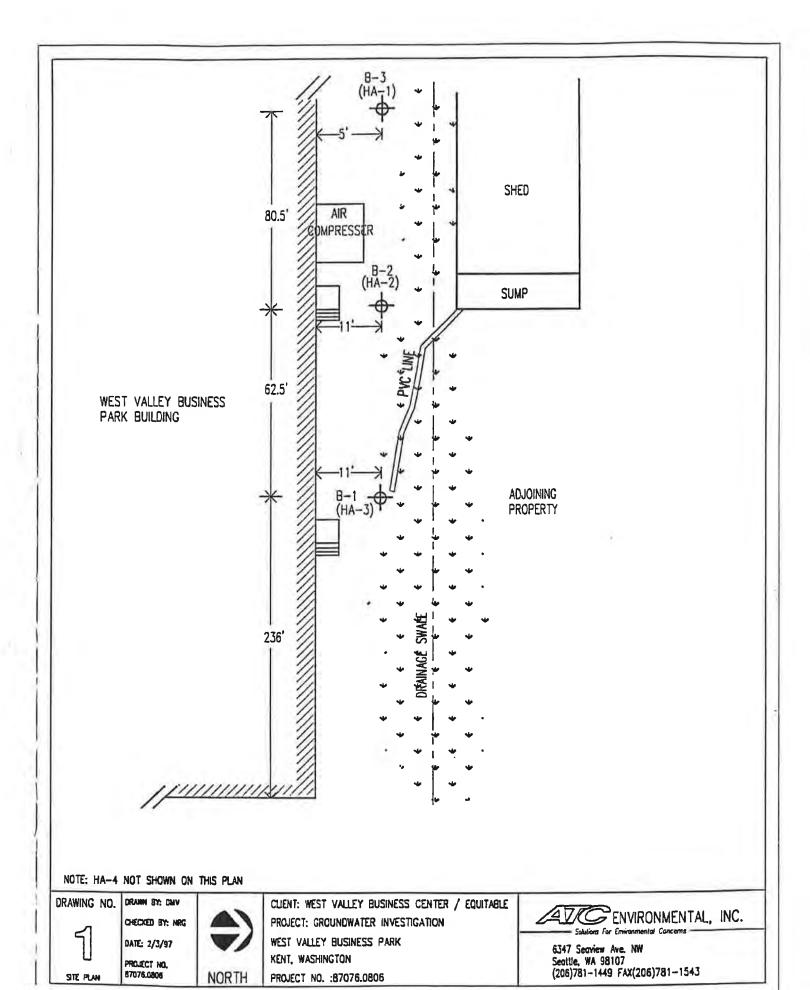
TABLE3 ANALYTICAL RESULTS - RCRA METALS (in parts per million)

Sample No. (Depth)	HA-1-2.0 (2 feet BGS)	HA-2-2.0 (2 feet BGS)	HA-3-2.0 (2 feet BGS)	HA-4-2.0 (2 feet BGS)	MTCA Method A
Amagnia					Cleanup Level
Arsenic	none detected	16	none detected	none detected	20
Barium	40	74	55	53	5.600*
Cadmium	none detected	none detected	none detected	none detected	2
Chromium	20	34	24	23	100
Lead	none detected	110	26	none detected	250
Mercury	none detected	none detected	0.4	none detected	
Selenium	none detected	none detected	none detected	none detected	400*
Silver	none detected	140	4	none detected	400*

\* MTCA Method B Cleanup Level

TABLE 4. ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS (in parts per billion)

Sample No. (Depth)	Result
HA-1-2.0 (2 feet BGS)	none detected
HA-2-2.0 (2 feet BGS)	none detected
HA-3-2.0 (2 feet BGS)	Methylene Chloride - 22 ppb
HA-4-2.0 (2 feet BGS)	Acetone - 61 ppb
MTCA Method A Cleanup Level - methylene chloride	500 ppb
MTCA Method B Cleanup Level - Acetone	8,000,000 ppb



## Analytical Report

Client:

ATC Environmental

Project:

West Valley Business Park/87076.0806

Sample Matrix:

water

Service Request: B9700031

Date Collected: 1/24/97

Date Received: 1/24/97

Date Extracted: 1/28/97
Date Analyzed: 1/29/97

Total Petroleum Hydrocarbon as Diesel and Oil Washington DOE Method WTPH-D Units: µg/L (ppb)

	Analyte: Method Reporting Limit:	Diesel 250	<b>Oil*</b> 750
Sample Name	Lab Code		
12497-1 V12497-2 V12497-3 Method Blank	B9700031-001 B9700031-002 B9700031-003 B9700031-WB	520(a) 550(b) 250(a) ND	1290 ND ND ND

A -- -1----

(	Quantified using	30 weight	motor oil as	a standard.
7	This moule is suit			-2

(a) This result is primarily due to the beginning of oil, which clutes in the diesel region.
(b) Quantified as diesel. The sample contained components that cluted in the diesel range.

Quantified as diesel. The sample contained components that eluted in the diesel range, but the chromatogram did not match the typical diesel fingerprint.

Approved By:	lik. Ellett	Date: 2 h/s7

00031PHC.DJ1 - TPH# 2/3/97

## Analytical Report

Client:

ATC Environmental, Inc.

Project:

West Valley Business Park-Kent/ #87076.0806

Sample Matrix: Water

Service Request: K9700483
Date Collected: 1/24/97
Date Received: 1/27/97
Date Extracted: NA

Volatile Organic Compounds EPA Method 8260A Units: µg/L (ppb)

	Sample Name: Lab Code: Date Analyzed:	124 <b>97-1</b> K9700483-001 1/27/97	124 <b>97-2</b> K9700483-002 1/28/97	12497-3 K9700483-003 1/28/97
Analyte	MRL			
Dichlorodifluoromethane (CFC 12)	0.5	ND	ND	ND
Chloromethane	0.5	1.8	0.5	0.8
Vinyl Chloride	0,5	ND	ND	ND
Bromomethane	0.5	ND	ND	ND
Chloroethane	0.5	ND	ND	ND
Trichlorofluoromethane (CFC 11)	0.5	ND	ND	ND
Acetone	20	ND	ND	ND
1, I-Dichloroethene	0.5	ND	ND	ND
Carbon Disulfide	0.5	0.5	ND	ND
Methylene Chloride	1	ND	ND	ND
trans -1,2-Dichloroethene	0.5	ND	ND	ND
1,1-Dichloroethane	0.5	ND	ND	ND
2-Butanone (MEK)	20	ND	37	ND
2,2-Dichloropropane	0.5	ND	ND	ND
cls-1,2-Dichloroethene	0.5	ND	0,6	ND
Chloroform	0.5	ND	ND	ND
Bromochloromethane	0.5	ND	ND	ND
1,1,1-Trichloroethane (TCA)	0.5	ND	ND	ND
1,1-Dichloropropene	0.5	ND	ND	ND
Carbon Tetrachloride	0.5	ND	ND	ND
1,2-Dichloroethane	0.5	ND	ND	ND
Benzene	0.5	ND	ND	ND
Trichloroethene (TCE)	0.5	0.5	3.0	0.6
1,2-Dichloropropane	0.5	ND	ND	ND
Bromodichloromethane	0.5	ND	ND	ND
Dibromomethane	0.5	ND	ND	ND
2-Hexanone	20	ND	ND	ND
cis -1,3-Dichloropropene	0.5	ND	ND	ND
Toluene	0.5	0.7	ND	ND
trans-1,3-Dichloropropene	0.5	ND	ND	ND
1,1,2-Trichloroethane	0.5	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	20	ND	ND	ND
1,3-Dichloropropane	0.5	ND	ND	ND

 JUH Stay

Press No.: 3

## **Analytical Report**

Client:

ATC Environmental, Inc.

Project:

West Valley Business Park-Kent/ #87076.0806

Sample Matrix: Water

Service Request: K9700483

Date Collected: 1/24/97

Date Received: 1/27/97

Date Extracted: NA

Volatile Organic Compounds EPA Method 8260A Units: µg/L (ppb)

		Sample Name: Lab Code: Pate Analyzed:	12497-1 K9700483-001 1/27/97	124 <b>97-2</b> K9700483-002 1/28/97	12497-3 K9700483-003 1/28/97
Analyte	MRL				
Tetrachloroethene (PCE)	0.5		ND	0.9	1.0
Dibromochloromethane	0.5		ND	ND	ND
1,2-Dibromoethane (EDB)	2		ND	ND	ND
Chlorobenzene	0.5		ND	ND	ND
1,1,1,2-Tetrachloroethane	0.5		ND	ND	ND
Ethylbenzene	0.5		2.7	ND	ND
Total Xylenes	0.5		15	ND	ND
Styrene	0.5		ND	ND	ND
Bromoform	0.5		ND	ND	ND
Isopropylbenzene	2		ND	ND	ND
1,1,2,2-Tetrachloroethane	0.5		ND	ND	ND
1,2,3-Trichloropropane	0.5		ND	ND	ND
Bromobenzene	0.5		ND	ND	ND
n-Propylbenzene	2	*	ND	ND	ND
2-Chlorotoluene	2		ND	ND	ND
4-Chlorotoluene			ND	ND	ND
1,3,5-Trimethylbenzene	2 2 2 2		ND	ND	ND
tert-Butylbenzene	2		ND	ND	ND
1,2,4-Trimethylbenzene	2		ND	ND	ND
sec -Butylbenzene	2		ND	ND	ND
1,3-Dichlorobenzene	0.5		ND	ND	ND
4-Isopropyltoluene	2		ND	ND	ND
1,4-Dichlorobenzene	0.5		ND	ND	ND
n-Butylbenzene	2		ND	ND	ND
1,2-Dichlorobenzene	0.5		ND	ND	ND
1,2-Dibromo-3-chloropropane (DBCP)	2		ND	ND	ND
1,2,4-Trichlorobenzene			ND	ND	ND
1,2,3-Trichlorobenzene	2 2 2		ND	ND	ND
Naphthalene	2		ND	ND	ND
Hexachlorobutadiene	2		ND	ND	ND

pa No.: 🗡

## Analytical Report

Client:

ATC Environmental, Inc.

Project:

West Valley Business Park-Kent/ #87076.0806

Sample Matrix: Water

Service Request: K9700483

Date Collected: NA Date Received: NA Date Extracted: NA

Volatile Organic Compounds EPA Method 8260A Units: µg/L (ppb)

		Sample Name: Lab Code:	Method Blank K970127-MB
		Date Analyzed:	1/27/97
Analyte	MRL		
Dichlorodifluoromethane (CFC 12)	0.5		ND
Chloromethane	0.5		ND
Vinyl Chloride	0.5		ND
Bromomethane	0.5		ND
Chloroethane	0.5		ND
Trichlorofluoromethane (CFC 11)	0.5		ND
Acetone	20		ND
1,1-Dichloroethene	0.5		ND
Carbon Disulfide	0.5		ND
Methylene Chloride	1		ND
trans-1,2-Dichloroethene	0.5		ND
1,1-Dichloroethane	0.5		ND
2-Butanone (MEK)	20		ND
2,2-Dichloropropane	0.5		ND
cis-1,2-Dichloroethene	0.5		ND
Chloroform	0.5		ND
Bromochloromethane	0.5		ND
1,1,1-Trichloroethane (TCA)	0.5		ND
I,1-Dichloropropene	0.5		ND
Carbon Tetrachloride	0.5		ND
1,2-Dichloroethane	0.5		ND
Benzene	0.5		ND
Trichloroethene (TCE)	0.5		ND
1,2-Dichloropropane	0.5		ND
Bromodichloromethane	0.5		ND
Dibromomethane	0.5		ND
2-Hexanone	20		ND
cis-1,3-Dichloropropene	0.5		ND
Toluene	0.5		ND
trans-1,3-Dichloropropene	0.5		ND
1,1,2-Trichloroethane	0.5		ND
4-Methyl-2-pentanone (MIBK)	20		ND
1,3-Dichloropropane	0.5		ND

Approved By: 00483VOA.CLI - 8260w2p (2) 1/29/97

## Analytical Report

Client:

ATC Environmental, Inc.

Project:

West Valley Business Park-Kent/ #87076.0806

Sample Matrix: Water

Service Request: K9700483

Date Collected: NA
Date Received: NA
Date Extracted: NA

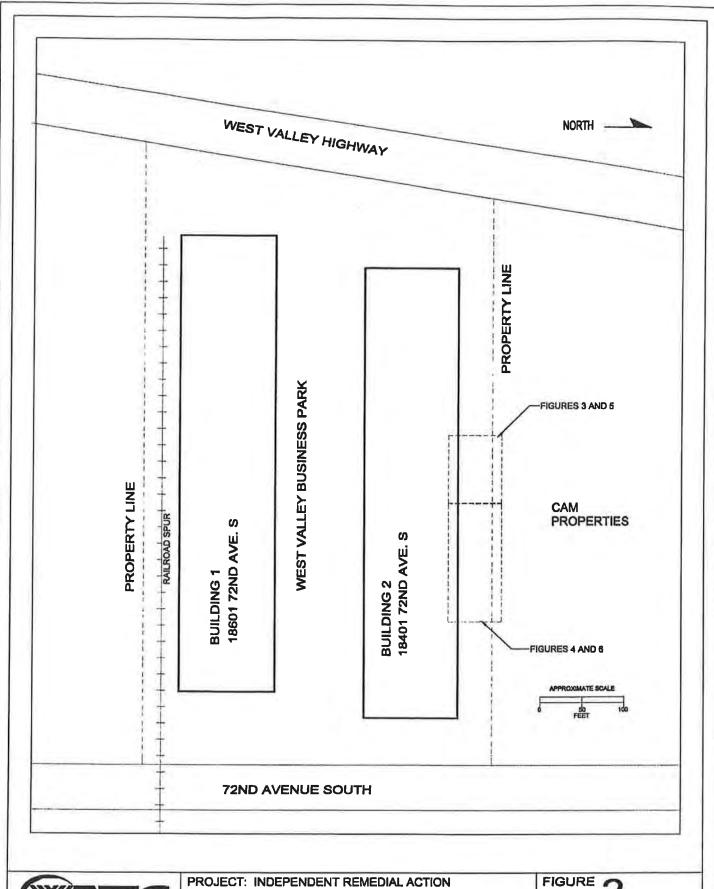
Volatile Organic Compounds EPA Method 8260A Units: μg/L (ppb)

9:	Sample Name: Lab Code: Date Analyzed:	Method Blank K970127-MB 1/27/97
Analyte	MRL	
Tetrachloroethene (PCE)	0.5	ND
Dibromochloromethane	0.5	ND
1,2-Dibromoethane (EDB)	2	ND
Chlorobenzene	0.5	ND
1,1,1,2-Tetrachloroethane	0.5	ND
Ethylbenzene	0.5	ND
Total Xylenes	0.5	ND
Styrene	0.5	ND
Bromoform	0.5	ND
Isopropylbenzene	2	ND
1,1,2,2-Tetrachloroethane	0.5	ND
1,2,3-Trichloropropane	0.5	ND
Bromobenzene	0.5	ND
n-Propylbenzene	2	ND
2-Chlorotoluene	2	ND
4-Chlorotoluene	2 2 2 2	ND
1,3,5-Trimethylbenzene	2	ND
tert-Butylbenzene	2	ND
1,2,4-Trimethylbenzene	2	ND
sec-Butylbenzene	2	ND
1,3-Dichlorobenzene	0.5	ND
4-Isopropyltoluene	2	ND
1,4-Dichlorobenzene	0.5	ND
n-Butylbenzene	2	ND
1,2-Dichlorobenzene	0.5	ND
1,2-Dibromo-3-chloropropane (DBCP)	2	ND
1,2,4-Trichlorobenzene	2	ND
1,2,3-Trichlorobenzene	2 2	ND
Naphthalene		ND
Hexachlorobutadiene	2	ND

 APH Robby

Date: 1/29/97

Page No: 6

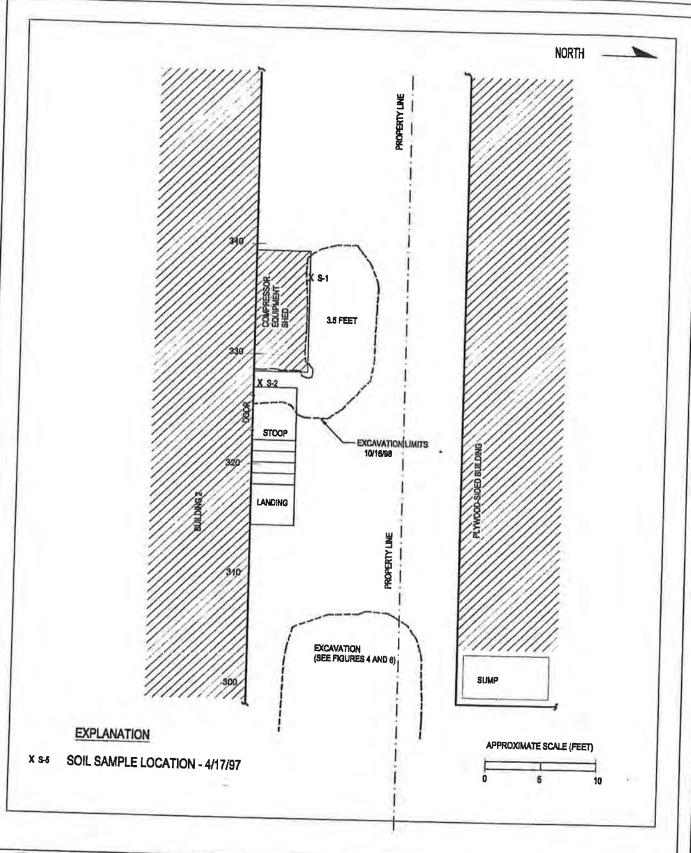




PETROLEUM CONTAMINATED SOIL REMEDIATION WEST VALLEY BUSINESS PARK KENT, WASHINGTON

CLIENT: LEND LEASE REAL ESTATE INVESTMENTS ATC Project Number 87076.0808 FIGURE #

SITE PLAN





ASSOCIATES INC. 6347 SEAVIEW AVE. NW SEATTLE, WA 98107 206.781.1449 FAX: 206.781.1543 PROJECT: INDEPENDENT REMEDIAL ACTION

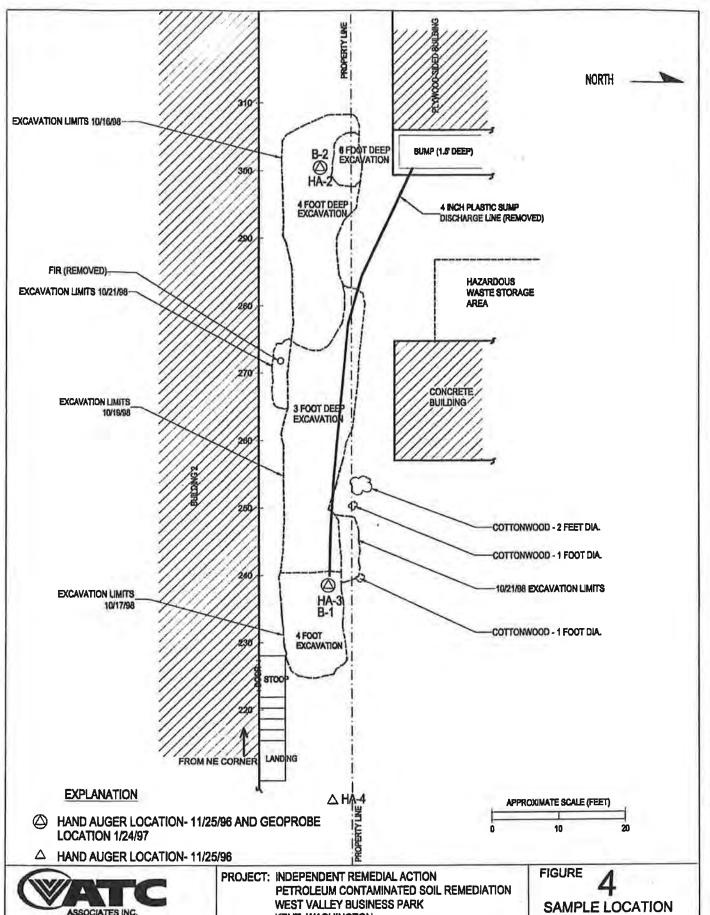
PETROLEUM CONTAMINATED SOIL REMEDIATION WEST VALLEY BUSINESS PARK

KENT, WASHINGTON

CLIENT: LEND LEASE REAL ESTATE INVESTMENTS

ATC Project Number 87076.0808

SAMPLE LOCATION PLAN - COMPRESSOR AREA - 4/17/97



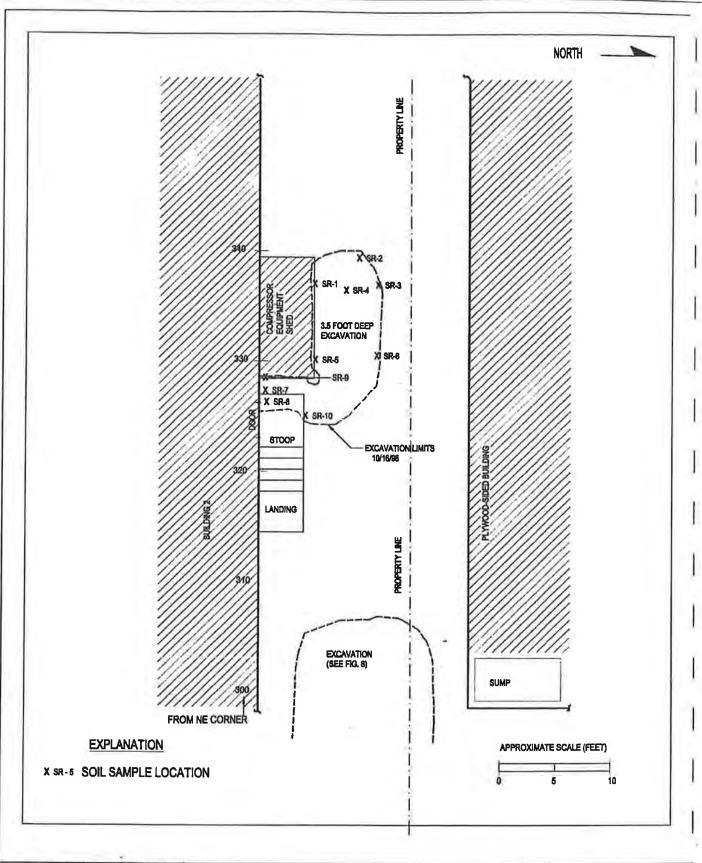
ASSOCIATES INC.
6347 SEAVIEW AVE. NW
SEATTLE, WA 98107
208.781.149
FAX: 208.781.1543

KENT, WASHINGTON

CLIENT: LEND LEASE REAL ESTATE INVESTMENTS

ATC Project Number 87076.0808

SAMPLE LOCATION
PLAN- EASTERN AREA
11/25/96 AND 1/24/97





6347 SEAVIEW AVE. NW SEATTLE, WA 98107 206.781.1449 FAX: 206.781.1543

PROJECT: INDEPENDENT REMEDIAL ACTION

PETROLEUM CONTAMINATED SOIL REMEDIATION WEST VALLEY BUSINESS PARK

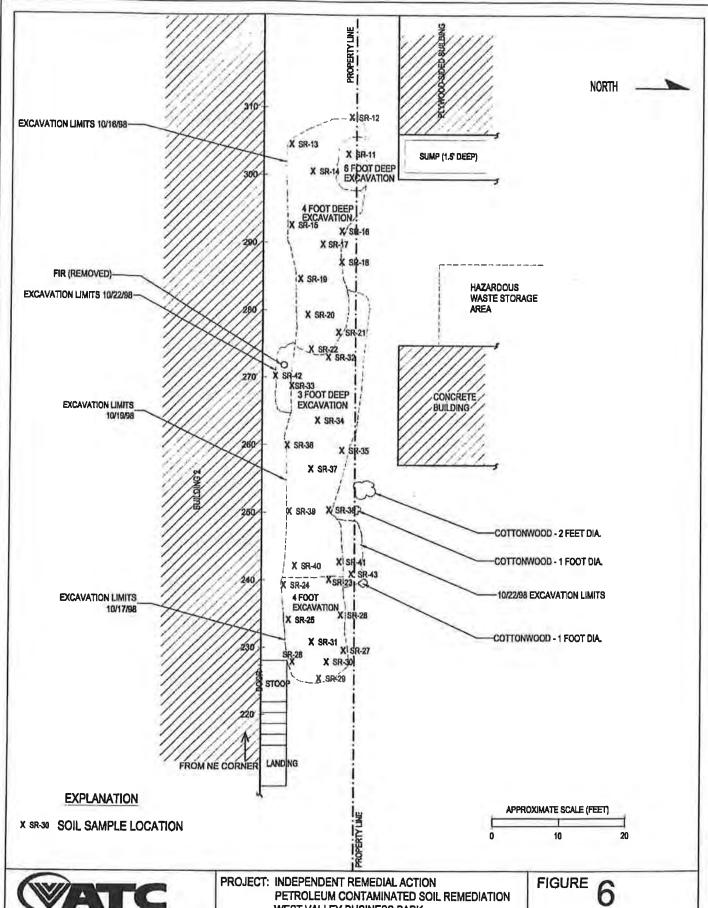
KENT, WASHINGTON
CLIENT: LEND LEASE REAL ESTATE INVESTMENTS

ATC Project Number 87076.0808

**FIGURE** 

**EXCAVATION AND** SAMPLE LOCATION PLAN-COMPRESSOR

AREA





6347 SEAVIEW AVE. NW SEATTLE, WA 98107 206.781.1449 FAX: 208.781.1543

**WEST VALLEY BUSINESS PARK** 

KENT, WASHINGTON

CLIENT: LEND LEASE REAL ESTATE INVESTMENTS

ATC Project Number 87076.0808

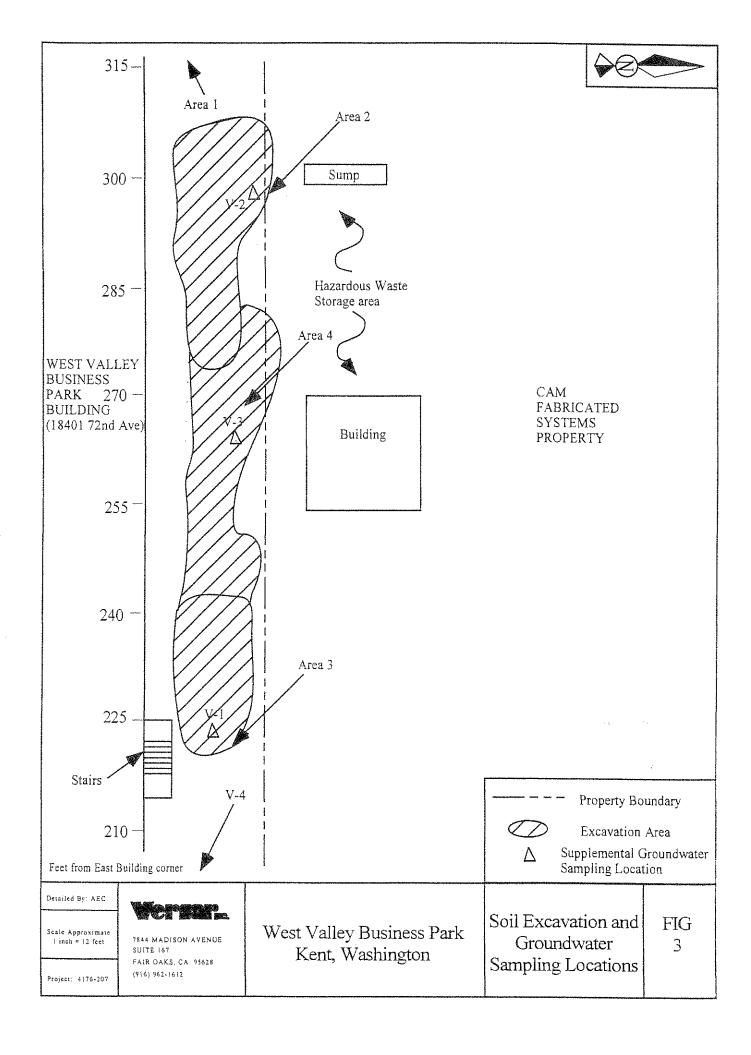
**EXCAVATION AND** SAMPLE LOCATION PLAN- EASTERN AREA

TABLE 1: SOIL SAMPLE SUMMARY AND ANALYTICAL RESULTS

		al Results (/kg)			Coordi	inates**	
Sample No.	Diesel	Oil	Date	Depth (Ft.)	West	North	Тур
SR-1	ND	ND	10/16/98	1.5	336.5	6	Wal
SR-2	ND	ND	10/16/98	2	340	9	Wal
SR-3	ND	ND	10/16/98	2	336.5	10.5	Wal
SR-4	ND	ND	10/16/98	3.5	336.5	8.5	Floo
SR-5	ND	ND	10/16/98	1.5	331.5	6	Wal
SR-6	ND	ND	10/16/98	2	331	10.5	Wal
SR-7	ND	ND	10/16/98	2.5	327.5	1	Wal
SR-8	ND	ND	10/16/98	1.5	326	1	Wal
SR-9	ND	ND	10/16/98	1.5	328.5	1	Wal
SR-10	ND	ND	10/16/98	2	325	4	Wal
SR-11	ND	ND	10/16/98	6.5	301	13.5	Floo
SR-12	ND	ND	10/16/98	2.5	307	14	Side
SR-13	ND	ND	10/16/98	2.5	304	4.5	Side
SR-14	ND	ND	10/16/98	4	300	9	Floo
SR-15	ND	ND	10/16/98	2	294	5	Side
SR-16	ND	ND	10/16/98	2.5	292	13.5	Side
SR-17	ND	ND	10/16/98	3.5	291	10	Floo
SR-18	33	60	10/16/98	2	287	12	Side
SR-19	48	140	10/16/98	2	283	7	Side
SR-20	78	190	10/16/98	3	279	9	Floo
SR-21*	560	1,300	10/16/98	2	277	13.5	Side
SR-22*	25,000	120,000	10/16/98	2	275	10	Side
SR-23*	2,900	7,800	10/17/98	2	241	11	Side
SR-24	ND	ND	10/17/98	2	241	4.5	Side
SR-25	ND	ND	10/17/98	2	234	4.5	Side
SR-26	26	99	10/17/98	2	235	13	Side
SR-27	37	190	10/17/98	2	228	13	Side
SR-28	ND	ND	10/17/98	2	226	4.5	Side
SR-29	ND	ND	10/17/98	2	222	10	Side
SR-30	ND	ND	10/17/98	3.5	226	10	Floo
SR-31	ND	ND	10/17/98	3.5	232	9.5	Floo
SR-32	64	170	10/19/98	3	275	12.5	Floo
SR-33*	94	360	10/19/98	2	270	7	Wal
SR-34	ND	ND	10/19/98	3	265	10.5	Floo
SR-35	ND	ND	10/19/98	2	260	13	Wal
SR-36	ND	ND	10/19/98	2	259	5.5	Wal
SR-37	ND	ND	10/19/98	3	255	8	Floo
SR-38	48	78	10/19/98	2	250	10.5	Wal
SR-39	ND	ND	10/19/98	2	250	5.5	Wal
SR-40	ND	ND	10/19/98	3	244	8	Floo
SR-41*	190	1,200	10/19/98	2	244	13	Wal
SR-42	ND	ND	10/22/98	2	270	3	Wal
SR-43	ND	56	10/22/98	3	243	14	Floo
MTCA	200	200					
Method A							

ND = none detected

<sup>\* =</sup> sample location over-excavated \*\* = coordinates established from point of origin at northeast corner of Building 2



Page 1

ERE-WVBP PROJECT

Kent, Washington

Versar, Inc.

Project No.: 4176-207

Specific Halogenated Hydrocarbons and BTEX (EPA 8021B) in Water

Sample-Number	MDL	Method Blank	V-1B	V-2A	V-2C Dup	V-3C	V-4A
Date		10/23/98	10/23/98	10/23/98	10/23/98	10/23/98	10/23/98
	ug/l	ug/l	ug/l	ug/l	ug/l	ug/I	ug/l
Vinylchloride	1	nd	nd	nd	nd	nd	nd
Benzene	1	nd	nd	nd	nd	nd	bמ
Toluene	1	nd	nd	nd	nd	nd	nd
Ethylbenzene	1	nd	nd	nđ	пd	nd	nd
Total-Xylene	1	nd	nd	nd	nd	nd	nd
1,1 Dichloroethene	1	nd	nd	nd	nd	nd	nd
Dichloromethane	1	nd	nd	nd	nd	nd	nd
Trans-1,2 Dichloroethene	1	nd	nd	20	24	nd	4
1,1 Dichloroethane	1	nd	nd	пd	nd	nd	nd
Cis-1,2 Dichloroethene	1	nd	2	680	600	21	9
Chloroform	1	nd	nd	nd	nd	nd	nd
1,1,1 Trichloroethane	1	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	1	nd	nd	nd	nd	nd	nd
1,2 Dichloroethane	1	nd	nd	nd	nd	nd	nď
Trichloroethene	1	nd	nd	1	1	1	1
1,1,2 Trichloroethane	1	nd	nd	nd	nd	nd	ηď
Tetrachloroethene	1	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1	nd	nd	nd	nd	nd	nd
Spike Recovery (%)		115	112	90	115	118	80

"nd" Indicates Not Detected at the listed detection limit.

<sup>&</sup>quot;int" Indicates that interference peaks prevent determination.

Page 2

ERE-WVBP PROJECT

Kent, Washington

Versar, Inc.

Project No.: 4176-207

Specific Halogenated Hydrocarbons and BTEX (EPA 8021B) in Water

Sample-Number	MDL	MS	MSD	RPD
Date		10/23/98	10/23/98	10/23/98
	ug/l	%	%	
Vinylchloride	1			
Benzene	1	111	116	4.4%
Toluene	1	106	118	10.7%
Ethylbenzene	1	115	108	6.3%
Total-Xylene	1	107	115	7.2%
1,1 Dichloroethene	1	100	86	15.1%
Dichloromethane	1	101	87	14.9%
Trans-1,2 Dichloroethene	1	107	91	16.2%
1,1 Dichloroethane	1	118	105	11.7%
Cis-1,2 Dichloroethene	1	89	81.	9.4%
Chloroform	1	115	107	7.2%
1,1,1 Trichloroethane	1	120	117	2.5%
Carbon Tetrachloride	1	118	119	0.8%
1,2 Dichloroethane	1	108	97	10.7%
Trichloroethene	1	105	96	9.0%
1,1,2 Trichloroethane	1	97	111	13.5%
Tetrachloroethene	1	91	100	9.4%
1,1,1,2-Tetrachloroethane	1	108	114	5,4%
Spike Recovery (%)		109	112	2.7%

"nd" Indicates Not Detected at the listed detection limit.

<sup>&</sup>quot;int" Indicates that interference peaks prevent determination.

## TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

Page 3

ERE-WVBP PROJECT

Kent, Washington

Versar, Inc.

Project No.: 4176-207

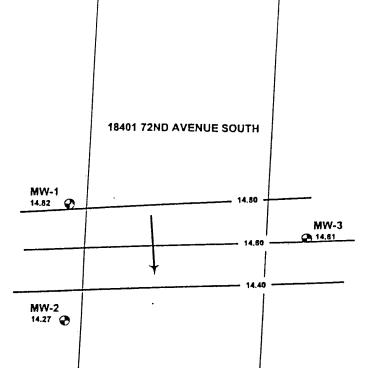
## Diesel and Oil in Water by NWTPH-Dx/Dx-Extended

	=======	======	======	======	======
Sample		Date	Recovery	Diesel	Heavy Oil
Number			%	ug/l	ug/l
			man page plate take man prome take		
Meth. Blank		10/23/98	118	nd	$\operatorname{nd}$
V-1D		10/23/98	100	nd	nd
V-1D Dup		10/23/98	84	nd	nd
V-2E		10/23/98	83	nd	nd
V-3E		10/23/98	99	nd	nd
V-4E		10/23/98	85	nd	nd
MDL				200	400

<sup>&</sup>quot;nd" Indicates not detected at the listed detection Limit.

<sup>&</sup>quot;int" Indicates that interference peaks prevent determination.

## 72ND AVENUE SOUTH





MW-2 = APPROXIMATE MONITORING WELL LOCATION

• = GROUNDWATER ELEVATION (6/21/00)

= GROUNDWATER CONTOUR

= INFERRED GROUNDWATER FLOW DIRECTION



PROPOSAL NO.: 76.18118.0102

DESIGNED BY: CV SCALE: |"L(5' DRAWN BY: DFK DATE: 7/13/00 FILE: WVBPFIg2.VSD

## FIGURE 2. GROUNDWATER CONTOURS

MONITORING WELL INSTALLATION AND GROUNDWATER
SAMPLING SURVEY
WEST VALLEY BUSINESS PARK
18401 - 18601 72™ AVENUE SOUTH
KENT, WASHINGTON

# TABLE 1 GROUNDWATER ANALYTICAL RESULTS

		Vola	tile Organic	Compounds	(µg/L)
Sample No.	Sampling Date	PCE	TCE	VC	cis-1,2- DCE
MW-1	05/15/00	ND	ND	ND	ND
MW-2	05/15/00	ND	ND	150	ND
MW-3	05/15/00	ND	ND	ND	ND
MTCA Cle	anup Levels	5.0 (A)	5.0 (A)	0.2 (A)	80 (B)

## Table 1 Notes:

cis-1,2-DCE = cis-1,2-Dichloroethene

PCE = Perchloroethylene = Tetrachloroethylene

TCE = Trichloroethene

VC = Vinyl Chloride

ND = indicates sample was not detected above the laboratory analytical detection limit

(A) = MTCA Method A Cleanup Level (Model Toxics Control Act Cleanup Regulation - Chapter 173-340 WAC)

(B) = MTCA Method B formula value (Model Toxics Control Act Cleanup Regulation - Chapter 173-340 WAC and Model Toxics Control Act Cleanup Levels and Risk Calculations - February 1996)

\*\*Bold Italic\*\* = indicates the analytical result exceeds the MTCA Method A or B Cleanup Level\*\*

## Monitoring Well Installation and Groundwater Sampling Survey – May 2000 West Valley Business Park Kent, Washington

# TABLE 2 GROUNDWATER ELEVATIONS

Well No.	Screened Interval (feet bgs)	Reference Elevation*	Date	Depth to Water (feet below TOC)	Groundwater Elevation*
MW-1	10 - 20	98.49	5/15/00	6.82	91.67
MW-2	10 - 20	98.61	5/15/00	7.74	90.87
MW-3	10 - 20	98.98	5/15/00	9.02	90.96

## Table 2 Notes:

bgs = below ground surface

<sup>\*</sup> These elevations are of the top of the PVC well casing measured in feet above mean sea level (MSL)

TOC = top of PVC well casing



July 18, 2002

Mr. Steve Campbell AMB Property Corporation Pier One, Bay One San Francisco, CA 94111

Subject:

Groundwater Sampling Results, May 2002

West Valley Business Park, 18401-18601 72<sup>nd</sup> Ave. South, Kent, WA

URS Project No. 41-0000213.01 01000

Dear Mr. Campbell:

Enclosed are groundwater analytical results from the May 2002 monitoring event at the above-referenced property (Site). The three Site monitoring wells were sampled by URS on May 21, 2002. The monitoring was performed voluntarily to confirm the continued decrease of volatile organic compounds (VOCs) in groundwater determined to be originating from the adjacent hydraulically up gradient property (CAM Properties).

As indicated by the data, analytical results for VOCs in groundwater during the May 2002 sampling event were below the laboratory reporting limits, with the exception of trace levels of cis-1,2-dichloroethene (1.1 micrograms per liter [ug/l]), and trichloroethene (1.0 ug/l) in well MW-2. These levels are below drinking water standards established by the Washington Department of Ecology. This data confirms the continued decrease of VOCs in groundwater beneath the Site, and no continued monitoring is warranted. If you have any questions, please feel free to call me at (916) 231-2305.

Sincerely,

**URS** Corporation

Scott Allin, R.E.A. II

Senior Program Manager

Attachment



## ORGANICS ANALYSIS DATA SHEET Volatiles by Purge & Trap GC/MB Page 1 of 2

Sample No: AMBMW1052102

Lab Sample ID: EJ818

QC Report No: EJ81-URS Corp

LIMS ID: 02-6485

Project: AMB

Matrix: Groundwater

---**,**-----

Data Release Authorized: Reported: 05/22/02

Date Sampled: 05/21/02 Date Received: 05/21/02 MW-1

Instrument: NT3 Sample Amount: 5.00 mL Date Analyzed: 05/21/02 17:53 Purge Volume: 5.0 mL

CAS Number	Analyto	ug/L
74-87-3	Chloromethane	1.0 ប
74-93-9	Bromomethane	1.0 U
75-01-4	Vinyl Chloride	1.0 U
75-00-3	Chloroethane	1.0 U
75-09-2	Methylene Chloride	2.D U
67-64-1	Acetone	5.0 U
<b>75-15-</b> 0	Carbon Disulfide	1.0 U
75-35-4	1,1-Dichloroethene	1.0 U
75-34-3	1,1-Dichloroethane	1.0 U
156-60-5	trans-1,2-Dichloroethene	1,0 U
156-59-2	cis-1,2-Dichloroethene	1.0 U
67-66-3	Chloroform	1.0 U
107-06-2	1,2-Dichloroethane	1.0 U
78-93-3	2-Butanone	5.0 U
71-55-6	1,1,1-Trichloroethane	1.0 U
56-23-5	Carbon Tetrachloride	1.0 0
108-05-4	Vinyl Acetate	5.0 D
75-27-4	Bromodichloromethane	1 0 U
78 <b>-87</b> -5	1,2-Dichloropropane	1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0 U
79-01-6	Trichloroethene	1.0 U
124-48-1	Dibromochloromethane	1.0 U
79-00-5	1,1,2-Trichloroethane	1.0 U
71-43-2	Benzene	1.0 U
10061-02-6	trans-1,3-Dichloropropenc	1.0 U
110-75-8	2-Chloroethylvinylether	5.0 U
75-25-2	Bromoform	1.0 🖱
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0 U
591-78-6	2-Hexanone	5.0 U
127-16-4	Tetrachloroethene	1.0 0
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U
108-88-3	Toluene	1.0 U
100-90-7	Chlorobenzene	1.0 U
100-41-4	Ethylbenzene	1.0 U
100-42-5	Styrene	1.0 U
75-69-4	Trichlorofluoromethane	1.0 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2,0 U
1330~20-7	m,p-Xylene	1.0 U



## ORGANICS ANALYBIB DATA SHEET Volatiles by Purge & Trap GC/MS Page 2 of 2

Sample No: AMBMW1052102

Lab Sample ID: EJ818

Reported: 05/22/02

QC Report No: EJ81-URS Corp

LIMS ID: 02-6485

Project: AMB

Matrix: Groundwater

Data Release Authorized

Date Sampled: 05/21/02 Date Received: 05/21/02

Instrument: NT3 Date Analyzed: 05/21/02 17:53 Purge Volume: 5.0 mL

Sample Amount: 5.00 mL

CAS Number	Analyte	ug/L
95-47-6	o-Xylene	ם ס.ג
95-50-1	1,2-Dichlorobenzene	1.0 U
541-73-1	1,3-Dichlorobenzene	1.0 U
106-46-7	1,4-Dichlorobenzene	1,0 U
107-02-9	Acrolein	ט מפ
74-88-4	Methyl Iodide	1.0 U
74-96-4	Bromoethane	2.0 U
107-13-1	Acrylonitrile	1.0 U
563~50~6	1,1-Dichloropropene	1.0 U
74-95-3	Dibromomethane	1.0 U
630-20-6	1,1,1,2-Tetrachloroethane	1.0 ປ
96-12-8	1,2-Dibromo-3-chloropropane	5.0 U
96-18-4	1,2,3-Trichloropropane	3.0 U
110-57-6	trans-1,4-Dichloro-2-butene	5.0 U
108-67-8	1,3,5-Trimethylbenzene	1.0 ຫ
95-63-6	1,2,4-Trimethylbenzene	1,0 U
97-60-3	Hexachlorobutadiene	5.0 U
106-93-4	Ethylene Dibromide	1.0 U
74-97-5	Bromochloromethane	1.0 U
594 <b>-</b> 20 <b>-</b> 7	2,2-Dichloropropane	1.0 U
142-28-9	1,3-Dichloropropane	1.0 U
98-82-8	Isopropylbenzene	1.0 V
103-65-1	n-Propylbenzene	1.0 U
108-86-1	Biomobenzene	1.0 U
95-49-8	2-Chlorotoluene	1.0 U
106-43-4	4-Chlorotoluene	1.0 U
98-06-6	tert-Butylbenzene	1.0 U
135-98-8	sec-Butylbenzene	1.0 U
99-87-6	4-Isopropyltoluene	1.0 U
104-51-8	n-Butylbenzene	1.0 U
120-82-1	1,2,4-Trichlorobenzene	5.0 U
91-20-3	Naphthalene	5.0 U
07 <b>-61</b> -6	1,2,3-Trichlorobenzene	5.0 U

### Volatile Burrogate Recovery

d4-1,2-Dichloroethane	102%
d8-Toluene	97.48
Bromofluorobenzene	91.2%
d4-1,2-Dichlorobenzene	105%



ORGANICS ANALYSIS DATA SHEET Volatiles by Purge & Trap GC/MB Page 1 of 2

Sample No: AMBMW2052102

Lab Sample ID: EJ81C

QC Report No: EJ81-URS Corp

--- 1001 010 001

LIMS ID: 02-6486

Project: AMB

Matrix: Groundwater

Date Sampled: 05/21/02 Date Received: 05/21/02 mw-2

Data Release Authorized
Reported: 05/22/02

Instrument: NT3 Sample Amount: 5.00 mL Date Analyzed: 05/21/02 18:15 Purge Volume: 5.0 mL

CAS Number	Analyte	ug/L
74-87-3	Chloromethane	1.0 U
74-83-9	Eromomethane	1.0 T
75-01-4	Vinyl Chloride	1.0 0
75-00-3	Chloroethane	1.0 U
75-09-2	Methylene Chloride	2.0 0
67-64-1	Acetone	5.0 T
75~15-0	Carbon Disulfide	1.0 U
75-35-4	1,1-Dichloroethene	1.0 T
75-34-3	1,1-Dichloroethane	1.0 U
156-60-5	trans-1,2-Dichloroathene	1.0 U
156-59-2	cis-1,2-Dichloroethens	1.1
67-66-3	Chloroform	1.0 U
107-06-2	1,2-Dichloroethane	1.0 U
78-93-3	2-Butanone	5.0 U
71-55-6	1,1,1-Trichloroethane	1.0 ប
56-23-5	Carbon Tetrachloride	1.0 U
108-05-4	Vinyl Acetate	5,0 T
75-27-4	Bromodichloromethane	1.0 U
78-87-5	1,2-Dichloropropane	1.0 U
10061-01-5	cis-1,3-Dichloropropene	1.0 U
79-01-6	Trichloroethens	1.0
124-48-1	Dibromochloromethane	1.0 U
79-00-5	1,1,2-Trichloroethane	I.0 U
71-43-2	Benzene	1.0 ΰ
10061-02-6	trang-1,3-Dichloropropene	1.0 U
110-75-8	2-Chloroethylvinylether	5.0 U
75-25-2	Bromoform	1.0 0
108-10-1	4-Methyl-2-Pentanone (MIBK)	5.0 T
591-78-6	2-Hexanone	5,0 U
127-18-4	Tetrachloroethene	1.0 U
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U
108-88-3	Toluene	1.0 U
108-90-7	Chlorobenzene	1.0 U
100-41-4	Ethylbenzene	1.0 U
100-42-5	Styrene	ט ס, ו
75-69-4	Trichlorofluoromethane	1:0 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2,0 0
/W #W T		



### ORGANICS ANALYSIS DATA SHEET Volatiles by Purge & Trap GC/MS Page 2 of 2

Sample No: AMBHW2052102

Lab Sample ID: EJ810

QC Report No: EJ81-URS Corp

. ...

LIMS ID: 02-6486

Project: AMB

Matrix: Groundwater

Date Sampled: 05/21/02

Data Release Authorized; Reported: 05/22/02 Date Received: 05/21/02 MW-2

Instrument: NT3 Date Analyzed: 05/21/02 18:15 Sample Amount: 5.00 mL Purge Volume: 5.0 mL

ÇAS Number	Analyte	ug/L
95-47-6	o-Xylene	1.0 U
95-50-1	1,2-Bichlorobenzene	1.0 0
541-73-1	1,3-Dichlorobenzene	1.0 U
106-46-7	1,4-Dichlorobenzene	1.0 U
107-02-8	Acrolein	50 U
74-88-4	Methyl Iodide	1.0 U
74-96-4	Bromoethane	2.0 U
107-13-1	Acrylonitrile	1.0 U
563-58-6	1,1-Dichloropropene	1-0 U
74-95-3	Dibromomethane	1,0 U
630-20-6	1,1,1,2-Tetrachloroethane	1.0 U
96-12-8	1,2-Dibromo-3-chloropropane	5.0 U
96-18-4	1,2,3-Trichloropropane	3.0 U
110-57-6	trans-1,4-Dichloro-2-butene	5.0 U
108-67-8	1,3,5-Trimethylbenzene	1.0 U
95-63-6	1,2,4-Trimethylbenzene	1.0 U
87-68-3	Hexachlorobutadiene	5.0 U
106-93-4	Ethylene Dibromide	1.0 U
74-97-5	Bromochloromethane	۳,0 ت
594-20-7	2,2-Dichloropropane	1.0 U
142-28-9	1,3-Dichloropropane	1.0 ט
99-82-8	Isopropylbenzene	1.0 U
103-65-1	n-Fropylbenzene	1.0 U
108-86-1	Bromobenzene	1.0 U
95-49-8	2-Chlorotoluene	1.0 U
106-43-4	4-Chlorotoluene	1.0 U
98-06-6	tert-Butylbenzene	1.0 ប
135-98-8	Bec-Butylbenzene	1.0 U
99-87-6	4-Isopropyltoluene	1-0 U
104-51-8	n-Butylbenzene	1.0 U
120-82-1	1,2,4-Trichlorobenzene	5.0 U
91-20-3	Naphthalene	5.0 U
87-61-6	1,2,3-Trichlorobensene	5.0 U

#### Volatile Surrogate Recovery d4-1,2-Dichlorosthane 1038

de-Toluene	97.1%
Bromofluorobenzene	92.2₺
d4-1.2-Dichlorobenzene	105%



## ORGANICS ANALYSIS DATA SHEET Volatiles by Purge & Trap GC/MS Page 1 of 2

Sample No: AMBMW3052102

Lab Sample ID: EJ81A

QC Report No: EJ81-URS Corp

LIMS ID: 02-6484

Project: AMB

Matrix: Groundwater

Date Sampled: 05/21/02

Date Received: 05/21/02

mw-3

Reported: 05/22/02

Data Release Authorized

Instrument: NT3 Sample Amount: 5.00 mL Date Analyzed: 05/21/02 17:30 Purge Volume: 5.0 mL

74-87-3 74-83-9 75-01-4 75-00-3 75-09-2 67-64-1 75-15-0 75-35-4 75-34-3	Chloromethane Bromomethane Vinyl Chloride Chloroethane Mathylene Chloride Acetone Carbon Disulfide 1,1-Dichloroethane 1,1-Dichloroethane	1.0 U 1.0 U 1.0 U 1.0 U 2.0 U 5.0 U 1.0 U
75-01-4 75-00-3 75-09-2 67-64-1 75-15-0 75-35-4	Vinyl Chloride Chloroethana Mathylene Chloride Acetona Carbon Disulfide 1,1-Dichloroethana	1.0 U 1.0 U 2.0 U 5.0 U 1.0 U
75-00-3 75-09-2 67-64-1 75-15-0 75-35-4	Chloroethane Methylene Chloride Acetone Carbon Disulfide 1,1-Dichloroethene	1.0 U 2.0 U 5.0 U 1.0 U
75-09-2 67-64-1 75-15-0 75-35-4	Methylene Chloride Acetone Carbon Disulfide 1,1-Dichloroethene	2.0 U 5.0 U 1.0 U
67-64-1 75-15-0 75-35-4	Acetone Carbon Disulfide 1,1-Dichloroethene	5.0 U 1.0 U
75-15-0 75-35-4	Carbon Disulfide 1,1-Dichloroethene	1.0 U
75-35-4	1,1-Dichloroethene	
<del>-</del>		1 0 77
75-34-3	1 1 Night exacthans	1.00
	I, I-DICHTOTOGCHAME	1.0 U
156-60-5	trans-1,2-Dichlorosthens	1.0 U
156-59-2	cis-1,2-Dichloroethene	T 0.1
67-66-3	Chloroform	1.0 U
107-06-2	1,2-Dichloroethane	ט 0.1
78-93-3	2-Butanone	5.0 U
71-55-6	1,1,1-Trichloroethane	1.0 U
56-23-5	Carbon Tetrachloride	1.0 U
108~05-4	Vinyl Acetate	5.0 U
75-27-4	Bromodichloromethane	1.0 U
78-87-5	1,2-Dichloropropane	1.0 Φ
10061-01-5	cis-1,3-Dichloropropene	1.0 U
79-01-6	Trichloroethene	1.0 U
124-48-1	Dibromochloromethane	1.0 U
79-00-5	1,1,2-Trichlorcethane	1.0 σ
71-43-2	Benzene	1.0 U
10061-02-5	trans-1,3-Dichloropropene	1.0 U
110-75-8	2-Chloroethylvinylether	5.0 U
75-25-2	Bromoform	1.0 U
100-10-1	4-Methyl-2-Pentanone (MIBK)	5.0 U
591-78-6	2-Hexanone	5.0 U
127-18-4	Tetrachloroethene	1,0 U
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U
108-88-3	Toluene	1.0 U
108-90-7	Chlorobenzene	1.0 U
100-41-4	Ethylbenzene	1.0 U
100-42-5	Styrene	1.0 U
75-69-4	Trichlorofluoromethane	1.0 U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.0 U
1330-20-7	m,p-Xylene	1.0 U



## ORGANICS ANALYSIS DATA SHEET Volatiles by Purge & Trap GC/MS Page 2 of 2

### Sample No: AMBMW3052102

Lab Sample ID: EJ81A LIMS ID: 02-6484 QC Report No: EJ81-URS Corp

Project: AMB

Matrix: Groundwater

Date Sampled: 05/21/02 Date Received: 05/21/02

m W-3

Data Release Authorized: Reported: 05/22/02

Date Analyzed: 05/21/02 17:30

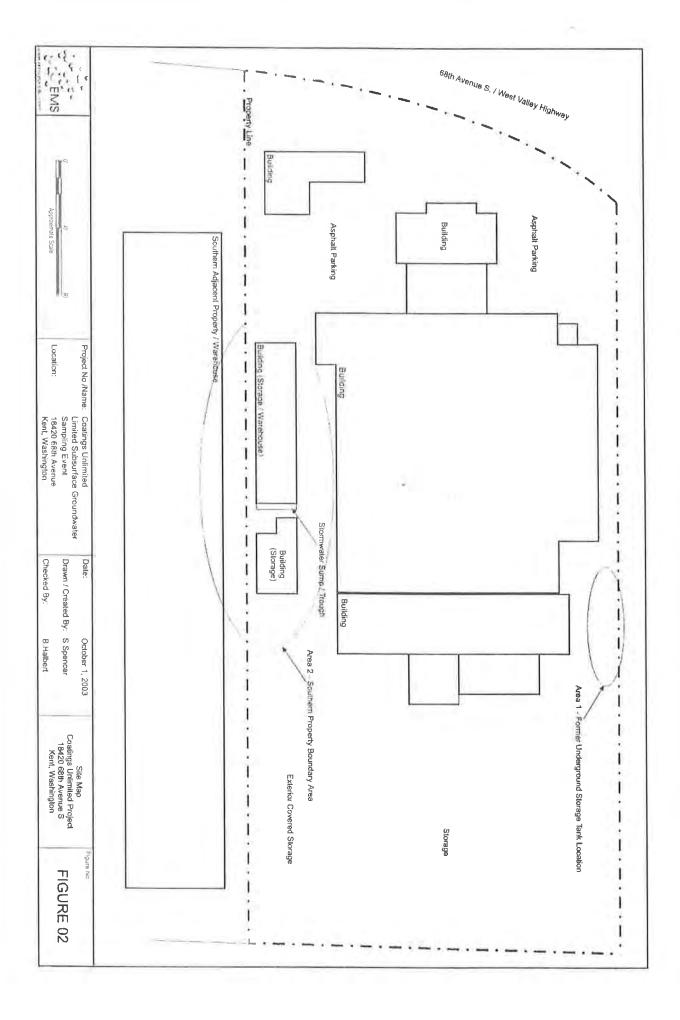
Instrument: NT3

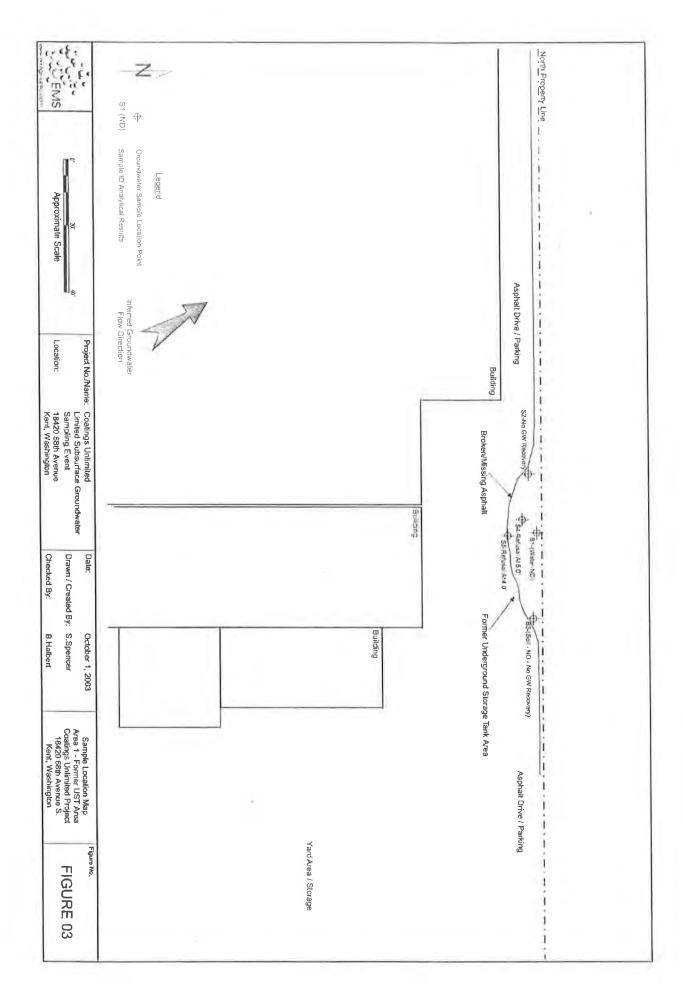
Sample Amount: 5.00 mL Purge Volume: 5.0 mL

95-47-6	СУВ жишре≍	Analyte	ug/L
541-73-1       1,3-Dichlorobenzene       1.0 U         106-46-7       1,4-Dichlorobenzene       1.0 U         107-02-8       Acrolein       50 U         74-88-4       Methyl Iodide       1.0 U         74-96-4       Bromoethane       2.0 U         107-13-1       Acrylonitrile       1.0 U         563-58-6       1,1-Dichloropropene       1.0 U         74-95-3       Dibromomethane       1.0 U         96-12-8       1,2-Dibromo-3-chloropropane       5.0 U         96-12-8       1,2-Dibromo-3-chloropropane       5.0 U         96-18-4       1,2,3-Trichloropropane       3.0 U         110-57-6       trans-1,4-Dichloro-2-butene       5.0 U         108-67-8       1,3,5-Trimethylbenzene       1.0 U         95-63-6       1,2,4-Trimethylbenzene       1.0 U         97-68-3       Hexachlorobutadiene       5.0 U         87-69-3       Ethylene Dibromide       1.0 U         97-97-5       Eromochloromethane       1.0 U         98-82-8       Isopropylbenzene       1.0 U         103-65-1       n-Propylbenzene       1.0 U         108-65-1       n-Propylbenzene       1.0 U         108-98-8       2-Chlorotoluene       1.0 U <td>95-47-6</td> <td>o-Xylene</td> <td></td>	95-47-6	o-Xylene	
1.0 U 107-02-8 Acrolein 50 U 74-88-4 Mathyl Iodide 1.0 U 74-96-4 Bromoethane 2.0 U 107-13-1 Acrylonitrile 1.0 U 74-95-3 Dibromomethane 1.0 U 96-12-8 1,2-Dibromo-3-chloropropane 5.0 U 110-57-6 trans-1,4-Dichloro-2-butene 5.0 U 108-67-8 1,2,4-Trimethylbenzene 1.0 U 97-68-3 Hexachlorobutadiene 5.0 U 106-93-4 Ethylene Dibromide 5.0 U 106-93-4 Ethylene Dibromide 5.0 U 142-28-9 1,3-Dichloropropane 5.0 U 108-65-1 n-Propylbenzene 1.0 U 108-65-1 n-Propylbenzene 1.0 U 108-66-1 Bromobenzene 1.0 U 108-66-6 text-Butylbenzene 1.0 U 108-66-6 text-Butylbenzene 1.0 U 108-66-1 Bromobenzene 1.0 U 108-66-6 text-Butylbenzene 1.0 U 108-66-6 text-Butylbenzene 1.0 U 108-66-6 text-Butylbenzene 5.0 U 108-68-6 1 Bromobenzene 5.0 U 108-68-6 1 Bromobenzene 5.0 U 108-68-6 1 Bromobenzene 5.0 U 108-68-1 Bromobenzene 5.0 U	95-50-1	1,2-Dichlorobenzene	1.0 U
107-02-8         Acrolein         50 U           74-88-4         Mathyl Iodide         1.0 U           74-96-4         Bromoethane         2.0 U           107-13-1         Acrylonitrile         1.0 U           563-58-6         1,1-Dichloropropene         1.0 U           630-20-6         1,1,1,2-Tetrachloroethane         1.0 U           96-12-8         1,2-Dibromo-3-chloropropane         5.0 U           96-18-4         1,2,3-Trichloropropane         3.0 U           110-57-6         trans-1,4-Dichloro-2-butene         5.0 U           108-67-8         1,3,5-Trimethylbenzene         1.0 U           95-63-6         1,2,4-Trimethylbenzene         1.0 U           96-18-3         Hexachlorobutadiene         5.0 U           106-93-4         Ethylene Dibromide         1.0 U           106-93-4         Ethylene Dibromide         1.0 U           142-28-9         1,3-Dichloropropane         1.0 U           142-28-9         1,3-Dichloropropane         1.0 U           108-86-1         Bromobenzene         1.0 U           108-86-1         Bromobenzene         1.0 U           106-43-4         4-Chlorotoluene         1.0 U           106-43-4         4-Chlorotoluene	541-73-1	1,3-Dichlorobenzene	1.0 U
74-88-4       Mathyl Iodide       1.0 U         74-96-4       Bromoethane       2.0 U         107-13-1       Acrylonitrile       1.0 U         563-58-6       1,1-Dichloropropene       1.0 U         74-95-3       Dibromomethane       1.0 U         630-20-6       1,1,1,2-Tetrachloroptopane       5.0 U         96-12-8       1,2-Dibromo-3-chloropropane       5.0 U         96-18-4       1,2,3-Trichloroptopane       5.0 U         110-57-6       trans-1,4-Dichloro-2-butene       5.0 U         108-67-8       1,3,5-Trimethylbenzene       1.0 U         95-63-6       1,2,4-Trimethylbenzene       1.0 U         87-68-3       Hexachlorobutadiene       5.0 U         87-69-3       Ethylene Dibromide       1.0 U         97-97-5       Bromochloromethane       1.0 U         98-82-8       Isopropylbenzene       1.0 U         142-28-9       1,3-Dichloropropane       1.0 U         98-82-8       Isopropylbenzene       1.0 U         108-86-1       Bromobenzene       1.0 U         99-49-8       2-Chlorotoluene       1.0 U         105-49-8       2-Chlorotoluene       1.0 U         106-43-4       4-Chlorotoluene       1.0 U <td>106-46-7</td> <td>1,4-Dichlorobenzene</td> <td>1.0 U</td>	106-46-7	1,4-Dichlorobenzene	1.0 U
74-96-4       Bromoethans       2.0 U         107-13-1       Acrylonitrile       1.0 U         563-58-6       1,1-Dichloropropens       1.0 U         74-95-3       Dibromomethane       1.0 U         630-20-6       1,1,1,2-Tetrachloroethane       1.0 U         96-12-8       1,2-Dibromo-3-chloropropana       5.0 U         96-18-4       1,2,3-Trichloropropana       3.0 U         110-57-6       trans-1,4-Dichloro-2-butene       5.0 U         108-67-8       1,3,5-Trimethylbenzene       1.0 U         95-63-6       1,2,4-Trimethylbenzene       1.0 U         87-68-3       Hexachlorobutadiene       5.0 U         106-93-4       Ethylene Dibromide       1.0 U         74-97-5       Bromochloromethane       1.0 U         594-20-7       2,2-Dichloropropane       1.0 U         142-28-9       1,3-Dichloropropane       1.0 U         103-65-1       n-Propylbenzene       1.0 U         108-86-1       Bromobenzene       1.0 U         108-86-1       Bromobenzene       1.0 U         106-43-4       4-Chlorotoluene       1.0 U         135-98-8       sec-Butylbenzene       1.0 U         104-51-8       n-Butylbenzene       1.0	107-02-8	Acrolein	50 U
107-13-1 Acrylonitrile 1.0 th   563-58-6 1,1-Dichloropropene 1.0 th   74-95-3 Dibromomethane 1.0 th   96-12-8 1,2-Dibromo-3-chloropropane 5.0 th   96-18-4 1,2,3-Trichloropropane 3.0 th   110-57-6 trans-1,4-Dichloro-2-butene 5.0 th   108-67-8 1,3,5-Trimethylbenzene 1.0 th   95-63-6 1,2,4-Trimethylbenzene 1.0 th   67-68-3 Hexachlorobutadiene 5.0 th   106-93-4 Ethylene Dibromide 1.0 th   74-97-5 Eromochloromethane 1.0 th   594-20-7 2,2-Dichloropropane 1.0 th   98-82-8 Isopropylbenzene 1.0 th   103-65-1 n-Propylbenzene 1.0 th   108-86-1 Bromobenzene 1.0 th   108-86-1 Bromobenzene 1.0 th   106-43-4 4-Chlorotoluene 1.0 th   106-43-4 4-Chlorotoluene 1.0 th   106-43-6 tert-Butylbenzene 1.0 th   106-43-6 tert-Butylbenzene 1.0 th   106-51-8 n-Butylbenzene 1.0 th   104-51-8 n-Butylbenzene 1.0 th   105-63-1 n-Butylbenzene 1.0 th   106-63-1 n-Butylbenzene 1.0 th   106-63-1 n-Butylbenzene 1.0 th   106-64-1 n-Butylbenzene 1.0 th   106-651-8 n-Butylbenzene 1.0 th   106-651 n-Butylbenzene 1.0 th   106-651 n-Butylbenzene 1.0 th   107-651 n-Butylbenzene 1.0 th   107-651 n-Butylbenzene 1.0 th   107-651	74-88-4	Methyl Todide	1.0 U
563-58-6       1,1-Dichloropropens       1.0 U         74-95-3       Dibromomethane       1.0 U         630-20-6       1,1,1,2-Tetrachloroethane       1.0 U         96-12-8       1,2-Dibromo-3-chloropropane       5.0 U         96-18-4       1,2,3-Trichloropropane       3.0 U         110-57-6       trans-1,4-Dichloro-2-butene       5.0 U         108-67-8       1,3,5-Trimethylbenzene       1.0 U         95-63-6       1,2,4-Trimethylbenzene       1.0 U         87-68-3       Hexachlorobutadiene       5.0 U         106-93-4       Ethylene Dibromide       1.0 U         74-97-5       Bromochloromethane       1.0 U         594-20-7       2,2-Dichloropropane       1.0 U         142-28-9       1,3-Dichloropropane       1.0 U         103-65-1       n-Propylbenzene       1.0 U         103-65-1       n-Propylbenzene       1.0 U         106-43-4       4-Chlorotoluene       1.0 U         105-49-8       2-Chlorotoluene       1.0 U         135-98-8       sec-Butylbenzene       1.0 U         104-51-8       n-Butylbenzene       1.0 U         104-51-8       n-Butylbenzene       5.0 U         102-62-1       1,2,4-Trichlorobenzene	74-96-4		2.0 U
74-95-3       Dibromomethane       1.0 U         630-20-6       1,1,1,2-Tetrachloroethane       1.0 U         96-12-8       1,2-Dibromo-3-chloropropane       5.0 U         96-18-4       1,2,3-Trichloropropane       3.0 U         110-57-6       trans-1,4-Dichloro-2-butene       5.0 U         108-67-8       1,3,5-Trimethylbenzene       1.0 U         95-63-6       1,2,4-Trimethylbenzene       1.0 U         87-68-3       Hexachlorobutadiene       5.0 U         106-93-4       Ethylene Dibromide       1.0 U         74-97-5       Bromochloromethane       1.0 U         594-20-7       2,2-Dichloropropane       1.0 U         142-28-9       1,3-Dichloropropane       1.0 U         103-65-1       n-Propylbenzene       1.0 U         108-86-1       Bromobenzene       1.0 U         108-86-1       Bromobenzene       1.0 U         99-49-8       2-Chlorotoluene       1.0 U         105-98-8       2-Chlorotoluene       1.0 U         135-98-8       sec-Butylbenzene       1.0 U         135-98-8       sec-Butylbenzene       1.0 U         104-51-8       n-Butylbenzene       5.0 U         104-51-8       n-Butylbenzene       5	107-13-1		1.0 t
630-20-6 1,1,1,2-Tetrachloroethane 1.0 U 96-12-8 1,2-Dibromo-3-chloropropane 5.0 U 96-18-4 1,2,3-Trichloropropane 3.0 U 110-57-6 trans-1,4-Dichloro-2-butene 5.0 U 108-67-8 1,3,5-Trimethylbenzene 1.0 U 95-63-6 1,2,4-Trimethylbenzene 1.0 U 67-68-3 Hexachlorobutadiene 5.0 U 106-93-4 Ethylene Dibromide 1.0 U 74-97-5 Bromochloromethane 1.0 U 594-20-7 2,2-Dichloropropane 1.0 U 142-28-9 1,3-Dichloropropane 1.0 U 103-65-1 n-Propylbenzene 1.0 U 108-86-1 Bromobenzene 1.0 U 108-86-1 Bromobenzene 1.0 U 106-43-4 4-Chlorotoluene 1.0 U 106-43-4 4-Chlorotoluene 1.0 U 195-49-8 2-Chlorotoluene 1.0 U 195-49-8 sec-Butylbenzene 1.0 U 105-98-8 sec-Butylbenzene 1.0 U 104-51-8 n-Butylbenzene 1.0 U 104-51-8 n-Butylbenzene 5.0 U 105-62-1 1,2,4-Trichlorobenzene 5.0 U 191-20-3 Naphthalene 5.0 U	563-58-6	1,1-Dichloropropens	1.0 U
96-12-8       1,2-Dibromo-3-chloropropane       5.0 U         96-18-4       1,2,3-Trichloropropane       3.0 U         110-57-6       trans-1,4-Dichloro-2-butene       5.0 U         108-67-8       1,3,5-Trimethylbenzene       1.0 U         95-63-6       1,2,4-Trimethylbenzene       1.0 U         87-68-3       Hexachlorobutadiene       5.0 U         106-93-4       Ethylene Dibromide       1.0 U         74-97-5       Bromochloromethane       1.0 U         994-20-7       2,2-Dichloropropane       1.0 U         142-28-9       1,3-Dichloropropane       1.0 U         103-65-1       n-Propylbenzene       1.0 U         108-86-1       Bromobenzene       1.0 U         106-43-4       4-Chlorotoluene       1.0 U         106-43-4       4-Chlorotoluene       1.0 U         135-98-8       sec-Butylbenzene       1.0 U         135-98-8       sec-Butylbenzene       1.0 U         104-51-8       n-Butylbenzene       1.0 U         104-51-8       n-Butylbenzene       5.0 U         120-62-1       1,2,4-Trichlorobenzene       5.0 U	74-95-3	Dibromomethane	1.0 U
96-18-4	630-20-6	1,1,1,2-Tetrachloroethane	1.0 U
110-57-6 trans-1,4-Dichloro-2-butene 5.0 U 108-67-8 1,3,5-Trimethylbenzene 1.0 U 95-63-6 1,2,4-Trimethylbenzene 1.0 U 67-68-3 Hexachlorobutadiene 5.0 U 106-93-4 Ethylene Dibromide 1.0 U 74-97-5 Bromochloromethane 1.0 U 594-20-7 2,2-Dichloropropane 1.0 U 142-28-9 1,3-Dichloropropane 1.0 U 103-65-1 n-Propylbenzene 1.0 U 108-86-1 Bromobenzene 1.0 U 106-43-4 4-Chlorotoluene 1.0 U 96-49-8 2-Chlorotoluene 1.0 U 106-43-4 4-Chlorotoluene 1.0 U 199-06-6 tert-Butylbenzene 1.0 U 135-98-8 sec-Butylbenzene 1.0 U 104-51-8 n-Butylbenzene 1.0 U 104-51-8 n-Butylbenzene 1.0 U 105-62-1 1,2,4-Trichlorobenzene 5.0 U 191-20-3 Naphthalene 5.0 U	96-12-8	1,2-Dibromo-3-chloropropana	5.0 U
1.0 U 95-63-6	96-18-4		3.0 U
95-63-6 1,2,4-Trimethylbenzene 1.0 U 87-68-3 Hexachlorobutadiene 5.0 U 106-93-4 Ethylene Dibromide 1.0 U 74-97-5 Bromochloromethane 1.0 U 594-20-7 2,2-Dichloropropane 1.0 U 142-28-9 1,3-Dichloropropane 1.0 U 103-65-1 n-Propylbenzene 1.0 U 108-86-1 Bromobenzene 1.0 U 108-86-1 Bromobenzene 1.0 U 106-43-4 4-Chlorotoluene 1.0 U 198-06-6 tert-Butylbenzene 1.0 U 135-98-8 sec-Butylbenzene 1.0 U 104-51-8 n-Butylbenzene 1.0 U 104-51-8 n-Butylbenzene 1.0 U 120-62-1 1,2,4-Trichlorobenzene 5.0 U 91-20-3 Naphthalene 5.0 U	110-57-6	trans-1,4-Dichlozo-2-butene	5.0 T
87-68-3 Hexachlorobutadiene 5.0 U 106-93-4 Ethylene Dibromide 1.0 U 74-97-5 Bromochloromethane 1.0 U 594-20-7 2.2-Dichloropropane 1.0 U 142-28-9 1,3-Dichloropropane 1.0 U 103-65-1 n-Propylbenzene 1.0 U 108-86-1 Bromobenzene 1.0 U 106-43-4 4-Chlorotoluene 1.0 U 106-43-4 4-Chlorotoluene 1.0 U 198-96-6 tert-Butylbenzene 1.0 U 135-98-8 sec-Butylbenzene 1.0 U 104-51-8 n-Butylbenzene 1.0 U 104-51-8 n-Butylbenzene 1.0 U 120-62-1 1,2,4-Trichlorobenzene 5.0 U 91-20-3 Naphthalene 5.0 U	108-67-8	1,3,5-Trimethylbenzene	1.0 U
106-93-4 Ethylene Dibromide 1.0 U 74-97-5 Eromochloromethane 1.0 U 594-20-7 2.2-Dichloropropane 1.0 U 142-28-9 1.3-Dichloropropane 1.0 U 98-82-8 Isopropylbenzene 1.0 U 103-65-1 n-Propylbenzene 1.0 U 108-86-1 Bromobenzene 1.0 U 106-49-8 2-Chlorotoluene 1.0 U 106-43-4 4-Chlorotoluene 1.0 U 198-06-6 tert-Butylbenzene 1.0 U 135-98-8 sec-Butylbenzene 1.0 U 199-87-6 4-Isopropyltoluene 1.0 U 104-51-8 n-Butylbenzene 1.0 U 120-82-1 1.2,4-Trichlorobenzene 5.0 U 99-20-3 Naphthalene 5.0 U	95-63-6	1,2,4-Trimethylbenzene	ີ 1.0 ປ
74-97-5       Bromochloromethane       1.0 U         594-20-7       2.2-Dichloropropane       1.0 U         142-28-9       1.3-Dichloropropane       1.0 U         98-82-8       Isopropylbenzene       1.0 U         103-65-1       n-Propylbenzene       1.0 U         108-86-1       Bromobenzene       1.0 U         95-49-8       2-Chlorotoluene       1.0 U         106-43-4       4-Chlorotoluene       1.0 U         99-06-6       tert-Butylbenzene       1.0 U         135-98-8       sec-Butylbenzene       1.0 U         104-51-8       n-Butylbenzene       1.0 U         120-62-1       1.2,4-Trichlorobenzene       5.0 U         91-20-3       Naphthalene       5.0 U	87-68-3	Hexachlorobutadiene	5.0 U
594-20-7       2,2-Dichloropropane       1.0 U         142-28-9       1,3-Dichloropropane       1.0 U         98-82-8       Isopropylbenzene       1.0 U         103-65-1       n-Propylbenzene       1.0 U         108-86-1       Bromobenzene       1.0 U         95-49-8       2-Chlorotoluene       1.0 U         106-43-4       4-Chlorotoluene       1.0 U         98-06-6       tart-Butylbenzena       1.0 U         135-98-8       sec-Butylbenzena       1.0 U         99-87-6       4-Isopropyltoluene       1.0 U         104-51-8       n-Butylbenzene       1.0 U         120-82-1       1,2,4-Trichlorobenzene       5.0 U         91-20-3       Naphthalene       5.0 U	106-93-4	Ethylene Dibromide	1.0 ຫ
142-28-9       1,3-Dichloropropane       1.0 U         98-82-8       Isopropylbenzene       1.0 U         103-65-1       n-Propylbenzene       1.0 U         108-86-1       Bromobenzene       1.0 U         95-49-8       2-Chlorotoluene       1.0 U         106-43-4       4-Chlorotoluene       1.0 U         98-06-6       tert-Butylbenzene       1.0 U         135-98-8       sec-Butylbenzene       1.0 U         99-87-6       4-Isopropyltoluene       1.0 U         104-51-8       n-Butylbenzene       1.0 U         120-82-1       1,2,4-Trichlorobenzene       5.0 U         91-20-3       Naphthalene       5.0 U	74-97-5	Bromochloromethane	1.0 U
98-82-8       Isopropylbenzene       1.0 U         103-65-1       n-Propylbenzene       1.0 U         108-86-1       Bromobenzene       1.0 U         95-49-8       2-Chlorotoluene       1.0 U         106-43-4       4-Chlorotoluene       1.0 U         98-06-6       tert-Butylbenzene       1.0 U         135-98-8       sec-Butylbenzens       1.0 U         99-87-6       4-Isopropyltoluene       1.0 U         104-51-8       n-Butylbenzene       1.0 U         120-62-1       1.2,4-Trichlorobenzene       5.0 U         91-20-3       Naphthalene       5.0 U	594-20-7	2,2-Dichloropropane	1.0 U
1.0 U 108-86-1 Bromobenzene 1.0 U 95-49-8 2-Chlorotoluene 1.0 U 106-43-4 4-Chlorotoluene 1.0 U 98-06-6 tert-Butylbenzene 1.0 U 135-98-8 sec-Butylbenzene 1.0 U 199-87-6 4-Isopropyltoluene 1.0 U 104-51-8 n-Butylbenzene 1.0 U 120-82-1 1,2,4-Trichlorobenzene 5.0 U 91-20-3 Naphthalene 5.0 U	142-28-9	1,3-Dichloropropane	1.0 ប
1.0 U   1.0	98-82-8	Isopropylbenzene	1.0 U
95-49-8 2-Chlorotoluene 1.0 U 106-43-4 4-Chlorotoluene 1.0 U 98-06-6 tert-Butylbenzene 1.0 U 135-98-8 sec-Butylbenzene 1.0 U 99-87-6 4-Isopropyltoluene 1.0 U 104-51-8 n-Butylbenzene 1.0 U 120-82-1 1,2,4-Trichlorobenzene 5.0 U 91-20-3 Naphthalene 5.0 U	103-65-1	n-Propylbenzene	1.0 U
106-43-4 4-Chlorotoluene 1.0 U 98-06-6 tert-Butylbenzene 1.0 U 135-98-8 sec-Butylbenzene 1.0 U 99-87-6 4-Isopropyltoluene 1.0 U 104-51-8 n-Butylbenzene 1.0 U 120-62-1 1,2,4-Trichlorobenzene 5.0 U 91-20-3 Naphthalene 5.0 U	108-86-1	Bromobenzene	1.0 U
98-06-6 tert-Butylbenzene 1.0 U 135-98-8 sec-Butylbenzene 1.0 U 99-87-6 4-Isopropyltoluene 1.0 U 104-51-8 n-Butylbenzene 1.0 U 120-62-1 1.2,4-Trichlorobenzene 5.0 U 91-20-3 Naphthalene 5.0 U	95-49-8	2-Chlorotoluene	1.0 U
135-98-8 sec-Butylbenzens 1.0 U 99-87-6 4-Isopropyltoluene 1.0 U 104-51-8 n-Butylbenzene 1.0 U 120-82-1 1.2,4-Trichlorobenzene 5.0 U 91-20-3 Naphthalene 5.0 U	106-43-4	4-Chlorotoluene	1.0 ប
99-87-6 4-Isopropyltoluene 1.0 U 104-51-8 n-Butylbenzene 1.0 U 120-82-1 1.2,4-Trichlorobenzene 5.0 U 91-20-3 Naphthalene 5.0 U	98-06-6	tert-Butylbenzene	1.0 U
99-87-6 4-Isopropyltoluene 1.0 U 104-51-8 n-Butylbenzene 1.0 U 120-82-1 1,2,4-Trichlorobenzene 5.0 U 91-20-3 Naphthalene 5.0 U	135-98-8	sec-Butylbenzens	1.0 U
120-82-1       1,2,4-Trichlorobenzene       5.0 U         91-20-3       Naphthalene       5.0 U	99~87~6	4-Isopropyltoluene	1.0 U
91-20-3 Naphthalene 5.0 U	104-51-8	n-Butylbenzene	1.0 U
	120-82-1	1,2,4-Trichlorobenzene	5.0 U
87-61-6 1,2,3-Trichlorobenzene 5.0 U	91-20-3	Naphthalene	5.0 U
	87-61-6	1,2,3-Trichlorobenzene	5.0 U

### Volatile Surrogate Recovery

d4-1,2-Dichloroethane	102%
d8-Toluene	97.5%
Bromofluorobenzene	93.6%
d4-1,2-Dichlorobenzene	103%







# TABLE 1 ANALYTICAL RESULTS

Area 1 - Former Underground Storage Tank Area
Coatings Unlimited Project
18420 68th Avenue S.
Kent, Washington

Comments	Water sample, 40 mill VOA	Soil Sample, 4 Ounce Lab				
THIM	Water sampl	Soil Sample,				
TOLING	<400 (ND)	<40 (ND)	400 ug/l	40 mg/kg	500 ug/l	9.0 mg/kg   2000 mg/kg   2000 mg/kg
1 901	<200 (ND)	<20 (ND)	200 ug/l	20 mg/kg	500 ug/l	2000 mg/kg
1 allot	<1.0 (ND)	<.05 (ND)	1 0 ug/l	.05 mg/kg	1000 ug/l	9.0 mg/kg
To allano	<1.0 (ND)	<.05 (ND)	1.0 ug/l	05 mg/kg	700 ug/l	03 mg/kg 7.0 mg/kg 6.0 mg/kg
(A TOB) ON WHOM	<1.0 (ND)	< 05 (ND)	1.0 ug/l	.05 mg/kg	1000 ug/l	7.0 mg/kg
1 %	<1.0 (ND)	<.02 (ND)	1.0 ug/l	.02 mg/kg	5.0 ug/l	.03 mg/kg
(SEC REAL MINOC OF CHILDS	< 100 (ND) <1.0 (ND)	<10 (ND)	1/6n 001	10 mg/kg	1000° ug/f	100*
25	13-15' bgs	13-15' bgs	n Limit - Wate	itation Limit - So II0 mg/kg	For Groundwater	evels For Sai
Location	Boring Location B9	9/22/2003 Boring Location B10	Laboratory Practical Quantitation Limit - Water 100 ug/l	Laboratory Practical Quantita	MTCA Method A Cleanup Levels Fo	MTCA Method A Cleanup Levels For Soi
Date Sampled	9/22/2003	9/22/2003	Laborat	Labor	MTCA Methi	TM
Sample Number	B1-092203	B3-092203				

Water values are reported in micrograms/liter (ug/l) and soil values reported in milligrams/kilogram (mg/kg)

< ND = analyte not detected above the analytical method practical quantitation limit cited

Gasoline, BTEX by Method 8021-b

Diesel Extended by Method NWTPH-Dx

MTCA 2001 Method A Cleanup Levels for groundwater from the Model Toxics Control Act (MTCA) amendment Table 740-1 WAC 173-340 -900 Tables

<sup>\*</sup> Gasoline Method A Clearup Levels for groundwater are 1000 ug/l unless detectable benzene is present then clearup levels are reduced to 800 ug/l)

<sup>\*</sup> Gasoline Method A Cleanup Levels for soil are 100 mg/kg unless detectable benzene is present then cleanup levels are reduced to 30 mg/kg)

## APPENDIX D

SOIL GAS SURVEY MAPPING REPORT LABORATORY ANALYTICAL REPORTS

REMEDIAL INVESTIGATION AND FEASIBILITY STUDY REPORT 18420 68<sup>th</sup> Avenue South Kent, Washington

Farallon PN: 2032-012



Site: 18420 68th Avenue South, Kent, WA

Prepared for:

Farallon Consulting 975 5th Avenue Northwest Issaquah, WA 98027 USA

Prepared on:

October 22, 2020



## AGI Environmental Services - Mapping Report

## **Project Summary**

Amplified Geochemical Imaging, LLC. (AGI) provided the AGI Environmental Survey used at:

18420 68th Avenue South, Kent, WA

The service provided by AGI included delivery of the required quantity of AGI Universal Samplers, analysis by the method described for the requested organic compounds, and reporting of the data. A Laboratory Report was issued previously which summarized the field sampling and analytical procedures, and contained the sample results.

Normally, the maps are scaled to print on a page size of 11 x 17 inches other sizes are available upon request. General and project specific comments on the contouring and mapping can be found on the next page.

Maps prepared by:

Ray Fenstermacher, P.G.

**Project Manager** 

Maps reviewed/approved by:

Ian McMullen

Chemist



## AGI Environmental Services - Mapping Report

## **General Comments**

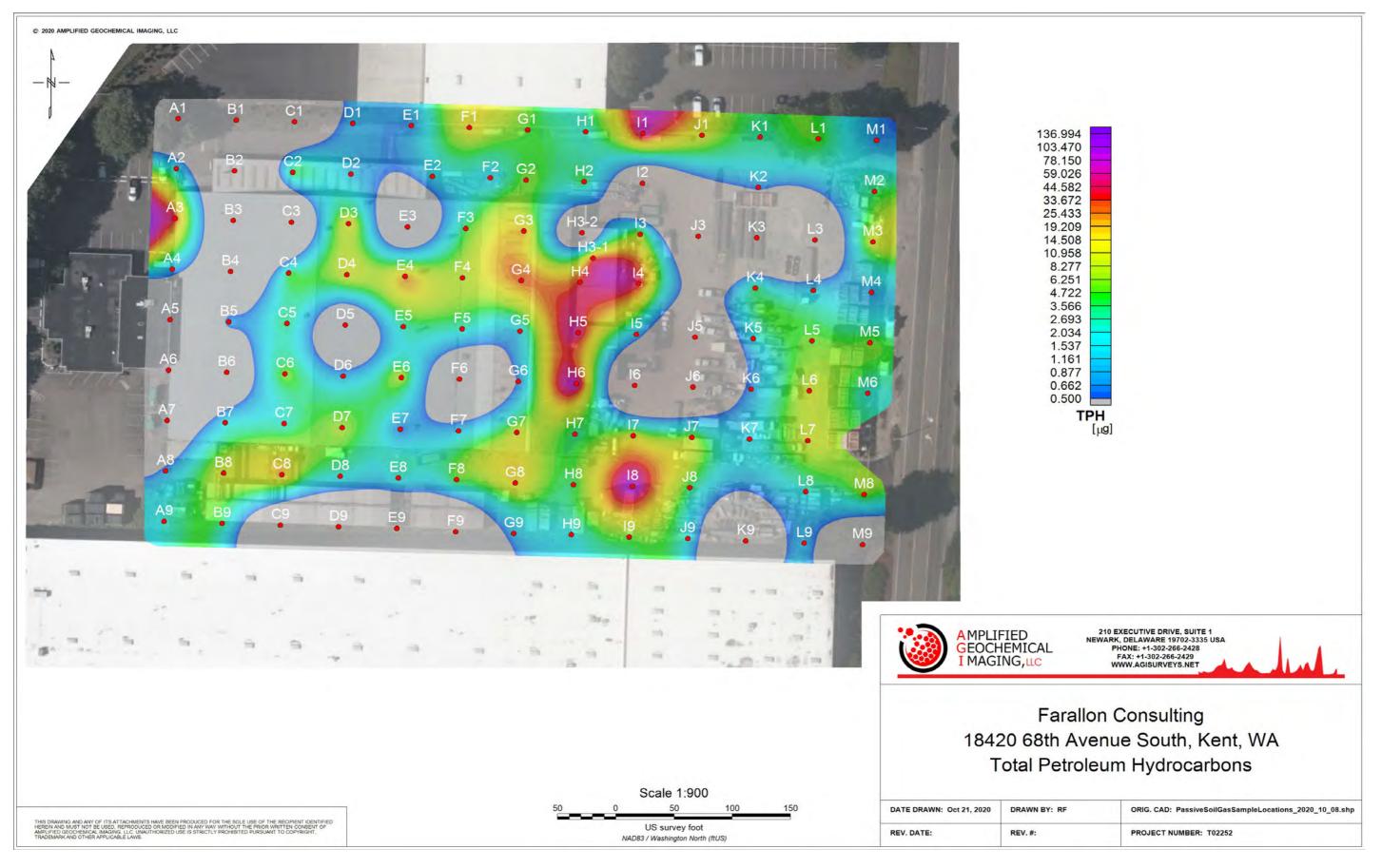
A minimum curvature algorithm was used to interpolate the data from the sample locations to a regularly-spaced grid. The resulting surface is considered to be the smoothest possible surface that will fit the observed values at each sample location (i.e., data honoring). The interpolation is performed in log space, with grid cell sizes approximately one-tenth the average distance between sample locations. For example, when AGI Universal Samplers are placed about 50 feet apart, the grid cell size is set to five feet.

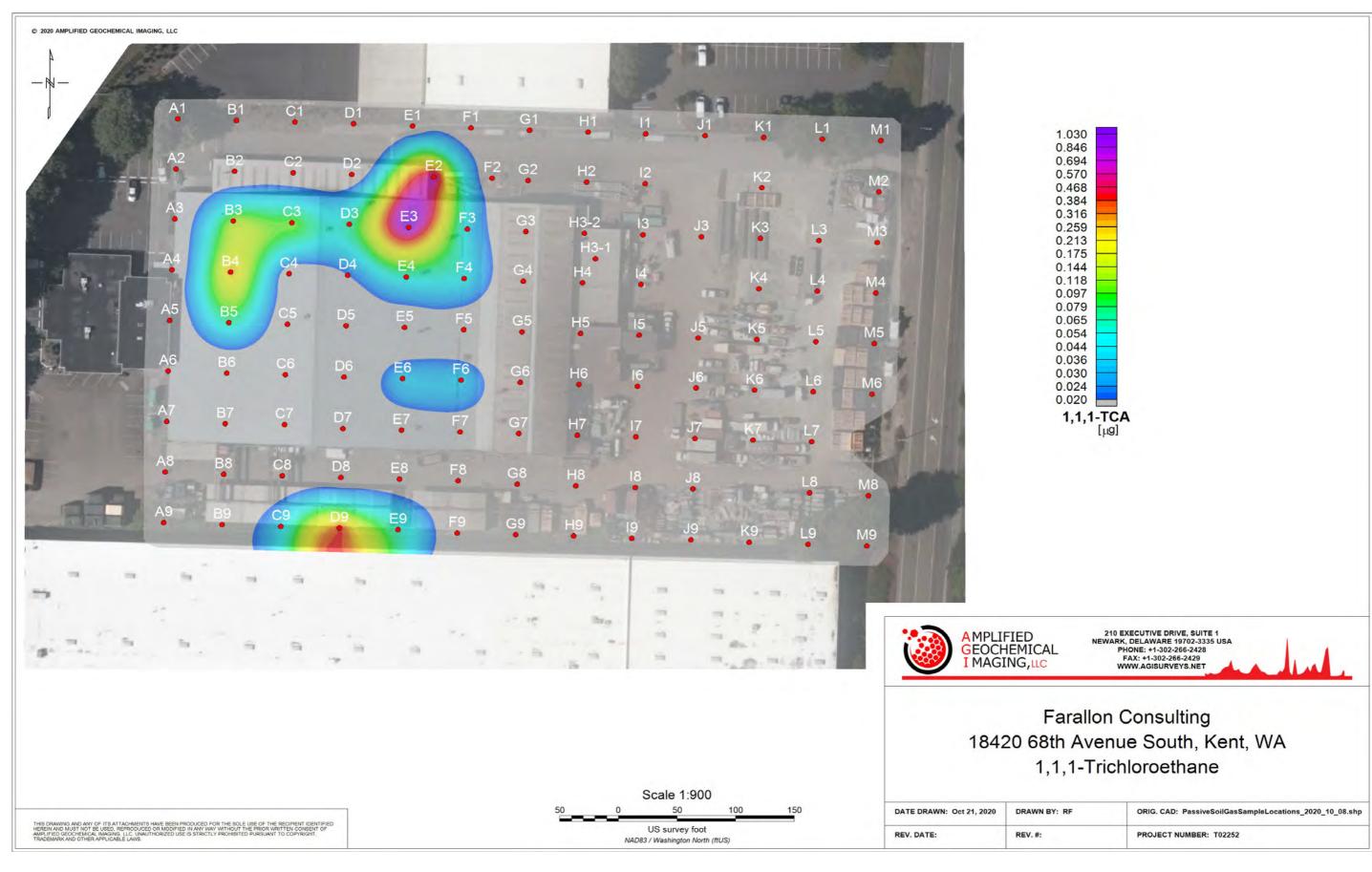
Where observations trend from lower to higher values, and moving towards the edge of the area sampled, the contour surface will continue to rise (showing warmer colors) as no additional data exist to constrain the interpolation. Where observations trend from high to low, towards the edge of the area sampled, the opposite is true.

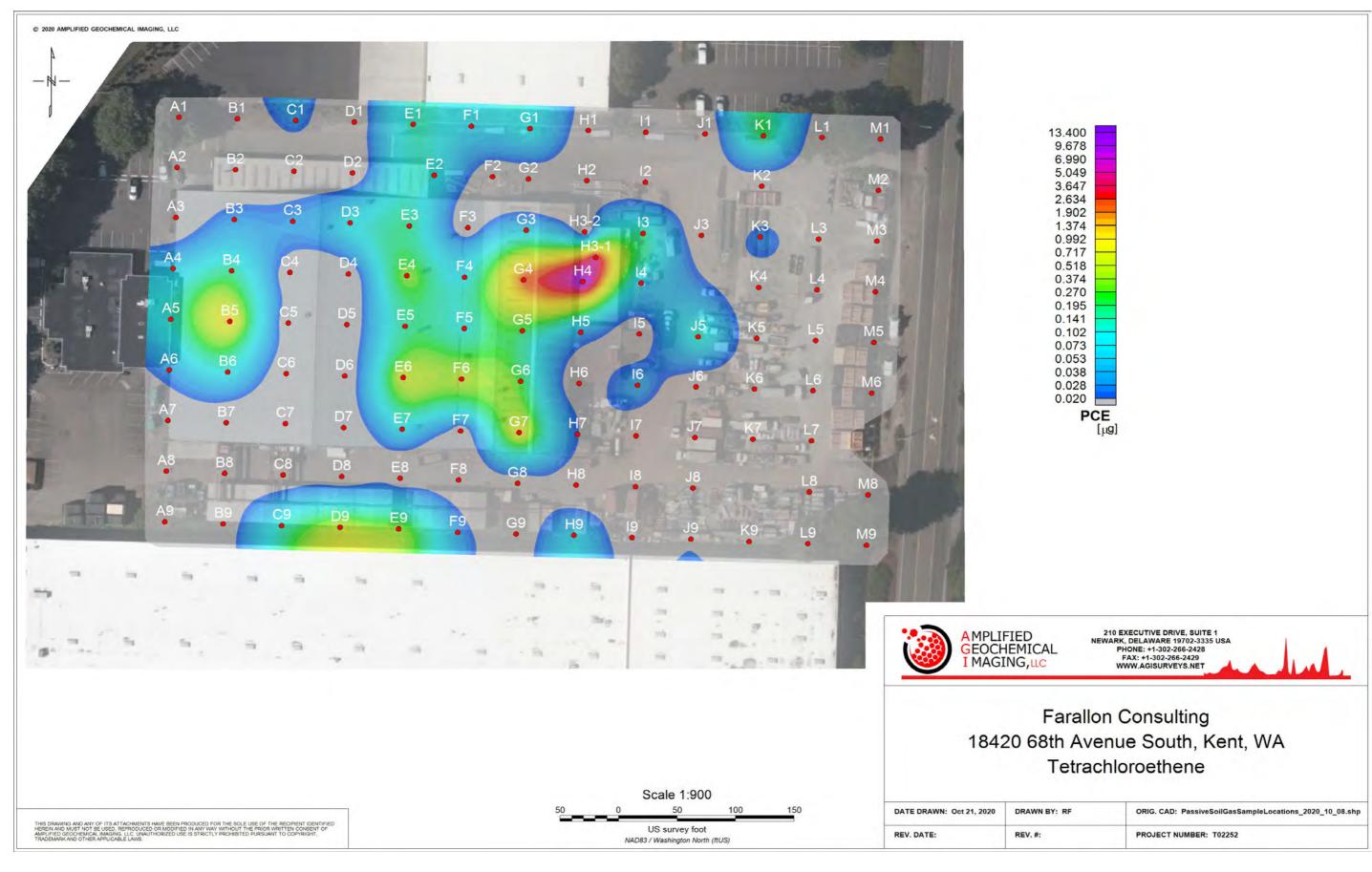
Contour minimums and maximums used in the color interval assignment are established based on the QA blank levels (trip and method blanks), method detection limits, and maximum values observed. The minimum contour level (gray color) is established using the maximum QA blank level or method detection limit, whichever is greater, per compound or groups of compounds. The maximum contour level is set at the maximum value observed, per compound or groups of compounds. Contour interval assignments can be modified at the client's request.

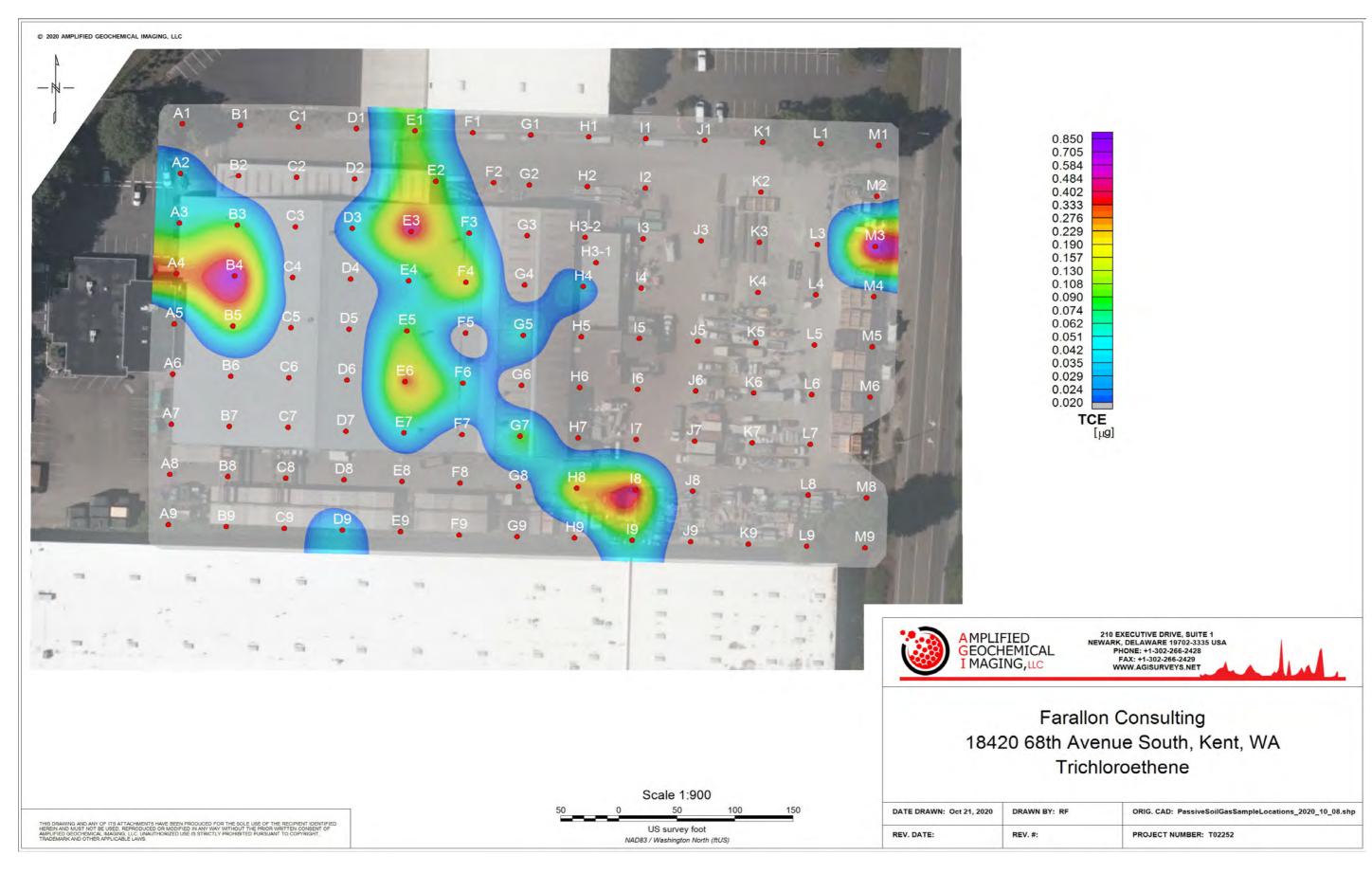
**Project Specific Comments** 

None.











## Delaware Office and AGI Laboratory:

210 Executive Drive, Suite 1
Newark, Delaware 19702-3335 USA
Phone: +1-302-266-2428

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### German Sales Office:

Amplified Geochemical Imaging GmbH Alte Landstrasse 23, 85521 Ottobrunn GERMANY Phone: +49 89 6387927-12

Fax: +49 89 6387927-10

www.agisurveys.net

## Corporate Office:

7112 W. Jefferson Avenue, Suite 106 Lakewood, CO 80235 USA Phone: +1-303-988-1968

Fax: +1-303-986-2898

## APPENDIX E LABORATORY ANALYTICAL REPORTS MAPPING REPORT

REMEDIAL INVESTIGATION AND FEASIBILITY STUDY REPORT 18420 68th Avenue South Kent, Washington

Farallon PN: 2032-012



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

October 8, 2020

Pete Kingston Farallon Consulting 1809 7th Avenue, Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 2032-012

Laboratory Reference No. 2009-335

Dear Pete:

Enclosed are the analytical results and associated quality control data for samples submitted on September 30, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

**Enclosures** 



Date of Report: October 8, 2020

Samples Submitted: September 30, 2020

Laboratory Reference: 2009-335

Project: 2032-012

### **Case Narrative**

Samples were collected on September 29 and 30, 2020 and received by the laboratory on September 30, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: October 8, 2020 Samples Submitted: September 30, 2020

Laboratory Reference: 2009-335

Project: 2032-012

# DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

Matrix: Water Units: mg/L (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-1-093020					
Laboratory ID:	09-335-01					
Diesel Range Organics	ND	0.20	NWTPH-Dx	10-1-20	10-2-20	_
Lube Oil Range Organics	0.29	0.22	NWTPH-Dx	10-1-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				_
o-Terphenyl	98	50-150				
Client ID:	MW-2-093020					
Laboratory ID:	09-335-02					
Diesel Range Organics	ND	0.22	NWTPH-Dx	10-1-20	10-2-20	
Lube Oil Range Organics	ND	0.22	NWTPH-Dx	10-1-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	97	50-150				
Client ID:	MW-3-093020					
Laboratory ID:	09-335-03					
Diesel Range Organics	ND	0.19	NWTPH-Dx	10-1-20	10-2-20	
Lube Oil Range Organics	ND	0.19	NWTPH-Dx	10-1-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	72	50-150				
Client ID:	FMW-2-092920					
Laboratory ID:	09-335-04					
Diesel Range Organics	ND	0.19	NWTPH-Dx	10-1-20	10-2-20	
Lube Oil Range Organics	0.30	0.21	NWTPH-Dx	10-1-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	96	50-150				
OU	<b>71</b> 111 0 00000					
Client ID:	FMW-3-092920					
Laboratory ID:	09-335-05	2.24	AUA/TOLL D	10.1.00	10.0.00	
Diesel Range Organics	ND	0.21	NWTPH-Dx	10-1-20	10-2-20	
Lube Oil Range Organics	0.22	0.21	NWTPH-Dx	10-1-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	89	50-150				
Client ID:	FMW-4-093020					
Laboratory ID:	09-335-06					
Diesel Range Organics	ND	0.22	NWTPH-Dx	10-1-20	10-2-20	
Lube Oil Range Organics	ND ND	0.22 0.22	NWTPH-DX NWTPH-Dx	10-1-20	10-2-20 10-2-20	
Surrogate:		Control Limits	INVVIETI-DX	10-1-20	10-2-20	
o-Terphenyl	Percent Recovery 95	50-150				
o- i cibiiciili	90	30-130				

Date of Report: October 8, 2020 Samples Submitted: September 30, 2020

Laboratory Reference: 2009-335

Project: 2032-012

# DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-5-092920					
Laboratory ID:	09-335-07					
Diesel Range Organics	ND	0.17	NWTPH-Dx	10-1-20	10-2-20	
Lube Oil Range Organics	0.32	0.22	NWTPH-Dx	10-1-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	100	50-150				
Client ID:	FMW-6-092920					
Laboratory ID:	09-335-08					
Diesel Range Organics	ND	0.21	NWTPH-Dx	10-1-20	10-2-20	
Lube Oil Range Organics	ND	0.21	NWTPH-Dx	10-1-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	98	50-150				
Client ID:	FMW-7-092920					
Laboratory ID:	09-335-09					
Diesel Range Organics	ND	0.21	NWTPH-Dx	10-1-20	10-2-20	
Lube Oil Range Organics	ND	0.21	NWTPH-Dx	10-1-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	99	50-150				
Client ID:	FMW-8-092920					
Laboratory ID:	09-335-10					
Diesel Range Organics	ND	0.21	NWTPH-Dx	10-1-20	10-2-20	
Lube Oil Range Organics	ND	0.21	NWTPH-Dx	10-1-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	93	50-150				
Client ID:	FMW-9-093020					
Laboratory ID:	09-335-11					
Diesel Range Organics	ND	0.21	NWTPH-Dx	10-1-20	10-2-20	
Lube Oil Range Organics	ND -	0.21	NWTPH-Dx	10-1-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	87	50-150				

Date of Report: October 8, 2020

Samples Submitted: September 30, 2020 Laboratory Reference: 2009-335

Project: 2032-012

### DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

Matrix: Water Units: mg/L (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1001W1					
Diesel Range Organics	ND	0.16	NWTPH-Dx	10-1-20	10-2-20	
Lube Oil Range Organics	ND	0.20	NWTPH-Dx	10-1-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	102	50-150				

					Source	Perc	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Reco	very	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	09-33	35-11									
	ORIG	DUP									
Diesel Range	ND	ND	NA	NA		N	A	NA	NA	NA	
Lube Oil Range	ND	ND	NA	NA		N.	Α	NA	NA	NA	
Surrogate:											
o-Terphenyl						87	96	50-150			
Laboratory ID:	SB10	01W1									
	ORIG	DUP									
Diesel Fuel #2	0.455	0.443	NA	NA		N.	A	NA	3	NA	
Lube Oil Range	ND	ND	NA	NA		N	Α	NA	NA	NA	
Surrogate: o-Terphenyl						88	85	50-150			

Date of Report: October 8, 2020 Samples Submitted: September 30, 2020

Laboratory Reference: 2009-335

Project: 2032-012

## **VOLATILE ORGANICS EPA 8260D/SIM**

page 1 of 2

Matrix: Water Units: ug/L

Analysis	Dogwit	DOL	Madhaad	Date	Date	<b>F</b> la
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-1-093020					
Laboratory ID:	09-335-01	0.00		40.0.00	40.000	
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloromethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Vinyl Chloride	0.049	0.020	EPA 8260D/SIM	10-2-20	10-2-20	
Bromomethane	ND	0.30	EPA 8260D	10-2-20	10-2-20	
Chloroethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Acetone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
Iodomethane	ND	1.8	EPA 8260D	10-2-20	10-2-20	
Carbon Disulfide	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methylene Chloride	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Vinyl Acetate	ND	1.0	EPA 8260D	10-2-20	10-2-20	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
(cis) 1,2-Dichloroethene	6.1	0.20	EPA 8260D	10-2-20	10-2-20	
2-Butanone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
Bromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloroform	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Benzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Trichloroethene	0.95	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Dibromomethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromodichloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Toluene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	

Date of Report: October 8, 2020 Samples Submitted: September 30, 2020

Laboratory Reference: 2009-335

Project: 2032-012

## **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-1-093020					
Laboratory ID:	09-335-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Tetrachloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Hexanone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Dibromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Ethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
m,p-Xylene	ND	0.40	EPA 8260D	10-2-20	10-2-20	
o-Xylene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Styrene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromoform	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Isopropylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Propylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
tert-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
sec-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
p-Isopropyltoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Naphthalene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
Dibramafluaramathana	106	7E 107				

Surrogate: Percent Recovery Control Limit Dibromofluoromethane 106 75-127 Toluene-d8 102 80-127 4-Bromofluorobenzene 99 78-125

Laboratory Reference: 2009-335

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-2-093020					
Laboratory ID:	09-335-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloromethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-2-20	10-2-20	
Bromomethane	ND	0.30	EPA 8260D	10-2-20	10-2-20	
Chloroethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Acetone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
lodomethane	ND	1.8	EPA 8260D	10-2-20	10-2-20	
Carbon Disulfide	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methylene Chloride	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Vinyl Acetate	ND	1.0	EPA 8260D	10-2-20	10-2-20	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
(cis) 1,2-Dichloroethene	0.83	0.20	EPA 8260D	10-2-20	10-2-20	
2-Butanone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
Bromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloroform	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Benzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Trichloroethene	1.4	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Dibromomethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromodichloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Toluene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	

Laboratory Reference: 2009-335

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-2-093020					
Laboratory ID:	09-335-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Tetrachloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Hexanone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Dibromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Ethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
m,p-Xylene	ND	0.40	EPA 8260D	10-2-20	10-2-20	
o-Xylene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Styrene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromoform	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Isopropylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Propylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
tert-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
sec-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
p-Isopropyltoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Naphthalene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	106	75-127				

Dibromofluoromethane 106 75-127 101 80-127 Toluene-d8 4-Bromofluorobenzene 99 78-125



Laboratory Reference: 2009-335

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-3-093020					
Laboratory ID:	09-335-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloromethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Vinyl Chloride	1.1	0.20	EPA 8260D	10-2-20	10-2-20	
Bromomethane	ND	0.30	EPA 8260D	10-2-20	10-2-20	
Chloroethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Acetone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
lodomethane	ND	1.8	EPA 8260D	10-2-20	10-2-20	
Carbon Disulfide	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methylene Chloride	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,2-Dichloroethene	1.1	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Vinyl Acetate	ND	1.0	EPA 8260D	10-2-20	10-2-20	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
(cis) 1,2-Dichloroethene	6.5	0.20	EPA 8260D	10-2-20	10-2-20	
2-Butanone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
Bromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloroform	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Benzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Trichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Dibromomethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromodichloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Toluene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	

Laboratory Reference: 2009-335

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-3-093020					
Laboratory ID:	09-335-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Tetrachloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Hexanone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Dibromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Ethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
m,p-Xylene	ND	0.40	EPA 8260D	10-2-20	10-2-20	
o-Xylene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Styrene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromoform	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Isopropylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Propylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
tert-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
sec-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
p-Isopropyltoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Naphthalene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	103	75-127				

Surrogate: Percent Recovery Control Lim
Dibromofluoromethane 103 75-127
Toluene-d8 101 80-127
4-Bromofluorobenzene 98 78-125

Laboratory Reference: 2009-335

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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Client ID:					Date	Date	
Dichlorodiffluoromethane	Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Dichlorodifluoromethane	Client ID:	FMW-2-092920					
Chloromethane         ND         1.0         EPA 8260D         10-2-20         10-2-20           Vinyl Chloride         0.33         0.20         EPA 8260D         10-2-20         10-2-20           Bromomethane         ND         0.30         EPA 8260D         10-2-20         10-2-20           Chloroethane         ND         1.0         EPA 8260D         10-2-20         10-2-20           Trichlorofluoromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Acetone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Idodomethane         ND         1.8         EPA 8260D         10-2-20         10-2-20           Idodomethane         ND         1.8         EPA 8260D         10-2-20         10-2-20           Idodomethane         ND         1.0         20         EPA 8260D         10-2-20         10-2-20           Methylene Chloride         ND         1.0         20         EPA 8260D         10-2-20         10-2-20           Methylene Chloride         ND         0.20         EPA 8260D         10-2-20	Laboratory ID:	09-335-04					
Vinyl Chloride         0.33         0.20         EPA 8260D         10-2-20         10-2-20           Bromomethane         ND         0.30         EPA 8260D         10-2-20         10-2-20           Chloroethane         ND         1.0         EPA 8260D         10-2-20         10-2-20           Tricklorofluoromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Acetone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Iodomethane         ND         1.8         EPA 8260D         10-2-20         10-2-20           Iodomethane         ND         1.8         EPA 8260D         10-2-20         10-2-20           Methylene Chloride         ND         1.0         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Winyl Acetate         ND         0.20         EPA 8260D         10-2-20         10-2-20           Vinyl Acetate         ND         0.20         EPA 8260D         10-2-20         10-2-20	Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromomethane   ND	Chloromethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Chloroethane         ND         1.0         EPA 8260D         10-2-20         10-2-20           Trichlorofluoromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Acetone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Iodomethane         ND         1.8         EPA 8260D         10-2-20         10-2-20           Carbon Disulfide         0.51         0.20         EPA 8260D         10-2-20         10-2-20           Methylene Chloride         ND         1.0         EPA 8260D         10-2-20         10-2-20           Methylene Chloride         ND         1.0         EPA 8260D         10-2-20         10-2-20           Methylene Chloride         ND         1.0         EPA 8260D         10-2-20         10-2-20           Methylene Chloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyle Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20 <td>Vinyl Chloride</td> <td>0.33</td> <td>0.20</td> <td>EPA 8260D</td> <td>10-2-20</td> <td>10-2-20</td> <td></td>	Vinyl Chloride	0.33	0.20	EPA 8260D	10-2-20	10-2-20	
Trichlorofluoromethane	Bromomethane	ND	0.30	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Acetone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Iodomethane         ND         1.8         EPA 8260D         10-2-20         10-2-20           Carbon Disulfide         0.51         0.20         EPA 8260D         10-2-20         10-2-20           Methylene Chloride         ND         1.0         EPA 8260D         10-2-20         10-2-20           (trans) 1,2-Dichloroethene         0.34         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Vinyl Acetate         ND         1.0         EPA 8260D         10-2-20         10-2-20           2,2-Dichloroptopane         ND         0.20         EPA 8260D         10-2-20         10-2-20           (cis) 1,2-Dichloroethene         ND         0.20         EPA 8260D         10-2-20<	Chloroethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Acetone	Trichlorofluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
ND	1,1-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Carbon Disulfide         0.51         0.20         EPA 8260D         10-2-20         10-2-20           Methylene Chloride         ND         1.0         EPA 8260D         10-2-20         10-2-20           (trans) 1,2-Dichloroethene         0.34         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Vinyl Acetate         ND         0.20         EPA 8260D         10-2-20         10-2-20           2,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           (cis) 1,2-Dichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D	Acetone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
Methylene Chloride         ND         1.0         EPA 8260D         10-2-20         10-2-20           (trans) 1,2-Dichloroethene         0.34         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Vinyl Acetate         ND         1.0         EPA 8260D         10-2-20         10-2-20           2,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2,2-Dichloroptropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2,2-Dichloroptropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2,2-Dichloroptropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Butanone         ND         0.20         EPA 8260D         10-2-20         10-2-20           Bromochloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chlorform         ND         0.20         EPA 8260D         10-2-20 </td <td>Iodomethane</td> <td>ND</td> <td>1.8</td> <td>EPA 8260D</td> <td>10-2-20</td> <td>10-2-20</td> <td></td>	Iodomethane	ND	1.8	EPA 8260D	10-2-20	10-2-20	
(trans) 1,2-Dichloroethene         0.34         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Vinyl Acetate         ND         1.0         EPA 8260D         10-2-20         10-2-20           2,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           (cis) 1,2-Dichloroethene         0.26         0.20         EPA 8260D         10-2-20         10-2-20           2-Butanone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Bromochloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-	Carbon Disulfide	0.51	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Vinyl Acetate         ND         1.0         EPA 8260D         10-2-20         10-2-20           2,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           (cis) 1,2-Dichloroethene         0.26         0.20         EPA 8260D         10-2-20         10-2-20           2-Butanone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Bromochloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloroethane         ND         0.20         EPA 8260D         10-2-20	Methylene Chloride	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Vinyl Acetate         ND         1.0         EPA 8260D         10-2-20         10-2-20           2,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           (cis) 1,2-Dichloroethene         0.26         0.20         EPA 8260D         10-2-20         10-2-20           2-Butanone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Bromochloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloroethane         ND         0.20         EPA 8260D         10-2-20	(trans) 1,2-Dichloroethene	0.34	0.20	EPA 8260D	10-2-20	10-2-20	
Vinyl Acetate         ND         1.0         EPA 8260D         10-2-20         10-2-20           2,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           (cis) 1,2-Dichloroethene         0.26         0.20         EPA 8260D         10-2-20         10-2-20           2-Butanone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Bromochloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Benzene         ND         0.20         EPA 8260D         10-2-20         10-2-20	Methyl t-Butyl Ether	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           (cis) 1,2-Dichloroethene         0.26         0.20         EPA 8260D         10-2-20         10-2-20           2-Butanone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Bromochloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Benzene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Trichloroethene         ND         0.20         EPA 8260D         10-2-20         10-	1,1-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
(cis) 1,2-Dichloroethene         0.26         0.20         EPA 8260D         10-2-20         10-2-20           2-Butanone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Bromochloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Dibromomethane         ND         0.20         EPA 8260D         10-2-20 </td <td>Vinyl Acetate</td> <td>ND</td> <td>1.0</td> <td>EPA 8260D</td> <td>10-2-20</td> <td>10-2-20</td> <td></td>	Vinyl Acetate	ND	1.0	EPA 8260D	10-2-20	10-2-20	
2-Butanone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Bromochloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Dibromomethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20 <td>2,2-Dichloropropane</td> <td>ND</td> <td>0.20</td> <td>EPA 8260D</td> <td>10-2-20</td> <td>10-2-20</td> <td></td>	2,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromochloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Benzene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Trichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Dibromomethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Bromodichloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20	(cis) 1,2-Dichloroethene	0.26	0.20	EPA 8260D	10-2-20	10-2-20	
Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Benzene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Trichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Dibromomethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20         10-2-20           (cis) 1,3-Dichloropropene         ND         0.20         EPA 8260D         10-2-20 </td <td>2-Butanone</td> <td>ND</td> <td>5.0</td> <td>EPA 8260D</td> <td>10-2-20</td> <td>10-2-20</td> <td></td>	2-Butanone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
1,1,1-Trichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Benzene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Trichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Dibromomethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Bromodichloromethane         ND         1.0         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20         10-2-20           (cis) 1,3-Dichloropropene         ND         2.0         EPA 8260D         1	Bromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Benzene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Trichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Dibromomethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Bromodichloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20         10-2-20           (cis) 1,3-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl Isobutyl Ketone         ND         2.0         EPA 8260D         10-2-20         10-2-20           Toluene         ND         1.0         EPA 8260D         10-2-20	Chloroform	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloropropene       ND       0.20       EPA 8260D       10-2-20       10-2-20         Benzene       ND       0.20       EPA 8260D       10-2-20       10-2-20         1,2-Dichloroethane       ND       0.20       EPA 8260D       10-2-20       10-2-20         Trichloroethene       ND       0.20       EPA 8260D       10-2-20       10-2-20         1,2-Dichloropropane       ND       0.20       EPA 8260D       10-2-20       10-2-20         Dibromomethane       ND       0.20       EPA 8260D       10-2-20       10-2-20         Bromodichloromethane       ND       0.20       EPA 8260D       10-2-20       10-2-20         2-Chloroethyl Vinyl Ether       ND       1.0       EPA 8260D       10-2-20       10-2-20         (cis) 1,3-Dichloropropene       ND       0.20       EPA 8260D       10-2-20       10-2-20         Methyl Isobutyl Ketone       ND       2.0       EPA 8260D       10-2-20       10-2-20         Toluene       ND       1.0       EPA 8260D       10-2-20       10-2-20	1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Benzene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Trichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Dibromomethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Bromodichloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20         10-2-20           (cis) 1,3-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl Isobutyl Ketone         ND         2.0         EPA 8260D         10-2-20         10-2-20           Toluene         ND         1.0         EPA 8260D         10-2-20         10-2-20	Carbon Tetrachloride	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloroethane       ND       0.20       EPA 8260D       10-2-20       10-2-20         Trichloroethene       ND       0.20       EPA 8260D       10-2-20       10-2-20         1,2-Dichloropropane       ND       0.20       EPA 8260D       10-2-20       10-2-20         Dibromomethane       ND       0.20       EPA 8260D       10-2-20       10-2-20         Bromodichloromethane       ND       0.20       EPA 8260D       10-2-20       10-2-20         2-Chloroethyl Vinyl Ether       ND       1.0       EPA 8260D       10-2-20       10-2-20         (cis) 1,3-Dichloropropene       ND       0.20       EPA 8260D       10-2-20       10-2-20         Methyl Isobutyl Ketone       ND       2.0       EPA 8260D       10-2-20       10-2-20         Toluene       ND       1.0       EPA 8260D       10-2-20       10-2-20	1,1-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Trichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Dibromomethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Bromodichloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20         10-2-20           (cis) 1,3-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl Isobutyl Ketone         ND         2.0         EPA 8260D         10-2-20         10-2-20           Toluene         ND         1.0         EPA 8260D         10-2-20         10-2-20	Benzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Dibromomethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Bromodichloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20         10-2-20           (cis) 1,3-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl Isobutyl Ketone         ND         2.0         EPA 8260D         10-2-20         10-2-20           Toluene         ND         1.0         EPA 8260D         10-2-20         10-2-20	1,2-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Dibromomethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Bromodichloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20         10-2-20           (cis) 1,3-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl Isobutyl Ketone         ND         2.0         EPA 8260D         10-2-20         10-2-20           Toluene         ND         1.0         EPA 8260D         10-2-20         10-2-20	Trichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromodichloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20         10-2-20           (cis) 1,3-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl Isobutyl Ketone         ND         2.0         EPA 8260D         10-2-20         10-2-20           Toluene         ND         1.0         EPA 8260D         10-2-20         10-2-20	1,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chloroethyl Vinyl Ether       ND       1.0       EPA 8260D       10-2-20       10-2-20         (cis) 1,3-Dichloropropene       ND       0.20       EPA 8260D       10-2-20       10-2-20         Methyl Isobutyl Ketone       ND       2.0       EPA 8260D       10-2-20       10-2-20         Toluene       ND       1.0       EPA 8260D       10-2-20       10-2-20	Dibromomethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
(cis) 1,3-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl Isobutyl Ketone         ND         2.0         EPA 8260D         10-2-20         10-2-20           Toluene         ND         1.0         EPA 8260D         10-2-20         10-2-20	Bromodichloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl Isobutyl Ketone         ND         2.0         EPA 8260D         10-2-20         10-2-20           Toluene         ND         1.0         EPA 8260D         10-2-20         10-2-20	2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Toluene ND 1.0 EPA 8260D 10-2-20 10-2-20	(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
	Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,3-Dichloropropene ND 0.20 EPA 8260D 10-2-20 10-2-20	Toluene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
	(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	

Laboratory Reference: 2009-335

Project: 2032-012

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-2-092920					
Laboratory ID:	09-335-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Tetrachloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Hexanone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Dibromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Ethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
m,p-Xylene	ND	0.40	EPA 8260D	10-2-20	10-2-20	
o-Xylene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Styrene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromoform	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Isopropylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Propylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
tert-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
sec-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
p-lsopropyltoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Naphthalene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	104	75-127				

Surrogate: Percent Recovery Control Lim
Dibromofluoromethane 104 75-127
Toluene-d8 102 80-127
4-Bromofluorobenzene 98 78-125

Laboratory Reference: 2009-335

Project: 2032-012

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-3-092920					
Laboratory ID:	09-335-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloromethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Vinyl Chloride	0.090	0.020	EPA 8260D/SIM	10-2-20	10-2-20	
Bromomethane	ND	0.30	EPA 8260D	10-2-20	10-2-20	
Chloroethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Acetone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
lodomethane	ND	1.8	EPA 8260D	10-2-20	10-2-20	
Carbon Disulfide	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methylene Chloride	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Vinyl Acetate	ND	1.0	EPA 8260D	10-2-20	10-2-20	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
(cis) 1,2-Dichloroethene	0.21	0.20	EPA 8260D	10-2-20	10-2-20	
2-Butanone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
Bromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloroform	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Benzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Trichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Dibromomethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromodichloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Toluene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	

Laboratory Reference: 2009-335

Project: 2032-012

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-3-092920					
Laboratory ID:	09-335-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Tetrachloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Hexanone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Dibromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Ethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
m,p-Xylene	ND	0.40	EPA 8260D	10-2-20	10-2-20	
o-Xylene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Styrene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromoform	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Isopropylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Propylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
tert-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
sec-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
p-lsopropyltoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Naphthalene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	104	75-127				

Surrogate: Percent Recovery Control Lim
Dibromofluoromethane 104 75-127
Toluene-d8 101 80-127
4-Bromofluorobenzene 96 78-125

Laboratory Reference: 2009-335

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D/SIM**

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Client ID:					Date	Date	
Dichlorodifluoromethane	Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Dichlorodiffluoromethane	Client ID:	FMW-4-093020					
Chloromethane         ND         1.0         EPA 8260D         10-2-20         10-2-20           Vinyl Chloride         4.3         0.20         EPA 8260D         10-2-20         10-2-20           Bromomethane         ND         0.30         EPA 8260D         10-2-20         10-2-20           Chloroethane         ND         1.0         EPA 8260D         10-2-20         10-2-20           Trichlorofluoromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Acetone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Iodomethane         ND         1.8         EPA 8260D         10-2-20         10-2-20           Iodomethane         ND         1.8         EPA 8260D         10-2-20         10-2-20           Methylene Chloride         ND         1.0         EPA 8260D         10-2-20         10-2-20           Methylene Chloride         ND         1.0         EPA 8260D         10-2-20         10-2-20           Methylene Chloride         ND         0.20         EPA 8260D         10-2-20         10-2-20	Laboratory ID:	09-335-06					
Vinyl Chloride         4.3         0.20         EPA 8260D         10-2-20         10-2-20           Bromomethane         ND         0.30         EPA 8260D         10-2-20         10-2-20           Chloroethane         ND         1.0         EPA 8260D         10-2-20         10-2-20           Trichlorofluoromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Acetone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Iodomethane         ND         1.8         EPA 8260D         10-2-20         10-2-20           Iodomethane         ND         1.8         EPA 8260D         10-2-20         10-2-20           Methylene Chloride         ND         1.0         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Winyl Acetate         ND         0.20         EPA 8260D         10-2-20         10-2-20           Vinyl Acetate         ND         0.20         EPA 8260D         10-2-20         10-2-20      <	Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromomethane   ND	Chloromethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Chloroethane         ND         1.0         EPA 8260D         10-2-20         10-2-20           Trichlorofluoromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Acetone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Iodomethane         ND         1.8         EPA 8260D         10-2-20         10-2-20           Carbon Disulfide         ND         1.0         EPA 8260D         10-2-20         10-2-20           Methylene Chloride         ND         1.0         EPA 8260D         10-2-20         10-2-20           Methyle Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20	Vinyl Chloride	4.3	0.20	EPA 8260D	10-2-20	10-2-20	
Trichlorofluoromethane	Bromomethane	ND	0.30	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Acetone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Iodomethane         ND         1.8         EPA 8260D         10-2-20         10-2-20           Carbon Disulfide         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methylene Chloride         ND         1.0         EPA 8260D         10-2-20         10-2-20           (trans) 1,2-Dichloroethene         1.0         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Minyl Acetate         ND         1.0         EPA 8260D         10-2-20         10-2-20           Vinyl Acetate         ND         1.0         EPA 8260D         10-2-20         10-2-20           2,2-Dichloroptopane         ND         0.20         EPA 8260D         10-2-20 <t< td=""><td>Chloroethane</td><td>ND</td><td>1.0</td><td>EPA 8260D</td><td>10-2-20</td><td>10-2-20</td><td></td></t<>	Chloroethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Acetone ND 5.0 EPA 8260D 10-2-20 10-2-20 lodomethane ND 1.8 EPA 8260D 10-2-20 10-2-20 lodomethane ND 1.8 EPA 8260D 10-2-20 10-2-20 lodomethane ND 0.20 EPA 8260D 10-2-20 10-2-20 lodomethane ND 0.20 EPA 8260D 10-2-20 10-2-20 lodomethane ND 1.0 EPA 8260D 10-2-20 10-2-20 lodomethyl t-Butyl Ether ND 0.20 EPA 8260D 10-2-20 10-2-20 lodomethyl t-Butyl Ether ND 0.20 EPA 8260D 10-2-20 10-2-20 lodomethyl t-Butyl Ether ND 0.20 EPA 8260D 10-2-20 lodomethane ND 0.20 EPA 8260D 10-2-20 lodomethane ND 0.20 EPA 8260D 10-2-20 lodomethyl t-Butyl Ether ND 0.20 EPA 8260D lodomethyl lodomethyl t-Butyl Ether ND 0.20 EPA 8260D lodomethyl l	Trichlorofluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
ND	1,1-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Carbon Disulfide         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methylene Chloride         ND         1.0         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           Vinyl Acetate         ND         0.20         EPA 8260D         10-2-20         10-2-20           2,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2,2-Dichloroptehene         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Bromochloromethane         ND         0.20         EPA 8260D	Acetone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
Methylene Chloride         ND         1.0         EPA 8260D         10-2-20         10-2-20           (trans) 1,2-Dichloroethene         1.0         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Vinyl Acetate         ND         1.0         EPA 8260D         10-2-20         10-2-20           2,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2,2-Dichloroethene         10         0.20         EPA 8260D         10-2-20         10-2-20           2,2-Dichloroethene         10         0.20         EPA 8260D         10-2-20         10-2-20           2,2-Dichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Bromochloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20	lodomethane	ND	1.8	EPA 8260D	10-2-20	10-2-20	
(trans) 1,2-Dichloroethene         1.0         0.20         EPA 8260D         10-2-20         10-2-20           Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Vinyl Acetate         ND         1.0         EPA 8260D         10-2-20         10-2-20           2,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           (cis) 1,2-Dichloroethene         10         0.20         EPA 8260D         10-2-20         10-2-20           2-Butanone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Bromochloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20<	Carbon Disulfide	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl t-Butyl Ether         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Vinyl Acetate         ND         1.0         EPA 8260D         10-2-20         10-2-20           2,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           (cis) 1,2-Dichloroethene         10         0.20         EPA 8260D         10-2-20         10-2-20           2-Butanone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Bromochloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-2	Methylene Chloride	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Vinyl Acetate         ND         1.0         EPA 8260D         10-2-20         10-2-20           2,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           (cis) 1,2-Dichloroethene         10         0.20         EPA 8260D         10-2-20         10-2-20           2-Butanone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Bromochloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20	(trans) 1,2-Dichloroethene	1.0	0.20	EPA 8260D	10-2-20	10-2-20	
Vinyl Acetate         ND         1.0         EPA 8260D         10-2-20         10-2-20           2,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2,2-Dichloroethene         10         0.20         EPA 8260D         10-2-20         10-2-20           2-Butanone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Bromochloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Benzene         ND         0.20         EPA 8260D         10-2-20         10-2-20	Methyl t-Butyl Ether	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           (cis) 1,2-Dichloroethene         10         0.20         EPA 8260D         10-2-20         10-2-20           2-Butanone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Bromochloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Benzene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Trichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-	1,1-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
(cis) 1,2-Dichloroethene         10         0.20         EPA 8260D         10-2-20         10-2-20           2-Butanone         ND         5.0         EPA 8260D         10-2-20         10-2-20           Bromochloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Dibromomethane         ND         0.20         EPA 8260D         10-2-20 <td>Vinyl Acetate</td> <td>ND</td> <td>1.0</td> <td>EPA 8260D</td> <td>10-2-20</td> <td>10-2-20</td> <td></td>	Vinyl Acetate	ND	1.0	EPA 8260D	10-2-20	10-2-20	
ND   S.0   EPA 8260D   10-2-20   1	2,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromochloromethane	(cis) 1,2-Dichloroethene	10	0.20	EPA 8260D	10-2-20	10-2-20	
Chloroform         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Benzene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Trichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Dibromomethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20         10-2-20           (cis) 1,3-Dichloropropene         ND         0.20         EPA 8260D         10-2-20 </td <td>2-Butanone</td> <td>ND</td> <td>5.0</td> <td>EPA 8260D</td> <td>10-2-20</td> <td>10-2-20</td> <td></td>	2-Butanone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
1,1,1-Trichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Benzene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Trichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Dibromomethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Bromodichloromethane         ND         1.0         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20         10-2-20           (cis) 1,3-Dichloropropene         ND         0.20         EPA 8260D	Bromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Carbon Tetrachloride         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,1-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Benzene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Trichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Dibromomethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Bromodichloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20         10-2-20           (cis) 1,3-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl Isobutyl Ketone         ND         2.0         EPA 8260D         10-2-20         10-2-20           Toluene         ND         1.0         EPA 8260D         10-2-20	Chloroform	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloropropene       ND       0.20       EPA 8260D       10-2-20       10-2-20         Benzene       ND       0.20       EPA 8260D       10-2-20       10-2-20         1,2-Dichloroethane       ND       0.20       EPA 8260D       10-2-20       10-2-20         Trichloroethene       ND       0.20       EPA 8260D       10-2-20       10-2-20         1,2-Dichloropropane       ND       0.20       EPA 8260D       10-2-20       10-2-20         Dibromomethane       ND       0.20       EPA 8260D       10-2-20       10-2-20         Bromodichloromethane       ND       0.20       EPA 8260D       10-2-20       10-2-20         2-Chloroethyl Vinyl Ether       ND       1.0       EPA 8260D       10-2-20       10-2-20         (cis) 1,3-Dichloropropene       ND       0.20       EPA 8260D       10-2-20       10-2-20         Methyl Isobutyl Ketone       ND       2.0       EPA 8260D       10-2-20       10-2-20         Toluene       ND       1.0       EPA 8260D       10-2-20       10-2-20	1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Benzene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloroethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Trichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Dibromomethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Bromodichloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20         10-2-20           (cis) 1,3-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl Isobutyl Ketone         ND         2.0         EPA 8260D         10-2-20         10-2-20           Toluene         ND         1.0         EPA 8260D         10-2-20         10-2-20	Carbon Tetrachloride	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloroethane       ND       0.20       EPA 8260D       10-2-20       10-2-20         Trichloroethene       ND       0.20       EPA 8260D       10-2-20       10-2-20         1,2-Dichloropropane       ND       0.20       EPA 8260D       10-2-20       10-2-20         Dibromomethane       ND       0.20       EPA 8260D       10-2-20       10-2-20         Bromodichloromethane       ND       0.20       EPA 8260D       10-2-20       10-2-20         2-Chloroethyl Vinyl Ether       ND       1.0       EPA 8260D       10-2-20       10-2-20         (cis) 1,3-Dichloropropene       ND       0.20       EPA 8260D       10-2-20       10-2-20         Methyl Isobutyl Ketone       ND       2.0       EPA 8260D       10-2-20       10-2-20         Toluene       ND       1.0       EPA 8260D       10-2-20       10-2-20	1,1-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Trichloroethene         ND         0.20         EPA 8260D         10-2-20         10-2-20           1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Dibromomethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Bromodichloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20         10-2-20           (cis) 1,3-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl Isobutyl Ketone         ND         2.0         EPA 8260D         10-2-20         10-2-20           Toluene         ND         1.0         EPA 8260D         10-2-20         10-2-20	Benzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloropropane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Dibromomethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Bromodichloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20         10-2-20           (cis) 1,3-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl Isobutyl Ketone         ND         2.0         EPA 8260D         10-2-20         10-2-20           Toluene         ND         1.0         EPA 8260D         10-2-20         10-2-20	1,2-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Dibromomethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           Bromodichloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20         10-2-20           (cis) 1,3-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl Isobutyl Ketone         ND         2.0         EPA 8260D         10-2-20         10-2-20           Toluene         ND         1.0         EPA 8260D         10-2-20         10-2-20	Trichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromodichloromethane         ND         0.20         EPA 8260D         10-2-20         10-2-20           2-Chloroethyl Vinyl Ether         ND         1.0         EPA 8260D         10-2-20         10-2-20           (cis) 1,3-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl Isobutyl Ketone         ND         2.0         EPA 8260D         10-2-20         10-2-20           Toluene         ND         1.0         EPA 8260D         10-2-20         10-2-20	1,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chloroethyl Vinyl Ether       ND       1.0       EPA 8260D       10-2-20       10-2-20         (cis) 1,3-Dichloropropene       ND       0.20       EPA 8260D       10-2-20       10-2-20         Methyl Isobutyl Ketone       ND       2.0       EPA 8260D       10-2-20       10-2-20         Toluene       ND       1.0       EPA 8260D       10-2-20       10-2-20	Dibromomethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
(cis) 1,3-Dichloropropene         ND         0.20         EPA 8260D         10-2-20         10-2-20           Methyl Isobutyl Ketone         ND         2.0         EPA 8260D         10-2-20         10-2-20           Toluene         ND         1.0         EPA 8260D         10-2-20         10-2-20	Bromodichloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl Isobutyl Ketone         ND         2.0         EPA 8260D         10-2-20         10-2-20           Toluene         ND         1.0         EPA 8260D         10-2-20         10-2-20	2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Toluene ND 1.0 EPA 8260D 10-2-20 10-2-20	(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
	Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,3-Dichloropropene ND 0.20 EPA 8260D 10-2-20 10-2-20	Toluene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
	(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	

Laboratory Reference: 2009-335

Project: 2032-012

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-4-093020					
Laboratory ID:	09-335-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Tetrachloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Hexanone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Dibromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Ethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
m,p-Xylene	ND	0.40	EPA 8260D	10-2-20	10-2-20	
o-Xylene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Styrene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromoform	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Isopropylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Propylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
tert-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
sec-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
p-Isopropyltoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Naphthalene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	105	75-127				
Talvana do	400	00.407				

Surrogate: Percent Recovery Control Lim
Dibromofluoromethane 105 75-127
Toluene-d8 103 80-127
4-Bromofluorobenzene 99 78-125

Laboratory Reference: 2009-335

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-5-092920					
Laboratory ID:	09-335-07					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloromethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-2-20	10-2-20	
Bromomethane	ND	0.30	EPA 8260D	10-2-20	10-2-20	
Chloroethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Acetone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
Iodomethane	ND	1.8	EPA 8260D	10-2-20	10-2-20	
Carbon Disulfide	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methylene Chloride	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Vinyl Acetate	ND	1.0	EPA 8260D	10-2-20	10-2-20	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Butanone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
Bromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloroform	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Benzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Trichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Dibromomethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromodichloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Toluene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	

Laboratory Reference: 2009-335

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-5-092920					
Laboratory ID:	09-335-07					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Tetrachloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Hexanone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Dibromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Ethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
m,p-Xylene	ND	0.40	EPA 8260D	10-2-20	10-2-20	
o-Xylene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Styrene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromoform	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Isopropylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Propylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
tert-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
sec-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
p-Isopropyltoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Naphthalene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	103	75-127				
Toluene-d8	101	80-127				

 Dibromofluoromethane
 103
 75-127

 Toluene-d8
 101
 80-127

 4-Bromofluorobenzene
 98
 78-125

Laboratory Reference: 2009-335

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D/SIM**

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Amaluta	Decult	DOL		Date	Date	Florio
Analyte Client ID:	Result FMW-6-092920	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	09-335-08	0.00	EDA 0000D	10.0.00	40.0.00	
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloromethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Vinyl Chloride	2.1	0.20	EPA 8260D	10-2-20	10-2-20	
Bromomethane	ND	0.30	EPA 8260D	10-2-20	10-2-20	
Chloroethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Acetone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
Iodomethane	ND	1.8	EPA 8260D	10-2-20	10-2-20	
Carbon Disulfide	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methylene Chloride	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,2-Dichloroethene	0.31	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Vinyl Acetate	ND	1.0	EPA 8260D	10-2-20	10-2-20	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
(cis) 1,2-Dichloroethene	2.6	0.20	EPA 8260D	10-2-20	10-2-20	
2-Butanone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
Bromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloroform	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Benzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Trichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Dibromomethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromodichloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Toluene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	

Laboratory Reference: 2009-335

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-6-092920					
Laboratory ID:	09-335-08					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Tetrachloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Hexanone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Dibromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chlorobenzene	1.1	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Ethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
m,p-Xylene	ND	0.40	EPA 8260D	10-2-20	10-2-20	
o-Xylene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Styrene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromoform	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Isopropylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Propylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
tert-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
sec-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
p-Isopropyltoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,4-Dichlorobenzene	0.38	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Naphthalene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	105	75-127				
<b>-</b>						

Dibromofluoromethane 105 75-127
Toluene-d8 102 80-127
4-Bromofluorobenzene 98 78-125

Laboratory Reference: 2009-335

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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ornic. ag/L				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-7-092920					
Laboratory ID:	09-335-09					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloromethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-2-20	10-2-20	
Bromomethane	ND	0.30	EPA 8260D	10-2-20	10-2-20	
Chloroethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Acetone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
lodomethane	ND	1.8	EPA 8260D	10-2-20	10-2-20	
Carbon Disulfide	0.41	0.20	EPA 8260D	10-2-20	10-2-20	
Methylene Chloride	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Vinyl Acetate	ND	1.0	EPA 8260D	10-2-20	10-2-20	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Butanone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
Bromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloroform	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Benzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Trichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Dibromomethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromodichloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Toluene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	

Laboratory Reference: 2009-335

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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		<b>D.C.</b>		Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-7-092920					
Laboratory ID:	09-335-09					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Tetrachloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Hexanone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Dibromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Ethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
m,p-Xylene	ND	0.40	EPA 8260D	10-2-20	10-2-20	
o-Xylene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Styrene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromoform	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Isopropylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Propylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
tert-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
sec-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
p-Isopropyltoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromo-3-chloropropane		1.0	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Naphthalene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits		-	-	
Dibromofluoromethane	105	75-127				
Toluene-d8	102	80-127				

Toluene-d8 102 80-127 4-Bromofluorobenzene 99 78-125

Laboratory Reference: 2009-335

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D/SIM**

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-8-092920					
Laboratory ID:	09-335-10	0.00	ED4 0000B	40.0.00	40.000	
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloromethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-2-20	10-2-20	
Bromomethane	ND	0.30	EPA 8260D	10-2-20	10-2-20	
Chloroethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Acetone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
lodomethane	ND	1.8	EPA 8260D	10-2-20	10-2-20	
Carbon Disulfide	4.7	0.20	EPA 8260D	10-2-20	10-2-20	
Methylene Chloride	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Vinyl Acetate	ND	1.0	EPA 8260D	10-2-20	10-2-20	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Butanone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
Bromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloroform	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Benzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Trichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Dibromomethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromodichloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Toluene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	

Laboratory Reference: 2009-335

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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		<b>5</b> 6-		Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-8-092920					
Laboratory ID:	09-335-10					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Tetrachloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Hexanone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Dibromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Ethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
m,p-Xylene	ND	0.40	EPA 8260D	10-2-20	10-2-20	
o-Xylene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Styrene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromoform	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Isopropylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Propylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
tert-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
sec-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
p-Isopropyltoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Naphthalene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	103	75-127				
Toluene-d8	99	80-127				

 Dibromofluoromethane
 103
 75-127

 Toluene-d8
 99
 80-127

 4-Bromofluorobenzene
 96
 78-125

Laboratory Reference: 2009-335

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-9-093020					
Laboratory ID:	09-335-11					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloromethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Vinyl Chloride	0.14	0.020	EPA 8260D/SIM	10-2-20	10-2-20	
Bromomethane	ND	0.30	EPA 8260D	10-2-20	10-2-20	
Chloroethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Acetone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
lodomethane	ND	1.8	EPA 8260D	10-2-20	10-2-20	
Carbon Disulfide	0.36	0.20	EPA 8260D	10-2-20	10-2-20	
Methylene Chloride	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Vinyl Acetate	ND	1.0	EPA 8260D	10-2-20	10-2-20	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
(cis) 1,2-Dichloroethene	1.3	0.20	EPA 8260D	10-2-20	10-2-20	
2-Butanone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
Bromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloroform	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Benzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Trichloroethene	0.30	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Dibromomethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromodichloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Toluene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	

Laboratory Reference: 2009-335

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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A I. 4 .	<b>.</b>	DC:	BB . 45	Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-9-093020					
Laboratory ID:	09-335-11					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Tetrachloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Hexanone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Dibromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Ethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
m,p-Xylene	ND	0.40	EPA 8260D	10-2-20	10-2-20	
o-Xylene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Styrene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromoform	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Isopropylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Propylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
tert-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
sec-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
p-Isopropyltoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Naphthalene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	105	75-127				

Surrogate: Percent Recovery Control Lim
Dibromofluoromethane 105 75-127
Toluene-d8 101 80-127
4-Bromofluorobenzene 96 78-125

Laboratory Reference: 2009-335

Project: 2032-012

### VOLATILE ORGANICS EPA 8260D/SIM QUALITY CONTROL

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1002W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloromethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	10-2-20	10-2-20	
Bromomethane	ND	0.30	EPA 8260D	10-2-20	10-2-20	
Chloroethane	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Trichlorofluoromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Acetone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
lodomethane	ND	1.8	EPA 8260D	10-2-20	10-2-20	
Carbon Disulfide	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methylene Chloride	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl t-Butyl Ether	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Vinyl Acetate	ND	1.0	EPA 8260D	10-2-20	10-2-20	
2,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Butanone	ND	5.0	EPA 8260D	10-2-20	10-2-20	
Bromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chloroform	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Carbon Tetrachloride	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Benzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Trichloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Dibromomethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromodichloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Toluene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	10-2-20	10-2-20	

Laboratory Reference: 2009-335

Project: 2032-012

### VOLATILE ORGANICS EPA 8260D/SIM QUALITY CONTROL

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Amalista	Decel	DOL	Madle e al	Date	Date	<b>5</b> 1
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK	MD4000M4					
Laboratory ID:	MB1002W1	0.00	EDA 0000D	10.0.00	40.0.00	
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Tetrachloroethene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Hexanone	ND	2.0	EPA 8260D	10-2-20	10-2-20	
Dibromochloromethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromoethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Chlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Ethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
m,p-Xylene	ND	0.40	EPA 8260D	10-2-20	10-2-20	
o-Xylene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Styrene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromoform	ND	1.0	EPA 8260D	10-2-20	10-2-20	
sopropylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Bromobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Propylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
2-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
4-Chlorotoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
ert-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
sec-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
o-Isopropyltoluene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
, 4-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
n-Butylbenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
1,2-Dibromo-3-chloropropane		1.0	EPA 8260D	10-2-20	10-2-20	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Hexachlorobutadiene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
Naphthalene	ND	1.0	EPA 8260D	10-2-20	10-2-20	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	10-2-20	10-2-20	
Surrogate:	Percent Recovery	Control Limits	, , 52552	10 2 20	.0 2 20	
Surrogate. Dibromofluoromethane	106	75-127				
	100	10-121				

4-Bromofluorobenzene

Toluene-d8

80-127

78-125

104

102

Date of Report: October 8, 2020

Samples Submitted: September 30, 2020

Laboratory Reference: 2009-335

Project: 2032-012

### VOLATILE ORGANICS EPA 8260D/SIM QUALITY CONTROL

					Source	Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
MATRIX SPIKES											
Laboratory ID:	10-00	05-03									
	MS	MSD	MS	MSD		MS	MSD				
1,1-Dichloroethene	10.3	10.2	10.0	10.0	ND	103	102	68-122	1	15	
Benzene	10.3	10.6	10.0	10.0	ND	103	106	70-121	3	16	
Trichloroethene	12.7	12.8	10.0	10.0	2.39	103	104	80-121	1	17	
Toluene	10.0	10.1	10.0	10.0	ND	100	101	78-117	1	19	
Chlorobenzene	9.97	10.0	10.0	10.0	ND	100	100	80-120	0	16	
Surrogate:											
Dibromofluoromethane						107	107	75-127			
Toluene-d8						105	105	80-127			
4-Bromofluorobenzene						104	104	78-125			

Laboratory Reference: 2009-335

Project: 2032-012

### TOTAL METALS EPA 200.8/7470A

Office. ug/L (ppb)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-2-092920			-	_	
Laboratory ID:	09-335-04					
Arsenic	ND	3.3	EPA 200.8	10-2-20	10-2-20	
Cadmium	ND	4.4	EPA 200.8	10-2-20	10-2-20	
Chromium	ND	11	EPA 200.8	10-2-20	10-2-20	
Lead	ND	1.1	EPA 200.8	10-2-20	10-2-20	
Mercury	ND	0.50	EPA 7470A	10-2-20	10-2-20	
Client ID:	FMW-3-092920					
Laboratory ID:	09-335-05					
Arsenic	31	3.3	EPA 200.8	10-2-20	10-2-20	
Cadmium	ND	4.4	EPA 200.8	10-2-20	10-2-20	
Chromium	ND	11	EPA 200.8	10-2-20	10-2-20	
Lead	ND	1.1	EPA 200.8	10-2-20	10-2-20	
Mercury	ND	0.50	EPA 7470A	10-2-20	10-2-20	
Client ID:	FMW-5-092920					
Laboratory ID:	09-335-07					
Arsenic	8.8	3.3	EPA 200.8	10-2-20	10-2-20	
Cadmium	ND	4.4	EPA 200.8	10-2-20	10-2-20	
Chromium	ND	11	EPA 200.8	10-2-20	10-2-20	
Lead	1.4	1.1	EPA 200.8	10-2-20	10-2-20	
Mercury	ND	0.50	EPA 7470A	10-2-20	10-2-20	
Client ID:	FMW-6-092920					
Laboratory ID:	09-335-08					
Arsenic	4.2	3.3	EPA 200.8	10-2-20	10-2-20	
Cadmium	ND	4.4	EPA 200.8	10-2-20	10-2-20	
Chromium	ND	11	EPA 200.8	10-2-20	10-2-20	
Lead	ND	1.1	EPA 200.8	10-2-20	10-2-20	
Mercury	ND	0.50	EPA 7470A	10-2-20	10-2-20	

Date of Report: October 8, 2020

Samples Submitted: September 30, 2020 Laboratory Reference: 2009-335

Project: 2032-012

### TOTAL METALS EPA 200.8/7470A

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-7-092920					
Laboratory ID:	09-335-09					
Arsenic	6.4	3.3	EPA 200.8	10-2-20	10-2-20	
Cadmium	ND	4.4	EPA 200.8	10-2-20	10-2-20	
Chromium	ND	11	EPA 200.8	10-2-20	10-2-20	
Lead	ND	1.1	EPA 200.8	10-2-20	10-2-20	
Mercury	ND	0.50	EPA 7470A	10-2-20	10-2-20	
Client ID:	FMW-8-092920					
Laboratory ID:	09-335-10					
Arsenic	5.0	3.3	EPA 200.8	10-2-20	10-2-20	
Cadmium	ND	4.4	EPA 200.8	10-2-20	10-2-20	
Chromium	ND	11	EPA 200.8	10-2-20	10-2-20	
Lead	ND	1.1	EPA 200.8	10-2-20	10-2-20	
Mercury	ND	0.50	EPA 7470A	10-2-20	10-2-20	
Client ID:	FMW-9-093020					
Laboratory ID:	09-335-11					
Arsenic	4.0	3.3	EPA 200.8	10-2-20	10-2-20	
Cadmium	ND	4.4	EPA 200.8	10-2-20	10-2-20	
Chromium	ND	11	EPA 200.8	10-2-20	10-2-20	
Lead	ND	1.1	EPA 200.8	10-2-20	10-2-20	
Mercury	ND	0.50	EPA 7470A	10-2-20	10-2-20	

Laboratory Reference: 2009-335

Project: 2032-012

### TOTAL METALS EPA 200.8/7470A QUALITY CONTROL

			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
MB1002WM1					
ND	3.3	EPA 200.8	10-2-20	10-2-20	
ND	4.4	EPA 200.8	10-2-20	10-2-20	
ND	11	EPA 200.8	10-2-20	10-2-20	
ND	1.1	EPA 200.8	10-2-20	10-2-20	
MB1002W1					
ND	0.50	EPA 7470A	10-2-20	10-2-20	
	MB1002WM1  ND  ND  ND  ND  ND  MB1002W1	MB1002WM1  ND 3.3  ND 4.4  ND 11  ND 1.1  MB1002W1	MB1002WM1  ND 3.3 EPA 200.8  ND 4.4 EPA 200.8  ND 11 EPA 200.8  ND 1.1 EPA 200.8  MB1002W1	Result         PQL         Method         Prepared           MB1002WM1         ND         3.3         EPA 200.8         10-2-20           ND         4.4         EPA 200.8         10-2-20           ND         11         EPA 200.8         10-2-20           ND         1.1         EPA 200.8         10-2-20           MB 1002W1         MB1002W1         Method         Prepared	Result         PQL         Method         Prepared         Analyzed           MB1002WM1           ND         3.3         EPA 200.8         10-2-20         10-2-20           ND         4.4         EPA 200.8         10-2-20         10-2-20           ND         11         EPA 200.8         10-2-20         10-2-20           ND         1.1         EPA 200.8         10-2-20         10-2-20           MB1002W1         MB1002W1         MB1002W1         MB1002W1

					Source	Pe	rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	09-33	35-04									
	ORIG	DUP									
Arsenic	ND	ND	NA	NA			NA	NA	NA	20	
Cadmium	ND	ND	NA	NA		ı	NA	NA	NA	20	
Chromium	ND	ND	NA	NA		ı	NA	NA	NA	20	
Lead	ND	ND	NA	NA			NA	NA	NA	20	
Laboratory ID:	10-00	07-01									
Mercury	ND	ND	NA	NA		ı	NA	NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	09-33	35-04									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	124	128	111	111	ND	111	115	75-125	3	20	
Cadmium	111	114	111	111	ND	100	103	75-125	2	20	
Chromium	108	112	111	111	ND	98	101	75-125	4	20	
Lead	99.1	103	111	111	ND	89	93	75-125	4	20	
Laboratory ID:	10-00	07-01									
Mercury	11.9	11.7	12.5	12.5	ND	95	93	75-125	2	20	

Laboratory Reference: 2009-335

Project: 2032-012

### DISSOLVED METALS EPA 200.8/7470A

Offits. ug/L (ppb)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-2-092920					
Laboratory ID:	09-335-04					
Arsenic	ND	3.0	EPA 200.8		10-2-20	
Cadmium	ND	4.0	EPA 200.8		10-2-20	
Chromium	ND	10	EPA 200.8		10-2-20	
₋ead	ND	1.0	EPA 200.8		10-2-20	
Mercury	ND	0.50	EPA 7470A		10-2-20	
Client ID:	FMW-3-092920					
Laboratory ID:	09-335-05					
Arsenic	32	3.0	EPA 200.8		10-2-20	
Cadmium	ND	4.0	EPA 200.8		10-2-20	
Chromium	ND	10	EPA 200.8		10-2-20	
_ead	ND	1.0	EPA 200.8		10-2-20	
Mercury	ND	0.50	EPA 7470A		10-2-20	
Client ID:	FMW-5-092920					
Laboratory ID:	09-335-07					
Arsenic	7.6	3.0	EPA 200.8		10-2-20	
Cadmium	ND	4.0	EPA 200.8		10-2-20	
Chromium	ND	10	EPA 200.8		10-2-20	
_ead	ND	1.0	EPA 200.8		10-2-20	
Mercury	ND	0.50	EPA 7470A		10-2-20	
Client ID:	FMW-6-092920					
Laboratory ID:	09-335-08					
Arsenic	4.3	3.0	EPA 200.8		10-2-20	
Cadmium	ND	4.0	EPA 200.8		10-2-20	
Chromium	ND	10	EPA 200.8		10-2-20	
Lead	ND	1.0	EPA 200.8		10-2-20	
Mercury	ND	0.50	EPA 7470A		10-2-20	

Date of Report: October 8, 2020

Samples Submitted: September 30, 2020 Laboratory Reference: 2009-335

Project: 2032-012

### DISSOLVED METALS EPA 200.8/7470A

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-7-092920					
Laboratory ID:	09-335-09					
Arsenic	6.5	3.0	EPA 200.8		10-2-20	
Cadmium	ND	4.0	EPA 200.8		10-2-20	
Chromium	ND	10	EPA 200.8		10-2-20	
Lead	ND	1.0	EPA 200.8		10-2-20	
Mercury	ND	0.50	EPA 7470A		10-2-20	
Client ID:	FMW-8-092920					
Laboratory ID:	09-335-10					
Arsenic	5.6	3.0	EPA 200.8		10-2-20	
Cadmium	ND	4.0	EPA 200.8		10-2-20	
Chromium	ND	10	EPA 200.8		10-2-20	
Lead	ND	1.0	EPA 200.8		10-2-20	
Mercury	ND	0.50	EPA 7470A		10-2-20	
Client ID:	FMW-9-093020					
Laboratory ID:	09-335-11					
Arsenic	3.5	3.0	EPA 200.8		10-2-20	
Cadmium	ND	4.0	EPA 200.8		10-2-20	
Chromium	ND	10	EPA 200.8		10-2-20	
Lead	ND	1.0	EPA 200.8		10-2-20	
Mercury	ND	0.50	EPA 7470A		10-2-20	

Laboratory Reference: 2009-335

Project: 2032-012

### DISSOLVED METALS EPA 200.8/7470A QUALITY CONTROL

			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
MB1002D1					
ND	3.0	EPA 200.8		10-2-20	
ND	4.0	EPA 200.8		10-2-20	
ND	10	EPA 200.8		10-2-20	
ND	1.0	EPA 200.8		10-2-20	
MB1002D1					
ND	0.50	EPA 7470A		10-2-20	
	MB1002D1  ND  ND  ND  ND  MD  MD  MD	MB1002D1  ND 3.0  ND 4.0  ND 10  ND 1.0  MB1002D1	MB1002D1  ND 3.0 EPA 200.8  ND 4.0 EPA 200.8  ND 10 EPA 200.8  ND 1.0 EPA 200.8  MB1002D1	Result         PQL         Method         Prepared           MB1002D1           ND         3.0         EPA 200.8           ND         4.0         EPA 200.8           ND         10         EPA 200.8           ND         1.0         EPA 200.8    MB1002D1	Result         PQL         Method         Prepared         Analyzed           MB1002D1           ND         3.0         EPA 200.8         10-2-20           ND         4.0         EPA 200.8         10-2-20           ND         10         EPA 200.8         10-2-20           ND         1.0         EPA 200.8         10-2-20           MB1002D1         MB1002D1

	_				Source		rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	09-33	35-04									
	ORIG	DUP									
Arsenic	ND	ND	NA	NA			NA	NA	NA	20	
Cadmium	ND	ND	NA	NA			NA	NA	NA	20	
Chromium	ND	ND	NA	NA			NA	NA	NA	20	
Lead	ND	ND	NA	NA			NA	NA	NA	20	
Laboratory ID:	09-33	35-04									
Mercury	ND	ND	NA	NA			NA	NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	09-33	35-04									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	88.2	89.4	80.0	80.0	ND	110	112	75-125	1	20	
Cadmium	78.0	79.2	80.0	80.0	ND	98	99	75-125	2	20	
Chromium	74.6	74.2	80.0	80.0	ND	93	93	75-125	1	20	
Lead	71.2	71.8	80.0	80.0	ND	89	90	75-125	1	20	
Laboratory ID:	09-33	35-04									
Mercury	11.5	11.6	12.5	12.5	ND	92	93	75-125	1	20	



### **Data Qualifiers and Abbreviations**

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical .
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

7 -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





# **Chain of Custody**

Page / of 2

1, wa 98052 site-env.com    Sam   Photo   Photo	Reviewed/Date
Redmond, WA 98052	
1.46.63 NE Sish Street : Redmond, WA 980822   Check One)   Check One	
14648 NE 98th Sirest · Redmond, WA 98052   Thome: (425) 883-3881 · www.onsise-env.com   Same Day   Check One)   Day     1 Number: 2032-0/12   Same Day   1 Day     1 Name: 2032-0/12   Samodard (7 Days)     2 Days   Time   Sampled   Matrix     1 Name: 2032-0/12   Sampled   Sampled   Matrix     1 Name: 2032-0/12   Sampled   Sampled   Matrix     1 Name: 2032-0/12   Sampled   Name: 2032-0/12     1 Name: 2032-0/12   Sampled   N	9/30/201715
14648 NE 98th Sireet · Redmond, WA 98052   FMONE: (425) 983-3881 · WWW.Onisite-envicom   2032 - 0/2   Same Day   10ay   10ay     10ay   10ay   10ay   10ay     10ay   10ay   10ay   10ay     10ay   10ay   10ay   10ay     10ay   10ay   10ay   10ay     10ay   10ay   10ay   10ay     10ay   10ay   10ay   10ay     10ay   10ay   10ay     10ay   10ay   10ay   10ay     10ay   10ay   10ay   10ay     10ay   10ay   10ay   10ay     10ay   10a	9-30-20 1715
14648 NE 95th Sirest - Redmond, WA 98052   (Check One)     Phone: (425) 883-3881 - www.onsite-env.com     Same Day     1 Day     Number: 2-032-0/2     2 Days     3 Days     Name: 2-032-0/1     2 Days     3 Days     Name: 2-032-0/1   2 Days     3 Days     Name: 2-032-0/1   2 Date   Time     Sampled   Sampled   Sampled   Sampled     Name: 2-032-0   9/26/20   1055     Name: 2-032-0   9/26/20   1055     Name: 2-032-0   9/26/20   12/5     Name: 2-032-0   9/26/20   12/5	-
14648 NE 95th Sireet - Redmond, WA 98052   (Check One)     Phone: (425) 883-3881 · www.onsite-env.com     Same Day     1 Day     1 Number: 1 O37 - 0/7     2 Days     3 Days     1 Number: 2 O37 - 0/7     2 Days     3 Days     1 Number: 1 O37 - 0/7     2 Days     3 Days     1 Number: 2 O37 - 0/7     2 Days     3 Days     1 Number: 2 O37 - 0/7     2 Days     3 Days     1 Number: 2 Days   1 Days     3 Days   1 Days     4 Days   1 Days     5 Days   1 Days	9/30/20 1555
14648 NE 95th Sireet: Fiedmond, WA 98052   Check One   Phone: (425) 883-3881 ** www.onsite-env.com   Check One   1 Day   1 D	Date Time
14648 NE 95th Sireet · Redmond, WA 98052   Check One     Phone: (425) 883-3881 · www.onsite-env.com     Togz-0/2   Check One     Same Day   1 Day     Same Day   1 Day     2 Days   3 Days     Same Day   1 Day     2 Days   3 Days     Same Day   1 Day     Date   Time   Sampled   Sampled   Sampled   Sampled   Sampled     MW-1-093020   9/30/20   0975   Walrix     MW-3-093020   9/30/20   12/5     FMW-3-091920   9/29/20   1500     FMW-3-091920   9/29/20   1055     FMW-3-091920   9/29/20   1055     FMW-1-093020   9/29/20   1055	7 × ×
14648 NE 95th Street · Redmond, WA 98052   Check One     Phone: (425) 883-3881 · www.onsite-env.com   Same Day   1 Day     Thumber: 2-032-0/12   Same Day   1 Day     Thume: 2-032-0/12   Standard (7 Days)     Thumes: 2-042-0/12   Standard (7 Days)     Thumes: 2-042-0/12   Sampled   Sampled   Sampled     Pete   Kingsfen   Date   Time     Sample Identification   Sampled   Sampled   Mairix     MW-1-0930-00   9/30/10 097-0     FMW-3-0930-00   9/20/20 1215     FMW-5-0929-00   9/20/20   9/20/20     FMW-5-0929-00   9/20/20   9/20/20     FMW-5-0929-00   9/20/20   9/20/20     FMW-5-0929-00   9/20/20   9/20/20   9/20/20     FMW-5-0929-00   9/20/20   9/20/20	7 X X
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14648 NE 95th Street · Redmond, WA 98052 Phone: (425) 883-3881 · www.onsite-env.com    Check One     Same Day	× ×
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14648 NE 95th Street · Redmond, WA 98052   (in working days)	H-HCIE H-Gx/E H-Gx H-Dx (  es 8260
14648 NE 95th Street · Redmond, WA 98052 Phone: (425) 883-3881 · www.onsite-env.com  (Check One)  (Check One)  Same Day  1 Day  Ther:  2032 -0/2  There is a continuous days)  (Check One)  Same Day  1 Day  Standard (7 Days)  (TPH analysis 5 Days)	BTEX  BTEX  Acid
14648 NE 95th Street · Redmond, WA 98052   (in working days Phone: (425) 883-3881 · www.onsite-env.com   (Check One)	STA
14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com  (Check One)	1
14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com	)
The state of the s	Laboratory Number:



# **Chain of Custody**

Page 2 of 2

Reviewed/Date	Received	Relinquished	Received	Relinquished (1807)	Received / Sca	Relinquished	Signature						11 FMW-9-093020	Lab ID Sample Identification	Sampled by. PCh War	Pete Kingston	2032-012 Perior Manager	2032-012	Company: Foralls	Phone: (425) 883-3881 • www.onsite-env.com	Analytical Laboratory Testing Services  14648 NE 95th Street - Bedmond WA 98052
Reviewed/Date			1 92	50000	Speece Speece	Faralles	Company		(	1			9/30/20 1315	Date Time Sampled Sampled	(other)		Standard (7 Days) (TPH analysis 5 Days)	2 Days	Same Day	(Check One)	Turnaround Request
0			9/30/20	02-05-b		n 9/30/20 1	Date T						2 7	NWTP NWTP NWTP	'H-HCII 'H-Gx/I 'H-Gx	BTEX		3 Days	1 Day		Laboratory N
Chromatograms with final report □	Data Package: Standard ☐ Le		1715	1715	1625	1555	Time Comments/Special Instructions							EDB E Semiv (with le PAHs  PCBs  Organ  Organ	PA 801 Colatiles DW-leve 8270D/ 8082A Cochlori Cophosp	Volatile 1 (Wat 8270Del PAHs SIM (lo		081B			lumber: 09 - 335
☐ Electronic Data Deliverables (EDDs) ☐	Level III  Level IV											\	×	TCLP			<b>† [</b>	Disso	hed		



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

March 19, 2021

Pete Kingston Farallon Consulting 1809 7th Avenue, Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 2032-012

Laboratory Reference No. 2103-128

### Dear Pete:

Enclosed are the analytical results and associated quality control data for samples submitted on March 11, 2021.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

**Enclosures** 

Date of Report: March 19, 2021 Samples Submitted: March 11, 2021 Laboratory Reference: 2103-128

Project: 2032-012

### **Case Narrative**

Samples were collected on March 10, 2021 and received by the laboratory on March 11, 2021. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: March 19, 2021 Samples Submitted: March 11, 2021 Laboratory Reference: 2103-128

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-5-20210310					
Laboratory ID:	03-128-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	3-12-21	3-12-21	
Bromomethane	ND	0.28	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	1.3	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
lodomethane	ND	2.0	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	· ND	0.20	EPA 8260D	3-12-21	3-12-21	

Date of Report: March 19, 2021 Samples Submitted: March 11, 2021 Laboratory Reference: 2103-128

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### **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-5-20210310					
Laboratory ID:	03-128-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropan	e ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	94	75-127				
Toluene-d8	85	80-127				

4-Bromofluorobenzene

99

78-125

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## **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-3-20210310					
Laboratory ID:	03-128-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	0.066	0.020	EPA 8260D/SIM	3-12-21	3-12-21	
Bromomethane	ND	0.28	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	1.3	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
lodomethane	ND	2.0	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	0.32	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	

# **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-3-20210310					
Laboratory ID:	03-128-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	0.37	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	93	75-127				

Surrogate:	Percent Recovery	Control Limit
Dibromofluoromethane	93	75-127
Toluene-d8	109	80-127
4-Bromofluorobenzene	97	78-125



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## **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-7-20210310					
Laboratory ID:	03-128-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	3-12-21	3-12-21	
Bromomethane	ND	0.28	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	1.3	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Iodomethane	ND	2.0	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	e ND	0.20	EPA 8260D	3-12-21	3-12-21	

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## **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-7-20210310					
Laboratory ID:	03-128-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	89	75-127				
Taluana do	100	00 127				



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## **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-2-20210310					
Laboratory ID:	03-128-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	3-12-21	3-12-21	
Bromomethane	ND	0.28	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	1.3	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
lodomethane	ND	2.0	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	0.24	0.20	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	0.72	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	

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# **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-2-20210310					
Laboratory ID:	03-128-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	1.2	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	91	75-127				
T / 10		00.407				



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# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-6-20210310					
Laboratory ID:	03-128-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	0.16	0.020	EPA 8260D/SIM	3-12-21	3-12-21	
Bromomethane	ND	0.28	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	1.3	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
lodomethane	ND	2.0	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	0.42	0.20	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	0.22	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	e ND	0.20	EPA 8260D	3-12-21	3-12-21	

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# **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-6-20210310					
Laboratory ID:	03-128-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	0.38	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	1.3	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	94	75-127				
Taluana do	07	00 127				



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## **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-1-20210310					
Laboratory ID:	03-128-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	0.024	0.020	EPA 8260D/SIM	3-12-21	3-12-21	
Bromomethane	ND	0.28	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	1.3	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
lodomethane	ND	2.0	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	4.4	0.20	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	1.1	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	

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## **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-1-20210310					
Laboratory ID:	03-128-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	92	75-127				
Toluene-d8	96	80-127				

4-Bromofluorobenzene

96

78-125

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## **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-8-20210310					
Laboratory ID:	03-128-07					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	3-12-21	3-12-21	
Bromomethane	ND	0.28	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	1.3	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
lodomethane	ND	2.0	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	e ND	0.20	EPA 8260D	3-12-21	3-12-21	

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## **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-8-20210310					
Laboratory ID:	03-128-07					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Surrogate:	Percent Recovery	Control Limits				·
Dibromofluoromethane	95	75-127				
Taluana do	07	00 127				



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# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	SVE-1-20210310					
Laboratory ID:	03-128-08					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	1.2	0.20	EPA 8260D	3-12-21	3-12-21	
Bromomethane	ND	0.28	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	1.3	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Iodomethane	ND	2.0	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	0.38	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	3.6	0.20	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	0.24	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	

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# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	SVE-1-20210310					
Laboratory ID:	03-128-08					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	0.21	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	94	75-127				
Toluene-d8	99	80-127				

100

4-Bromofluorobenzene

78-125

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## **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-9-20210310					
Laboratory ID:	03-128-09					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	3-12-21	3-12-21	
Bromomethane	ND	0.28	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	1.3	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
lodomethane	ND	2.0	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	0.44	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	e ND	0.20	EPA 8260D	3-12-21	3-12-21	

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## **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-9-20210310					
Laboratory ID:	03-128-09					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	93	75-127				
Toluene-d8	104	80-127				



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## **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-4-20210310					
Laboratory ID:	03-128-10					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	1.3	0.20	EPA 8260D	3-12-21	3-12-21	
Bromomethane	ND	0.28	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	1.3	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
lodomethane	ND	2.0	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	2.4	0.20	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	e ND	0.20	EPA 8260D	3-12-21	3-12-21	

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# **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-4-20210310					
Laboratory ID:	03-128-10					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	98	75-127				



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## **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-1-20210310					
Laboratory ID:	03-128-11					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	3-12-21	3-12-21	
Bromomethane	ND	0.28	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	1.3	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
lodomethane	ND	2.0	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	0.51	0.20	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	0.22	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	e ND	0.20	EPA 8260D	3-12-21	3-12-21	

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# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-1-20210310					
Laboratory ID:	03-128-11					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	98	75-127				
Toluene-d8	98	80-127				

4-Bromofluorobenzene

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78-125

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## **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-13-20210310					
Laboratory ID:	03-128-12					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	0.057	0.020	EPA 8260D/SIM	3-12-21	3-12-21	
Bromomethane	ND	0.28	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	1.3	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
lodomethane	ND	2.0	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropen	e ND	0.20	EPA 8260D	3-12-21	3-12-21	

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-13-20210310					
Laboratory ID:	03-128-12					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropar	e ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	91	75-127				
Toluene-d8	96	80-127				

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4-Bromofluorobenzene

78-125

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## **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-2-20210310					
Laboratory ID:	03-128-13					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	0.068	0.020	EPA 8260D/SIM	3-12-21	3-12-21	
Bromomethane	ND	0.28	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	1.3	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
lodomethane	ND	2.0	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	0.58	0.20	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	e ND	0.20	EPA 8260D	3-12-21	3-12-21	

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# **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-2-20210310					
Laboratory ID:	03-128-13					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	98	75-127				
Toluene-d8	96	80-127				

Surrogate:	Percent Recovery	Control Limit
Dibromofluoromethane	98	75-127
Toluene-d8	96	80-127
4-Bromofluorobenzene	96	78-125



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## **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-3-20210310					
Laboratory ID:	03-128-14					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	3-12-21	3-12-21	
Bromomethane	ND	0.28	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	1.3	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
lodomethane	ND	2.0	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	e ND	0.20	EPA 8260D	3-12-21	3-12-21	

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# **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-3-20210310					
Laboratory ID:	03-128-14					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	95	75-127				
T / 10	400	00.407				

Surrogate:	Percent Recovery	Control Limit
Dibromofluoromethane	95	75-127
Toluene-d8	108	80-127
4-Bromofluorobenzene	96	78-125



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## **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-12-20210310					
Laboratory ID:	03-128-15					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	3-12-21	3-12-21	
Bromomethane	ND	0.28	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	1.3	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
lodomethane	ND	2.0	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	2.0	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropend	e ND	0.20	EPA 8260D	3-12-21	3-12-21	

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# **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-12-20210310					
Laboratory ID:	03-128-15					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	0.73	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropan	e ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	91	75-127				

Surrogate:	Percent Recovery	Control Limit
Dibromofluoromethane	91	75-127
Toluene-d8	102	80-127
4-Bromofluorobenzene	102	78-125



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### VOLATILE ORGANICS EPA 8260D/SIM QUALITY CONTROL

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0312W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloromethane	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	3-12-21	3-12-21	
Bromomethane	ND	0.28	EPA 8260D	3-12-21	3-12-21	
Chloroethane	ND	1.3	EPA 8260D	3-12-21	3-12-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
lodomethane	ND	2.0	EPA 8260D	3-12-21	3-12-21	
Methylene Chloride	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chloroform	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Trichloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromomethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromodichloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	3-12-21	3-12-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	3-12-21	3-12-21	

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### VOLATILE ORGANICS EPA 8260D/SIM QUALITY CONTROL

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						,
Laboratory ID:	MB0312W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Tetrachloroethene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Dibromochloromethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Chlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Bromoform	ND	1.0	EPA 8260D	3-12-21	3-12-21	
Bromobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	3-12-21	3-12-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	3-12-21	3-12-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	3-12-21	3-12-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	87	75-127				
Toluene-d8	93	80-127				

4-Bromofluorobenzene

78-125

93

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#### VOLATILE ORGANICS EPA 8260D/SIM QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Result		Spike Level		Rec	Recovery		RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB03	12W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.51	9.87	10.0	10.0	95	99	65-126	4	19	
Benzene	9.28	9.59	10.0	10.0	93	96	71-119	3	16	
Trichloroethene	10.4	10.7	10.0	10.0	104	107	82-123	3	18	
Toluene	9.69	8.66	10.0	10.0	97	87	77-119	11	18	
Chlorobenzene	10.2	10.2	10.0	10.0	102	102	80-120	0	17	
Surrogate:										
Dibromofluoromethane					89	84	75-127			
Toluene-d8					98	89	80-127			
4-Bromofluorobenzene					99	114	78-125			

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### TOTAL METALS EPA 200.8/7470A

0 (11)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-5-20210310					
Laboratory ID:	03-128-01					
Arsenic	6.4	3.3	EPA 200.8	3-18-21	3-18-21	
Cadmium	ND	4.4	EPA 200.8	3-18-21	3-18-21	
Chromium	ND	11	EPA 200.8	3-18-21	3-18-21	
Lead	ND	1.1	EPA 200.8	3-18-21	3-18-21	
Mercury	ND	0.50	EPA 7470A	3-15-21	3-15-21	
Client ID:	FMW-7-20210310					
Laboratory ID:	03-128-03					
Arsenic	ND	3.3	EPA 200.8	3-18-21	3-18-21	
Cadmium	ND	4.4	EPA 200.8	3-18-21	3-18-21	
Chromium	ND	11	EPA 200.8	3-18-21	3-18-21	
Lead	ND	1.1	EPA 200.8	3-18-21	3-18-21	
Mercury	ND	0.50	EPA 7470A	3-15-21	3-15-21	
Client ID:	MW-2-20210310					
Laboratory ID:	03-128-04					
Arsenic	ND	3.3	EPA 200.8	3-18-21	3-18-21	
Cadmium	ND	4.4	EPA 200.8	3-18-21	3-18-21	
Chromium	ND	11	EPA 200.8	3-18-21	3-18-21	
Lead	ND	1.1	EPA 200.8	3-18-21	3-18-21	
Mercury	ND	0.50	EPA 7470A	3-15-21	3-15-21	
Client ID:	FMW-6-20210310					
Laboratory ID:	03-128-05					
Arsenic	ND	3.3	EPA 200.8	3-18-21	3-18-21	
Cadmium	ND	4.4	EPA 200.8	3-18-21	3-18-21	
Chromium	ND	11	EPA 200.8	3-18-21	3-18-21	
Lead	ND	1.1	EPA 200.8	3-18-21	3-18-21	
Mercury	ND	0.50	EPA 7470A	3-15-21	3-15-21	

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### TOTAL METALS EPA 200.8/7470A

39,2 (pps)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-1-20210310					
Laboratory ID:	03-128-06					
Arsenic	ND	3.3	EPA 200.8	3-18-21	3-18-21	
Cadmium	ND	<b>ND</b> 4.4		3-18-21	3-18-21	
Chromium	ND	11	EPA 200.8	3-18-21	3-18-21	
Lead	1.8	1.1	EPA 200.8	3-18-21	3-18-21	
Mercury	ND	0.50	EPA 7470A	3-15-21	3-15-21	
Client ID:	FMW-8-20210310					
Laboratory ID:	03-128-07					
Arsenic	4.7	3.3	EPA 200.8	3-18-21	3-18-21	
Cadmium	ND	4.4	EPA 200.8	3-18-21	3-18-21	
Chromium	ND	11	EPA 200.8	3-18-21	3-18-21	
Lead	ND	1.1	EPA 200.8	3-18-21	3-18-21	
Mercury	ND	0.50	EPA 7470A	3-15-21	3-15-21	
Client ID:	SVE-1-20210310					
Laboratory ID:	03-128-08					
Arsenic	3.7	3.3	EPA 200.8	3-18-21	3-18-21	
Cadmium	ND	4.4	EPA 200.8	3-18-21	3-18-21	
Chromium	ND	11	EPA 200.8	3-18-21	3-18-21	
Lead	ND	1.1	EPA 200.8	3-18-21	3-18-21	
Mercury	ND	0.50	EPA 7470A	3-15-21	3-15-21	
Client ID:	FMW-9-20210310					
Laboratory ID:	03-128-09					
Arsenic	ND	3.3	EPA 200.8	3-18-21	3-18-21	
Cadmium	ND ND	3.3 4.4	EPA 200.8	3-18-21	3-18-21	
Chromium	ND ND	4. <del>4</del> 11	EPA 200.8	3-16-21 3-18-21	3-18-21 3-18-21	
Lead	ND ND	1.1	EPA 200.8	3-16-21 3-18-21	3-18-21 3-18-21	
	ND ND					
Mercury	שמ	0.50	EPA 7470A	3-15-21	3-15-21	

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### TOTAL METALS EPA 200.8/7470A

3 (11)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-4-20210310					
Laboratory ID:	03-128-10					
Arsenic	17	3.3	EPA 200.8	3-18-21	3-18-21	
Cadmium	ND	4.4	EPA 200.8	3-18-21	3-18-21	
Chromium	ND	11	EPA 200.8	3-18-21	3-18-21	
Lead	ND	1.1	EPA 200.8	3-18-21	3-18-21	
Mercury	ND	0.50	EPA 7470A	3-15-21	3-15-21	
Client ID:	FMW-1-20210310					
Laboratory ID:	03-128-11					
Arsenic	ND	3.3	EPA 200.8	3-18-21	3-18-21	
Cadmium	ND	4.4	EPA 200.8	3-18-21	3-18-21	
Chromium	ND	11	EPA 200.8	3-18-21	3-18-21	
Lead	ND	1.1	EPA 200.8	3-18-21	3-18-21	
Mercury	ND	0.50	EPA 7470A	3-15-21	3-15-21	
Client ID:	FMW-13-20210310					
Laboratory ID:	03-128-12					
Arsenic	3.5	3.3	EPA 200.8	3-18-21	3-18-21	
Cadmium	ND	4.4	EPA 200.8	3-18-21	3-18-21	
Chromium	ND	11	EPA 200.8	3-18-21	3-18-21	
Lead	ND	1.1	EPA 200.8	3-18-21	3-18-21	
Mercury	ND	0.50	EPA 7470A	3-15-21	3-15-21	
Client ID:	FMW-2-20210310					
Laboratory ID:	03-128-13					
Arsenic	ND	3.3	EPA 200.8	3-18-21	3-18-21	
Cadmium	ND	4.4	EPA 200.8	3-18-21	3-18-21	
Chromium	ND	11	EPA 200.8	3-18-21	3-18-21	
Lead	ND	1.1	EPA 200.8	3-18-21	3-18-21	
Mercury	ND	0.50	EPA 7470A	3-15-21	3-15-21	

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### TOTAL METALS EPA 200.8/7470A

				Date	Date		
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags	
Client ID:	FMW-3-20210310						
Laboratory ID:	03-128-14						
Arsenic	51	3.3	EPA 200.8	3-18-21	3-18-21		
Cadmium	ND	4.4	EPA 200.8	3-18-21	3-18-21		
Chromium	ND	11	EPA 200.8	3-18-21	3-18-21		
Lead	ND	1.1	EPA 200.8	3-18-21	3-18-21		
Mercury	ND	0.50	EPA 7470A	3-15-21	3-15-21		

Client ID:	FMW-12-20210310					
Laboratory ID:	03-128-15					
Arsenic	ND	3.3	EPA 200.8	3-18-21	3-18-21	
Cadmium	ND	4.4	EPA 200.8	3-18-21	3-18-21	
Chromium	ND	11	EPA 200.8	3-18-21	3-18-21	
Lead	ND	1.1	EPA 200.8	3-18-21	3-18-21	
Mercury	ND	0.50	EPA 7470A	3-15-21	3-15-21	

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#### TOTAL METALS EPA 200.8/7470A QUALITY CONTROL

				Date	Date		
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags	
METHOD BLANK							
Laboratory ID:	MB0318WM1						
Arsenic	ND	3.3	EPA 200.8	3-18-21	3-18-21		
Cadmium	ND	4.4	EPA 200.8	3-18-21	3-18-21		
Chromium	ND	11	EPA 200.8	3-18-21	3-18-21		
Lead	ND	1.1	EPA 200.8	3-18-21	3-18-21		
Laboratory ID:	MB0315W1						
Mercury	ND	0.50	EPA 7470A	3-15-21	3-15-21		

					Source	Pe	rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Recovery		Limits	RPD	Limit	Flags
DUPLICATE											,
Laboratory ID:	03-12	28-04									
	ORIG	DUP									
Arsenic	ND	ND	NA	NA			NA	NA	NA	20	
Cadmium	ND	ND	NA	NA		ı	NA	NA	NA	20	
Chromium	ND	ND	NA	NA		ı	NA	NA	NA	20	
Lead	ND	ND	NA	NA		l	NA	NA	NA	20	
Laboratory ID:	03-13	33-01									
Mercury	ND	ND	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	03-12	28-04									
,	MS	MSD	MS	MSD		MS	MSD				
Arsenic	117	114	111	111	ND	105	103	75-125	2	20	
Cadmium	109	107	111	111	ND	98	96	75-125	2	20	
Chromium	105	105	111	111	ND	94	95	75-125	0	20	
Lead	112	113	111	111	ND	101	102	75-125	1	20	
Laboratory ID:	03-13	33-01									
Mercury	12.3	12.5	12.5	12.5	ND	98	100	75-125	1	20	

Project: 2032-012

#### DISSOLVED METALS EPA 200.8/7470A

0 (11 )				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-5-20210310					
Laboratory ID:	03-128-01					
Arsenic	5.8	3.0	EPA 200.8			
Cadmium	ND	4.0	EPA 200.8		3-18-21	
Chromium	ND	10	EPA 200.8		3-18-21	
Lead	ND	1.0	EPA 200.8		3-18-21	
Mercury	ND	0.50	EPA 7470A		3-15-21	
Client ID:	FMW-7-20210310					
Laboratory ID:	03-128-03					
Arsenic	ND	3.0	EPA 200.8		3-18-21	
Cadmium	ND	4.0	EPA 200.8		3-18-21	
Chromium	ND	10	EPA 200.8		3-18-21	
Lead	ND	1.0	EPA 200.8		3-18-21	
Mercury	ND	0.50	EPA 7470A		3-15-21	
Client ID:	MW-2-20210310					
Laboratory ID:	03-128-04					
Arsenic	ND	3.0	EPA 200.8		3-18-21	
Cadmium	ND	4.0	EPA 200.8		3-18-21	
Chromium	ND	10	EPA 200.8		3-18-21	
Lead	ND	1.0	EPA 200.8		3-18-21	
Mercury	ND	0.50	EPA 7470A		3-15-21	
Client ID:	FMW-6-20210310					
Laboratory ID:	03-128-05					
Arsenic	ND	3.0	EPA 200.8		3-18-21	
Cadmium	ND	4.0	EPA 200.8		3-18-21	
Chromium	ND	10	EPA 200.8		3-18-21	
Lead	ND	1.0	EPA 200.8		3-18-21	
Mercury	ND	0.50	EPA 7470A		3-15-21	

Project: 2032-012

#### DISSOLVED METALS EPA 200.8/7470A

39,2 (pp2)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-1-20210310					
Laboratory ID:	03-128-06					
Arsenic	ND	3.0	EPA 200.8		3-18-21	
Cadmium	ND	4.0	EPA 200.8		3-18-21	
Chromium	ND	10	EPA 200.8		3-18-21	
Lead	ND	1.0	EPA 200.8		3-18-21	
Mercury	ND	0.50	EPA 7470A		3-15-21	
Client ID:	FMW-8-20210310					
Laboratory ID:	03-128-07					
Arsenic	4.5	3.0	EPA 200.8		3-18-21	
Cadmium	ND	4.0	EPA 200.8		3-18-21	
Chromium	ND	10	EPA 200.8		3-18-21	
Lead	ND	1.0	EPA 200.8		3-18-21	
Mercury	ND	0.50	EPA 7470A		3-15-21	
Client ID:	SVE-1-20210310					
Laboratory ID:	03-128-08					
Arsenic	ND	3.0	EPA 200.8		3-18-21	
Cadmium	ND	4.0	EPA 200.8		3-18-21	
Chromium	ND	10	EPA 200.8		3-18-21	
Lead	ND	1.0	EPA 200.8		3-18-21	
Mercury	ND	0.50	EPA 7470A		3-15-21	
Client ID:	FMW-9-20210310					
Laboratory ID:	03-128-09					
Arsenic	ND	3.0	EPA 200.8		3-18-21	
Cadmium	ND	4.0	EPA 200.8		3-18-21	
Chromium	ND	10	EPA 200.8		3-18-21	
Lead	ND	1.0	EPA 200.8		3-18-21	
Mercury	ND	0.50	EPA 7470A		3-15-21	

Project: 2032-012

#### DISSOLVED METALS EPA 200.8/7470A

•,				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-4-20210310					
Laboratory ID:	03-128-10					
Arsenic	15	3.0	EPA 200.8		3-18-21	
Cadmium	ND	4.0	EPA 200.8		3-18-21	
Chromium	ND	10	EPA 200.8		3-18-21	
Lead	ND	1.0	EPA 200.8		3-18-21	
Mercury	ND	0.50	EPA 7470A		3-15-21	
Client ID:	FMW-1-20210310					
Laboratory ID:	03-128-11					
Arsenic	ND	3.0	EPA 200.8		3-18-21	
Cadmium	ND	4.0	EPA 200.8		3-18-21	
Chromium	ND	10	EPA 200.8		3-18-21	
Lead	ND	1.0	EPA 200.8		3-18-21	
Mercury	ND	0.50	EPA 7470A		3-15-21	
Client ID:	FMW-13-20210310					
Laboratory ID:	03-128-12					
Arsenic	ND	3.0	EPA 200.8		3-18-21	
Cadmium	ND	4.0	EPA 200.8		3-18-21	
Chromium	ND	10	EPA 200.8		3-18-21	
Lead	ND	1.0	EPA 200.8		3-18-21	
Mercury	ND	0.50	EPA 7470A		3-15-21	
Client ID:	FMW-2-20210310					
Laboratory ID:	03-128-13					
Arsenic	ND	3.0	EPA 200.8		3-18-21	
Cadmium	ND	4.0	EPA 200.8		3-18-21	
Chromium	ND	10	EPA 200.8		3-18-21	
Lead	ND	1.0	EPA 200.8		3-18-21	
Mercury	ND	0.50	EPA 7470A		3-15-21	

Project: 2032-012

#### DISSOLVED METALS EPA 200.8/7470A

				Date	Date		
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags	
Client ID:	FMW-3-20210310						
Laboratory ID:	03-128-14						
Arsenic	49	3.0	EPA 200.8		3-18-21		
Cadmium	ND	4.0	EPA 200.8		3-18-21		
Chromium	ND	10	EPA 200.8		3-18-21		
Lead	ND	1.0	EPA 200.8		3-18-21		
Mercury	ND	0.50	EPA 7470A		3-15-21		

Client ID:	FMW-12-20210310				
Laboratory ID:	03-128-15				
Arsenic	ND	3.0	EPA 200.8	3-18-21	
Cadmium	ND	4.0	EPA 200.8	3-18-21	
Chromium	ND	10	EPA 200.8	3-18-21	
Lead	ND	1.0	EPA 200.8	3-18-21	
Mercury	ND	0.50	EPA 7470A	3-15-21	

Project: 2032-012

#### DISSOLVED METALS EPA 200.8/7470A QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0318D1					
Arsenic	ND	3.0	EPA 200.8		3-18-21	
Cadmium	ND	4.0	EPA 200.8		3-18-21	
Chromium	ND	10	EPA 200.8		3-18-21	
Lead	ND	1.0	EPA 200.8		3-18-21	
Laboratory ID:	MB0315D1					
Mercury	ND	0.50	EPA 7470A		3-15-21	

					Source	Pe	rcent	Recovery		RPD	
Analyte	Result		Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	03-12	28-05									
	ORIG	DUP									
Arsenic	ND	ND	NA	NA		ı	NA	NA	NA	20	
Cadmium	ND	ND	NA	NA		ı	NA	NA	NA	20	
Chromium	ND	ND	NA	NA		ı	NA	NA	NA	20	
Lead	ND	ND	NA	NA		NA		NA	NA	20	
Laboratory ID:	03-12	28-01									
Mercury	ND	ND	NA	NA			NA	NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	03-12	28-05									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	81.6	80.0	80.0	80.0	ND	102	100	75-125	2	20	
Cadmium	75.0	75.0	80.0	80.0	ND	94	94	75-125	0	20	
Chromium	70.4	71.4	80.0	80.0	ND	88	89	75-125	1	20	
Lead	72.4	75.0	80.0	80.0	ND	91	94	75-125	4	20	
Laboratory ID:	03-12	28-01									
Mercury	13.0	13.0	12.5	12.5	ND	104	104	75-125	0	20	



#### **Data Qualifiers and Abbreviations**

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical .
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

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ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





# **Chain of Custody**

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Reviewed/Date	Received	Relinquished	Received	Relinquished	Received	Relinquished		10 t= n	9 FM	SVE	) FAN	WW MW	5 FM	4 MW	3 FMI	2 MW-3	IM# 1	Lab ID	Sampled by: SMC/WNN-25	Project Manager:	5	2030-012	Company: Farallen	Analytica 14648 N Phone:
			Newbork	Van	Van	ani Sith	Signature	FMW-4-20210310	FMW-9-20210310	SVE-1- 20210310	Funw-8-20010310	MW-1-20210310	FMW-6-20310310	MW-2-20210310	FMW-7-20210310	-3 - 70210310	FMW-5-20210310	Sample Identification	E. SMISH	ton	Avenue South	0	Consulting	Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com
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Reviewed/Date			380	Span	Spor	arallon	Company	1445	1410	1355	1392	1255	1235	1265	1145	1170	1100 Hz	Time Sampled Mi	(other)		rd (7 Days)	31	Day 1 Day	(Check One)
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Chromatograms with final report	Data Package:	/hull					Comments/Special Instructions		-										8270E		w-level)	) 		03
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ta Deliv	Level IV	C	2		Sample			X	X	X	X	X	X	X	X		×		al m				MT	ca
Electronic Data Deliverables (EDDs)		No.	1200		MW-3-202103			×	×	X	×	×	X		X		X	Dis	Solva	ed m	etals	74	71-B	* = *
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# **Chain of Custody**

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Reviewed/Date	Received	Relinquished	Received	Relinquished	Received	Relinquished				1	18 FW		13 tu	12 tu	11 12	Lab ID	Sampled by: G. McKunny	Project Manager:	2032-017	Company: Forallen Project Number:	
		-	Vienelop Lin	Va	Van	My Swy	Signature				FMW-12-20210310	FMW-3-20210310	FWW-2-20210310	tww-13-20210310	01501606-1-MMZ	Sample Identification	Kingston	Avenue South	610-	lon Consulting	Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com
Reviewed/Date			OSK.	of Spain	Spany	Formullan	Company				N 18491 N	1625	1550	1540	3/10/21 1500 H20	Date Time Sampled Sampled Matrix	(other)	Standard (7 Days)	2 Days 3 Days	Same Day 1 Day	Turnaround Request (in working days)
			311121 1220	3/11/2/ 1220	3/1/2/11/45	3/10/21 1800	Date Time				X	X	X	X	<i>X</i>	NWTP NWTP NWTP Volatil	PH-HCID PH-Gx/BTEX PH-Gx PH-Dx ( Acid es 8260D enated Volatilit PA 8011 (Wat	1 / SG CI	)	)	Laboratory Number:
Chromatograms with final report ☐ Electronic E	Data Package: Standard  Level III Le					/	Comments/Special Instructions									Semiv (with k PAHs i PCBs Organi Organi Chlorir Total N	olatiles 8270E ow-level PAHs 8270E/SIM (Id 8082A ochlorine Pes ophosphorus nated Acid He ICRA Metals	:/SIM s) ww-level) ticides 80 Pesticides	081B es 8270		r: 03-128
Electronic Data Deliverables (EDDs)	Level IV										X	X	X	X X	X X		Napals Nu bull		747	MTEF	111



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 1, 2021

Pete Kingston Farallon Consulting 1809 7th Avenue, Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 2032-012

Laboratory Reference No. 2105-239

#### Dear Pete:

Enclosed are the analytical results and associated quality control data for samples submitted on May 26, 2021.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

**Enclosures** 



Project: 2032-012

#### **Case Narrative**

Samples were collected on May 24, 2021 and received by the laboratory on May 26, 2021. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

page 1 of 2

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-14-20210524					
Laboratory ID:	05-239-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Chloromethane	ND	1.0	EPA 8260D	5-26-21	5-26-21	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	5-26-21	5-26-21	
Bromomethane	ND	0.32	EPA 8260D	5-26-21	5-26-21	
Chloroethane	ND	1.0	EPA 8260D	5-26-21	5-26-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Iodomethane	ND	1.6	EPA 8260D	5-26-21	5-26-21	
Methylene Chloride	ND	1.0	EPA 8260D	5-26-21	5-26-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Bromochloromethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Chloroform	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Trichloroethene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Dibromomethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Bromodichloromethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	5-26-21	5-26-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
(trans) 1,3-Dichloropropend	e ND	0.20	EPA 8260D	5-26-21	5-26-21	

# **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-14-20210524					
Laboratory ID:	05-239-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Tetrachloroethene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Dibromochloromethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Chlorobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Bromoform	ND	1.0	EPA 8260D	5-26-21	5-26-21	
Bromobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2-Dibromo-3-chloropropan	e ND	1.0	EPA 8260D	5-26-21	5-26-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	5-26-21	5-26-21	
1,2,3-Trichlorobenzene	ND	0.25	EPA 8260D	5-26-21	5-26-21	
Surrogate:	Percent Recovery	Control Limits	_	_	_	
Dibromofluoromethane	102	75-127				
Toluene-d8	100	80-127				

Surrogate:	Percent Recovery	Control Limit
Dibromofluoromethane	102	75-127
Toluene-d8	100	80-127
4-Bromofluorobenzene	96	78-125



Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

page 1 of 2

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-15-20210524					
Laboratory ID:	05-239-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Chloromethane	ND	1.0	EPA 8260D	5-26-21	5-26-21	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	5-26-21	5-26-21	
Bromomethane	ND	0.32	EPA 8260D	5-26-21	5-26-21	
Chloroethane	ND	1.0	EPA 8260D	5-26-21	5-26-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
lodomethane	ND	1.6	EPA 8260D	5-26-21	5-26-21	
Methylene Chloride	ND	1.0	EPA 8260D	5-26-21	5-26-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Bromochloromethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Chloroform	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Trichloroethene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Dibromomethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Bromodichloromethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	5-26-21	5-26-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
(trans) 1,3-Dichloropropene	e ND	0.20	EPA 8260D	5-26-21	5-26-21	

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-15-20210524					
Laboratory ID:	05-239-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Tetrachloroethene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Dibromochloromethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Chlorobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Bromoform	ND	1.0	EPA 8260D	5-26-21	5-26-21	
Bromobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2-Dibromo-3-chloropropar	ne ND	1.0	EPA 8260D	5-26-21	5-26-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	5-26-21	5-26-21	
1,2,3-Trichlorobenzene	ND	0.25	EPA 8260D	5-26-21	5-26-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	103	75-127				



Project: 2032-012

#### VOLATILE ORGANICS EPA 8260D/SIM QUALITY CONTROL

page 1 of 2

Matrix: Water Units: ug/L

Office. ug/L				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0526W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Chloromethane	ND	1.0	EPA 8260D	5-26-21	5-26-21	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	5-26-21	5-26-21	
Bromomethane	ND	0.32	EPA 8260D	5-26-21	5-26-21	
Chloroethane	ND	1.0	EPA 8260D	5-26-21	5-26-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
lodomethane	ND	1.6	EPA 8260D	5-26-21	5-26-21	
Methylene Chloride	ND	1.0	EPA 8260D	5-26-21	5-26-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Bromochloromethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Chloroform	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Trichloroethene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Dibromomethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Bromodichloromethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260D	5-26-21	5-26-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	5-26-21	5-26-21	

Project: 2032-012

#### VOLATILE ORGANICS EPA 8260D/SIM QUALITY CONTROL

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0526W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Tetrachloroethene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Dibromochloromethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Chlorobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Bromoform	ND	1.0	EPA 8260D	5-26-21	5-26-21	
Bromobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	5-26-21	5-26-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	5-26-21	5-26-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	5-26-21	5-26-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	5-26-21	5-26-21	
1,2,3-Trichlorobenzene	ND	0.25	EPA 8260D	5-26-21	5-26-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	103	75-127				
Toluene-d8	103	80-127				

4-Bromofluorobenzene

78-125

99

Project: 2032-012

# VOLATILE ORGANICS EPA 8260D/SIM QUALITY CONTROL

Matrix: Water Units: ug/L

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB05	26W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	11.0	11.2	10.0	10.0	110	112	78-124	2	19	
Benzene	10.6	10.7	10.0	10.0	106	107	80-119	1	16	
Trichloroethene	10.8	10.8	10.0	10.0	108	108	80-121	0	18	
Toluene	10.2	10.1	10.0	10.0	102	101	80-117	1	18	
Chlorobenzene	10.0	9.83	10.0	10.0	100	98	80-117	2	17	
Surrogate:										
Dibromofluoromethane					102	101	75-127			
Toluene-d8					102	102	80-127			
4-Bromofluorobenzene					102	100	78-125			



#### **Data Qualifiers and Abbreviations**

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical \_\_\_\_\_.
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
- Y1 Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.
- ND Not Detected at PQL
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference





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	vA 98052 (in working days) Laboratory Number: US - CSS

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14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

October 1, 2021

Pete Kingston Farallon Consulting 1809 7th Avenue, Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 2032-012

Laboratory Reference No. 2109-066

#### Dear Pete:

Enclosed are the analytical results and associated quality control data for samples submitted on September 8, 2021.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

**Enclosures** 



Laboratory Reference: 2109-066

Project: 2032-012

#### **Case Narrative**

Samples were collected on September 8, 2021 and received by the laboratory on September 8, 2021. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

page 1 of 2

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-1-090821					
Laboratory ID:	09-066-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloromethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Vinyl Chloride	0.12	0.020	EPA 8260D/SIM	9-14-21	9-14-21	
Bromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
lodomethane	ND	1.7	EPA 8260D	9-14-21	9-14-21	
Methylene Chloride	ND	1.0	EPA 8260D	9-14-21	9-14-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(cis) 1,2-Dichloroethene	2.0	0.20	EPA 8260D	9-14-21	9-14-21	
Bromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroform	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Trichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromodichloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260D	9-14-21	9-14-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	

Laboratory Reference: 2109-066

Project: 2032-012

#### **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-1-090821					
Laboratory ID:	09-066-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Tetrachloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromoform	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Bromobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	100	75-127				

Surrogate:	Percent Recovery	Control Limit
Dibromofluoromethane	100	75-127
Toluene-d8	98	80-127
4-Bromofluorobenzene	95	78-125



Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

page 1 of 2

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-2-090821					
Laboratory ID:	09-066-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloromethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Vinyl Chloride	0.44	0.20	EPA 8260D	9-14-21	9-14-21	
Bromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
lodomethane	ND	1.7	EPA 8260D	9-14-21	9-14-21	
Methylene Chloride	ND	1.0	EPA 8260D	9-14-21	9-14-21	
(trans) 1,2-Dichloroethene	0.28	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroform	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Trichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromodichloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260D	9-14-21	9-14-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	

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# **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-2-090821					
Laboratory ID:	09-066-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Tetrachloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromoform	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Bromobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Surrogate:	Percent Recovery	Control Limits				

Surrogate:	Percent Recovery	Control Limit
Dibromofluoromethane	100	75-127
Toluene-d8	98	80-127
4-Bromofluorobenzene	96	78-125



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# **VOLATILE ORGANICS EPA 8260D/SIM**

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Matrix: Water Units: ug/L

•				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-3-090821					
Laboratory ID:	09-066-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloromethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Vinyl Chloride	0.038	0.020	EPA 8260D/SIM	9-14-21	9-14-21	
Bromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
lodomethane	ND	1.7	EPA 8260D	9-14-21	9-14-21	
Methylene Chloride	ND	1.0	EPA 8260D	9-14-21	9-14-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroform	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Trichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromodichloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260D	9-14-21	9-14-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	

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#### **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-3-090821					
Laboratory ID:	09-066-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Tetrachloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromoform	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Bromobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Surrogate:	Percent Recovery	Control Limits	_			
Dibyonooflyonomosthoop	101	75 407				

Surrogate:	Percent Recovery	Control Limit
Dibromofluoromethane	101	75-127
Toluene-d8	97	80-127
4-Bromofluorobenzene	95	78-125



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# **VOLATILE ORGANICS EPA 8260D/SIM**

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Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-4-090821					
Laboratory ID:	09-066-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloromethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Vinyl Chloride	7.7	0.20	EPA 8260D	9-14-21	9-14-21	
Bromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
lodomethane	ND	1.7	EPA 8260D	9-14-21	9-14-21	
Methylene Chloride	ND	1.0	EPA 8260D	9-14-21	9-14-21	
(trans) 1,2-Dichloroethene	0.97	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(cis) 1,2-Dichloroethene	10	0.20	EPA 8260D	9-14-21	9-14-21	
Bromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroform	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Trichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromodichloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260D	9-14-21	9-14-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	

Laboratory Reference: 2109-066

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# **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-4-090821					
Laboratory ID:	09-066-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Tetrachloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromoform	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Bromobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Surrogate:	Percent Recovery	Control Limits				

Surrogate:	Percent Recovery	Control Limi
Dibromofluoromethane	101	75-127
Toluene-d8	98	80-127
4-Bromofluorobenzene	98	78-125

Laboratory Reference: 2109-066

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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Matrix: Water Units: ug/L

Analyte   Result   PQL   Method   Prepared   Analyzed   Flag   Client ID:   FMW-6-090821   Laboratory ID:   09-066-05	<del>g</del> -				Date	Date	
Client ID: FMW-6-090821           Laboratory ID:         09-066-05           Dichlorodifluoromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Chloromethane         ND         1.0         EPA 8260D         9-14-21         9-14-21           Vinyl Chloride         1.6         0.20         EPA 8260D         9-14-21         9-14-21           Bromomethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Bromomethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Chloroethane         ND         1.0         EPA 8260D         9-14-21         9-14-21           Chloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Trichlorofluoromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         1.0         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         1.0         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         1.0         EPA 8260D         9-14-21         9-14-21	Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Dichlorodifluoromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Chloromethane         ND         1.0         EPA 8260D         9-14-21         9-14-21           Vinyl Chloride         1.6         0.20         EPA 8260D         9-14-21         9-14-21           Bromomethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Chloroethane         ND         1.0         EPA 8260D         9-14-21         9-14-21           Chloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           I,domethane         ND         1.7         EPA 8260D         9-14-21         9-14-21           Idomethane         ND         1.0         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         1.0         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         1.0         EPA 8260D         9-14-21         9-14-21           Interpolicy Chloroethene         0.29         0.20         EPA 8260D         9-14-21         9-14-21	Client ID:	FMW-6-090821					
Chloromethane         ND         1.0         EPA 8260D         9-14-21         9-14-21           Vinyl Chloride         1.6         0.20         EPA 8260D         9-14-21         9-14-21           Bromomethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Chloroethane         ND         1.0         EPA 8260D         9-14-21         9-14-21           Trichlorofluoromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloroethene         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloroethene         ND         1.7         EPA 8260D         9-14-21         9-14-21           Ideamethane         ND         1.7         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         1.0         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         1.0         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         0.20         EPA 8260D         9-14-21         9-14-21           Interpolity Chloroethane         ND         0.20         EPA 8260D         9-14-21         9-	Laboratory ID:	09-066-05					
Vinyl Chloride         1.6         0.20         EPA 8260D         9-14-21         9-14-21           Bromomethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Chloroethane         ND         1.0         EPA 8260D         9-14-21         9-14-21           Trichlorofluoromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloroethene         ND         0.20         EPA 8260D         9-14-21         9-14-21           I,1-Dichloroethene         ND         1.7         EPA 8260D         9-14-21         9-14-21           Idedmethane         ND         1.0         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloroethene         ND         0.20         EPA 8260D         9-14-21         9-1	Dichlorodifluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromomethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Chloroethane         ND         1.0         EPA 8260D         9-14-21         9-14-21           Trichlorofluoromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloroethene         ND         0.20         EPA 8260D         9-14-21         9-14-21           I,1-Dichloroethene         ND         1.7         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         1.0         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         1.0         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         1.0         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         0.20         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         0.20         EPA 8260D         9-14-21         9-14-21           (trans) 1,2-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloroethane         ND         0.20         EPA 8260D         9-14-21 </td <td>Chloromethane</td> <td>ND</td> <td>1.0</td> <td>EPA 8260D</td> <td>9-14-21</td> <td>9-14-21</td> <td></td>	Chloromethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Chloroethane         ND         1.0         EPA 8260D         9-14-21         9-14-21           Trichlorofluoromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloroethene         ND         0.20         EPA 8260D         9-14-21         9-14-21           Icdomethane         ND         1.7         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         1.0         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         0.20         EPA 8260D         9-14-21         9-14-21           (trans) 1,2-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           (cis) 1,2-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Chloroethane         ND         0.20         EPA 8260D         9-14-21 <td>Vinyl Chloride</td> <td>1.6</td> <td>0.20</td> <td>EPA 8260D</td> <td>9-14-21</td> <td>9-14-21</td> <td></td>	Vinyl Chloride	1.6	0.20	EPA 8260D	9-14-21	9-14-21	
Trichlorofluoromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloroethene         ND         0.20         EPA 8260D         9-14-21         9-14-21           Iodomethane         ND         1.7         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         1.0         EPA 8260D         9-14-21         9-14-21           (trans) 1,2-Dichloroethene         0.29         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           2,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           2,2-Dichloroethene         2.7         0.20         EPA 8260D         9-14-21         9-14-21           3,1-2-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           4,1-1-Trichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           5,1-1-Trichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloropropene         ND         0.20         EPA 8260D	Bromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethene         ND         0.20         EPA 8260D         9-14-21         9-14-21           Iodomethane         ND         1.7         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         1.0         EPA 8260D         9-14-21         9-14-21           (trans) 1,2-Dichloroethene         0.29         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           2,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           (cis) 1,2-Dichloroethene         2.7         0.20         EPA 8260D         9-14-21         9-14-21           Bromochloromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Chloroform         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloropropene         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloroethane         ND         0.20         EPA 8260D <td< td=""><td>Chloroethane</td><td>ND</td><td>1.0</td><td>EPA 8260D</td><td>9-14-21</td><td>9-14-21</td><td></td></td<>	Chloroethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
lodomethane         ND         1.7         EPA 8260D         9-14-21         9-14-21           Methylene Chloride         ND         1.0         EPA 8260D         9-14-21         9-14-21           (trans) 1,2-Dichloroethene         0.29         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           2,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           (cis) 1,2-Dichloroethene         2.7         0.20         EPA 8260D         9-14-21         9-14-21           (cis) 1,2-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Bromochloromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Chloroform         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloropropene         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloroethane         ND         0.20         EPA 8260D	Trichlorofluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Methylene Chloride         ND         1.0         EPA 8260D         9-14-21         9-14-21           (trans) 1,2-Dichloroethene         0.29         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           2,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           (cis) 1,2-Dichloroethene         2.7         0.20         EPA 8260D         9-14-21         9-14-21           Bromochloromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Chloroform         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloropropene         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloropropane         ND         0.20         EPA 8260D	1,1-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(trans) 1,2-Dichloroethene         0.29         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           2,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           (cis) 1,2-Dichloroethene         2.7         0.20         EPA 8260D         9-14-21         9-14-21           Bromochloromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Chloroform         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Carbon Tetrachloride         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloropropene         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloromethane         ND         0.20         EPA 8260D <td>lodomethane</td> <td>ND</td> <td>1.7</td> <td>EPA 8260D</td> <td>9-14-21</td> <td>9-14-21</td> <td></td>	lodomethane	ND	1.7	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           2,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           (cis) 1,2-Dichloroethene         2.7         0.20         EPA 8260D         9-14-21         9-14-21           Bromochloromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Chloroform         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Carbon Tetrachloride         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloropropene         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Dibromomethane         ND         0.20         EPA 8260D	Methylene Chloride	ND	1.0	EPA 8260D	9-14-21	9-14-21	
2,2-Dichloropropane       ND       0.20       EPA 8260D       9-14-21       9-14-21         (cis) 1,2-Dichloroethene       2.7       0.20       EPA 8260D       9-14-21       9-14-21         Bromochloromethane       ND       0.20       EPA 8260D       9-14-21       9-14-21         Chloroform       ND       0.20       EPA 8260D       9-14-21       9-14-21         1,1,1-Trichloroethane       ND       0.20       EPA 8260D       9-14-21       9-14-21         Carbon Tetrachloride       ND       0.20       EPA 8260D       9-14-21       9-14-21         1,1-Dichloropropene       ND       0.20       EPA 8260D       9-14-21       9-14-21         1,2-Dichloroethane       ND       0.20       EPA 8260D       9-14-21       9-14-21         1,2-Dichloropropane       ND       0.20       EPA 8260D       9-14-21       9-14-21         1,2-Dichloropropane       ND       0.20       EPA 8260D       9-14-21       9-14-21         Dibromomethane       ND       0.20       EPA 8260D       9-14-21       9-14-21         Bromodichloromethane       ND       0.20       EPA 8260D       9-14-21       9-14-21         2-Chloroethyl Vinyl Ether       ND       1.3 <td>(trans) 1,2-Dichloroethene</td> <td>0.29</td> <td>0.20</td> <td>EPA 8260D</td> <td>9-14-21</td> <td>9-14-21</td> <td></td>	(trans) 1,2-Dichloroethene	0.29	0.20	EPA 8260D	9-14-21	9-14-21	
(cis) 1,2-Dichloroethene         2.7         0.20         EPA 8260D         9-14-21         9-14-21           Bromochloromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Chloroform         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Carbon Tetrachloride         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloropropene         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Dibromomethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           2-Chloroethyl Vinyl Ether         ND         1.3         EPA 8260D         9-14-21         9-14-21	1,1-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromochloromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Chloroform         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Carbon Tetrachloride         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloropropene         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           2-Chloroethyl Vinyl Ether         ND         1.3         EPA 8260D         9-14-21         9-14-21	2,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroform         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1,1-Trichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Carbon Tetrachloride         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloropropene         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           2-Dichloroethyl Vinyl Ether         ND         0.20         EPA 8260D         9-14-21         9-14-21	(cis) 1,2-Dichloroethene	2.7	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1-Trichloroethane       ND       0.20       EPA 8260D       9-14-21       9-14-21         Carbon Tetrachloride       ND       0.20       EPA 8260D       9-14-21       9-14-21         1,1-Dichloropropene       ND       0.20       EPA 8260D       9-14-21       9-14-21         1,2-Dichloroethane       ND       0.20       EPA 8260D       9-14-21       9-14-21         1,2-Dichloropropane       ND       0.20       EPA 8260D       9-14-21       9-14-21         1,2-Dichloropropane       ND       0.20       EPA 8260D       9-14-21       9-14-21         Dibromomethane       ND       0.20       EPA 8260D       9-14-21       9-14-21         Bromodichloromethane       ND       0.20       EPA 8260D       9-14-21       9-14-21         2-Chloroethyl Vinyl Ether       ND       1.3       EPA 8260D       9-14-21       9-14-21	Bromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Carbon Tetrachloride         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,1-Dichloropropene         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloroethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Trichloroethene         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Dibromomethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Bromodichloromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           2-Chloroethyl Vinyl Ether         ND         1.3         EPA 8260D         9-14-21         9-14-21	Chloroform	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloropropene       ND       0.20       EPA 8260D       9-14-21       9-14-21         1,2-Dichloroethane       ND       0.20       EPA 8260D       9-14-21       9-14-21         Trichloroethene       ND       0.20       EPA 8260D       9-14-21       9-14-21         1,2-Dichloropropane       ND       0.20       EPA 8260D       9-14-21       9-14-21         Dibromomethane       ND       0.20       EPA 8260D       9-14-21       9-14-21         Bromodichloromethane       ND       0.20       EPA 8260D       9-14-21       9-14-21         2-Chloroethyl Vinyl Ether       ND       1.3       EPA 8260D       9-14-21       9-14-21	1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloroethane       ND       0.20       EPA 8260D       9-14-21       9-14-21         Trichloroethene       ND       0.20       EPA 8260D       9-14-21       9-14-21         1,2-Dichloropropane       ND       0.20       EPA 8260D       9-14-21       9-14-21         Dibromomethane       ND       0.20       EPA 8260D       9-14-21       9-14-21         Bromodichloromethane       ND       0.20       EPA 8260D       9-14-21       9-14-21         2-Chloroethyl Vinyl Ether       ND       1.3       EPA 8260D       9-14-21       9-14-21	Carbon Tetrachloride	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Trichloroethene         ND         0.20         EPA 8260D         9-14-21         9-14-21           1,2-Dichloropropane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Dibromomethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Bromodichloromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           2-Chloroethyl Vinyl Ether         ND         1.3         EPA 8260D         9-14-21         9-14-21	1,1-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloropropane       ND       0.20       EPA 8260D       9-14-21       9-14-21         Dibromomethane       ND       0.20       EPA 8260D       9-14-21       9-14-21         Bromodichloromethane       ND       0.20       EPA 8260D       9-14-21       9-14-21         2-Chloroethyl Vinyl Ether       ND       1.3       EPA 8260D       9-14-21       9-14-21	1,2-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromomethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           Bromodichloromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           2-Chloroethyl Vinyl Ether         ND         1.3         EPA 8260D         9-14-21         9-14-21	Trichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromodichloromethane         ND         0.20         EPA 8260D         9-14-21         9-14-21           2-Chloroethyl Vinyl Ether         ND         1.3         EPA 8260D         9-14-21         9-14-21	1,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chloroethyl Vinyl Ether ND 1.3 EPA 8260D 9-14-21 9-14-21	Dibromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
· ·	Bromodichloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(cis) 1,3-Dichloropropene ND 0.20 EPA 8260D 9-14-21 9-14-21	2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260D	9-14-21	9-14-21	
	(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(trans) 1,3-Dichloropropene ND 0.20 EPA 8260D 9-14-21 9-14-21	(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	

Laboratory Reference: 2109-066

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-6-090821					
Laboratory ID:	09-066-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Tetrachloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chlorobenzene	1.1	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromoform	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Bromobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,4-Dichlorobenzene	0.29	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Surrogate:	Percent Recovery	Control Limits				
D'' (I (I	100	75 407				

Surrogate:	Percent Recovery	Control Limit
Dibromofluoromethane	100	75-127
Toluene-d8	97	80-127
4-Bromofluorobenzene	95	78-125



Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

page 1 of 2

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-8-090821					
Laboratory ID:	09-066-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloromethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	9-14-21	9-14-21	
Bromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
lodomethane	ND	1.7	EPA 8260D	9-14-21	9-14-21	
Methylene Chloride	ND	1.0	EPA 8260D	9-14-21	9-14-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroform	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Trichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromodichloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260D	9-14-21	9-14-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	

Laboratory Reference: 2109-066

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-8-090821					
Laboratory ID:	09-066-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Tetrachloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromoform	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Bromobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Surrogate:	Percent Recovery	Control Limits				

Surrogate:	Percent Recovery	Control Limit
Dibromofluoromethane	100	75-127
Toluene-d8	96	80-127
4-Bromofluorobenzene	94	78-125



Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-9-090821					
Laboratory ID:	09-066-07					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloromethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Vinyl Chloride	0.060	0.020	EPA 8260D/SIM	9-14-21	9-14-21	
Bromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Iodomethane	ND	1.7	EPA 8260D	9-14-21	9-14-21	
Methylene Chloride	ND	1.0	EPA 8260D	9-14-21	9-14-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(cis) 1,2-Dichloroethene	0.63	0.20	EPA 8260D	9-14-21	9-14-21	
Bromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroform	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Trichloroethene	0.70	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromodichloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260D	9-14-21	9-14-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	

Laboratory Reference: 2109-066

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-9-090821					
Laboratory ID:	09-066-07					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Tetrachloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromoform	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Bromobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromo-3-chloropropane	. ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Surrogate:	Percent Recovery	Control Limits			_	

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	100	75-127
Toluene-d8	97	80-127
4-Bromofluorobenzene	94	78-125

Laboratory Reference: 2109-066

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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Matrix: Water Units: ug/L

· ·				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-16-090821					
Laboratory ID:	09-066-08					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloromethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Vinyl Chloride	0.71	0.20	EPA 8260D	9-14-21	9-14-21	
Bromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Iodomethane	ND	1.7	EPA 8260D	9-14-21	9-14-21	
Methylene Chloride	ND	1.0	EPA 8260D	9-14-21	9-14-21	
(trans) 1,2-Dichloroethene	0.26	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(cis) 1,2-Dichloroethene	1.9	0.20	EPA 8260D	9-14-21	9-14-21	
Bromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroform	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Trichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromodichloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260D	9-14-21	9-14-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	

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# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-16-090821					
Laboratory ID:	09-066-08					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Tetrachloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromoform	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Bromobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Surrogate:	Percent Recovery	Control Limits				

Surrogate:	Percent Recovery	Control Limit
Dibromofluoromethane	99	75-127
Toluene-d8	96	80-127
4-Bromofluorobenzene	95	78-125



Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-17-090821					
Laboratory ID:	09-066-09					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloromethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Vinyl Chloride	23	0.20	EPA 8260D	9-14-21	9-14-21	
Bromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
lodomethane	ND	1.7	EPA 8260D	9-14-21	9-14-21	
Methylene Chloride	ND	1.0	EPA 8260D	9-14-21	9-14-21	
(trans) 1,2-Dichloroethene	2.4	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(cis) 1,2-Dichloroethene	16	0.20	EPA 8260D	9-14-21	9-14-21	
Bromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroform	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Trichloroethene	0.25	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromodichloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260D	9-14-21	9-14-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	

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# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-17-090821					
Laboratory ID:	09-066-09					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Tetrachloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromoform	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Bromobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromo-3-chloropropane	. ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Surrogate:	Percent Recovery	Control Limits				- <del></del>
Dibromofluoromethane	99	75-127				
Toluene-d8	97	80-127				

Laboratory Reference: 2109-066

Project: 2032-012

#### VOLATILE ORGANICS EPA 8260D/SIM QUALITY CONTROL

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Matrix: Water Units: ug/L

Offito: ug/L				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0914W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloromethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	9-14-21	9-14-21	
Bromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroethane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Iodomethane	ND	1.7	EPA 8260D	9-14-21	9-14-21	
Methylene Chloride	ND	1.0	EPA 8260D	9-14-21	9-14-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chloroform	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Trichloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromomethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromodichloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260D	9-14-21	9-14-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-14-21	9-14-21	

Laboratory Reference: 2109-066

Project: 2032-012

#### VOLATILE ORGANICS EPA 8260D/SIM QUALITY CONTROL

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0914W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Tetrachloroethene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Dibromochloromethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Chlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Bromoform	ND	1.0	EPA 8260D	9-14-21	9-14-21	
Bromobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-14-21	9-14-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	9-14-21	9-14-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	9-14-21	9-14-21	
Surrogate:	Percent Recovery	Control Limits	_	_	_	
Dibromofluoromethane	97	75-127				
Toluene-d8	97	80-127				

4-Bromofluorobenzene

78-125

94

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#### **VOLATILE ORGANICS EPA 8260D/SIM QUALITY CONTROL**

Matrix: Water Units: ug/L

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Recovery		Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB09	14W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.92	10.0	10.0	10.0	99	100	78-124	1	19	
Benzene	9.56	9.77	10.0	10.0	96	98	80-119	2	16	
Trichloroethene	10.3	10.3	10.0	10.0	103	103	80-121	0	18	
Toluene	9.73	9.72	10.0	10.0	97	97	80-117	0	18	
Chlorobenzene	10.4	10.4	10.0	10.0	104	104	80-117	0	17	
Surrogate:										
Dibromofluoromethane					97	98	75-127			
Toluene-d8					99	97	80-127			
4-Bromofluorobenzene					103	102	78-125			

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#### DISSOLVED GASES RSK 175

Onits. ug/L (ppb)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-1-090821					
Laboratory ID:	09-066-01					
Methane	57	0.55	RSK 175	9-15-21	9-15-21	
Ethane	ND	0.22	RSK 175	9-15-21	9-15-21	
Ethene	ND	0.29	RSK 175	9-15-21	9-15-21	
Client ID:	FMW-2-090821					
Laboratory ID:	09-066-02					
Methane	2000	28	RSK 175	9-15-21	9-15-21	
Ethane	ND	0.22	RSK 175	9-15-21	9-15-21	
Ethene	ND	0.29	RSK 175	9-15-21	9-15-21	
Client ID:	FMW-3-090821					
Laboratory ID:	09-066-03					
Methane	1200	28	RSK 175	9-15-21	9-15-21	
Ethane	ND	0.22	RSK 175	9-15-21	9-15-21	
Ethene	ND	0.29	RSK 175	9-15-21	9-15-21	
Client ID:	FMW-4-090821					
Laboratory ID:	09-066-04					
Methane	1900	28	RSK 175	9-15-21	9-15-21	
Ethane	ND	0.22	RSK 175	9-15-21	9-15-21	
Ethene	0.62	0.29	RSK 175	9-15-21	9-15-21	
Client ID:	FMW-6-090821					
Laboratory ID:	09-066-05					
Methane	440	5.5	RSK 175	9-15-21	9-15-21	
Ethane	ND	0.22	RSK 175	9-15-21	9-15-21	
Ethene	ND	0.29	RSK 175	9-15-21	9-15-21	
Client ID:	FMW-8-090821					
Laboratory ID:	09-066-06	•				
Methane	4100	28	RSK 175	9-15-21	9-15-21	
Ethane	ND	0.22	RSK 175	9-15-21	9-15-21	
Ethene	ND	0.29	RSK 175	9-15-21	9-15-21	

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#### DISSOLVED GASES RSK 175

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-9-090821					
Laboratory ID:	09-066-07					
Methane	3.8	0.55	RSK 175	9-15-21	9-15-21	
Ethane	ND	0.22	RSK 175	9-15-21	9-15-21	
Ethene	ND	0.29	RSK 175	9-15-21	9-15-21	
Client ID:	FMW-16-090821					
Laboratory ID:	09-066-08					
Methane	4300	28	RSK 175	9-15-21	9-15-21	
Ethane	ND	0.22	RSK 175	9-15-21	9-15-21	
Ethene	ND	0.29	RSK 175	9-15-21	9-15-21	
Client ID:	FMW-17-090821					
Laboratory ID:	09-066-09					
Methane	3100	28	RSK 175	9-15-21	9-15-21	
Ethane	ND	0.22	RSK 175	9-15-21	9-15-21	
Ethene	ND	0.29	RSK 175	9-15-21	9-15-21	

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#### **DISSOLVED GASES RSK 175 QUALITY CONTROL**

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0915W1					
Methane	ND	0.55	RSK 175	9-15-21	9-15-21	_
Ethane	ND	0.22	RSK 175	9-15-21	9-15-21	
Ethene	ND	0.29	RSK 175	9-15-21	9-15-21	

Analyte	Res	sult	Spike	Level	_	cent overy	Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANK										
Laboratory ID:	SB09	15W1								
	SB	SBD	SB	SBD	SB	SBD				
Methane	24.0	21.1	22.1	22.1	109	96	75-125	13	25	
Ethane	43.0	38.3	41.6	41.6	103	92	75-125	12	25	
Ethene	45.6	39.5	38.8	38.8	118	102	75-125	14	25	

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#### SULFATE **ASTM D516-11**

Matrix: Water Units: mg/L

Units: mg/L				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-1-090821					
Laboratory ID:	09-066-01					
Sulfate	28	10	ASTM D516-11	9-9-21	9-9-21	
Client ID:	FMW-2-090821					
Laboratory ID:	09-066-02					
Sulfate	ND	5.0	ASTM D516-11	9-9-21	9-9-21	
Client ID:	FMW-3-090821					
Laboratory ID:	09-066-03					
Sulfate	ND	5.0	ASTM D516-11	9-9-21	9-9-21	
Sullate	ND	3.0	A31W D310-11	9-9-21	9-9-21	
Client ID:	FMW-4-090821					
Laboratory ID:	09-066-04					
Sulfate	ND	5.0	ASTM D516-11	9-9-21	9-9-21	
Client ID:	FMW-6-090821					
Laboratory ID:	09-066-05					
Sulfate	ND	5.0	ASTM D516-11	9-9-21	9-9-21	
Client ID:	FMW-8-090821					
Laboratory ID:	09-066-06					
Sulfate	ND	5.0	ASTM D516-11	9-9-21	9-9-21	
Sullate	ND	3.0	A31W D310-11	9-9-21	9-9-21	
Client ID:	FMW-9-090821					
Laboratory ID:	09-066-07					
Sulfate	37	10	ASTM D516-11	9-9-21	9-9-21	
Client ID:	FMW-16-090821					
Laboratory ID:	09-066-08		AOTM DE 40.44	0.0.04	0.0.04	
Sulfate	ND	5.0	ASTM D516-11	9-9-21	9-9-21	
Client ID:	FMW-17-090821					
Laboratory ID:	09-066-09					
Sulfate	ND	5.0	ASTM D516-11	9-9-21	9-9-21	
		3.0				

Laboratory Reference: 2109-066

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#### SULFATE ASTM D516-11 QUALITY CONTROL

Matrix: Water Units: mg/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						_
Laboratory ID:	MB0909W1					
Sulfate	ND	5.0	ASTM D516-11	9-9-21	9-9-21	

				Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	09-06	66-01							
	ORIG	DUP							
Sulfate	28.0	28.4	NA	NA	NA	NA	1	10	
MATRIX SPIKE									
Laboratory ID:	09-06	66-01							
	M	IS	MS		MS				
Sulfate	68	3.2	40.0	28.0	101	69-139	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB09	09W1							
	S	В	SB		SB				
Sulfate	10	0.0	10.0	NA	100	89-117	NA	NA	

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#### NITRATE (as Nitrogen) EPA 353.2

Matrix: Water Units: mg/L-N

Units: mg/L-iv				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-1-090821					
Laboratory ID:	09-066-01					
Nitrate	0.11	0.050	EPA 353.2	9-9-21	9-9-21	
Client ID:	FMW-2-090821					
Laboratory ID:	09-066-02					
Nitrate	0.65	0.050	EPA 353.2	9-9-21	9-9-21	
Client ID:	FMW-3-090821					
Laboratory ID:	09-066-03					
Nitrate	0.86	0.050	EPA 353.2	9-9-21	9-9-21	
		0.000				
Client ID:	FMW-4-090821					
Laboratory ID:	09-066-04					
Nitrate	ND	0.050	EPA 353.2	9-9-21	9-9-21	
Olicent ID.	<b>FMW</b> 0 000004					
Client ID:	FMW-6-090821					
Laboratory ID:	09-066-05	0.050	EDA 252.2	0.0.24	0.0.24	
Nitrate	0.29	0.050	EPA 353.2	9-9-21	9-9-21	
Client ID:	FMW-8-090821					
Laboratory ID:	09-066-06					
Nitrate	1.2	0.050	EPA 353.2	9-9-21	9-9-21	
Client ID:	FMW-9-090821					
Laboratory ID:	09-066-07					
Nitrate	0.22	0.050	EPA 353.2	9-9-21	9-9-21	
Client ID:	FMW-16-090821					
Laboratory ID:	09-066-08					
Nitrate	0.15	0.050	EPA 353.2	9-9-21	9-9-21	
Client ID:	FMW-17-090821					
Laboratory ID:	09-066-09					
Nitrate	0.17	0.050	EPA 353.2	9-9-21	9-9-21	

Laboratory Reference: 2109-066

Project: 2032-012

#### NITRATE (as Nitrogen) EPA 353.2 QUALITY CONTROL

Matrix: Water Units: mg/L-N

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0909W1					
Nitrate	ND	0.050	EPA 353.2	9-9-21	9-9-21	

				Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	09-0	66-01							
	ORIG	DUP							
Nitrate	0.111	0.115	NA	NA	NA	NA	4	16	
MATRIX SPIKE									
Laboratory ID:	09-0	66-01							
	M	IS	MS		MS				
Nitrate	2.	29	2.00	0.111	109	92-125	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB09	09W1							
	S	В	SB		SB				
Nitrate	2.	15	2.00	NA	108	90-121	NA	NA	

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#### NITRITE (as Nitrogen) EPA 353.2

Matrix: Water Units: mg/L-N

Result FMW-1-090821 09-066-01 ND FMW-2-090821 09-066-02 ND	PQL 0.020	Method EPA 353.2	9-9-21	Analyzed 9-9-21	Flags
09-066-01 ND FMW-2-090821 09-066-02		EPA 353.2	9-9-21	9-9-21	
ND FMW-2-090821 09-066-02		EPA 353.2	9-9-21	9-9-21	
F <b>MW-2-090821</b> 09-066-02		2.71000.2	0021	0021	
09-066-02					
ND					
	0.020	EPA 353.2	9-9-21	9-9-21	
FMW-3-090821					
09-066-03					
ND	0.020	EPA 353.2	9-9-21	9-9-21	
ND	0.020	EPA 353.2	9-9-21	9-9-21	
-MW-6-090821					
ND	0.020	EPA 353.2	9-9-21	9-9-21	
09-066-06					
ND	0.020	EPA 353.2	9-9-21	9-9-21	
:MW-9-090821					
ND	0.020	EPA 353.2	9-9-21	9-9-21	
III. 40 00000					
	0.000	EDA 050 0	0.0.04	0.0.01	
0.040	0.020	EPA 353.2	9-9-21	9-9-21	
IW-17-090821					
09-066-09					
	0.020	EPA 353.2	9-9-21	9-9-21	
	FMW-3-090821 09-066-03 ND FMW-4-090821 09-066-04 ND FMW-6-090821 09-066-05 ND FMW-8-090821 09-066-06 ND FMW-9-090821 09-066-07 ND	FMW-3-090821 09-066-03 ND 0.020  FMW-4-090821 09-066-04 ND 0.020  FMW-8-090821 09-066-05 ND 0.020  FMW-9-090821 09-066-06 ND 0.020  FMW-9-090821 09-066-07 ND 0.020  FMW-16-090821 09-066-08 0.040 0.020	FMW-3-090821 09-066-03 ND 0.020 EPA 353.2  FMW-4-090821 09-066-04 ND 0.020 EPA 353.2  FMW-8-090821 09-066-05 ND 0.020 EPA 353.2  FMW-9-090821 09-066-06 ND 0.020 EPA 353.2  FMW-9-090821 09-066-07 ND 0.020 EPA 353.2	FMW-3-090821 09-066-03  ND 0.020 EPA 353.2 9-9-21  FMW-4-090821 09-066-04 ND 0.020 EPA 353.2 9-9-21  FMW-8-090821 09-066-05 ND 0.020 EPA 353.2 9-9-21  FMW-9-090821 09-066-06 ND 0.020 EPA 353.2 9-9-21  FMW-9-090821 09-066-07 ND 0.020 EPA 353.2 9-9-21	FMW-3-090821 09-066-03 ND 0.020 EPA 353.2 9-9-21 9-9-21  FMW-4-090821 09-066-04 ND 0.020 EPA 353.2 9-9-21 9-9-21  FMW-8-090821 09-066-05 ND 0.020 EPA 353.2 9-9-21 9-9-21  FMW-8-090821 09-066-06 ND 0.020 EPA 353.2 9-9-21 9-9-21  FMW-9-090821 09-066-07 ND 0.020 EPA 353.2 9-9-21 9-9-21  FMW-9-090821 09-066-08 0-040 0.020 EPA 353.2 9-9-21 9-9-21

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#### NITRITE (as Nitrogen) **EPA 353.2 QUALITY CONTROL**

Matrix: Water Units: mg/L-N

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0909W1					
Nitrite	ND	0.020	EPA 353.2	9-9-21	9-9-21	

				Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	09-06	66-01							
	ORIG	DUP							
Nitrite	ND	ND	NA	NA	NA	NA	NA	11	
MATRIX SPIKE									
Laboratory ID:	09-06	66-01							
	M	IS	MS		MS				
Nitrite	0.2	252	0.250	ND	101	84-122	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB09	09W1							
	S	В	SB	•	SB		•		•
Nitrite	0.2	257	0.250	NA	103	88-117	NA	NA	

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#### CHLORIDE SM 4500-CI E

Matrix: Water Units: mg/L

Units: mg/L						
				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-1-090821					
Laboratory ID:	09-066-01					
Chloride	10	2.0	SM 4500-CI E	9-14-21	9-14-21	
Client ID:	FMW-2-090821					
Laboratory ID:	09-066-02					
Chloride	6.6	2.0	SM 4500-CI E	9-14-21	9-14-21	
<b>0</b> 11						
Client ID:	FMW-3-090821					
Laboratory ID:	09-066-03	0.0	OM 4500 OLF	0.44.04	0.44.04	
Chloride	9.5	2.0	SM 4500-CI E	9-14-21	9-14-21	
Olicent ID:	FNN 4 000004					
Client ID:	FMW-4-090821					
Laboratory ID:	09-066-04	2.0	CM 4500 CL 5	0.44.04	0.44.04	
Chloride	2.6	2.0	SM 4500-CI E	9-14-21	9-14-21	
Client ID:	FMW-6-090821					
Laboratory ID:	09-066-05					
Chloride	6.3	2.0	SM 4500-CI E	9-14-21	9-14-21	
Onionac	0.0	2.0	OW 4000-01 L	J-14-21	J-1 <del>1-</del> 21	
Client ID:	FMW-8-090821					
Laboratory ID:	09-066-06					
Chloride	18	2.0	SM 4500-CI E	9-14-21	9-14-21	
Client ID:	FMW-9-090821					
Laboratory ID:	09-066-07					
Chloride	2.8	2.0	SM 4500-CI E	9-14-21	9-14-21	
Client ID:	FMW-16-090821					
Laboratory ID:	09-066-08		<b>01.</b> (5.5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.			
Chloride	7.1	2.0	SM 4500-CI E	9-14-21	9-14-21	
Client ID:	EMM 47 00004					
Client ID: Laboratory ID:	<b>FMW-17-090821</b> 09-066-09					
		2.0	SM 4500-CI E	0_1/_21	0_1/-21	
Chloride	7.1	2.0	31VI 4300-CI E	9-14-21	9-14-21	

Laboratory Reference: 2109-066

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#### CHLORIDE SM 4500-CI E QUALITY CONTROL

Matrix: Water Units: mg/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0914W1					
Chloride	ND	2.0	SM 4500-CI E	9-14-21	9-14-21	

				Source	Percent	Recovery		RPD	
Analyte	Re	sult	Spike Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	09-0	66-07							
	ORIG	DUP							
Chloride	2.84	2.65	NA	NA	NA	NA	7	15	
MATRIX SPIKE									
Laboratory ID:	09-0	66-07							
	M	1S	MS		MS				
Chloride	58	3.7	50.0	2.84	112	86-115	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB09	14W1							
	S	В	SB		SB		•		•
Chloride	52	2.7	50.0	NA	105	86-115	NA	NA	•

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#### TOTAL ALKALINITY SM 2320B

Matrix: Water
Units: mg CaCO3/L

onits. The Cacos/L				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-1-090821					
Laboratory ID:	09-066-01					
Total Alkalinity	230	2.0	SM 2320B	9-10-21	9-10-21	
•						
Client ID:	FMW-2-090821					
Laboratory ID:	09-066-02					
Total Alkalinity	440	2.0	SM 2320B	9-10-21	9-10-21	
Client ID:	FMW-3-090821					
Laboratory ID:	09-066-03					
Total Alkalinity	380	2.0	SM 2320B	9-10-21	9-10-21	
Total Alkallility	300	2.0	OW 2020D	9-10-21	9-10-21	
Client ID:	FMW-4-090821					
Laboratory ID:	09-066-04					
Total Alkalinity	110	2.0	SM 2320B	9-10-21	9-10-21	
Client ID:	FMW-6-090821					
Laboratory ID:	09-066-05					
		2.0	SM 2320B	9-10-21	9-10-21	
Total Alkalinity	170	2.0	3IVI 2320B	9-10-21	9-10-21	
Client ID:	FMW-8-090821					
Laboratory ID:	09-066-06					
Total Alkalinity	370	2.0	SM 2320B	9-10-21	9-10-21	
Olicent ID:	FMW-9-090821					
Client ID:	09-066-07					
Laboratory ID:		2.0	CM 2220D	0.40.04	0.40.04	
Total Alkalinity	200	2.0	SM 2320B	9-10-21	9-10-21	
Client ID:	FMW-16-090821					
Laboratory ID:	09-066-08					
Total Alkalinity	280	2.0	SM 2320B	9-10-21	9-10-21	_
Client ID:	ENNA 47 00004					
Client ID:	FMW-17-090821					
Laboratory ID:	09-066-09	2.0	CM COOCE	0.40.04	0.40.04	
Total Alkalinity	310	2.0	SM 2320B	9-10-21	9-10-21	

Laboratory Reference: 2109-066

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#### TOTAL ALKALINITY SM 2320B QUALITY CONTROL

Matrix: Water
Units: mg CaCO3/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						_
Laboratory ID:	MB0910W1					
Total Alkalinity	ND	2.0	SM 2320B	9-10-21	9-10-21	_

Analyte	Res	sult	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE					_				
Laboratory ID:	09-06	66-01							
	ORIG	DUP							
Total Alkalinity	228	226	NA	NA	NA	NA	1	10	
SPIKE BLANK									
Laboratory ID:	SB09	10W1							
	S	В	SB		SB		•	•	
Total Alkalinity	94	1.0	100	NA	94	89-110	NA	NA	

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# DISSOLVED ORGANIC CARBON SM 5310B

Matrix: Water Units: mg/L

Units: mg/L				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-1-090821					
Laboratory ID:	09-066-01					
Dissolved Organic Carbon	3.6	1.0	SM 5310B	9-10-21	9-10-21	
Client ID:	FMW-2-090821					
Laboratory ID:	09-066-02					
Dissolved Organic Carbon	15	1.0	SM 5310B	9-10-21	9-10-21	
Client ID:	FMW-3-090821					
Laboratory ID:	09-066-03					
Dissolved Organic Carbon	13	1.0	SM 5310B	9-10-21	9-10-21	
Dissolved Organic Carbon	13	1.0	200 22 100	9-10-21	9-10-21	
Client ID:	FMW-4-090821					
Laboratory ID:	09-066-04					
Dissolved Organic Carbon	4.1	1.0	SM 5310B	9-10-21	9-10-21	
Client ID:	FMW-6-090821					
Laboratory ID:	09-066-05					
Dissolved Organic Carbon	4.3	1.0	SM 5310B	9-10-21	9-10-21	
Olfored ID:	EMM 0 000004					
Client ID:	FMW-8-090821					
Laboratory ID:	09-066-06	4.0	014 50400	0.40.04	0.40.04	
Dissolved Organic Carbon	7.5	1.0	SM 5310B	9-10-21	9-10-21	
Client ID:	FMW-9-090821					
Laboratory ID:	09-066-07					
Dissolved Organic Carbon	2.5	1.0	SM 5310B	9-10-21	9-10-21	
Client ID:	FMW-16-090821					
Laboratory ID:	09-066-08					
Dissolved Organic Carbon	6.7	1.0	SM 5310B	9-10-21	9-10-21	
Client ID:	FMW-17-090821					
Laboratory ID:	09-066-09					
Dissolved Organic Carbon	9.8	1.0	SM 5310B	9-10-21	9-10-21	

Laboratory Reference: 2109-066

Project: 2032-012

#### DISSOLVED ORGANIC CARBON SM 5310B QUALITY CONTROL

Matrix: Water Units: mg/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0910D1					
Dissolved Organic Carbon	ND	1.0	SM 5310B	9-10-21	9-10-21	

				Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	09-06	66-09							
	ORIG	DUP							
Dissolved Organic Carbon	9.79	9.72	NA	NA	NA	NA	1	15	
MATRIX SPIKE									
Laboratory ID:	09-06	66-09							
	M	IS	MS		MS				
Dissolved Organic Carbon	19	).3	10.0	9.79	95	91-117	NA	NA	
SPIKE BLANK									
Laboratory ID:	SB09	10D1							
	S	В	SB		SB				
Dissolved Organic Carbon	10	).5	10.0	NA	105	88-116	NA	NA	

Project: 2032-012

#### TOTAL METALS EPA 200.8/7470A

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-1-090821					
Laboratory ID:	09-066-01					
Arsenic	9.6	3.3	EPA 200.8	9-13-21	9-13-21	
Cadmium	ND	4.4	EPA 200.8	9-13-21	9-13-21	
Chromium	ND	11	EPA 200.8	9-13-21	9-13-21	
Lead	ND	1.1	EPA 200.8	9-13-21	9-13-21	
Mercury	ND	0.50	EPA 7470A	9-16-21	9-16-21	
Client ID:	FMW-2-090821					
Laboratory ID:	09-066-02					
Arsenic	ND	3.3	EPA 200.8	9-13-21	9-13-21	
Cadmium	ND	4.4	EPA 200.8	9-13-21	9-13-21	
Chromium	ND	11	EPA 200.8	9-13-21	9-13-21	
Lead	ND	1.1	EPA 200.8	9-13-21	9-13-21	
Mercury	ND	0.50	EPA 7470A	9-16-21	9-16-21	
Client ID:	FMW-3-090821					
Laboratory ID:	09-066-03					
Arsenic	38	3.3	EPA 200.8	9-13-21	9-13-21	
Cadmium	ND	4.4	EPA 200.8	9-13-21	9-13-21	
Chromium	ND	11	EPA 200.8	9-13-21	9-13-21	
Lead	ND	1.1	EPA 200.8	9-13-21	9-13-21	
Mercury	ND	0.50	EPA 7470A	9-16-21	9-16-21	
Client ID:	FMW-4-090821					
Laboratory ID:	09-066-04					
Arsenic	22	3.3	EPA 200.8	9-13-21	9-13-21	
Cadmium	ND	4.4	EPA 200.8	9-13-21	9-13-21	
Chromium	ND	11	EPA 200.8	9-13-21	9-13-21	
Lead	4.2	1.1	EPA 200.8	9-13-21	9-13-21	
Mercury	ND	0.50	EPA 7470A	9-16-21	9-16-21	

Project: 2032-012

#### TOTAL METALS EPA 200.8/7470A

J (11 /				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-6-090821					
Laboratory ID:	09-066-05					
Arsenic	3.7	3.3	EPA 200.8	9-13-21	9-13-21	_
Cadmium	ND	4.4	EPA 200.8	9-13-21	9-13-21	
Chromium	ND	11	EPA 200.8	9-13-21	9-13-21	
Lead	ND	1.1	EPA 200.8	9-13-21	9-13-21	
Mercury	ND	0.50	EPA 7470A	9-16-21	9-16-21	
Client ID:	FMW-8-090821					
Laboratory ID:	09-066-06					
Arsenic	6.7	3.3	EPA 200.8	9-13-21	9-13-21	
Cadmium	ND	4.4	EPA 200.8	9-13-21	9-13-21	
Chromium	ND	11	EPA 200.8	9-13-21	9-13-21	
Lead	ND	1.1	EPA 200.8	9-13-21	9-13-21	
Mercury	ND	0.50	EPA 7470A	9-16-21	9-16-21	
Client ID:	FMW-9-090821					
Laboratory ID:	09-066-07					
Arsenic	ND	3.3	EPA 200.8	9-13-21	9-13-21	
Cadmium	ND	4.4	EPA 200.8	9-13-21	9-13-21	
Chromium	ND	11	EPA 200.8	9-13-21	9-13-21	
Lead	ND	1.1	EPA 200.8	9-13-21	9-13-21	
Mercury	ND	0.50	EPA 7470A	9-16-21	9-16-21	
Client ID:	FMW-16-090821					
Laboratory ID:	09-066-08					
Arsenic	8.1	3.3	EPA 200.8	9-13-21	9-13-21	
Cadmium	ND	4.4	EPA 200.8	9-13-21	9-13-21	
Chromium	ND	11	EPA 200.8	9-13-21	9-13-21	
Lead	ND	1.1	EPA 200.8	9-13-21	9-13-21	
Mercury	ND	0.50	EPA 7470A	9-16-21	9-16-21	

Laboratory Reference: 2109-066

Project: 2032-012

#### TOTAL METALS EPA 200.8/7470A

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-17-090821					
Laboratory ID:	09-066-09					
Arsenic	4.3	3.3	EPA 200.8	9-13-21	9-13-21	_
Cadmium	ND	4.4	EPA 200.8	9-13-21	9-13-21	
Chromium	ND	11	EPA 200.8	9-13-21	9-13-21	
Lead	ND	1.1	EPA 200.8	9-13-21	9-13-21	
Mercury	ND	0.50	EPA 7470A	9-16-21	9-16-21	

Project: 2032-012

#### **TOTAL METALS** EPA 200.8/7470A **QUALITY CONTROL**

Date

Date

Matrix: Water Units: ug/L (ppb)

Analyte		Result		PQL	N	lethod	i	Prepared	Analy	zed	Flags
METHOD BLANK								•			
Laboratory ID:	N	лВ0913WM1									
Arsenic		ND		3.3	EF	A 200	.8	9-13-21	9-13-	21	
Cadmium		ND		4.4	EF	A 200	.8	9-13-21	9-13-	21	
Chromium		ND		11	EF	A 200	.8	9-13-21	9-13-	21	
Lead		ND		1.1	EF	A 200	.8	9-13-21	9-13-	21	
Laboratory ID:		MB0916W1									
Mercury		ND		0.50	EP	A 7470	DΑ	9-16-21	9-16-	21	
					Source	Pe	rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	09-06	66-01									
	ORIG	DUP									
Arsenic	9.62	8.71	NA	NA		ı	NA	NA	10	20	
Cadmium	ND	ND	NA	NA		ı	NA	NA	NA	20	
Chromium	ND	ND	NA	NA		I	NA	NA	NA	20	
Lead	ND	ND	NA	NA		ı	NA	NA	NA	20	
Laboratory ID:	09-06	66-01									
Mercury	ND	ND	NA	NA			NA	NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	09-06	66-01									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	139	141	111	111	9.62	117	118	75-125	1	20	
Cadmium	130	128	111	111	ND	118	115	75-125	2	20	
Chromium	127	126	111	111	ND	115	114	75-125	1	20	
Lead	124	122	111	111	ND	112	110	75-125	2	20	
Laboratory ID:	09-06	66-01									

Mercury

11.6

11.7

12.5

12.5

ND

93

93

75-125

1

20

Project: 2032-012

#### DISSOLVED METALS EPA 200.8/7470A

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-1-090821					
Laboratory ID:	09-066-01					
Arsenic	7.2	3.0	EPA 200.8		9-13-21	
Cadmium	ND	4.0	EPA 200.8		9-13-21	
Chromium	ND	10	EPA 200.8		9-13-21	
Lead	ND	1.0	EPA 200.8		9-13-21	
Mercury	ND	0.50	EPA 7470A		9-16-21	
Client ID:	FMW-2-090821					
Laboratory ID:	09-066-02					
Arsenic	ND	3.0	EPA 200.8		9-13-21	
Cadmium	ND	4.0	EPA 200.8		9-13-21	
Chromium	ND	10	EPA 200.8		9-13-21	
Lead	ND	1.0	EPA 200.8		9-13-21	
Mercury	ND	0.50	EPA 7470A		9-16-21	
Client ID:	FMW-3-090821					
Laboratory ID:	09-066-03					
Arsenic	34	3.0	EPA 200.8		9-13-21	
Cadmium	ND	4.0	EPA 200.8		9-13-21	
Chromium	ND	10	EPA 200.8		9-13-21	
Lead	ND	1.0	EPA 200.8		9-13-21	
Mercury	ND	0.50	EPA 7470A		9-16-21	
Client ID:	FMW-4-090821					
Laboratory ID:	09-066-04					
Arsenic	17	3.0	EPA 200.8		9-13-21	
Cadmium	ND	4.0	EPA 200.8		9-13-21	
Chromium	ND	10	EPA 200.8		9-13-21	
Lead	ND	1.0	EPA 200.8		9-13-21	
Mercury	ND	0.50	EPA 7470A		9-16-21	

Project: 2032-012

#### DISSOLVED METALS EPA 200.8/7470A

ormo. ag/2 (ppb)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-6-090821					
Laboratory ID:	09-066-05					
Arsenic	3.2	3.0	EPA 200.8		9-13-21	
Cadmium	ND	4.0	EPA 200.8		9-13-21	
Chromium	ND	10	EPA 200.8		9-13-21	
Lead	ND	1.0	EPA 200.8		9-13-21	
Mercury	ND	0.50	EPA 7470A		9-16-21	
Client ID:	FMW-8-090821					
Laboratory ID:	09-066-06					
Arsenic	6.7	3.0	EPA 200.8		9-13-21	
Cadmium	ND	4.0	EPA 200.8		9-13-21	
Chromium	ND	10	EPA 200.8		9-13-21	
Lead	ND	1.0	EPA 200.8		9-13-21	
Mercury	ND	0.50	EPA 7470A		9-16-21	
Client ID:	FMW-9-090821					
Laboratory ID:	09-066-07					
Arsenic	ND	3.0	EPA 200.8		9-13-21	
Cadmium	ND	4.0	EPA 200.8		9-13-21	
Chromium	ND	10	EPA 200.8		9-13-21	
Lead	ND	1.0	EPA 200.8		9-13-21	
Mercury	ND	0.50	EPA 7470A		9-16-21	
Client ID:	FMW-16-090821					
Laboratory ID:	09-066-08					
Arsenic	7.2	3.0	EPA 200.8		9-13-21	
Cadmium	ND	4.0	EPA 200.8		9-13-21	
Chromium	ND	10	EPA 200.8		9-13-21	
Lead	ND	1.0	EPA 200.8		9-13-21	
Mercury	ND	0.50	EPA 7470A		9-16-21	

Project: 2032-012

#### **DISSOLVED METALS** EPA 200.8/7470A

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-17-090821					
Laboratory ID:	09-066-09					
Arsenic	3.6	3.0	EPA 200.8		9-13-21	·
Cadmium	ND	4.0	EPA 200.8		9-13-21	
Chromium	ND	10	EPA 200.8		9-13-21	
Lead	ND	1.0	EPA 200.8		9-13-21	
Mercury	ND	0.50	EPA 7470A		9-16-21	

Project: 2032-012

#### DISSOLVED METALS EPA 200.8/7470A QUALITY CONTROL

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0910F1					
Arsenic	ND	3.0	EPA 200.8	9-10-21	9-13-21	·
Cadmium	ND	4.0	EPA 200.8	9-10-21	9-13-21	
Chromium	ND	10	EPA 200.8	9-10-21	9-13-21	
Lead	ND	1.0	EPA 200.8	9-10-21	9-13-21	
Laboratory ID:	MB0916D1					
Mercury	ND	0.50	EPA 7470A		9-16-21	

					Source	Pe	rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	09-06	66-01									
	ORIG	DUP									
Arsenic	7.18	6.94	NA	NA		1	NA	NA	3	20	
Cadmium	ND	ND	NA	NA		1	NΑ	NA	NA	20	
Chromium	ND	ND	NA	NA		1	NΑ	NA	NA	20	
Lead	ND	ND	NA	NA		1	NΑ	NA	NA	20	
Laboratory ID:	09-06	66-01									
Mercury	ND	ND	NA	NA		1	NA	NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	09-06	66-01									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	94.4	94.4	80.0	80.0	7.18	109	109	75-125	0	20	
Cadmium	82.6	83.6	80.0	80.0	ND	103	105	75-125	1	20	
Chromium	73.2	74.0	80.0	80.0	ND	92	93	75-125	1	20	
Lead	77.0	78.8	80.0	80.0	ND	96	99	75-125	2	20	
Laboratory ID:	09-06	66-01									
Mercury	11.0	11.6	12.5	12.5	ND	88	93	75-125	5	20	

Project: 2032-012

#### HARDNESS EPA 200.7/SM 2340B

Matrix: Water

Units: mg eqt. CaCO3/L (ppm)

3 1	(11 /			Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-1-090821					
Laboratory ID:	09-066-01					
Hardness	170	1.0	EPA 200.7/SM 2340B	9-15-21	9-15-21	
Client ID:	FMW-2-090821					
Laboratory ID:	09-066-02					
Hardness	210	5.0	EPA 200.7/SM 2340B	9-15-21	9-15-21	
Client ID:	FMW-3-090821					
Laboratory ID:	09-066-03	4.0	EDA 000 7/0M 0040D	0.45.04	0.45.04	
Hardness	120	1.0	EPA 200.7/SM 2340B	9-15-21	9-15-21	
Client ID:	FMW-4-090821					
Laboratory ID:	09-066-04					
Hardness	140	1.0	EPA 200.7/SM 2340B	9-15-21	9-15-21	
Client ID:	FMW-6-090821					
Laboratory ID:	09-066-05					
Hardness	83	1.0	EPA 200.7/SM 2340B	9-15-21	9-15-21	
Client ID:	FMW-8-090821					
Laboratory ID:	09-066-06					
Hardness	150	1.0	EPA 200.7/SM 2340B	9-15-21	9-15-21	
Client ID:	FMW-9-090821					
Laboratory ID:	09-066-07					
Hardness	190	1.0	EPA 200.7/SM 2340B	9-15-21	9-15-21	
			=: / : 200:, 0 2010B	<u> </u>	<u> </u>	

Laboratory Reference: 2109-066

Project: 2032-012

#### HARDNESS EPA 200.7/SM 2340B

Matrix: Water

Units: mg eqt. CaCO3/L (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-16-090821					
Laboratory ID:	09-066-08					
Hardness	170	1.0	EPA 200.7/SM 2340B	9-15-21	9-15-21	
Client ID:	FMW-17-090821					
Laboratory ID:	09-066-09					
Hardness	170	1.0	EPA 200.7/SM 2340B	9-15-21	9-15-21	

Laboratory Reference: 2109-066

Project: 2032-012

#### HARDNESS EPA 200.7/SM 2340B QUALITY CONTROL

Matrix: Water

Units: mg eqt. CaCO3/L (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						_
Laboratory ID:	MB0915WH1					
Hardness	ND	1.0	EPA 200.7/SM 2340B	9-15-21	9-15-21	

					Source	Pe	rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	09-0	66-02									
	ORIG	DUP									
Hardness	207	201	N	IA.	NA	ľ	NA	NA	3	20	
MATRIX SPIKES											
Laboratory ID:	09-0	66-02									
	MS	MSD	MS	MSD		MS	MSD				
Hardness	347	341	132	132	207	106	102	75-125	2	20	
SPIKE BLANK											
Laboratory ID:	SB091	15WH1									
	S	В	9	SB			SB				
Hardness	1;	32	1	32	NA	1	00	85-115	NA	NA	



#### **Data Qualifiers and Abbreviations**

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
- Y1 Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.

Z -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





Am Test Inc. 13600 NE 126TH PL Suite C Kirkland, WA 98034 (425) 885-1664 Professional Analytical Services

Oct 1 2021 On-Site Environmental 14648 NE 95th ST Redmond, WA 98052 Attention: David Baumeister

Dear David Baumeister:

Enclosed please find the analytical data for your project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
FMW-1-090821	Water	21-A013509	CONV
FMW-2-090821	Water	21-A013510	CONV
FMW-3-090821	Water	21-A013511	CONV
FMW-4-090821	Water	21-A013512	CONV
FMW-6-090821	Water	21-A013513	CONV
FMW-8-090821	Water	21-A013514	CONV
FMW-9-090821	Water	21-A013515	CONV
FMW-16-090821	Water	21-A013516	CONV
FMW-17-090821	Water	21-A013517	CONV

Your samples were received on Friday, September 10, 2021. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to contact me.

Sincerely,

Aaron W. Young Vice President

Project #: 2032-012 SDG #: 2121070 PO Number: 09-066

BACT = Bacteriological CONV = Conventionals

MET = Metals ORG = Organics NUT=Nutrients DEM=Demand MIN=Minerals

Am Test Inc.

13600 NE 126TH PL Suite C Kirkland, WA 98034 (425) 885-1664 www.amtestlab.com



Professional Analytical Services

### **ANALYSIS REPORT**

On-Site Environmental 14648 NE 95th ST Redmond, WA 98052

Attention: David Baumeister SDG Number: 2121070 Project #: 2032-012 PO Number: 09-066

All results reported on an as received basis.

Date Received: 09/10/21 Date Reported: 10/1/21

AMTEST Identification Number 21-A013509
Client Identification FMW-1-090821
Sampling Date 09/08/21, 14:00

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	0.06	mg/l		0.05	SM 4500-S2-D	MD	10/01/21

AMTEST Identification Number 21-A013510
Client Identification FMW-2-090821
Sampling Date 09/08/21, 15:20

# Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	0.07	mg/l		0.05	SM 4500-S2-D	MD	10/01/21

AmTest ID: 21-A013511

\_\_\_\_\_

AMTEST Identification Number 21-A013511
Client Identification FMW-3-090821
Sampling Date 09/08/21, 16:35

# Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	0.07	mg/l		0.05	SM 4500-S2-D	MD	10/01/21

AMTEST Identification Number 21-A013512
Client Identification FMW-4-090821
Sampling Date 09/08/21, 14:11

# Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	0.07	mg/l		0.05	SM 4500-S2-D	MD	10/01/21

AMTEST Identification Number 21-A013513
Client Identification FMW-6-090821
Sampling Date 09/08/21, 11:10

# Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	< 0.05	mg/l		0.05	SM 4500-S2-D	MD	10/01/21

AmTest ID: 21-A013514

\_\_\_\_\_

AMTEST Identification Number 21-A013514
Client Identification FMW-8-090821
Sampling Date 09/08/21, 11:05

### Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	0.05	mg/l		0.05	SM 4500-S2-D	MD	10/01/21

AMTEST Identification Number 21-A013515
Client Identification FMW-9-090821
Sampling Date 09/08/21, 12:45

### Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	< 0.05	mg/l		0.05	SM 4500-S2-D	MD	10/01/21

AMTEST Identification Number 21-A013516
Client Identification FMW-16-090821
Sampling Date 09/08/21, 15:42

### Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	0.08	mg/l		0.05	SM 4500-S2-D	MD	10/01/21

AMTEST Identification Number 21-A013517
Client Identification FMW-17-090821
Sampling Date 09/08/21, 12:59

# Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Sulfide	0.09	mg/l		0.05	SM 4500-S2-D	MD	10/01/21

Aaron W. Young Vice President 13600 NE 126th PL Suite C Kirkland, WA, 98034 (425) 885-1664 www.amtestlab.com



Professional Analytical Services

QC Summary for sample numbers: 21-A013509 to 21-A013517

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	SMPL+ SPK	SPK AMT	RECOVERY
21-A013515	Total Sulfide	mg/l	< 0.05	0.30	0.25	120.00 %
21-A013515	Total Sulfide	mg/l	< 0.05	0.30	0.25	120.00 %

### MATRIX SPIKE DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE + SPK	MSD VALUE	RPD
Spike	Total Sulfide	ma/l	0.30	0.30	0.00

# STANDARD REFERENCE MATERIALS

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
Total Sulfide	ma/l	0.50	0.45	90.0 %

# **BLANKS**

ANALYTE	UNITS	RESULT
Total Sulfide	mg/l	< 0.05

MA OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 · (425) 883-3881

Laboratory: AmTest Laboratories

Attention: Aaron Young

13600 NE 126th PI Kirkland, WA 98034

Phone Number: (425)885-1664

**Turnaround Request** 

Standard 2 Day 1 Day

Other:

3 Day

Laboratory Reference #: 09-066

Project Manager: David Baumeister

email: dbaumeister@onsite-env.com

Project Number: 2032-012

Project Name:

			Date	Time		# of	
Lab ID	Sample Identification	Š	ampled	Sampled Sampled	Matrix	Cont.	Requested Analyses
FMW-1-090821	(3509	,	9/8/21	14:00	W	1	Sulfide
FMW-2-090821	0		9/8/21	15:20	W	-	Sulfide
FMW-3-090821	Second		9/8/21	16:35	Α	-	Sulfide
FMW-4-090821	7		9/8/21	14:11	W	1	Sulfide
FMW-6-090821	2	)	9/8/21	11:10	W	1	Sulfide
FMW-8-090821		)	9/8/21	11:05	W	1	Sulfide
FMW-9-090821	N		9/8/21	12:45	W	1	Sulfide
FMW-16-090821	0)	)	9/8/21	15:42	W	1	Sulfide
FMW-17-090821	U 21	)	9/8/21	12:59	W	1	Sulfide
			Company	any		Date	Time Comments/Special Instructions
Relinquished by: Z	4	Onsite		Environmental	W.	12-6-6	E
Received by:	5/2	ANTE		T= 12.6	9	9/lo/zi	H-05:8
Relinquished by:		•					
Received by:							
Relinquished by:							
Received by:							
⊃.7			2	OVERNIGHT	GHJ		DROPERX

OVERNIGHT DROPBOX



3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

**OnSite Environmental Inc** 

David Baumeister 14648 NE 95th Street Redmond, WA 98052

RE: 18420 68th Ave S

Work Order Number: 2109116

September 16, 2021

#### **Attention David Baumeister:**

Fremont Analytical, Inc. received 9 sample(s) on 9/9/2021 for the analyses presented in the following report.

### Ferrous Iron by SM3500-Fe B

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes Project Manager

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Date: 09/16/2021



CLIENT: OnSite Environmental Inc Work Order Sample Summary

Project: 18420 68th Ave S

Work Order: 2109116

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2109116-001	FMW-1-090821	09/08/2021 2:00 PM	09/09/2021 8:15 AM
2109116-002	FMW-2-090821	09/08/2021 3:20 PM	09/09/2021 8:15 AM
2109116-003	FMW-3-090821	09/08/2021 4:35 PM	09/09/2021 8:15 AM
2109116-004	FMW-4-090821	09/08/2021 2:11 PM	09/09/2021 8:15 AM
2109116-005	FMW-6-090821	09/08/2021 11:10 AM	09/09/2021 8:15 AM
2109116-006	FMW-8-090821	09/08/2021 11:05 AM	09/09/2021 8:15 AM
2109116-007	FMW-9-090821	09/08/2021 12:45 PM	09/09/2021 8:15 AM
2109116-008	FMW-16-090821	09/08/2021 3:42 PM	09/09/2021 8:15 AM
2109116-009	FMW-17-090821	09/08/2021 12:59 PM	09/09/2021 8:15 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned



### **Case Narrative**

WO#: **2109116**Date: **9/16/2021** 

**CLIENT:** OnSite Environmental Inc

Project: 18420 68th Ave S

#### I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

#### II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

#### III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.



# **Qualifiers & Acronyms**

WO#: **2109116** 

Date Reported: 9/16/2021

### Qualifiers:

- \* Flagged value is not within established control limits
- B Analyte detected in the associated Method Blank
- D Dilution was required
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- I Analyte with an internal standard that does not meet established acceptance criteria
- J Analyte detected below Reporting Limit
- N Tentatively Identified Compound (TIC)
- Q Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S Spike recovery outside accepted recovery limits
- ND Not detected at the Reporting Limit
- R High relative percent difference observed

### Acronyms:

%Rec - Percent Recovery

**CCB - Continued Calibration Blank** 

CCV - Continued Calibration Verification

**DF** - Dilution Factor

**DUP - Sample Duplicate** 

**HEM - Hexane Extractable Material** 

ICV - Initial Calibration Verification

LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate

MCL - Maximum Contaminant Level

MB or MBLANK - Method Blank

MDL - Method Detection Limit

MS/MSD - Matrix Spike / Matrix Spike Duplicate

PDS - Post Digestion Spike

Ref Val - Reference Value

REP - Sample Replicate

RL - Reporting Limit

RPD - Relative Percent Difference

SD - Serial Dilution

SGT - Silica Gel Treatment

SPK - Spike

Surr - Surrogate



# **Analytical Report**

DF

Work Order: 2109116 Date Reported: 9/16/2021

CLIENT: OnSite Environmental Inc

18420 68th Ave S **Project:** 

Collection Date: 9/8/2021 2:00:00 PM 2109116-001 Lab ID:

Client Sample ID: FMW-1-090821 Matrix: Water

Result **RL Qual Units Analyses Date Analyzed** 

Batch ID: R69794 Analyst: SS Ferrous Iron by SM3500-Fe B

Ferrous Iron 36.4 2.50 D mg/L 25 9/9/2021 10:05:00 AM

Lab ID: 2109116-002 Collection Date: 9/8/2021 3:20:00 PM

Matrix: Water Client Sample ID: FMW-2-090821

**RL Qual** Units DF Result **Date Analyzed Analyses** 

Batch ID: R69794 Ferrous Iron by SM3500-Fe B Analyst: SS

17.3 2.50 D Ferrous Iron mg/L 25 9/9/2021 10:05:00 AM

**Lab ID:** 2109116-003 Collection Date: 9/8/2021 4:35:00 PM

Client Sample ID: FMW-3-090821 Matrix: Water

**Units Analyses** Result **RL Qual** DF **Date Analyzed** 

Ferrous Iron by SM3500-Fe B Batch ID: R69794 Analyst: SS

Ferrous Iron 64.1 12.5 mg/L 125 9/9/2021 10:05:00 AM

2109116-004 Collection Date: 9/8/2021 2:11:00 PM Lab ID:

Matrix: Water Client Sample ID: FMW-4-090821

**Analyses** Result RL Qual Units DF **Date Analyzed** 

Batch ID: R69794 Analyst: SS Ferrous Iron by SM3500-Fe B

Ferrous Iron 23.5 2.50 25 9/9/2021 10:05:00 AM D mg/L



# **Analytical Report**

Work Order: 2109116 Date Reported: 9/16/2021

**Date Analyzed** 

CLIENT: OnSite Environmental Inc

18420 68th Ave S **Project:** 

**Analyses** 

Collection Date: 9/8/2021 11:10:00 AM 2109116-005 Lab ID:

**RL Qual** 

**Units** 

DF

Client Sample ID: FMW-6-090821 Matrix: Water Result

Batch ID: R69794 Analyst: SS Ferrous Iron by SM3500-Fe B

Ferrous Iron 26.9 2.50 D mg/L 25 9/9/2021 10:05:00 AM

Lab ID: 2109116-006 Collection Date: 9/8/2021 11:05:00 AM

Client Sample ID: FMW-8-090821 Matrix: Water

**RL Qual** Units DF Result **Date Analyzed Analyses** Batch ID: R69794 Ferrous Iron by SM3500-Fe B Analyst: SS

160 D Ferrous Iron 12.5 mg/L 125 9/9/2021 10:05:00 AM

Lab ID: 2109116-007 Collection Date: 9/8/2021 12:45:00 PM

Client Sample ID: FMW-9-090821 Matrix: Water

**Units Analyses** Result **RL Qual** DF **Date Analyzed** 

Ferrous Iron by SM3500-Fe B Batch ID: R69794 Analyst: SS

Ferrous Iron 0.588 0.100 mg/L 9/9/2021 10:05:00 AM

2109116-008 Collection Date: 9/8/2021 3:42:00 PM Lab ID:

Matrix: Water Client Sample ID: FMW-16-090821

**Analyses** Result RL Qual Units DF **Date Analyzed** 

Batch ID: R69794 Analyst: SS Ferrous Iron by SM3500-Fe B

Ferrous Iron 44.8 12.5 125 9/9/2021 10:05:00 AM D mg/L



# **Analytical Report**

Work Order: 2109116

Date Reported: 9/16/2021

**CLIENT:** OnSite Environmental Inc

Project: 18420 68th Ave S

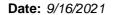
**Lab ID:** 2109116-009 **Collection Date:** 9/8/2021 12:59:00 PM

Client Sample ID: FMW-17-090821 Matrix: Water

Analyses Result RL Qual Units DF Date Analyzed

Ferrous Iron by SM3500-Fe B Batch ID: R69794 Analyst: SS

Ferrous Iron 77.6 12.5 D mg/L 125 9/9/2021 10:05:00 AM





Work Order: 2109116

**CLIENT:** OnSite Environmental Inc

Project: 18420 68th Ave S

# **QC SUMMARY REPORT**

Ferrous Iron by SM3500-Fe B

<b>Project:</b> 18420 68th	Ave S					1 61	Tous Iron by Sivisso	0-1 <del>C</del> L
Sample ID: MB-R69794	SampType: MBLK			Units: mg/L	Prep [	Date: 9/9/2021	RunNo: <b>69794</b>	
Client ID: MBLKW	Batch ID: R69794				Analysis I	Date: 9/9/2021	SeqNo: <b>1414993</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLim	t HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Ferrous Iron	ND	0.100						
Sample ID: LCS-R69794	SampType: <b>LCS</b>			Units: mg/L	Prep [	Date: 9/9/2021	RunNo: <b>69794</b>	
Client ID: LCSW	Batch ID: R69794				Analysis [	Date: 9/9/2021	SeqNo: <b>1414994</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLim	t HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Ferrous Iron	0.391	0.100	0.4000	0	97.8	5 115		
Sample ID: <b>2109116-003ADUP</b>	SampType: <b>DUP</b>			Units: mg/L	Prep [	Date: 9/9/2021	RunNo: <b>69794</b>	
Client ID: FMW-3-090821	Batch ID: R69794				Analysis I	Date: 9/9/2021	SeqNo: <b>1414998</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLim	t HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Ferrous Iron	61.6	12.5				64.09	3.91 20	D
Sample ID: <b>2109116-003AMS</b>	SampType: <b>MS</b>			Units: mg/L	Prep [	Date: 9/9/2021	RunNo: <b>69794</b>	
Client ID: FMW-3-090821	Batch ID: R69794				Analysis I	Date: 9/9/2021	SeqNo: <b>1414999</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLim	t HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Ferrous Iron	127	12.5	50.00	64.09	126 7	130		D
Sample ID: <b>2109116-003AMSD</b>	SampType: <b>MSD</b>			Units: mg/L	Prep [	Date: 9/9/2021	RunNo: <b>69794</b>	
Client ID: FMW-3-090821	Batch ID: R69794				Analysis I	Date: 9/9/2021	SeqNo: <b>1415000</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLim	t HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Ferrous Iron	128	12.5	50.00	64.09	129 7	) 130 127.2	0.962 20	D

Original Page 8 of 10



# Sample Log-In Check List

С	lient Name:	ONSITE	Work Order Numb	ber: <b>2109116</b>		
Lo	ogged by:	Clare Griggs	Date Received:	9/9/2021 8	:15:00 AM	
Cha	in of Custo	ody				
		ustody complete?	Yes 🗸	No $\square$	Not Present	
2.	How was the	sample delivered?	Client			
Log	ı İn					
_	Coolers are p	iresent?	Yes 🗸	No 🗌	na 🗆	
٥.	Oddicis are p	iosciii:	103	110	NA 🗀	
4.	Shipping cont	tainer/cooler in good condition?	Yes 🗸	No $\square$		
5.		s present on shipping container/cooler? Iments for Custody Seals not intact)	Yes	No 🗌	Not Present <b>✓</b>	
6.	Was an atten	npt made to cool the samples?	Yes 🗸	No 🗌	NA 🗌	
7.	Were all item	s received at a temperature of >2°C to 6°C *	Yes 🗸	No 🗆	NA $\square$	
8.	Sample(s) in	proper container(s)?	Yes 🗸	No 🗆		
9.	Sufficient san	nple volume for indicated test(s)?	Yes 🗸	No $\square$		
10.	Are samples	properly preserved?	Yes 🗸	No $\square$		
11.	Was preserva	ative added to bottles?	Yes	No 🗸	NA $\square$	
12	Is there head	space in the VOA vials?	Yes	No 🗆	NA 🗹	
		es containers arrive in good condition(unbroken)?	Yes 🗸	No $\square$		
		ork match bottle labels?	Yes 🗸	No 🗌		
15.	Are matrices	correctly identified on Chain of Custody?	Yes 🗹	No $\square$		
16.	Is it clear wha	at analyses were requested?	Yes 🗸	No $\square$		
17.	Were all hold	ing times able to be met?	Yes 🗸	No $\square$		
Spe	cial Handli	ing (if applicable)				
18.	Was client no	tified of all discrepancies with this order?	Yes	No $\square$	NA 🗹	
	Person	Notified: Date:				
	By Who	m: Via:	eMail Ph	one  Fax	In Person	
	Regardi	ng:				
	Client In	structions:				
19.	Additional rer	narks:				
<u>lte</u> m	Information					
		Item # Temp °C				

Sample

<sup>\*</sup> Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Reviewed/Date	Received	Relinquished	Received	Relinquished	Received	Relinquished			Fum-17-09082	58060-91-MMZ	FMW-9-090821	FMW-8-0	FWW-10-09082	FMW-4-0	FMW-3-0	FMW-2-0	FMWJ-1-0	Lab ID Sam	Elix Bugge Glenn M	8 8	Project Number:	Analytical Labor 14648 NE 951 Phone: (425)	Enviror
				,	husting Man	h	Signature		390821	10821	90821	8-090821	90821	1090821	-090821	090821	1-090821	Sample Identification	Gienn Miktony		n consulting	Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com	<b>Unsite</b> Environmental Inc.
				(	B		Company	S. W.A.	4	T				14	1(	) 12	-	a.		X Standard (7 Days)	Same Day	Turnaro (in wo	
Devision /Date					FAI	FLN	any		1259 +	カリス	Shel	105	110	HII	1635	1520	1400 W	Time Sampled Matrix	(other)	(7 Days)	y	(Check One)	Chain o
					9/9	18181	Date											NWTI NWTI	PH-HCID PH-Gx/BTE PH-Gx PH-Gx		an-up)	Laboratory	Gnain of Gustody
					8:15	1905	Time											Halog		latiles 8260D Waters Only)		Number:	
	Data Package: Standard				Onsite Environmental	* please report	Comments/Special Instructions											(with PAHs PCBs Organ Organ Chlor	8082A nochlorine nophospho inated Acid	Pesticides 80 rus Pesticides 8 Herbicides 8	s 8270E/SIM		
	Level III Level IV					A results to	IS		×	X	×	X	X	X	×	X	×	Total TCLP HEM	MTCA Met Metals  (oil and gre	als ease) 1664A	1	219116	Page of
																		% Mo	isture		Page	10 of 1	0

Reviewed/Date	Received	Relinquished	Received	Relinquished	Received	Relinquished Um Rype	Signature	Contract of the Contract of th	9 FMW-17-690821	8 FMW-16-090821	7 FHW-9-090821	FMW-8-090821	5 FMW-(0-090821	4 FMW-4-090821 # 100	3 FMW-3-090821	2 FMW-2 -090821	1 FMW-W- 090821	Lab ID Sample Identification	Elise Bugge Glann Mckenny	Peter Kityston/ Greg Peters	Project Manager: 18420 68th Ave S	Project Name: 2032-012	Project Number:	Phone: (425) 883-3881 • www.onsite-env.com Company:	Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Environmental Inc.
Reviewed/Date					Onside	ECN	Company		+ 1259 1	1542 1570	Shel	110%	IIIO	j.l.l	1635	1520	918/21 14/65 W 13	Date Time Sampled Matrix	(other)	Contai	Standard (7 Days)	2 Days 3 Days	☐ Same Day ☐ 1 Day	(Check One)	Turnaround Request (in working days)	Chain of Custody
					9-8-21 1836	9841 12818	Date Time		×	×			×	×	×	×	×	NWT NWT NWT Volat Halog	PH-HC PH-Gx PH-Dx PH-Dx genate	/BTEX ( Acide Acid	id / SG	Clean-u			Laboratory Number:	Custody
Chromatograms with final report   Electronic Data Deliverables (EDDs)	Data Package: Standard   Level III   Level IV	** - Include low level Viny! chlarace by	State ON MOLO DR	** CORNOC+ PM before analysis,	movit Andrystoni over 10	hastistical due to 34 ho	cial Instructions	dwy	X X X X X X X X X X X X X X X X X X X		X		X					Semi (with PAHs PCBs Orga Orga Chlor Total Total TCLF Sun Total TCLF	wolatile low-le 8270 low-le 82	es 8270 vel PAH E/SIM (I A rine Pe sphorus Acid H Metals Metals d greas	E/SIM Hs) low-leven sticides s Pesticides	88081B ides 82 es 8151	70E/SIN		1: 09-066	Page of of HB



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

September 21, 2021

Pete Kingston Farallon Consulting 1809 7th Avenue, Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 2032-012

Laboratory Reference No. 2109-090

### Dear Pete:

Enclosed are the analytical results and associated quality control data for samples submitted on September 10, 2021.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

**Enclosures** 

Laboratory Reference: 2109-090

Project: 2032-012

#### **Case Narrative**

Samples were collected on September 9, 2021 and received by the laboratory on September 10, 2021. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Laboratory Reference: 2109-090

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-5-090921					
Laboratory ID:	09-090-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chloromethane	ND	1.0	EPA 8260D	9-13-21	9-13-21	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	9-13-21	9-13-21	
Bromomethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chloroethane	ND	1.0	EPA 8260D	9-13-21	9-13-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Iodomethane	ND	1.9	EPA 8260D	9-13-21	9-13-21	
Methylene Chloride	ND	1.0	EPA 8260D	9-13-21	9-13-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Bromochloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chloroform	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Trichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Dibromomethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Bromodichloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260D	9-13-21	9-13-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21	

Laboratory Reference: 2109-090

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-5-090921					
Laboratory ID:	09-090-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Tetrachloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Dibromochloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Bromoform	ND	1.0	EPA 8260D	9-13-21	9-13-21	
Bromobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-13-21	9-13-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	9-13-21	9-13-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	105	75-127				
T / 10	07	00.407				

Surrogate:	Percent Recovery	Control Limit
Dibromofluoromethane	105	<i>75-127</i>
Toluene-d8	97	80-127
4-Bromofluorobenzene	91	78-125



Laboratory Reference: 2109-090

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-7-090921					
Laboratory ID:	09-090-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chloromethane	ND	1.0	EPA 8260D	9-13-21	9-13-21	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	9-13-21	9-13-21	
Bromomethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chloroethane	ND	1.0	EPA 8260D	9-13-21	9-13-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
lodomethane	ND	1.9	EPA 8260D	9-13-21	9-13-21	
Methylene Chloride	ND	1.0	EPA 8260D	9-13-21	9-13-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Bromochloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chloroform	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Trichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Dibromomethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Bromodichloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260D	9-13-21	9-13-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21	

Laboratory Reference: 2109-090

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-7-090921					
Laboratory ID:	09-090-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Tetrachloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Dibromochloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Bromoform	ND	1.0	EPA 8260D	9-13-21	9-13-21	
Bromobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dibromo-3-chloropropane	. ND	1.0	EPA 8260D	9-13-21	9-13-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	9-13-21	9-13-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Surrogate:	Percent Recovery	Control Limits				

Surrogate:	Percent Recovery	Control Limit
Dibromofluoromethane	103	75-127
Toluene-d8	98	80-127
4-Bromofluorobenzene	93	78-125



Laboratory Reference: 2109-090

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-12-090921					
Laboratory ID:	09-090-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chloromethane	ND	1.0	EPA 8260D	9-13-21	9-13-21	
Vinyl Chloride	0.022	0.020	EPA 8260D/SIM	9-13-21	9-13-21	
Bromomethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chloroethane	ND	1.0	EPA 8260D	9-13-21	9-13-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
lodomethane	ND	1.9	EPA 8260D	9-13-21	9-13-21	
Methylene Chloride	ND	1.0	EPA 8260D	9-13-21	9-13-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
(cis) 1,2-Dichloroethene	4.5	0.20	EPA 8260D	9-13-21	9-13-21	
Bromochloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chloroform	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Trichloroethene	3.6	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Dibromomethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Bromodichloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260D	9-13-21	9-13-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21	

Laboratory Reference: 2109-090

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-12-090921					
Laboratory ID:	09-090-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Tetrachloroethene	0.67	0.20	EPA 8260D	9-13-21	9-13-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Dibromochloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Bromoform	ND	1.0	EPA 8260D	9-13-21	9-13-21	
Bromobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dibromo-3-chloropropane	. ND	1.0	EPA 8260D	9-13-21	9-13-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	9-13-21	9-13-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Surrogate:	Percent Recovery	Control Limits				·
Dibromofluoromethane	104	75-127				
Toluene-d8	97	80-127				
Surrogate: Dibromofluoromethane	Percent Recovery 104	Control Limits 75-127				

4-Bromofluorobenzene

95

78-125

Laboratory Reference: 2109-090

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-13-090921					
Laboratory ID:	09-090-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chloromethane	ND	1.0	EPA 8260D	9-13-21	9-13-21	
Vinyl Chloride	0.056	0.020	EPA 8260D/SIM	9-13-21	9-13-21	
Bromomethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chloroethane	ND	1.0	EPA 8260D	9-13-21	9-13-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
lodomethane	ND	1.9	EPA 8260D	9-13-21	9-13-21	
Methylene Chloride	ND	1.0	EPA 8260D	9-13-21	9-13-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Bromochloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chloroform	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Trichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Dibromomethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Bromodichloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260D	9-13-21	9-13-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21	

Laboratory Reference: 2109-090 Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-13-090921					
Laboratory ID:	09-090-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Tetrachloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Dibromochloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Bromoform	ND	1.0	EPA 8260D	9-13-21	9-13-21	
Bromobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	9-13-21	9-13-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	9-13-21	9-13-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Surrogate:	Percent Recovery	Control Limits				
D'' " "	404	75.407				

Surrogate:	Percent Recovery	Control Limit
Dibromofluoromethane	104	75-127
Toluene-d8	97	80-127
4-Bromofluorobenzene	94	78-125

Laboratory Reference: 2109-090

Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-15-090921					
Laboratory ID:	09-090-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chloromethane	ND	1.0	EPA 8260D	9-13-21	9-13-21	
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	9-13-21	9-13-21	
Bromomethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chloroethane	ND	1.0	EPA 8260D	9-13-21	9-13-21	
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
lodomethane	ND	1.9	EPA 8260D	9-13-21	9-13-21	
Methylene Chloride	ND	1.0	EPA 8260D	9-13-21	9-13-21	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
2,2-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Bromochloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chloroform	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Trichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Dibromomethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Bromodichloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260D	9-13-21	9-13-21	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21	

Laboratory Reference: 2109-090 Project: 2032-012

# **VOLATILE ORGANICS EPA 8260D/SIM**

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-15-090921					
Laboratory ID:	09-090-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Tetrachloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Dibromochloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Bromoform	ND	1.0	EPA 8260D	9-13-21	9-13-21	
Bromobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260D	9-13-21	9-13-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	9-13-21	9-13-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Surrogate:	Percent Recovery	Control Limits				

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	103	75-127
Toluene-d8	97	80-127
4-Bromofluorobenzene	94	78-125

Laboratory Reference: 2109-090

Project: 2032-012

### VOLATILE ORGANICS EPA 8260D/SIM QUALITY CONTROL

page 1 of 2

				Date	Date		
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags	
METHOD BLANK							
Laboratory ID:	MB0913W1						
Dichlorodifluoromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21		
Chloromethane	ND	1.0	EPA 8260D	9-13-21	9-13-21		
Vinyl Chloride	ND	0.020	EPA 8260D/SIM	9-13-21	9-13-21		
Bromomethane	ND	0.20	EPA 8260D	9-13-21	9-13-21		
Chloroethane	ND	1.0	EPA 8260D	9-13-21	9-13-21		
Trichlorofluoromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21		
1,1-Dichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21		
lodomethane	ND	1.9	EPA 8260D	9-13-21	9-13-21		
Methylene Chloride	ND	1.0	EPA 8260D	9-13-21	9-13-21		
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21		
1,1-Dichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21		
2,2-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21		
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21		
Bromochloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21		
Chloroform	ND	0.20	EPA 8260D	9-13-21	9-13-21		
1,1,1-Trichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21		
Carbon Tetrachloride	ND	0.20	EPA 8260D	9-13-21	9-13-21		
1,1-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21		
1,2-Dichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21		
Trichloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21		
1,2-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21		
Dibromomethane	ND	0.20	EPA 8260D	9-13-21	9-13-21		
Bromodichloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21		
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260D	9-13-21	9-13-21		
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21		
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260D	9-13-21	9-13-21		

Laboratory Reference: 2109-090

Project: 2032-012

### VOLATILE ORGANICS EPA 8260D/SIM QUALITY CONTROL

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0913W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Tetrachloroethene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,3-Dichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Dibromochloromethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dibromoethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Chlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Bromoform	ND	1.0	EPA 8260D	9-13-21	9-13-21	
Bromobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2,3-Trichloropropane	ND	0.20	EPA 8260D	9-13-21	9-13-21	
2-Chlorotoluene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
4-Chlorotoluene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,3-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,4-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260D	9-13-21	9-13-21	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Hexachlorobutadiene	ND	1.0	EPA 8260D	9-13-21	9-13-21	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260D	9-13-21	9-13-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	99	75-127				
Toluene-d8	96	80-127				

4-Bromofluorobenzene

78-125

94

Laboratory Reference: 2109-090

Project: 2032-012

# VOLATILE ORGANICS EPA 8260D/SIM QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	Recovery		RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB09	13W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.5	10.2	10.0	10.0	95	102	78-124	7	19	
Benzene	9.2	9.9	10.0	10.0	92	99	80-119	8	16	
Trichloroethene	9.6	10.5	10.0	10.0	96	105	80-121	9	18	
Toluene	9.3	10.0	10.0	10.0	93	100	80-117	7	18	
Chlorobenzene	10.0	10.6	10.0	10.0	100	106	80-117	6	17	
Surrogate:										
Dibromofluoromethane					97	96	75-127			
Toluene-d8					97	98	80-127			
4-Bromofluorobenzene					100	102	78-125			

Laboratory Reference: 2109-090

Project: 2032-012

### TOTAL METALS EPA 200.8/7470A

<b>3</b> (11 /				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-5-090921					
Laboratory ID:	09-090-01					
Arsenic	6.4	3.3	EPA 200.8	9-13-21	9-13-21	
Cadmium	ND	4.4	EPA 200.8	9-13-21	9-13-21	
Chromium	ND	11	EPA 200.8	9-13-21	9-13-21	
Lead	ND	1.1	EPA 200.8	9-13-21	9-13-21	
Mercury	ND	0.50	EPA 7470A	9-17-21	9-20-21	
Client ID:	FMW-7-090921					
Laboratory ID:	09-090-02					
Arsenic	ND	3.3	EPA 200.8	9-13-21	9-13-21	
Cadmium	ND	4.4	EPA 200.8	9-13-21	9-13-21	
Chromium	ND	11	EPA 200.8	9-13-21	9-13-21	
Lead	ND	1.1	EPA 200.8	9-13-21	9-13-21	
Mercury	ND	0.50	EPA 7470A	9-17-21	9-20-21	
Client ID:	FMW-12-090921					
Laboratory ID:	09-090-03					
Arsenic	ND	3.3	EPA 200.8	9-13-21	9-13-21	
Cadmium	ND	4.4	EPA 200.8	9-13-21	9-13-21	
Chromium	ND	11	EPA 200.8	9-13-21	9-13-21	
Lead	ND	1.1	EPA 200.8	9-13-21	9-13-21	
Mercury	ND	0.50	EPA 7470A	9-17-21	9-20-21	
Client ID:	FMW-13-090921					
Laboratory ID:	09-090-04					
Arsenic	3.7	3.3	EPA 200.8	9-13-21	9-13-21	
Cadmium	ND	4.4	EPA 200.8	9-13-21	9-13-21	
Chromium	ND	11	EPA 200.8	9-13-21	9-13-21	
Lead	ND	1.1	EPA 200.8	9-13-21	9-13-21	
Mercury	ND	0.50	EPA 7470A	9-17-21	9-20-21	

Laboratory Reference: 2109-090

Project: 2032-012

### TOTAL METALS EPA 200.8/7470A

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-15-090921					
Laboratory ID:	09-090-05					
Arsenic	ND	3.3	EPA 200.8	9-13-21	9-13-21	
Cadmium	ND	4.4	EPA 200.8	9-13-21	9-13-21	
Chromium	ND	11	EPA 200.8	9-13-21	9-13-21	
Lead	ND	1.1	EPA 200.8	9-13-21	9-13-21	
Mercury	ND	0.50	EPA 7470A	9-17-21	9-20-21	

Date of Report: September 21, 2021 Samples Submitted: September 10, 2021

Laboratory Reference: 2109-090

Project: 2032-012

### **TOTAL METALS** EPA 200.8/7470A **QUALITY CONTROL**

Matrix: Water Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0913WM1					
Arsenic	ND	3.3	EPA 200.8	9-13-21	9-13-21	
Cadmium	ND	4.4	EPA 200.8	9-13-21	9-13-21	
Chromium	ND	11	EPA 200.8	9-13-21	9-13-21	
Lead	ND	1.1	EPA 200.8	9-13-21	9-13-21	
Laboratory ID:	MB0917W1					
Mercury	ND	0.50	EPA 7470A	9-17-21	9-20-21	

					Source	Pe	rcent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	09-06	66-01									
	ORIG	DUP									
Arsenic	9.62	8.71	NA	NA		1	NA	NA	10	20	
Cadmium	ND	ND	NA	NA		1	NA	NA	NA	20	
Chromium	ND	ND	NA	NA		ı	NΑ	NA	NA	20	
Lead	ND	ND	NA	NA		ı	NA	NA	NA	20	
	20.00										
Laboratory ID:	09-09										
Mercury	ND	ND	NA	NA		l	NA	NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	09-06	66-01									
	MS	MSD	MS	MSD		MS	MSD				
Arsenic	139	141	111	111	9.62	117	118	75-125	1	20	
Cadmium	130	128	111	111	ND	118	115	75-125	2	20	
Chromium	127	126	111	111	ND	115	114	75-125	1	20	
Lead	124	122	111	111	ND	112	110	75-125	2	20	
Laboratory ID:	09-09	90-01									
Mercury	11.9	12.5	12.5	12.5	ND	95	100	75-125	5	20	

Laboratory Reference: 2109-090

Project: 2032-012

#### DISSOLVED METALS EPA 200.8/7470A

				Date	Date		
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags	
Client ID:	FMW-5-090921						
Laboratory ID:	09-090-01						
Arsenic	5.8	3.0	EPA 200.8		9-13-21		
Cadmium	ND	4.0	EPA 200.8		9-13-21		
Chromium	ND	10	EPA 200.8		9-13-21		
Lead	ND	1.0	EPA 200.8				
Mercury	ND	0.50	EPA 7470A	9-20-21			
Client ID:	FMW-7-090921						
Laboratory ID:	09-090-02						
Arsenic	ND	3.0	EPA 200.8		9-13-21	_	
Cadmium	ND	4.0	EPA 200.8		9-13-21		
Chromium	ND	10	EPA 200.8		9-13-21		
Lead	ND	1.0	EPA 200.8		9-13-21		
Mercury	ND	0.50	EPA 7470A		9-20-21		
Client ID:	FMW-12-090921						
Laboratory ID:	09-090-03						
Arsenic	ND	3.0	EPA 200.8		9-13-21		
Cadmium	ND	4.0	EPA 200.8		9-13-21		
Chromium	ND	10	EPA 200.8		9-13-21		
Lead	ND	1.0	EPA 200.8		9-13-21		
Mercury	ND	0.50	EPA 7470A		9-20-21		
Client ID:	FMW-13-090921						
Laboratory ID:	09-090-04						
Arsenic	ND	3.0	EPA 200.8		9-13-21		
Cadmium	ND	4.0	EPA 200.8		9-13-21		
Chromium	ND	10	EPA 200.8		9-13-21		
Lead	ND	1.0	EPA 200.8		9-13-21		
Mercury	ND	0.50	EPA 7470A		9-20-21		

Laboratory Reference: 2109-090

Project: 2032-012

### DISSOLVED METALS EPA 200.8/7470A

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-15-090921					
Laboratory ID:	09-090-05					
Arsenic	ND	3.0	EPA 200.8		9-13-21	_
Cadmium	ND	4.0	EPA 200.8		9-13-21	
Chromium	ND	10	EPA 200.8		9-13-21	
Lead	ND	1.0	EPA 200.8		9-13-21	
Mercury	ND	0.50	EPA 7470A		9-20-21	

Laboratory Reference: 2109-090

Project: 2032-012

### DISSOLVED METALS EPA 200.8/7470A QUALITY CONTROL

•	Date	Date					
zed Flags	Analyzed	Prepared	Method	PQL	Result	Analyte	
						METHOD BLANK	
					MB0910F1	Laboratory ID:	
21	9-13-21	9-10-21	EPA 200.8	3.0	ND	Arsenic	
21	9-13-21	9-10-21	EPA 200.8	4.0	ND	Cadmium	
21	9-13-21	9-10-21	EPA 200.8	10	ND	Chromium	
21	9-13-21	9-10-21	EPA 200.8	1.0	ND	Lead	
					MB0915F1	Laboratory ID:	
21	9-20-21	9-15-21	EPA 7470A	0.50	ND	Mercury	
<u>-</u> :	9-20	9-15-21	EPA 7470A	0.50			

					Source	Pe	rcent	Recovery		RPD	
Analyte	Res	Result Spike Level		Result	Recovery		Limits	RPD	Limit	Flags	
DUPLICATE											
Laboratory ID:	09-06	66-01									
	ORIG	DUP									
Arsenic	7.18	6.94	NA	NA			NA	NA	3	20	
Cadmium	ND	ND	NA	NA			NA	NA	NA	20	
Chromium	ND	ND	NA	NA		I	NA	NA	NA	20	
Lead	ND	ND	NA	NA		NA		NA	NA	20	
Laboratory ID:	09-13	37-01									
Mercury	ND	ND	NA	NA		NA		NA	NA	20	
MATRIX SPIKES											
Laboratory ID:	09-06	66-01									
,	MS	MSD	MS	MSD		MS	MSD				
Arsenic	94.4	94.4	80.0	80.0	7.18	109	109	75-125	0	20	
Cadmium	82.6	83.6	80.0	80.0	ND	103	105	75-125	1	20	
Chromium	73.2	74.0	80.0	80.0	ND	92	93	75-125	1	20	
Lead	77.0	78.8	80.0	80.0	ND	96	99	75-125	2	20	
Laboratory ID:	09-13	37-01									
Mercury	12.2	12.9	12.5	12.5	ND	98	103	75-125	5	20	



#### **Data Qualifiers and Abbreviations**

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical .
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
- Y1 Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.

Z -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





# **Chain of Custody**

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Reviewed/Date	Received	Relinquished	Received	Relinquished	Received	Relinquished Glinky Kyon &	Signature	1	amo	-	5 FMW-15-090921	7 FUW -13-690921	3 FULL - 12-090921 # 05	2 FHW-7-090921	1 FNW-5-090921	Lab ID Sample Identification	Pete Kingston Grey Peters	Project Manager: 18420 68th Ave S	2032-012	Project Number: FAYALLON CONSULTINA	Company:	14648 NE 95th Street • Redmond, WA 98052
Reviewed/Date			- 18 Stola !!!	Spar 9/10/21 11/3	Spary 1/1007 1007	FCN 9/9/21 142	Company Date Time				+ 1133 + +	The tree X	1033	1 0527 X	9H121 0951 W 5	Sampled Sampled Watrix  Number of NWTPH-G  NWTPH-G  NWTPH-G  Volatiles 8	CID  ix/BTEX  ix  x (  Aci	d/SGC		Same Day 1 Day	(Check One)	(in working days) Laboratory Number:
Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐	Data Package: Standard ☐ Level III ☐ Level IV ☐		**** dissolved metalls are field *****	CATOH MO	1	O * What chiloride low level by SIM.	Comments/Special Instructions				×		×	×	×	Semivolat (with low-leaves 808 Organoch Organoph Chlorinate Total RCR Total MTC TCLP Met HEM (oil a EPe	les 8270 evel PAH DE/SIM (II 2A orine Pe Desphorus d Acid H A Metals A Metals als and greas	E/SIM (s) ew-lovel sticides & Pesticides erbicides	3081B des 827			er: 09-090



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

March 9, 2021

Pete Kingston Farallon Consulting 1809 7th Avenue, Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 2032-12

Laboratory Reference No. 2103-046

#### Dear Pete:

Enclosed are the analytical results and associated quality control data for samples submitted on March 3, 2021.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

**Enclosures** 



Project: 2032-12

#### **Case Narrative**

Samples were collected on March 3, 2021 and received by the laboratory on March 3, 2021. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

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#### **VOLATILE ORGANICS EPA 8260D**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	AS-1-2					
Laboratory ID:	03-046-03					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
Chloromethane	ND	0.0056	EPA 8260D	3-8-21	3-8-21	
Vinyl Chloride	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
Bromomethane	ND	0.0056	EPA 8260D	3-8-21	3-8-21	
Chloroethane	ND	0.0056	EPA 8260D	3-8-21	3-8-21	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
Iodomethane	ND	0.0056	EPA 8260D	3-8-21	3-8-21	
Methylene Chloride	ND	0.0077	EPA 8260D	3-8-21	3-8-21	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
Bromochloromethane	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
Chloroform	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
Trichloroethene	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
Dibromomethane	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
Bromodichloromethane	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
2-Chloroethyl Vinyl Ether	ND	0.0056	EPA 8260D	3-8-21	3-8-21	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-8-21	3-8-21	

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# **VOLATILE ORGANICS EPA 8260D**

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Analyte Client ID: Laboratory ID: 1,1,2-Trichloroethane Tetrachloroethene 1,3-Dichloropropane Dibromochloromethane	Result  AS-1-2 03-046-03  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	0.0011 0.0011 0.0011 0.0011	Method  EPA 8260D  EPA 8260D  EPA 8260D  EPA 8260D	3-8-21 3-8-21 3-8-21	3-8-21 3-8-21 3-8-21	Flags
Laboratory ID: 1,1,2-Trichloroethane Tetrachloroethene 1,3-Dichloropropane	03-046-03 ND ND ND ND	0.0011 0.0011 0.0011	EPA 8260D EPA 8260D	3-8-21	3-8-21	
1,1,2-Trichloroethane Tetrachloroethene 1,3-Dichloropropane	ND ND ND ND	0.0011 0.0011 0.0011	EPA 8260D EPA 8260D	3-8-21	3-8-21	
Tetrachloroethene 1,3-Dichloropropane	ND ND ND	0.0011 0.0011 0.0011	EPA 8260D EPA 8260D	3-8-21	3-8-21	
1,3-Dichloropropane	ND ND	0.0011 0.0011	EPA 8260D			
• •	ND	0.0011		3-8-21	3.8.21	
Dibromochloromethane			FPA 8260D		3-0-21	
	ND			3-8-21	3-8-21	
1,2-Dibromoethane		0.0011	EPA 8260D	3-8-21	3-8-21	
Chlorobenzene	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
Bromoform	ND	0.0056	EPA 8260D	3-8-21	3-8-21	
Bromobenzene	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
2-Chlorotoluene	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
4-Chlorotoluene	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromo-3-chloropropane	ND	0.0056	EPA 8260D	3-8-21	3-8-21	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
Hexachlorobutadiene	ND	0.0056	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	3-8-21	3-8-21	
Surrogate: Pe	ercent Recovery	Control Limits				
Dibromofluoromethane	105	74-131				
Toluene-d8	98	78-128				

4-Bromofluorobenzene

71-130

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# **VOLATILE ORGANICS EPA 8260D**

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onne. mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-12-2					
Laboratory ID:	03-046-05					
Dichlorodifluoromethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Chloromethane	ND	0.0042	EPA 8260D	3-8-21	3-8-21	
Vinyl Chloride	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Bromomethane	ND	0.0042	EPA 8260D	3-8-21	3-8-21	
Chloroethane	ND	0.0042	EPA 8260D	3-8-21	3-8-21	
Trichlorofluoromethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
lodomethane	ND	0.0042	EPA 8260D	3-8-21	3-8-21	
Methylene Chloride	ND	0.0057	EPA 8260D	3-8-21	3-8-21	
(trans) 1,2-Dichloroethene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
2,2-Dichloropropane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
(cis) 1,2-Dichloroethene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Bromochloromethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Chloroform	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,1,1-Trichloroethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Carbon Tetrachloride	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloropropene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloroethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Trichloroethene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloropropane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Dibromomethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Bromodichloromethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
2-Chloroethyl Vinyl Ether	ND	0.0042	EPA 8260D	3-8-21	3-8-21	
(cis) 1,3-Dichloropropene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
(trans) 1,3-Dichloropropene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	

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# **VOLATILE ORGANICS EPA 8260D**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-12-2					
Laboratory ID:	03-046-05					
1,1,2-Trichloroethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Tetrachloroethene	0.00086	0.00083	EPA 8260D	3-8-21	3-8-21	
1,3-Dichloropropane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Dibromochloromethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromoethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Chlorobenzene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,1,1,2-Tetrachloroethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Bromoform	ND	0.0042	EPA 8260D	3-8-21	3-8-21	
Bromobenzene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,1,2,2-Tetrachloroethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichloropropane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
2-Chlorotoluene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
4-Chlorotoluene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,3-Dichlorobenzene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,4-Dichlorobenzene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,2-Dichlorobenzene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromo-3-chloropropane	· ND	0.0042	EPA 8260D	3-8-21	3-8-21	
1,2,4-Trichlorobenzene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Hexachlorobutadiene	ND	0.0042	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichlorobenzene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	111	74-131				
Toluene-d8	101	78-128				

4-Bromofluorobenzene

71-130

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#### **VOLATILE ORGANICS EPA 8260D**

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ome. mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-25-2					
Laboratory ID:	03-046-06					
Dichlorodifluoromethane	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
Chloromethane	ND	0.0046	EPA 8260D	3-8-21	3-8-21	
Vinyl Chloride	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
Bromomethane	ND	0.0046	EPA 8260D	3-8-21	3-8-21	
Chloroethane	ND	0.0046	EPA 8260D	3-8-21	3-8-21	
Trichlorofluoromethane	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethene	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
lodomethane	ND	0.0046	EPA 8260D	3-8-21	3-8-21	
Methylene Chloride	ND	0.0063	EPA 8260D	3-8-21	3-8-21	
(trans) 1,2-Dichloroethene	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethane	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
2,2-Dichloropropane	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
(cis) 1,2-Dichloroethene	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
Bromochloromethane	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
Chloroform	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
1,1,1-Trichloroethane	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
Carbon Tetrachloride	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloropropene	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloroethane	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
Trichloroethene	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloropropane	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
Dibromomethane	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
Bromodichloromethane	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
2-Chloroethyl Vinyl Ether	ND	0.0046	EPA 8260D	3-8-21	3-8-21	
(cis) 1,3-Dichloropropene	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
(trans) 1,3-Dichloropropene	ND	0.00091	EPA 8260D	3-8-21	3-8-21	

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# **VOLATILE ORGANICS EPA 8260D**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-25-2					
Laboratory ID:	03-046-06					
1,1,2-Trichloroethane	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
Tetrachloroethene	0.031	0.00091	EPA 8260D	3-8-21	3-8-21	
1,3-Dichloropropane	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
Dibromochloromethane	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromoethane	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
Chlorobenzene	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
1,1,1,2-Tetrachloroethane	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
Bromoform	ND	0.0046	EPA 8260D	3-8-21	3-8-21	
Bromobenzene	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
1,1,2,2-Tetrachloroethane	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichloropropane	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
2-Chlorotoluene	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
4-Chlorotoluene	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
1,3-Dichlorobenzene	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
1,4-Dichlorobenzene	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
1,2-Dichlorobenzene	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromo-3-chloropropane	ND	0.0046	EPA 8260D	3-8-21	3-8-21	
1,2,4-Trichlorobenzene	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
Hexachlorobutadiene	ND	0.0046	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichlorobenzene	ND	0.00091	EPA 8260D	3-8-21	3-8-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	110	74-131				
Toluene-d8	101	78-128				

4-Bromofluorobenzene

71-130

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#### **VOLATILE ORGANICS EPA 8260D**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-26-2					
Laboratory ID:	03-046-07					
Dichlorodifluoromethane	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
Chloromethane	ND	0.0048	EPA 8260D	3-8-21	3-8-21	
Vinyl Chloride	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
Bromomethane	ND	0.0048	EPA 8260D	3-8-21	3-8-21	
Chloroethane	ND	0.0048	EPA 8260D	3-8-21	3-8-21	
Trichlorofluoromethane	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethene	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
Iodomethane	ND	0.0048	EPA 8260D	3-8-21	3-8-21	
Methylene Chloride	ND	0.0066	EPA 8260D	3-8-21	3-8-21	
(trans) 1,2-Dichloroethene	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethane	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
2,2-Dichloropropane	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
(cis) 1,2-Dichloroethene	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
Bromochloromethane	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
Chloroform	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
1,1,1-Trichloroethane	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
Carbon Tetrachloride	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloropropene	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloroethane	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
Trichloroethene	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloropropane	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
Dibromomethane	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
Bromodichloromethane	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
2-Chloroethyl Vinyl Ether	ND	0.0048	EPA 8260D	3-8-21	3-8-21	
(cis) 1,3-Dichloropropene	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
(trans) 1,3-Dichloropropene	ND	0.00096	EPA 8260D	3-8-21	3-8-21	

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# **VOLATILE ORGANICS EPA 8260D**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-26-2					
Laboratory ID:	03-046-07					
1,1,2-Trichloroethane	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
Tetrachloroethene	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
1,3-Dichloropropane	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
Dibromochloromethane	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromoethane	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
Chlorobenzene	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
1,1,1,2-Tetrachloroethane	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
Bromoform	ND	0.0048	EPA 8260D	3-8-21	3-8-21	
Bromobenzene	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
1,1,2,2-Tetrachloroethane	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichloropropane	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
2-Chlorotoluene	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
4-Chlorotoluene	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
1,3-Dichlorobenzene	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
1,4-Dichlorobenzene	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
1,2-Dichlorobenzene	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromo-3-chloropropane	ND	0.0048	EPA 8260D	3-8-21	3-8-21	
1,2,4-Trichlorobenzene	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
Hexachlorobutadiene	ND	0.0048	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichlorobenzene	ND	0.00096	EPA 8260D	3-8-21	3-8-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	110	74-131				
Toluene-d8	102	78-128				

4-Bromofluorobenzene

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#### **VOLATILE ORGANICS EPA 8260D**

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ome. mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-27-2					
Laboratory ID:	03-046-08					
Dichlorodifluoromethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Chloromethane	ND	0.0042	EPA 8260D	3-8-21	3-8-21	
Vinyl Chloride	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Bromomethane	ND	0.0042	EPA 8260D	3-8-21	3-8-21	
Chloroethane	ND	0.0042	EPA 8260D	3-8-21	3-8-21	
Trichlorofluoromethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
lodomethane	ND	0.0042	EPA 8260D	3-8-21	3-8-21	
Methylene Chloride	ND	0.0058	EPA 8260D	3-8-21	3-8-21	
(trans) 1,2-Dichloroethene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
2,2-Dichloropropane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
(cis) 1,2-Dichloroethene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Bromochloromethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Chloroform	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,1,1-Trichloroethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Carbon Tetrachloride	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloropropene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloroethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Trichloroethene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloropropane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Dibromomethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Bromodichloromethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
2-Chloroethyl Vinyl Ether	ND	0.0042	EPA 8260D	3-8-21	3-8-21	
(cis) 1,3-Dichloropropene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
(trans) 1,3-Dichloropropene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-27-2					
Laboratory ID:	03-046-08					
1,1,2-Trichloroethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Tetrachloroethene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,3-Dichloropropane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Dibromochloromethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromoethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Chlorobenzene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,1,1,2-Tetrachloroethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Bromoform	ND	0.0042	EPA 8260D	3-8-21	3-8-21	
Bromobenzene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,1,2,2-Tetrachloroethane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichloropropane	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
2-Chlorotoluene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
4-Chlorotoluene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,3-Dichlorobenzene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,4-Dichlorobenzene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,2-Dichlorobenzene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromo-3-chloropropane	ND	0.0042	EPA 8260D	3-8-21	3-8-21	
1,2,4-Trichlorobenzene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Hexachlorobutadiene	ND	0.0042	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichlorobenzene	ND	0.00083	EPA 8260D	3-8-21	3-8-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	104	74-131				
Toluene-d8	101	78-128				

4-Bromofluorobenzene

71-130

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Onite: mg/ttg				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-28-2					
Laboratory ID:	03-046-09					
Dichlorodifluoromethane	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
Chloromethane	ND	0.0039	EPA 8260D	3-8-21	3-8-21	
Vinyl Chloride	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
Bromomethane	ND	0.0039	EPA 8260D	3-8-21	3-8-21	
Chloroethane	ND	0.0039	EPA 8260D	3-8-21	3-8-21	
Trichlorofluoromethane	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethene	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
lodomethane	ND	0.0039	EPA 8260D	3-8-21	3-8-21	
Methylene Chloride	ND	0.0054	EPA 8260D	3-8-21	3-8-21	
(trans) 1,2-Dichloroethene	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethane	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
2,2-Dichloropropane	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
(cis) 1,2-Dichloroethene	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
Bromochloromethane	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
Chloroform	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
1,1,1-Trichloroethane	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
Carbon Tetrachloride	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloropropene	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloroethane	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
Trichloroethene	0.00097	0.00079	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloropropane	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
Dibromomethane	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
Bromodichloromethane	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
2-Chloroethyl Vinyl Ether	ND	0.0039	EPA 8260D	3-8-21	3-8-21	
(cis) 1,3-Dichloropropene	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
(trans) 1,3-Dichloropropene	ND	0.00079	EPA 8260D	3-8-21	3-8-21	

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# **VOLATILE ORGANICS EPA 8260D**

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Analyte         Result         PQL         Method         Prepared         Analyzed         Flags           Client ID:         F-28-2         F-28-2<					Date	Date	
Laboratory ID: 03-046-09	Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
1,1,2-Trichloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Tetrachloroethene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,3-Dichloropropane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dibromoethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dibromoethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dibromoethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,1,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,1,1,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Bromoform         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Bromoform         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichloropenzene         ND         0.00079         EPA 8260D	Client ID:	F-28-2					
Tetrachloroethene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,3-Dichloropropane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Dibromochloromethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dibromoethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,1,1,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,1,1,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Bromoform         ND         0.0039         EPA 8260D         3-8-21         3-8-21           Bromobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,1,2,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichloroptopane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           2-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           4-Chlorotoluene         ND         0.00079         EPA 8260D <td>Laboratory ID:</td> <td>03-046-09</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Laboratory ID:	03-046-09					
1,3-Dichloropropane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Dibromochloromethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dibromoethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,1,1,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,1,1,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Bromoform         ND         0.0039         EPA 8260D         3-8-21         3-8-21           Bromobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Bromobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,1,2,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichloropropane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,3-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,4-Dichlorobenzene         ND         0.00079         EPA 8260D<	1,1,2-Trichloroethane	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
Dibromochloromethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dibromoethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,1-1,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,1,1,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Bromoform         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Bromobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Bromobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Bromobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichloropropane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,3-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,4-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dichlorobenzene         ND         0.00079         EPA 8260D	Tetrachloroethene	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromoethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Chlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,1,1,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Bromoform         ND         0.0039         EPA 8260D         3-8-21         3-8-21           Bromobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,1,2,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichloropropane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           2-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           4-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,3-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,4-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dibromo-3-chloropropane         ND         0.00079         EPA 8260D	1,3-Dichloropropane	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
Chlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,1,1,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Bromoform         ND         0.0039         EPA 8260D         3-8-21         3-8-21           Bromobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,1,2,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichloropropane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           2-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           4-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           4-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,3-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,4-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dichlorobenzene         ND         0.00079         EPA 8260D <td< td=""><td>Dibromochloromethane</td><td>ND</td><td>0.00079</td><td>EPA 8260D</td><td>3-8-21</td><td>3-8-21</td><td></td></td<>	Dibromochloromethane	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
1,1,1,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Bromoform         ND         0.0039         EPA 8260D         3-8-21         3-8-21           Bromobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,1,2,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichloropropane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           2-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           4-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,3-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,4-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dibromo-3-chloropropane         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,4-Trichlorobenzene         ND         0.00079         EPA 82	1,2-Dibromoethane	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
Bromoform         ND         0.0039         EPA 8260D         3-8-21         3-8-21           Bromobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,1,2,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichloropropane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           2-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           4-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,3-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,4-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dibromo-3-chloropropane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2,4-Trichlorobenzene         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichlorobenzene         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichlorobenzene         ND         0.00079         EPA 826	Chlorobenzene	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
Bromobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,1,2,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichloropropane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           2-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           4-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,3-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,4-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dibromo-3-chloropropane         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,4-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichlorobenzene         ND         0.00079	1,1,1,2-Tetrachloroethane	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
1,1,2,2-Tetrachloroethane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichloropropane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           2-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           4-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,3-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,4-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dibromo-3-chloropropane         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,4-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Hexachlorobutadiene         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichlorobenzene         ND         0.00079	Bromoform	ND	0.0039	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichloropropane         ND         0.00079         EPA 8260D         3-8-21         3-8-21           2-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           4-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,3-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,4-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dibromo-3-chloropropane         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,4-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Hexachlorobutadiene         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Surrogate:         Percent Recovery         Control Limits           Dibromofluoromethane         104         74-131         74-131	Bromobenzene	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
2-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           4-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,3-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,4-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dibromo-3-chloropropane         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,4-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Hexachlorobutadiene         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Surrogate:         Percent Recovery         Control Limits           Dibromofluoromethane         104         74-131	1,1,2,2-Tetrachloroethane	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
4-Chlorotoluene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,3-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,4-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dibromo-3-chloropropane         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,4-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Hexachlorobutadiene         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Surrogate:         Percent Recovery         Control Limits           Dibromofluoromethane         104         74-131	1,2,3-Trichloropropane	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
1,3-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,4-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dibromo-3-chloropropane         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,4-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Hexachlorobutadiene         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Surrogate:         Percent Recovery         Control Limits           Dibromofluoromethane         104         74-131	2-Chlorotoluene	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
1,4-Dichlorobenzene       ND       0.00079       EPA 8260D       3-8-21       3-8-21         1,2-Dichlorobenzene       ND       0.00079       EPA 8260D       3-8-21       3-8-21         1,2-Dibromo-3-chloropropane       ND       0.0039       EPA 8260D       3-8-21       3-8-21         1,2,4-Trichlorobenzene       ND       0.00079       EPA 8260D       3-8-21       3-8-21         Hexachlorobutadiene       ND       0.0039       EPA 8260D       3-8-21       3-8-21         1,2,3-Trichlorobenzene       ND       0.00079       EPA 8260D       3-8-21       3-8-21         Surrogate:       Percent Recovery       Control Limits         Dibromofluoromethane       104       74-131	4-Chlorotoluene	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
1,2-Dichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           1,2-Dibromo-3-chloropropane         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,4-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Hexachlorobutadiene         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Surrogate:         Percent Recovery         Control Limits           Dibromofluoromethane         104         74-131	1,3-Dichlorobenzene	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromo-3-chloropropane         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,4-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Hexachlorobutadiene         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Surrogate:         Percent Recovery         Control Limits           Dibromofluoromethane         104         74-131	1,4-Dichlorobenzene	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
1,2,4-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Hexachlorobutadiene         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Surrogate:         Percent Recovery         Control Limits           Dibromofluoromethane         104         74-131	1,2-Dichlorobenzene	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
Hexachlorobutadiene         ND         0.0039         EPA 8260D         3-8-21         3-8-21           1,2,3-Trichlorobenzene         ND         0.00079         EPA 8260D         3-8-21         3-8-21           Surrogate:         Percent Recovery         Control Limits           Dibromofluoromethane         104         74-131	1,2-Dibromo-3-chloropropane	ND	0.0039	EPA 8260D	3-8-21	3-8-21	
1,2,3-TrichlorobenzeneND0.00079EPA 8260D3-8-213-8-21Surrogate:Percent RecoveryControl LimitsDibromofluoromethane10474-131	1,2,4-Trichlorobenzene	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
Surrogate: Percent Recovery Control Limits Dibromofluoromethane 104 74-131	Hexachlorobutadiene	ND	0.0039	EPA 8260D	3-8-21	3-8-21	
Dibromofluoromethane 104 74-131	1,2,3-Trichlorobenzene	ND	0.00079	EPA 8260D	3-8-21	3-8-21	
	Surrogate:	Percent Recovery	Control Limits				
Toluena do 404 70.400	Dibromofluoromethane	104	74-131				
101uerie-a8 101 /8-128	Toluene-d8	101	78-128				

4-Bromofluorobenzene

71-130

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onne. mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-13-2					
Laboratory ID:	03-046-10					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Chloromethane	ND	0.0051	EPA 8260D	3-8-21	3-8-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Bromomethane	ND	0.0051	EPA 8260D	3-8-21	3-8-21	
Chloroethane	ND	0.0051	EPA 8260D	3-8-21	3-8-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
lodomethane	ND	0.0051	EPA 8260D	3-8-21	3-8-21	
Methylene Chloride	ND	0.0071	EPA 8260D	3-8-21	3-8-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Chloroform	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260D	3-8-21	3-8-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-13-2					
Laboratory ID:	03-046-10					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Bromoform	ND	0.0051	EPA 8260D	3-8-21	3-8-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromo-3-chloropropane	ND	0.0051	EPA 8260D	3-8-21	3-8-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Hexachlorobutadiene	ND	0.0051	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	107	74-131				
Toluene-d8	103	78-128				

4-Bromofluorobenzene

71-130

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-29-2					
Laboratory ID:	03-046-11					
Dichlorodifluoromethane	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
Chloromethane	ND	0.0049	EPA 8260D	3-8-21	3-8-21	
Vinyl Chloride	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
Bromomethane	ND	0.0049	EPA 8260D	3-8-21	3-8-21	
Chloroethane	ND	0.0049	EPA 8260D	3-8-21	3-8-21	
Trichlorofluoromethane	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethene	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
Iodomethane	ND	0.0049	EPA 8260D	3-8-21	3-8-21	
Methylene Chloride	ND	0.0067	EPA 8260D	3-8-21	3-8-21	
(trans) 1,2-Dichloroethene	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethane	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
2,2-Dichloropropane	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
(cis) 1,2-Dichloroethene	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
Bromochloromethane	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
Chloroform	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
1,1,1-Trichloroethane	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
Carbon Tetrachloride	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloropropene	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloroethane	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
Trichloroethene	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloropropane	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
Dibromomethane	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
Bromodichloromethane	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
2-Chloroethyl Vinyl Ether	ND	0.0049	EPA 8260D	3-8-21	3-8-21	
(cis) 1,3-Dichloropropene	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
(trans) 1,3-Dichloropropene	ND	0.00097	EPA 8260D	3-8-21	3-8-21	

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-29-2					
Laboratory ID:	03-046-11					
1,1,2-Trichloroethane	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
Tetrachloroethene	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
1,3-Dichloropropane	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
Dibromochloromethane	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromoethane	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
Chlorobenzene	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
1,1,1,2-Tetrachloroethane	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
Bromoform	ND	0.0049	EPA 8260D	3-8-21	3-8-21	
Bromobenzene	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
1,1,2,2-Tetrachloroethane	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichloropropane	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
2-Chlorotoluene	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
4-Chlorotoluene	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
1,3-Dichlorobenzene	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
1,4-Dichlorobenzene	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
1,2-Dichlorobenzene	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromo-3-chloropropane	ND	0.0049	EPA 8260D	3-8-21	3-8-21	
1,2,4-Trichlorobenzene	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
Hexachlorobutadiene	ND	0.0049	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichlorobenzene	ND	0.00097	EPA 8260D	3-8-21	3-8-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	109	74-131				
Toluene-d8	101	78-128				



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			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
F-30-2					
03-046-12					
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
ND	0.0043	EPA 8260D	3-8-21	3-8-21	
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
ND	0.0043	EPA 8260D	3-8-21	3-8-21	
ND	0.0043	EPA 8260D	3-8-21	3-8-21	
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
ND	0.0043	EPA 8260D	3-8-21	3-8-21	
ND	0.0059	EPA 8260D	3-8-21	3-8-21	
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
0.0015	0.00086	EPA 8260D	3-8-21	3-8-21	
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
0.0022	0.00086	EPA 8260D	3-8-21	3-8-21	
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
ND	0.0043	EPA 8260D	3-8-21	3-8-21	
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
ND	0.00086	EPA 8260D	3-8-21	3-8-21	
	F-30-2 03-046-12 ND	F-30-2 03-046-12  ND	F-30-2           03-046-12         0.00086         EPA 8260D           ND         0.0043         EPA 8260D           ND         0.00086         EPA 8260D           ND         0.0043         EPA 8260D           ND         0.0043         EPA 8260D           ND         0.00086         EPA 8260D           ND         0.00086         EPA 8260D           ND         0.0043         EPA 8260D           ND         0.0059         EPA 8260D           ND         0.00086         EPA 8260D<	Result         PQL         Method         Prepared           F-30-2         03-046-12         3-046-12         3-8-21           ND         0.00086         EPA 8260D         3-8-21           ND         0.0043         EPA 8260D         3-8-21           ND         0.0043         EPA 8260D         3-8-21           ND         0.0043         EPA 8260D         3-8-21           ND         0.00086         EPA 8260D         3-8-21           ND         0.00086         EPA 8260D         3-8-21           ND         0.0043         EPA 8260D         3-8-21           ND         0.0043         EPA 8260D         3-8-21           ND         0.0059         EPA 8260D         3-8-21           ND         0.00086         EPA 8260D <t< td=""><td>Result         PQL         Method         Prepared         Analyzed           F-30-2 03-046-12         3-8-21         3-8-21         3-8-21           ND         0.00086         EPA 8260D         3-8-21         3-8-21           ND         0.0043         EPA 8260D         3-8-21         3-8-21           ND         0.00086         EPA 8260D         3-8-21         3-8-21           ND         0.00086         EPA 8260D         3-8-21         3-8-21           ND         0.0043         EPA 8260D         3-8-21         3-8-21           ND         0.0043         EPA 8260D         3-8-21         3-8-21           ND         0.0059         EPA 8260D         3-8-21         3-8-21           ND         0.00086         EPA 8260D         3-8-21         3-8-21           ND         0.00086         EPA 8260D         3-8-21         3-8-21           ND         0.00086         EPA 8260D         3-8-21         3</td></t<>	Result         PQL         Method         Prepared         Analyzed           F-30-2 03-046-12         3-8-21         3-8-21         3-8-21           ND         0.00086         EPA 8260D         3-8-21         3-8-21           ND         0.0043         EPA 8260D         3-8-21         3-8-21           ND         0.00086         EPA 8260D         3-8-21         3-8-21           ND         0.00086         EPA 8260D         3-8-21         3-8-21           ND         0.0043         EPA 8260D         3-8-21         3-8-21           ND         0.0043         EPA 8260D         3-8-21         3-8-21           ND         0.0059         EPA 8260D         3-8-21         3-8-21           ND         0.00086         EPA 8260D         3-8-21         3-8-21           ND         0.00086         EPA 8260D         3-8-21         3-8-21           ND         0.00086         EPA 8260D         3-8-21         3

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# **VOLATILE ORGANICS EPA 8260D**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-30-2					
Laboratory ID:	03-046-12					
1,1,2-Trichloroethane	ND	0.00086	EPA 8260D	3-8-21	3-8-21	
Tetrachloroethene	ND	0.00086	EPA 8260D	3-8-21	3-8-21	
1,3-Dichloropropane	ND	0.00086	EPA 8260D	3-8-21	3-8-21	
Dibromochloromethane	ND	0.00086	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromoethane	ND	0.00086	EPA 8260D	3-8-21	3-8-21	
Chlorobenzene	ND	0.00086	EPA 8260D	3-8-21	3-8-21	
1,1,1,2-Tetrachloroethane	ND	0.00086	EPA 8260D	3-8-21	3-8-21	
Bromoform	ND	0.0043	EPA 8260D	3-8-21	3-8-21	
Bromobenzene	ND	0.00086	EPA 8260D	3-8-21	3-8-21	
1,1,2,2-Tetrachloroethane	ND	0.00086	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichloropropane	ND	0.00086	EPA 8260D	3-8-21	3-8-21	
2-Chlorotoluene	ND	0.00086	EPA 8260D	3-8-21	3-8-21	
4-Chlorotoluene	ND	0.00086	EPA 8260D	3-8-21	3-8-21	
1,3-Dichlorobenzene	ND	0.00086	EPA 8260D	3-8-21	3-8-21	
1,4-Dichlorobenzene	ND	0.00086	EPA 8260D	3-8-21	3-8-21	
1,2-Dichlorobenzene	ND	0.00086	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromo-3-chloropropane	ND	0.0043	EPA 8260D	3-8-21	3-8-21	
1,2,4-Trichlorobenzene	ND	0.00086	EPA 8260D	3-8-21	3-8-21	
Hexachlorobutadiene	ND	0.0043	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichlorobenzene	ND	0.00086	EPA 8260D	3-8-21	3-8-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	106	74-131				
Toluene-d8	101	78-128				

4-Bromofluorobenzene

96

71-130

Project: 2032-12

#### VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

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oriito. Trig/ikg				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0308S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Chloromethane	ND	0.0050	EPA 8260D	3-8-21	3-8-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Bromomethane	ND	0.0050	EPA 8260D	3-8-21	3-8-21	
Chloroethane	ND	0.0050	EPA 8260D	3-8-21	3-8-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
lodomethane	ND	0.0050	EPA 8260D	3-8-21	3-8-21	
Methylene Chloride	ND	0.0069	EPA 8260D	3-8-21	3-8-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Chloroform	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	3-8-21	3-8-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	

Project: 2032-12

#### VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0308S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Bromoform	ND	0.0050	EPA 8260D	3-8-21	3-8-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
1,2-Dibromo-3-chloropropane	. ND	0.0050	EPA 8260D	3-8-21	3-8-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	3-8-21	3-8-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-8-21	3-8-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	109	74-131				
Toluene-d8	99	78-128				
4-Bromofluorobenzene	101	71-130				

Project: 2032-12

#### VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Result Spike Level Recov		overy	Limits	RPD	Limit	Flags			
SPIKE BLANKS										
Laboratory ID:	SB03	08S1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0420	0.0428	0.0500	0.0500	84	86	55-126	2	17	
Benzene	0.0439	0.0432	0.0500	0.0500	88	86	65-121	2	16	
Trichloroethene	0.0481	0.0493	0.0500	0.0500	96	99	74-126	2	16	
Toluene	0.0427	0.0435	0.0500	0.0500	85	87	71-121	2	16	
Chlorobenzene	0.0466	0.0471	0.0500	0.0500	93	94	72-123	1	16	
Surrogate:										
Dibromofluoromethane					105	103	74-131			
Toluene-d8					98	98	78-128			
4-Bromofluorobenzene					99	99	71-130			

#### **% MOISTURE**

Client ID	Lab ID	% Moisture	Date Analyzed
AS-1-2	03-046-03	12	3-8-21
FMW-12-2	03-046-05	6	3-8-21
F-25-2	03-046-06	10	3-8-21
F-26-2	03-046-07	9	3-8-21
F-27-2	03-046-08	9	3-8-21
F-28-2	03-046-09	11	3-8-21
FMW-13-2	03-046-10	9	3-8-21
F-29-2	03-046-11	12	3-8-21
F-30-2	03-046-12	12	3-8-21



#### **Data Qualifiers and Abbreviations**

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical .
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

7 -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

March 16, 2021

Pete Kingston Farallon Consulting 1809 7th Avenue, Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 2032-012

Laboratory Reference No. 2103-058

#### Dear Pete:

Enclosed are the analytical results and associated quality control data for samples submitted on March 4, 2021.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

**Enclosures** 



Project: 2032-012

#### **Case Narrative**

Samples were collected on March 4, 2021 and received by the laboratory on March 4, 2021. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Project: 2032-012

#### GASOLINE RANGE ORGANICS NWTPH-Gx

Matrix: Soil

Units: mg/kg (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-28-5					
Laboratory ID:	03-058-09					
Gasoline	ND	7.1	NWTPH-Gx	3-10-21	3-10-21	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	99	58-129				
Client ID:	F-28-10					
Laboratory ID:	03-058-10					
Gasoline	ND	7.6	NWTPH-Gx	3-10-21	3-10-21	
Surrogate:	Percent Recovery	Control Limits		_	_	
Fluorobenzene	94	58-129				

Project: 2032-012

#### GASOLINE RANGE ORGANICS NWTPH-Gx QUALITY CONTROL

Matrix: Soil

Units: mg/kg (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0310S1					
Gasoline	ND	5.0	NWTPH-Gx	3-10-21	3-10-21	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	93	58-129				

					Source	Perc	ent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Reco	very	Limits	RPD	Limit	Flags
DUPLICATE											
Laboratory ID:	03-05	58-09									
	ORIG	DUP									
Gasoline	ND	ND	NA	NA		N	A	NA	NA	30	
Surrogate:											_
Fluorobenzene						99	100	58-129			

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Project: 2032-012

# DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

Matrix: Soil

Units: mg/Kg (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-28-5					
Laboratory ID:	03-058-09					
Diesel Range Organics	ND	30	NWTPH-Dx	3-9-21	3-10-21	
Lube Oil	330	59	NWTPH-Dx	3-9-21	3-10-21	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	86	50-150				
Client ID:	F-28-10					
Laboratory ID:	03-058-10					
Diesel Range Organics	ND	33	NWTPH-Dx	3-9-21	3-9-21	
Lube Oil Range Organics	ND	65	NWTPH-Dx	3-9-21	3-9-21	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	90	50-150				

Project: 2032-012

#### DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

Matrix: Soil

Units: mg/Kg (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						_
Laboratory ID:	MB0309S1					
Diesel Range Organics	ND	25	NWTPH-Dx	3-9-21	3-9-21	
Lube Oil Range Organics	ND	50	NWTPH-Dx	3-9-21	3-9-21	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	93	50-150				

					Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE										
Laboratory ID:	03-05	58-09								
	ORIG	DUP								
Diesel Range	ND	ND	NA	NA		NA	NA	NA	NA	
Lube Oil	277	118	NA	NA		NA	NA	81	NA	
Surrogate:										
o-Terphenyl						86 99	50-150			

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#### **VOLATILE ORGANICS EPA 8260D**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	AS-1-10					
Laboratory ID:	03-058-02					
Dichlorodifluoromethane	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
Chloromethane	ND	0.010	EPA 8260D	3-9-21	3-9-21	
Vinyl Chloride	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
Bromomethane	ND	0.0075	EPA 8260D	3-9-21	3-9-21	
Chloroethane	ND	0.0075	EPA 8260D	3-9-21	3-9-21	
Trichlorofluoromethane	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethene	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
lodomethane	ND	0.0075	EPA 8260D	3-9-21	3-9-21	
Methylene Chloride	ND	0.0075	EPA 8260D	3-9-21	3-9-21	
(trans) 1,2-Dichloroethene	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethane	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
2,2-Dichloropropane	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
(cis) 1,2-Dichloroethene	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
Bromochloromethane	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
Chloroform	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
1,1,1-Trichloroethane	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
Carbon Tetrachloride	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloropropene	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloroethane	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
Trichloroethene	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloropropane	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
Dibromomethane	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
Bromodichloromethane	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
2-Chloroethyl Vinyl Ether	ND	0.0075	EPA 8260D	3-9-21	3-9-21	
(cis) 1,3-Dichloropropene	ND	0.0015	EPA 8260D	3-9-21	3-9-21	
(trans) 1,3-Dichloropropene	ND	0.0015	EPA 8260D	3-9-21	3-9-21	

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# **VOLATILE ORGANICS EPA 8260D**

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4-Bromofluorobenzene

71-130

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# **VOLATILE ORGANICS EPA 8260D**

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Omic. mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-28-10			-		
Laboratory ID:	03-058-10					
Dichlorodifluoromethane	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
Chloromethane	ND	0.0088	EPA 8260D	3-9-21	3-9-21	
Vinyl Chloride	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
Bromomethane	ND	0.0065	EPA 8260D	3-9-21	3-9-21	
Chloroethane	ND	0.0065	EPA 8260D	3-9-21	3-9-21	
Trichlorofluoromethane	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethene	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
lodomethane	ND	0.0065	EPA 8260D	3-9-21	3-9-21	
Methylene Chloride	ND	0.0065	EPA 8260D	3-9-21	3-9-21	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethane	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
2,2-Dichloropropane	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
Bromochloromethane	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
Chloroform	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloropropene	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloroethane	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
Trichloroethene	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloropropane	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
Dibromomethane	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
Bromodichloromethane	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
2-Chloroethyl Vinyl Ether	ND	0.0065	EPA 8260D	3-9-21	3-9-21	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	3-9-21	3-9-21	

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-28-10					
Laboratory ID:	03-058-10					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
Tetrachloroethene	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
1,3-Dichloropropane	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
Dibromochloromethane	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromoethane	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
Chlorobenzene	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
Bromoform	ND	0.0065	EPA 8260D	3-9-21	3-9-21	
Bromobenzene	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
2-Chlorotoluene	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
4-Chlorotoluene	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromo-3-chloropropane	ND	0.0065	EPA 8260D	3-9-21	3-9-21	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
Hexachlorobutadiene	ND	0.0065	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260D	3-9-21	3-9-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	101	74-131				
Toluene-d8	100	78-128				

4-Bromofluorobenzene

71-130

101

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D**

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-27-16.5					
Laboratory ID:	03-058-14					
Dichlorodifluoromethane	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
Chloromethane	ND	0.0083	EPA 8260D	3-9-21	3-9-21	
Vinyl Chloride	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
Bromomethane	ND	0.0062	EPA 8260D	3-9-21	3-9-21	
Chloroethane	ND	0.0062	EPA 8260D	3-9-21	3-9-21	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
Iodomethane	ND	0.0062	EPA 8260D	3-9-21	3-9-21	
Methylene Chloride	ND	0.0062	EPA 8260D	3-9-21	3-9-21	
(trans) 1,2-Dichloroethene	0.0017	0.0012	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
(cis) 1,2-Dichloroethene	0.022	0.0012	EPA 8260D	3-9-21	3-9-21	
Bromochloromethane	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
Chloroform	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
Trichloroethene	0.0017	0.0012	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
Dibromomethane	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
Bromodichloromethane	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
2-Chloroethyl Vinyl Ether	ND	0.0062	EPA 8260D	3-9-21	3-9-21	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	3-9-21	3-9-21	

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D**

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-27-16.5					
Laboratory ID:	03-058-14					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
Tetrachloroethene	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
Dibromochloromethane	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
Chlorobenzene	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
Bromoform	ND	0.0062	EPA 8260D	3-9-21	3-9-21	
Bromobenzene	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
2-Chlorotoluene	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
4-Chlorotoluene	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromo-3-chloropropane	ND	0.0062	EPA 8260D	3-9-21	3-9-21	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
Hexachlorobutadiene	ND	0.0062	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	3-9-21	3-9-21	
Surrogate:	Percent Recovery	Control Limits	·			
Dibromofluoromethane	102	74-131				
Toluene-d8	99	78-128				

4-Bromofluorobenzene

71-130

98

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D**

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ome. mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-26-10			-		
Laboratory ID:	03-058-16					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Chloromethane	ND	0.0074	EPA 8260D	3-9-21	3-9-21	
Vinyl Chloride	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Bromomethane	ND	0.0055	EPA 8260D	3-9-21	3-9-21	
Chloroethane	ND	0.0055	EPA 8260D	3-9-21	3-9-21	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Iodomethane	ND	0.0055	EPA 8260D	3-9-21	3-9-21	
Methylene Chloride	ND	0.0055	EPA 8260D	3-9-21	3-9-21	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
(cis) 1,2-Dichloroethene	0.0015	0.0011	EPA 8260D	3-9-21	3-9-21	
Bromochloromethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Chloroform	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Trichloroethene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Dibromomethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Bromodichloromethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
2-Chloroethyl Vinyl Ether	ND	0.0055	EPA 8260D	3-9-21	3-9-21	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-26-10					
Laboratory ID:	03-058-16					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Tetrachloroethene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Dibromochloromethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Chlorobenzene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Bromoform	ND	0.0055	EPA 8260D	3-9-21	3-9-21	
Bromobenzene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
2-Chlorotoluene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
4-Chlorotoluene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromo-3-chloropropane	ND	0.0055	EPA 8260D	3-9-21	3-9-21	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Hexachlorobutadiene	ND	0.0055	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Surrogate:	Percent Recovery	Control Limits	·			
Dibromofluoromethane	102	74-131				
Toluene-d8	101	78-128				

4-Bromofluorobenzene

71-130

100

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### VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

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oriito. Trig/ikg				Date	Date			
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags		
METHOD BLANK								
Laboratory ID:	MB0309S1							
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
Chloromethane	ND	0.0067	EPA 8260D	3-9-21	3-9-21			
Vinyl Chloride	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
Bromomethane	ND	0.0050	EPA 8260D	3-9-21	3-9-21			
Chloroethane	ND	0.0050	EPA 8260D	3-9-21	3-9-21			
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
lodomethane	ND	0.0050	EPA 8260D	3-9-21	3-9-21			
Methylene Chloride	ND	0.0050	EPA 8260D	3-9-21	3-9-21			
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
Bromochloromethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
Chloroform	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
Trichloroethene	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
Dibromomethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
Bromodichloromethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	3-9-21	3-9-21			
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-9-21	3-9-21			
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-9-21	3-9-21			

Project: 2032-012

### VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0309S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Bromoform	ND	0.0050	EPA 8260D	3-9-21	3-9-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromo-3-chloropropane	e ND	0.0050	EPA 8260D	3-9-21	3-9-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	104	74-131				
Toluene-d8	100	78-128				
4-Bromofluorobenzene	100	71-130				

Project: 2032-012

### VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB03	09S1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0497	0.0484	0.0500	0.0500	99	97	55-126	3	17	
Benzene	0.0475	0.0462	0.0500	0.0500	95	92	65-121	3	16	
Trichloroethene	0.0524	0.0520	0.0500	0.0500	105	104	74-126	1	16	
Toluene	0.0464	0.0459	0.0500	0.0500	93	92	71-121	1	16	
Chlorobenzene	0.0499	0.0475	0.0500	0.0500	100	95	72-123	5	16	
Surrogate:										
Dibromofluoromethane					105	102	74-131			
Toluene-d8					99	100	78-128			
4-Bromofluorobenzene					103	101	71-130			

### **% MOISTURE**

Client ID	Lab ID	% Moisture	Date Analyzed
AS-1-10	03-058-02	30	3-10-21
F-28-5	03-058-09	15	3-9-21
F-28-10	03-058-10	23	3-9-21
F-27-16.5	03-058-14	24	3-10-21
F-26-10	03-058-16	16	3-10-21



### **Data Qualifiers and Abbreviations**

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical .
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

7 -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





## **Chain of Custody**

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Chromatograms with final report   Electronic Data Deliverables (EDDs)	CH	Reviewed/Date	Reviewed/Date	-
Data Package: Standard 🛘 Level III 🗎 Level IV 🗎	Da		Received	
			Relinquished	
			Received	_
1 - Hadea 3/8/21. De (8/11)		(	Relinquished	
X 011 2/0/2 (2+8)	5411 194/E	0XR	Received	- 77
100 ACC for DM analysis sout	3/4/2) 1745	Fla	Relinquished	7
Comments/Special Instructions	Date Time C	Company	Signature Co.	
<b>Y</b>	× ×	1345 CHE	) F-28-10	_
- X	メ	1330	F-28-5	
		1205	SVE - 1-20	00
		1200	) SVE -1-17	1
		1157	SVE-1-10	1
		Shil	SVE-1-5	
		1122	AS-1-20	2
		1120	AS-1-16	1.
	*	11115	AS-1-10	N
		1110 SOIC 4	AS-1-5 3/9/21	
PAHs and PCBs Organic Organic Chlorin Total F Total M	NWTP NWTP Volatile Haloge EDB E		ID Sample Identification Sampled	Lab ID
ow-level PAH B270D/SIM (I 8082A ochlorine Pe ophosphorus nated Acid H RCRA Metals MTCA Metals Mitch Metals oil and greas	H-Dx ( Acies 8260C enated Volation PA 8011 (Was olatiles 8270	(other) 97 er of Contai	ston	S
ow-level) sticides 8 Pesticid erbicides	es 82600 ters Only	Standard (7 Days)	Project Manager:  Avanua South  Astand	<b>7</b>
081B es 827 8151A	)	3 Days	7032-017 = 2 Days	
	))	Day 1 Day	Project Number:	p c
		(Check One)	Phone: (425) 883-3881 • www.onsite-env.com	
03-058	Laboratory Number:	(in working days)		

# Environmental Inc. Analytical Laboratory Testing Services 14648 NE 95th Street · Redmond, WA 986

## **Chain of Custody**

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Reviewed/Date	Received	Relinquished	Received	Relinquished	Received	Relinquished	Signature	19-10-10-16.5	19 FMW-10-10	18 FMW-10-5	51-26-4 (J	16 F-26-10	15 F-26-6.5	14 F-27-16.5	13 1-27-7	81-82-4	11 F-28-16	Lab ID Sample Identification	Sampled by: C. McKenney	Project Manager Coth	2032-017	Company: Foraller Consulting	14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com
Reviewed/Date					1820	7 Fin	Company	1625	1615	[610	1515	1510	1505	SAMI	1425	1410	3/4/21 1400 SOIL 4	Date Time Sampled Sampled Sampled Sampled Sampled Sampled Matrix	(other)	Standard (7 Days)	☐ 2 Days ☐ 3 Days	Same Day 1 Day	(in working days)
					Shi Ulh 13	3/4/21 1745	Date Time					×		У.				NWTF NWTF NWTF Volatil Halog	PH-HCID PH-Gx/BTEX PH-Gx PH-Dx ( Acid les 8260C enated Volatile PA 8011 (Wat	es 82600		)	Laboratory Number:
Chromatograms with final report   Electronic Data Deliverables (EDDs)	Data Package: Standard ☐ Level III ☐ Level IV ☐			•		HOLD ALL for PM another Carrest	Comments/Special Instructions											(with I PAHs PCBs Organ Organ Chlori Total I TCLP	rolatiles 8270I ow-level PAH: 8270D/SIM (Id 8082A nochlorine Pes nated Acid He RCRA Metals WTCA Metals Metals (oil and grease	s) pw-level) ticides 8 Pesticid erbicides	081B es 8270 8151A		: 03-058



## **Chain of Custody**

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Reviewed/Date	Received	Relinquished	Received	Relinquished	Received	Relinquished	Signature					21 FMW-10-20	Lab ID Sample Identification	Sampled by: C. M. Kung	Project Manager:	18th Ananue South	2032-012	Project Number: Farallen Consulting	Phone: (425) 883-3881 • www.onsite-env.com	14648 NE 95th Street • Redmond, WA 98052
Reviewed/Date					200 A	The Mark	Company					314120 1630 SOIL 4	Date Time Sampled Matrix	(other)		Standard (7 Days)	☐ 2 Days ☐ 3 Days	Same Day 1 Day	(Check One)	(in working days)
					SALI MAK	3/4/21 1745	Date Time						NWTF NWTF Volatil	PH-HCID PH-Gx/BT PH-Gx PH-Dx ( es 82600 enated Vi	Acid	s 82600	0	))		Laboratory Number:
Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐	Data Package: Standard ☐ Level III ☐ Level IV ☐					Horry	Comments/Special Instructions						Semiv (with I PAHs PCBs Organ Organ Chlori Total I	volatiles 8 ow-level 8270D/S 8082A sochlorine ophosph nated Ac RCRA Me MTCA Me Metals	270DPAHs Pest IM (Io	//SIM ) w-level) icides 8 Pesticid rbicides	081B es 8270 8151A			. 03-058



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

March 16, 2021

Pete Kingston Farallon Consulting 1809 7th Avenue, Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 2032-012

Laboratory Reference No. 2103-078

### Dear Pete:

Enclosed are the analytical results and associated quality control data for samples submitted on March 5, 2021.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

**Enclosures** 



Project: 2032-012

### **Case Narrative**

Samples were collected on March 5, 2021 and received by the laboratory on March 5, 2021. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Project: 2032-012

### GASOLINE RANGE ORGANICS NWTPH-Gx

Matrix: Soil

Units: mg/kg (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-12-10					
Laboratory ID:	03-078-01					
Gasoline	16	7.7	NWTPH-Gx	3-10-21	3-10-21	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	120	58-129				

Project: 2032-012

### GASOLINE RANGE ORGANICS NWTPH-Gx QUALITY CONTROL

Matrix: Soil

Units: mg/kg (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0310S1					
Gasoline	ND	5.0	NWTPH-Gx	3-10-21	3-10-21	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	93	58-129				

					Source	Percei	nt Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Recove	ery Limits	RPD	Limit	Flags
DUPLICATE										
Laboratory ID:	03-05	58-09								
	ORIG	DUP								
Gasoline	ND	ND	NA	NA		NA	NA	NA	30	
Surrogate:										_
Fluorobenzene						99 1	00 58-129			

Project: 2032-012

### DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx

Matrix: Soil

Units: mg/Kg (ppm)

<b>5 5 1 1 1</b>				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-12-10					
Laboratory ID:	03-078-01					
Diesel Range Organics	ND	64	NWTPH-Dx	3-9-21	3-10-21	U1
Lube Oil	200	69	NWTPH-Dx	3-9-21	3-10-21	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	85	50-150				

Project: 2032-012

### DIESEL AND HEAVY OIL RANGE ORGANICS NWTPH-Dx QUALITY CONTROL

Matrix: Soil

Units: mg/Kg (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						_
Laboratory ID:	MB0309S1					
Diesel Range Organics	ND	25	NWTPH-Dx	3-9-21	3-9-21	
Lube Oil Range Organics	ND	50	NWTPH-Dx	3-9-21	3-9-21	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	93	50-150				

					Source	Percent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Result	Recovery	Limits	RPD	Limit	Flags
DUPLICATE										
Laboratory ID:	03-05	58-09								
	ORIG	DUP								
Diesel Range	ND	ND	NA	NA		NA	NA	NA	NA	
Lube Oil	277	118	NA	NA		NA	NA	81	NA	
Surrogate:										
o-Terphenyl						86 99	50-150			

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D**

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ome. mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-12-10			-		
Laboratory ID:	03-078-01					
Dichlorodifluoromethane	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
Chloromethane	ND	0.0097	EPA 8260D	3-9-21	3-9-21	
Vinyl Chloride	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
Bromomethane	ND	0.0072	EPA 8260D	3-9-21	3-9-21	
Chloroethane	ND	0.0072	EPA 8260D	3-9-21	3-9-21	
Trichlorofluoromethane	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethene	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
lodomethane	ND	0.0072	EPA 8260D	3-9-21	3-9-21	
Methylene Chloride	ND	0.0072	EPA 8260D	3-9-21	3-9-21	
(trans) 1,2-Dichloroethene	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethane	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
2,2-Dichloropropane	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
(cis) 1,2-Dichloroethene	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
Bromochloromethane	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
Chloroform	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
Carbon Tetrachloride	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloropropene	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloroethane	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
Trichloroethene	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloropropane	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
Dibromomethane	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
Bromodichloromethane	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
2-Chloroethyl Vinyl Ether	ND	0.0072	EPA 8260D	3-9-21	3-9-21	
(cis) 1,3-Dichloropropene	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
(trans) 1,3-Dichloropropene	ND	0.0014	EPA 8260D	3-9-21	3-9-21	

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### **VOLATILE ORGANICS EPA 8260D**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-12-10					
Laboratory ID:	03-078-01					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
Tetrachloroethene	0.021	0.0014	EPA 8260D	3-9-21	3-9-21	
1,3-Dichloropropane	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
Dibromochloromethane	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromoethane	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
Chlorobenzene	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
Bromoform	ND	0.0072	EPA 8260D	3-9-21	3-9-21	
Bromobenzene	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
2-Chlorotoluene	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
4-Chlorotoluene	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
1,3-Dichlorobenzene	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
1,4-Dichlorobenzene	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
1,2-Dichlorobenzene	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromo-3-chloropropane	ND	0.0072	EPA 8260D	3-9-21	3-9-21	
1,2,4-Trichlorobenzene	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
Hexachlorobutadiene	ND	0.0072	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichlorobenzene	ND	0.0014	EPA 8260D	3-9-21	3-9-21	
Surrogate:	Percent Recovery	Control Limits	·			
Dibromofluoromethane	103	74-131				
Toluene-d8	99	78-128				

4-Bromofluorobenzene

71-130

97

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### **VOLATILE ORGANICS EPA 8260D**

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onne. mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-30-13					
Laboratory ID:	03-078-04					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Chloromethane	ND	0.0069	EPA 8260D	3-9-21	3-9-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Bromomethane	ND	0.0051	EPA 8260D	3-9-21	3-9-21	
Chloroethane	ND	0.0051	EPA 8260D	3-9-21	3-9-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
lodomethane	ND	0.0051	EPA 8260D	3-9-21	3-9-21	
Methylene Chloride	ND	0.0051	EPA 8260D	3-9-21	3-9-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Chloroform	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260D	3-9-21	3-9-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	

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### **VOLATILE ORGANICS EPA 8260D**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-30-13					
Laboratory ID:	03-078-04					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Bromoform	ND	0.0051	EPA 8260D	3-9-21	3-9-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromo-3-chloropropane	ND	0.0051	EPA 8260D	3-9-21	3-9-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Hexachlorobutadiene	ND	0.0051	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	104	74-131				
Toluene-d8	98	78-128				



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### **VOLATILE ORGANICS EPA 8260D**

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			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
F-29-8					
03-078-06					
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0071	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0053	EPA 8260D	3-9-21	3-9-21	
ND	0.0053	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0053	EPA 8260D	3-9-21	3-9-21	
ND	0.0053	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
0.0012	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0053	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
ND	0.0011	EPA 8260D	3-9-21	3-9-21	
	F-29-8 03-078-06  ND	F-29-8 03-078-06  ND	F-29-8 03-078-06  ND	Result         PQL         Method         Prepared           F-29-8         03-078-06         3-9-21         3-9-21           ND         0.0071         EPA 8260D         3-9-21           ND         0.0011         EPA 8260D         3-9-21           ND         0.0053         EPA 8260D         3-9-21           ND         0.0053         EPA 8260D         3-9-21           ND         0.0011         EPA 8260D         3-9-21           ND         0.0011         EPA 8260D         3-9-21           ND         0.0053         EPA 8260D         3-9-21           ND         0.0053         EPA 8260D         3-9-21           ND         0.0053         EPA 8260D         3-9-21           ND         0.0011         EPA 8260D         3-9-21 <td>Result         PQL         Method         Prepared         Analyzed           F-29-8 03-078-06         803-078-06         3-9-21         3-9-21         3-9-21           ND         0.0011         EPA 8260D         3-9-21         3-9-21           ND         0.0011         EPA 8260D         3-9-21         3-9-21           ND         0.0053         EPA 8260D         3-9-21         3-9-21           ND         0.0053         EPA 8260D         3-9-21         3-9-21           ND         0.0011         EPA 8260D         3-9-21         3-9-21           ND         0.0011         EPA 8260D         3-9-21         3-9-21           ND         0.0011         EPA 8260D         3-9-21         3-9-21           ND         0.0053         EPA 8260D         3-9-21         3-9-21           ND         0.0053         EPA 8260D         3-9-21         3-9-21           ND         0.0053         EPA 8260D         3-9-21         3-9-21           ND         0.0011         EPA 8260D         3-9-21         3-9-21           ND         0.0011         EPA 8260D         3-9-21         3-9-21           ND         0.0011         EPA 8260D         3-9</td>	Result         PQL         Method         Prepared         Analyzed           F-29-8 03-078-06         803-078-06         3-9-21         3-9-21         3-9-21           ND         0.0011         EPA 8260D         3-9-21         3-9-21           ND         0.0011         EPA 8260D         3-9-21         3-9-21           ND         0.0053         EPA 8260D         3-9-21         3-9-21           ND         0.0053         EPA 8260D         3-9-21         3-9-21           ND         0.0011         EPA 8260D         3-9-21         3-9-21           ND         0.0011         EPA 8260D         3-9-21         3-9-21           ND         0.0011         EPA 8260D         3-9-21         3-9-21           ND         0.0053         EPA 8260D         3-9-21         3-9-21           ND         0.0053         EPA 8260D         3-9-21         3-9-21           ND         0.0053         EPA 8260D         3-9-21         3-9-21           ND         0.0011         EPA 8260D         3-9-21         3-9-21           ND         0.0011         EPA 8260D         3-9-21         3-9-21           ND         0.0011         EPA 8260D         3-9

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### **VOLATILE ORGANICS EPA 8260D**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-29-8					
Laboratory ID:	03-078-06					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Tetrachloroethene	0.0017	0.0011	EPA 8260D	3-9-21	3-9-21	
1,3-Dichloropropane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Dibromochloromethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromoethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Chlorobenzene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Bromoform	ND	0.0053	EPA 8260D	3-9-21	3-9-21	
Bromobenzene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
2-Chlorotoluene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
4-Chlorotoluene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromo-3-chloropropane	· ND	0.0053	EPA 8260D	3-9-21	3-9-21	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Hexachlorobutadiene	ND	0.0053	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	3-9-21	3-9-21	
Surrogate:	Percent Recovery	Control Limits				_
Dibromofluoromethane	108	74-131				
Toluene-d8	102	78-128				

4-Bromofluorobenzene

71-130

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Project: 2032-012

### VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

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onits. mg/kg				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0309S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Chloromethane	ND	0.0067	EPA 8260D	3-9-21	3-9-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Bromomethane	ND	0.0050	EPA 8260D	3-9-21	3-9-21	
Chloroethane	ND	0.0050	EPA 8260D	3-9-21	3-9-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Iodomethane	ND	0.0050	EPA 8260D	3-9-21	3-9-21	
Methylene Chloride	ND	0.0050	EPA 8260D	3-9-21	3-9-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Bromochloromethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Chloroform	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Trichloroethene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Dibromomethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	3-9-21	3-9-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	

Project: 2032-012

### VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0309S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Chlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Bromoform	ND	0.0050	EPA 8260D	3-9-21	3-9-21	
Bromobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260D	3-9-21	3-9-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	3-9-21	3-9-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	3-9-21	3-9-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	104	74-131				
Toluene-d8	100	78-128				
4-Bromofluorobenzene	100	71-130				

Project: 2032-012

### VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB03	09S1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0497	0.0484	0.0500	0.0500	99	97	55-126	3	17	
Benzene	0.0475	0.0462	0.0500	0.0500	95	92	65-121	3	16	
Trichloroethene	0.0524	0.0520	0.0500	0.0500	105	104	74-126	1	16	
Toluene	0.0464	0.0459	0.0500	0.0500	93	92	71-121	1	16	
Chlorobenzene	0.0499	0.0475	0.0500	0.0500	100	95	72-123	5	16	
Surrogate:										
Dibromofluoromethane					105	102	74-131			
Toluene-d8					99	100	78-128			
4-Bromofluorobenzene					103	101	71-130			

### **% MOISTURE**

			Date
Client ID	Lab ID	% Moisture	Analyzed
FMW-12-10	03-078-01	28	3-10-21
F-30-13	03-078-04	25	3-10-21
F-29-8	03-078-06	14	3-10-21



### **Data Qualifiers and Abbreviations**

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical .
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

7 -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





### **Chain of Custody**

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# INVA OnSite Environmental Inc. Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98

### Chain of Custody

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14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 1, 2021

Pete Kingston Farallon Consulting 1809 7th Avenue, Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 2032-012

Laboratory Reference No. 2105-186

### Dear Pete:

Enclosed are the analytical results and associated quality control data for samples submitted on May 19, 2021.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

**Enclosures** 

Date of Report: June 1, 2021 Samples Submitted: May 19, 2021 Laboratory Reference: 2105-186

Project: 2032-012

### **Case Narrative**

Samples were collected on May 19, 2021 and received by the laboratory on May 19, 2021. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: June 1, 2021 Samples Submitted: May 19, 2021 Laboratory Reference: 2105-186

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D**

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-14-6					
Laboratory ID:	05-186-01					
Dichlorodifluoromethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Chloromethane	ND	0.0065	EPA 8260D	5-27-21	5-27-21	
Vinyl Chloride	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Bromomethane	ND	0.0065	EPA 8260D	5-27-21	5-27-21	
Chloroethane	ND	0.0065	EPA 8260D	5-27-21	5-27-21	
Trichlorofluoromethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
lodomethane	ND	0.0065	EPA 8260D	5-27-21	5-27-21	
Methylene Chloride	ND	0.0065	EPA 8260D	5-27-21	5-27-21	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
2,2-Dichloropropane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Bromochloromethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Chloroform	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloropropene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Trichloroethene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloropropane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Dibromomethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Bromodichloromethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
2-Chloroethyl Vinyl Ether	ND	0.0065	EPA 8260D	5-27-21	5-27-21	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	

Date of Report: June 1, 2021 Samples Submitted: May 19, 2021 Laboratory Reference: 2105-186

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D**

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-14-6					
Laboratory ID:	05-186-01					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Tetrachloroethene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,3-Dichloropropane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Dibromochloromethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromoethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Chlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Bromoform	ND	0.0065	EPA 8260D	5-27-21	5-27-21	
Bromobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
2-Chlorotoluene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
4-Chlorotoluene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromo-3-chloropropane	. ND	0.0065	EPA 8260D	5-27-21	5-27-21	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Hexachlorobutadiene	ND	0.0065	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	110	74-131				
Toluene-d8	102	78-128				
Dibromofluoromethane	110	74-131				

4-Bromofluorobenzene

71-130

101

Project: 2032-012

#### **VOLATILE ORGANICS EPA 8260D**

page 1 of 2

onito. Ingrity				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-14-12					
Laboratory ID:	05-186-02					
Dichlorodifluoromethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Chloromethane	ND	0.0058	EPA 8260D	5-27-21	5-27-21	
Vinyl Chloride	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Bromomethane	ND	0.0058	EPA 8260D	5-27-21	5-27-21	
Chloroethane	ND	0.0058	EPA 8260D	5-27-21	5-27-21	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
lodomethane	ND	0.0058	EPA 8260D	5-27-21	5-27-21	
Methylene Chloride	ND	0.0058	EPA 8260D	5-27-21	5-27-21	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Bromochloromethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Chloroform	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Trichloroethene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Dibromomethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Bromodichloromethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
2-Chloroethyl Vinyl Ether	ND	0.0058	EPA 8260D	5-27-21	5-27-21	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	

Project: 2032-012

#### **VOLATILE ORGANICS EPA 8260D**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-14-12					
Laboratory ID:	05-186-02					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Tetrachloroethene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Dibromochloromethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Chlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Bromoform	ND	0.0058	EPA 8260D	5-27-21	5-27-21	
Bromobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
2-Chlorotoluene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
4-Chlorotoluene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260D	5-27-21	5-27-21	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Hexachlorobutadiene	ND	0.0058	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	110	74-131				
Toluene-d8	100	78-128				

4-Bromofluorobenzene

71-130

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-15-5					
Laboratory ID:	05-186-04					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Chloromethane	ND	0.0051	EPA 8260D	5-27-21	5-27-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Bromomethane	ND	0.0051	EPA 8260D	5-27-21	5-27-21	
Chloroethane	ND	0.0051	EPA 8260D	5-27-21	5-27-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
lodomethane	ND	0.0051	EPA 8260D	5-27-21	5-27-21	
Methylene Chloride	ND	0.0051	EPA 8260D	5-27-21	5-27-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Bromochloromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Chloroform	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Trichloroethene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Dibromomethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260D	5-27-21	5-27-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	

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### **VOLATILE ORGANICS EPA 8260D**

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Analyte         Result         PQL         Method         Prepared         Analyzed           Client ID:         FMW-15-5         FMW-15-2         FMW-15-2 </th <th>Flags</th>	Flags
Laboratory ID:05-186-041,1,2-TrichloroethaneND0.0010EPA 8260D5-27-215-27-21Tetrachloroethene0.00230.0010EPA 8260D5-27-215-27-211,3-DichloropropaneND0.0010EPA 8260D5-27-215-27-21DibromochloromethaneND0.0010EPA 8260D5-27-215-27-211,2-DibromoethaneND0.0010EPA 8260D5-27-215-27-211,1,1,2-TetrachloroethaneND0.0010EPA 8260D5-27-215-27-211,1,1,2-TetrachloroethaneND0.0010EPA 8260D5-27-215-27-21BromoformND0.0051EPA 8260D5-27-215-27-21BromobenzeneND0.0010EPA 8260D5-27-215-27-211,1,2,2-TetrachloroethaneND0.0010EPA 8260D5-27-215-27-211,2,3-TrichloropropaneND0.0010EPA 8260D5-27-215-27-212-ChlorotolueneND0.0010EPA 8260D5-27-215-27-21	
1,1,2-Trichloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           Tetrachloroethene         0.0023         0.0010         EPA 8260D         5-27-21         5-27-21           1,3-Dichloropropane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           Dibromochloromethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,2-Dibromoethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,2-Dibromoethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,1,1,2-Tetrachloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,1,1,2-Tetrachloroethane         ND         0.0051         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,1,2,2-Tetrachloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0010 </th <th></th>	
Tetrachloroethene         0.0023         0.0010         EPA 8260D         5-27-21         5-27-21           1,3-Dichloropropane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           Dibromochloromethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,2-Dibromoethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           Chlorobenzene         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,1,1,2-Tetrachloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           Bromoform         ND         0.0051         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,1,2,2-Tetrachloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0010         EPA 8260D         5-27-21         5-27-21	
1,3-Dichloropropane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           Dibromochloromethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,2-Dibromoethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           Chlorobenzene         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,1,1,2-Tetrachloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           Bromoform         ND         0.0051         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,1,2,2-Tetrachloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0010         EPA 8260D         5-27-21         5-27-21	
Dibromochloromethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,2-Dibromoethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           Chlorobenzene         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,1,1,2-Tetrachloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           Bromoform         ND         0.0051         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,1,2,2-Tetrachloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0010         EPA 8260D         5-27-21         5-27-21	
1,2-Dibromoethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           Chlorobenzene         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,1,1,2-Tetrachloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           Bromoform         ND         0.0051         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,1,2,2-Tetrachloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0010         EPA 8260D         5-27-21         5-27-21	
Chlorobenzene         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,1,1,2-Tetrachloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           Bromoform         ND         0.0051         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,1,2,2-Tetrachloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0010         EPA 8260D         5-27-21         5-27-21	
1,1,1,2-Tetrachloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           Bromoform         ND         0.0051         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,1,2,2-Tetrachloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0010         EPA 8260D         5-27-21         5-27-21	
Bromoform         ND         0.0051         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,1,2,2-Tetrachloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0010         EPA 8260D         5-27-21         5-27-21	
Bromobenzene         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,1,2,2-Tetrachloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0010         EPA 8260D         5-27-21         5-27-21	
1,1,2,2-Tetrachloroethane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0010         EPA 8260D         5-27-21         5-27-21	
1,2,3-Trichloropropane         ND         0.0010         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0010         EPA 8260D         5-27-21         5-27-21	
2-Chlorotoluene ND 0.0010 EPA 8260D 5-27-21 5-27-21	
4-Chlorotoluene ND 0.0010 EPA 8260D 5-27-21 5-27-21	
1,3-Dichlorobenzene ND 0.0010 EPA 8260D 5-27-21 5-27-21	
1,4-Dichlorobenzene ND 0.0010 EPA 8260D 5-27-21 5-27-21	
1,2-Dichlorobenzene ND 0.0010 EPA 8260D 5-27-21 5-27-21	
1,2-Dibromo-3-chloropropane ND 0.0051 EPA 8260D 5-27-21 5-27-21	
1,2,4-Trichlorobenzene ND 0.0010 EPA 8260D 5-27-21 5-27-21	
Hexachlorobutadiene ND 0.0051 EPA 8260D 5-27-21 5-27-21	
1,2,3-Trichlorobenzene ND 0.0010 EPA 8260D 5-27-21 5-27-21	
Surrogate: Percent Recovery Control Limits	
Dibromofluoromethane 102 74-131	
Toluene-d8 99 78-128	

4-Bromofluorobenzene

71-130

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			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
FMW-15-10					
05-186-05					
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0060	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0060	EPA 8260D	5-27-21	5-27-21	
ND	0.0060	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0060	EPA 8260D	5-27-21	5-27-21	
ND	0.0060	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0060	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
ND	0.0012	EPA 8260D	5-27-21	5-27-21	
	FMW-15-10  05-186-05  ND  ND  ND  ND  ND  ND  ND  ND  ND  N	FMW-15-10           05-186-05         0.0012           ND         0.0060           ND         0.0062           ND         0.0060           ND         0.0060           ND         0.0012           ND         0.0012           ND         0.0060           ND         0.0060           ND         0.0012           ND         0.0060           ND         0.0060           ND         0.0060	FMW-15-10           05-186-05         0.0012         EPA 8260D           ND         0.0060         EPA 8260D           ND         0.0012         EPA 8260D           ND         0.0060         EPA 8260D           ND         0.0060         EPA 8260D           ND         0.0012         EPA 8260D           ND         0.0012         EPA 8260D           ND         0.0060         EPA 8260D           ND         0.0060         EPA 8260D           ND         0.0012         EPA 8260D	Result         PQL         Method         Prepared           FMW-15-10 05-186-05         0.0012         EPA 8260D         5-27-21           ND         0.0060         EPA 8260D         5-27-21           ND         0.0012         EPA 8260D         5-27-21           ND         0.0060         EPA 8260D         5-27-21           ND         0.0060         EPA 8260D         5-27-21           ND         0.0012         EPA 8260D         5-27-21           ND         0.0012         EPA 8260D         5-27-21           ND         0.0012         EPA 8260D         5-27-21           ND         0.0060         EPA 8260D         5-27-21           ND         0.0060         EPA 8260D         5-27-21           ND         0.0012         EPA 8260	Result         PQL         Method         Prepared         Analyzed           FMW-15-10 05-186-05         5-27-21         5-27-21         5-27-21           ND         0.0012         EPA 8260D         5-27-21         5-27-21           ND         0.0060         EPA 8260D         5-27-21         5-27-21           ND         0.0060         EPA 8260D         5-27-21         5-27-21           ND         0.0060         EPA 8260D         5-27-21         5-27-21           ND         0.0012         EPA 8260D         5-27-21         5-27-21           ND         0.0060         EPA 8260D         5-27-21         5-27-21           ND         0.0012         EPA 8260D         5

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#### **VOLATILE ORGANICS EPA 8260D**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	FMW-15-10					
Laboratory ID:	05-186-05					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Tetrachloroethene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Dibromochloromethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Chlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Bromoform	ND	0.0060	EPA 8260D	5-27-21	5-27-21	
Bromobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
2-Chlorotoluene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
4-Chlorotoluene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromo-3-chloropropane	ND	0.0060	EPA 8260D	5-27-21	5-27-21	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Hexachlorobutadiene	ND	0.0060	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	105	74-131				
Toluene-d8	102	78-128				

4-Bromofluorobenzene

71-130

Project: 2032-012

#### VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

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oriito. Trig/ikg				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0527S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Chloromethane	ND	0.0050	EPA 8260D	5-27-21	5-27-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Bromomethane	ND	0.0050	EPA 8260D	5-27-21	5-27-21	
Chloroethane	ND	0.0050	EPA 8260D	5-27-21	5-27-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
lodomethane	ND	0.0050	EPA 8260D	5-27-21	5-27-21	
Methylene Chloride	ND	0.0050	EPA 8260D	5-27-21	5-27-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Bromochloromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Chloroform	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Trichloroethene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Dibromomethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	5-27-21	5-27-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	

Project: 2032-012

#### VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						_
Laboratory ID:	MB0527S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Chlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Bromoform	ND	0.0050	EPA 8260D	5-27-21	5-27-21	
Bromobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromo-3-chloropropane	. ND	0.0050	EPA 8260D	5-27-21	5-27-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	103	74-131				
Toluene-d8	100	78-128				
4-Bromofluorobenzene	103	71-130				

Project: 2032-012

#### VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB05	27S1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0522	0.0503	0.0500	0.0500	104	101	71-131	4	19	
Benzene	0.0512	0.0511	0.0500	0.0500	102	102	73-124	0	18	
Trichloroethene	0.0546	0.0566	0.0500	0.0500	109	113	79-130	4	18	
Toluene	0.0517	0.0525	0.0500	0.0500	103	105	76-123	2	18	
Chlorobenzene	0.0512	0.0533	0.0500	0.0500	102	107	78-122	4	18	
Surrogate:										
Dibromofluoromethane					101	98	74-131			
Toluene-d8					101	102	78-128			
4-Bromofluorobenzene					100	100	71-130			

#### **% MOISTURE**

Client ID	Lab ID	% Moisture	Date Analyzed
FMW-14-6	05-186-01	15	5-27-21
FMW-14-12	05-186-02	27	5-27-21
FMW-15-5	05-186-04	18	5-27-21
FMW-15-10	05-186-05	30	5-27-21



#### **Data Qualifiers and Abbreviations**

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical .
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
- Y1 Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.

Z -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





# **Chain of Custody**

Page \_\_\_\_ of \_\_

	Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052		naround Rec working da			L	abo	orat	ory	Nu	mb	er:	0.5	j -	18	36									
Project Nur Project Nar Project Ma Sampled b	2032-012  C8th Avenue South  nager:	X	octory (other)	1 Day 3 Days	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx ( Acid / SG Clean-up)	Volatiles 8260D	Halogenated Volatiles 8260D	EDB EPA 8011 (Waters Only)	Sernivolatiles 8270E/SIM (with low-level PAHs) PAHs 8270E/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270E/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A				isture
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Num	NWT	TWN	TWN	TWN	Volati	Halog	EDB	Semi (with PAHs	PCBs	Organ	Organ	Chlor	Total	Total	TCLP	HEM				% Moisture
	Fuw-14-6	511921	0905	SOIL	4						X														X
2	FMW-14-12		0915	Í	Í						X														X
3	FMW-14-18		0920																						
4	FMW-15-5		1145								X														X
5	FMW-15-10		1150								X														X
6	FMW-15-14		1200																						
7	FMW-15-20	V	1205	V	V																				
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14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 1, 2021

Pete Kingston Farallon Consulting 1809 7th Avenue, Suite 1111 Seattle, WA 98101

Re: Analytical Data for Project 2032-012

Laboratory Reference No. 2105-188

#### Dear Pete:

Enclosed are the analytical results and associated quality control data for samples submitted on May 19, 2021.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

**Enclosures** 



Project: 2032-012

#### **Case Narrative**

Samples were collected on May 19, 2021 and received by the laboratory on May 19, 2021. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Project: 2032-012

#### **VOLATILE ORGANICS EPA 8260D**

page 1 of 2

Omic. mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-31-5					
Laboratory ID:	05-188-01					
Dichlorodifluoromethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Chloromethane	ND	0.0065	EPA 8260D	5-27-21	5-27-21	
Vinyl Chloride	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Bromomethane	ND	0.0065	EPA 8260D	5-27-21	5-27-21	
Chloroethane	ND	0.0065	EPA 8260D	5-27-21	5-27-21	
Trichlorofluoromethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
lodomethane	ND	0.0065	EPA 8260D	5-27-21	5-27-21	
Methylene Chloride	ND	0.0065	EPA 8260D	5-27-21	5-27-21	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
2,2-Dichloropropane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Bromochloromethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Chloroform	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloropropene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Trichloroethene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloropropane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Dibromomethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Bromodichloromethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
2-Chloroethyl Vinyl Ether	ND	0.0065	EPA 8260D	5-27-21	5-27-21	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	

Project: 2032-012

#### **VOLATILE ORGANICS EPA 8260D**

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-31-5					
Laboratory ID:	05-188-01					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Tetrachloroethene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,3-Dichloropropane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Dibromochloromethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromoethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Chlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Bromoform	ND	0.0065	EPA 8260D	5-27-21	5-27-21	
Bromobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
2-Chlorotoluene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
4-Chlorotoluene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromo-3-chloropropane	ND	0.0065	EPA 8260D	5-27-21	5-27-21	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Hexachlorobutadiene	ND	0.0065	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Surrogate:	Percent Recovery	Control Limits				_
Dibromofluoromethane	100	74-131				
Toluene-d8	101	78-128				

4-Bromofluorobenzene

71-130

Project: 2032-012

#### **VOLATILE ORGANICS EPA 8260D**

page 1 of 2

Onito. Mg/Ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-31-10					
Laboratory ID:	05-188-02					
Dichlorodifluoromethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Chloromethane	ND	0.0062	EPA 8260D	5-27-21	5-27-21	
Vinyl Chloride	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Bromomethane	ND	0.0062	EPA 8260D	5-27-21	5-27-21	
Chloroethane	ND	0.0062	EPA 8260D	5-27-21	5-27-21	
Trichlorofluoromethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Iodomethane	ND	0.0062	EPA 8260D	5-27-21	5-27-21	
Methylene Chloride	ND	0.0062	EPA 8260D	5-27-21	5-27-21	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
2,2-Dichloropropane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Bromochloromethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Chloroform	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Carbon Tetrachloride	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloropropene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloroethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Trichloroethene	0.013	0.0012	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloropropane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Dibromomethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Bromodichloromethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
2-Chloroethyl Vinyl Ether	ND	0.0062	EPA 8260D	5-27-21	5-27-21	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D**

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-31-10					
Laboratory ID:	05-188-02					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Tetrachloroethene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,3-Dichloropropane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Dibromochloromethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromoethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Chlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Bromoform	ND	0.0062	EPA 8260D	5-27-21	5-27-21	
Bromobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
2-Chlorotoluene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
4-Chlorotoluene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromo-3-chloropropane	ND	0.0062	EPA 8260D	5-27-21	5-27-21	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Hexachlorobutadiene	ND	0.0062	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260D	5-27-21	5-27-21	
Surrogate:	Percent Recovery	Control Limits				_
Dibromofluoromethane	102	74-131				
Toluene-d8	100	78-128				

4-Bromofluorobenzene

71-130

Project: 2032-012

### **VOLATILE ORGANICS EPA 8260D**

page 1 of 2

Onite: mg/ttg				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-31-12					
Laboratory ID:	05-188-03					
Dichlorodifluoromethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Chloromethane	ND	0.0066	EPA 8260D	5-27-21	5-27-21	
Vinyl Chloride	0.026	0.0013	EPA 8260D	5-27-21	5-27-21	
Bromomethane	ND	0.0066	EPA 8260D	5-27-21	5-27-21	
Chloroethane	ND	0.0066	EPA 8260D	5-27-21	5-27-21	
Trichlorofluoromethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
lodomethane	ND	0.0066	EPA 8260D	5-27-21	5-27-21	
Methylene Chloride	ND	0.0066	EPA 8260D	5-27-21	5-27-21	
(trans) 1,2-Dichloroethene	0.0092	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
2,2-Dichloropropane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
(cis) 1,2-Dichloroethene	0.21	0.0013	EPA 8260D	5-27-21	5-27-21	
Bromochloromethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Chloroform	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Carbon Tetrachloride	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloropropene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Trichloroethene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloropropane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Dibromomethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Bromodichloromethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
2-Chloroethyl Vinyl Ether	ND	0.0066	EPA 8260D	5-27-21	5-27-21	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-31-12					
Laboratory ID:	05-188-03					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Tetrachloroethene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,3-Dichloropropane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Dibromochloromethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromoethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Chlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Bromoform	ND	0.0066	EPA 8260D	5-27-21	5-27-21	
Bromobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
2-Chlorotoluene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
4-Chlorotoluene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromo-3-chloropropane	ND	0.0066	EPA 8260D	5-27-21	5-27-21	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Hexachlorobutadiene	ND	0.0066	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260D	5-27-21	5-27-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	105	74-131				
Toluene-d8	102	78-128				

4-Bromofluorobenzene

71-130

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#### **VOLATILE ORGANICS EPA 8260D**

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ome. mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-31-15			-		
Laboratory ID:	05-188-04					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Chloromethane	ND	0.0051	EPA 8260D	5-27-21	5-27-21	
Vinyl Chloride	0.010	0.0010	EPA 8260D	5-27-21	5-27-21	
Bromomethane	ND	0.0051	EPA 8260D	5-27-21	5-27-21	
Chloroethane	ND	0.0051	EPA 8260D	5-27-21	5-27-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Iodomethane	ND	0.0051	EPA 8260D	5-27-21	5-27-21	
Methylene Chloride	ND	0.0051	EPA 8260D	5-27-21	5-27-21	
(trans) 1,2-Dichloroethene	0.0050	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
(cis) 1,2-Dichloroethene	0.091	0.0010	EPA 8260D	5-27-21	5-27-21	
Bromochloromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Chloroform	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Trichloroethene	0.0038	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Dibromomethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260D	5-27-21	5-27-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-31-15					
Laboratory ID:	05-188-04					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Chlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Bromoform	ND	0.0051	EPA 8260D	5-27-21	5-27-21	
Bromobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromo-3-chloropropane	ND	0.0051	EPA 8260D	5-27-21	5-27-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Hexachlorobutadiene	ND	0.0051	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	107	74-131				
Toluene-d8	102	78-128				

4-Bromofluorobenzene

71-130

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	F-31-19.5					
Laboratory ID:	05-188-05					
Dichlorodifluoromethane	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
Chloromethane	ND	0.0055	EPA 8260D	5-27-21	5-27-21	
Vinyl Chloride	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
Bromomethane	ND	0.0055	EPA 8260D	5-27-21	5-27-21	
Chloroethane	ND	0.0055	EPA 8260D	5-27-21	5-27-21	
Trichlorofluoromethane	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethene	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
lodomethane	ND	0.0055	EPA 8260D	5-27-21	5-27-21	
Methylene Chloride	ND	0.0055	EPA 8260D	5-27-21	5-27-21	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethane	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
2,2-Dichloropropane	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
(cis) 1,2-Dichloroethene	0.0029	0.0011	EPA 8260D	5-27-21	5-27-21	
Bromochloromethane	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
Chloroform	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
Carbon Tetrachloride	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloropropene	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloroethane	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
Trichloroethene	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloropropane	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
Dibromomethane	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
Bromodichloromethane	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
2-Chloroethyl Vinyl Ether	ND	0.0055	EPA 8260D	5-27-21	5-27-21	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260D	5-27-21	5-27-21	

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Client ID:   F-31-19.5					Date	Date	
Laboratory ID:   05-188-05     1,1,2-Trichloroethane   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,3-Dichloropropane   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,3-Dichloropropane   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,3-Dibromochloromethane   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,2-Dibromochloromethane   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,2-Dibromoethane   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,1,1,2-Tetrachloroethane   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,1,1,2-Tetrachloroethane   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,1,2,2-Tetrachloroethane   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,1,2,2-Tetrachloroethane   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,2,3-Trichloropropane   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,2,3-Trichloropropane   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,3-Dichlorobenzene   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,3-Dichlorobenzene   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,4-Dichlorobenzene   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,4-Dichlorobenzene   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,2-Dibromo-3-chloropropane   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,2-Dibromo-3-chloropropane   ND   0.0055   EPA 8260D   5-27-21   5-27-21   1,2-Trichlorobenzene   ND   0.0011   EPA 8260D   5-27-21   5-27-21   1,2-Dibromo-3-chloropropane   ND   0.0055   EPA 8260D   5-27-21   5-27-21   1,2-Trichlorobenzene   ND   0.0055   EPA 8260D   5-27-21   5-27-21   1,2-Trichlorobenzene   ND   0.0055   EPA 8260D   5-27-21   5-27-21   1,2-3-Trichlorobenzene   ND   0.0055   EPA 8260D   5-27-21   5-27-21   1,2-3-Trichlorobenzene	Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
1,1,2-Trichloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Tetrachloroethene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,3-Dichloropropane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,3-Dibromoethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dibromoethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,2-Dibromoethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,1,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,1,2-Tetrachloroethane         ND         0.0055         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,2,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0011	Client ID:	F-31-19.5					
Tetrachloroethene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,3-Dichloropropane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,3-Dichloropropane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dibromoethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,1,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,1,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Bromoform         ND         0.0055         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,3-Dichlorobenzene         ND         0.0011         EPA 8260D	Laboratory ID:	05-188-05					
1,3-Dichloropropane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Dibromochloromethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dibromoethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,1,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,1,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Bromoform         ND         0.0055         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,3-Dichlorobenzene         ND         0.0011         EPA 8260D	1,1,2-Trichloroethane	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
Dibromochloromethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dibromoethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,1,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,1,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Bromoform         ND         0.0055         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,2,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           4-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,3-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,4-Dichlorobenzene         ND         0.0011	Tetrachloroethene	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromoethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Chlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,1,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Bromoform         ND         0.0055         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,2,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           4-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           4-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,3-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dichlorobenzene         ND         0.0011         EPA 8260D	1,3-Dichloropropane	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
Chlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,1,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Bromoform         ND         0.0055         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,2,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           4-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,3-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,4-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dibromo-3-chloropropane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2,4-Trichlorobenzene         ND         0.0055	Dibromochloromethane	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
1,1,1,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Bromoform         ND         0.0055         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,2,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           4-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,3-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,4-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Partichlorobenzene         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,4-Trichlorobenzene         ND         0.0011 <td< td=""><td>1,2-Dibromoethane</td><td>ND</td><td>0.0011</td><td>EPA 8260D</td><td>5-27-21</td><td>5-27-21</td><td></td></td<>	1,2-Dibromoethane	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
Bromoform         ND         0.0055         EPA 8260D         5-27-21         5-27-21           Bromobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,2,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           4-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,3-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,4-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2,4-Trichlorobenzene         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichlorobenzene         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichlorobenzene         ND         0.0011         EP	Chlorobenzene	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
Bromobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,1,2,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           4-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,3-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,4-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2,4-Trichlorobenzene         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,4-Trichlorobenzene         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichlorobenzene         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichlorobenzene         ND         0.0011	1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
1,1,2,2-Tetrachloroethane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichloropropane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           4-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,3-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,4-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dibromo-3-chloropropane         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,4-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Hexachlorobutadiene         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichlorobenzene         ND         0	Bromoform	ND	0.0055	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichloropropane         ND         0.0011         EPA 8260D         5-27-21         5-27-21           2-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           4-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,3-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,4-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2,4-Trichlorobenzene         ND         0.0055         EPA 8260D         5-27-21         5-27-21           Hexachlorobutadiene         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21	Bromobenzene	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
2-ChlorotolueneND0.0011EPA 8260D5-27-215-27-214-ChlorotolueneND0.0011EPA 8260D5-27-215-27-211,3-DichlorobenzeneND0.0011EPA 8260D5-27-215-27-211,4-DichlorobenzeneND0.0011EPA 8260D5-27-215-27-211,2-DichlorobenzeneND0.0011EPA 8260D5-27-215-27-211,2-Dibromo-3-chloropropaneND0.0055EPA 8260D5-27-215-27-211,2,4-TrichlorobenzeneND0.0011EPA 8260D5-27-215-27-21HexachlorobutadieneND0.0055EPA 8260D5-27-215-27-211,2,3-TrichlorobenzeneND0.0011EPA 8260D5-27-215-27-21	1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
4-Chlorotoluene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,3-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,4-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dibromo-3-chloropropane         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,4-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Hexachlorobutadiene         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21	1,2,3-Trichloropropane	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
1,3-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,4-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dibromo-3-chloropropane         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,4-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Hexachlorobutadiene         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21	2-Chlorotoluene	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
1,4-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dibromo-3-chloropropane         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,4-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Hexachlorobutadiene         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21	4-Chlorotoluene	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
1,2-Dichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           1,2-Dibromo-3-chloropropane         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,4-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Hexachlorobutadiene         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21	1,3-Dichlorobenzene	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromo-3-chloropropane         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,4-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Hexachlorobutadiene         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21	1,4-Dichlorobenzene	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
1,2,4-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21           Hexachlorobutadiene         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21	1,2-Dichlorobenzene	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
Hexachlorobutadiene         ND         0.0055         EPA 8260D         5-27-21         5-27-21           1,2,3-Trichlorobenzene         ND         0.0011         EPA 8260D         5-27-21         5-27-21	1,2-Dibromo-3-chloropropane	ND	0.0055	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichlorobenzene ND 0.0011 EPA 8260D 5-27-21 5-27-21	1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
_ , ,	Hexachlorobutadiene	ND	0.0055	EPA 8260D	5-27-21	5-27-21	
Surrogate: Percent Recovery Control Limits	1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260D	5-27-21	5-27-21	
	Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane 107 74-131	Dibromofluoromethane	107	74-131				
Toluene-d8 103 78-128	Toluene-d8	103	78-128				

4-Bromofluorobenzene

71-130

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#### VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

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oriito. Trig/ikg				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0527S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Chloromethane	ND	0.0050	EPA 8260D	5-27-21	5-27-21	
Vinyl Chloride	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Bromomethane	ND	0.0050	EPA 8260D	5-27-21	5-27-21	
Chloroethane	ND	0.0050	EPA 8260D	5-27-21	5-27-21	
Trichlorofluoromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
lodomethane	ND	0.0050	EPA 8260D	5-27-21	5-27-21	
Methylene Chloride	ND	0.0050	EPA 8260D	5-27-21	5-27-21	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
2,2-Dichloropropane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Bromochloromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Chloroform	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Carbon Tetrachloride	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1-Dichloropropene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Trichloroethene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2-Dichloropropane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Dibromomethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Bromodichloromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260D	5-27-21	5-27-21	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	

Project: 2032-012

#### VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0527S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Tetrachloroethene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,3-Dichloropropane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Dibromochloromethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromoethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Chlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Bromoform	ND	0.0050	EPA 8260D	5-27-21	5-27-21	
Bromobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
2-Chlorotoluene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
4-Chlorotoluene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
1,2-Dibromo-3-chloropropane	. ND	0.0050	EPA 8260D	5-27-21	5-27-21	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Hexachlorobutadiene	ND	0.0050	EPA 8260D	5-27-21	5-27-21	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260D	5-27-21	5-27-21	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	103	74-131				
Toluene-d8	100	78-128				
4-Bromofluorobenzene	103	71-130				

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#### VOLATILE ORGANICS EPA 8260D QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB05	27S1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0522	0.0503	0.0500	0.0500	104	101	71-131	4	19	
Benzene	0.0512	0.0511	0.0500	0.0500	102	102	73-124	0	18	
Trichloroethene	0.0546	0.0566	0.0500	0.0500	109	113	79-130	4	18	
Toluene	0.0517	0.0525	0.0500	0.0500	103	105	76-123	2	18	
Chlorobenzene	0.0512	0.0533	0.0500	0.0500	102	107	78-122	4	18	
Surrogate:										
Dibromofluoromethane					101	98	74-131			
Toluene-d8					101	102	78-128			
4-Bromofluorobenzene					100	100	71-130			

#### **% MOISTURE**

Client ID	Lab ID	% Moisture	Date Analyzed
F-31-5	05-188-01	14	5-27-21
F-31-10	05-188-02	29	5-27-21
F-31-12	05-188-03	29	5-27-21
F-31-15	05-188-04	27	5-27-21
F-31-19.5	05-188-05	24	5-27-21



#### **Data Qualifiers and Abbreviations**

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical .
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.
- Y The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
- Y1 Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.

7 -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference





# **Chain of Custody**

Page \_\_\_\_ of \_\_\_

	Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Turnaround Request (in working days)  Laboratory Number:							er:	05-188																
Sample	Farallon Consolting Number:  2032-012 Name:  68th Avenue South Manager:  P. Kingston d by:  C. McKenney	Date	dard (7 Days)  ACL () (other)	1 Day 3 Days	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260D	Halogenated Volatiles 8260D	EDB EPA 8011 (Waters Only)	Semivolatiles 8270E/SIM (with low-level PAHs)	NHs 8270E/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270E/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A				% Moisture
Lab ID	Sample Identification	511921	Sampled 1530	Matrix	4	Z	Z	Z	Z	×	X	Ш	\$ E	<u>P</u>	а.	0	0	0	12	P	Ĕ	I				X
2	Sample Identification  7 - 25 - 5  7 - 25 - 10  7 - 25 - 12  7 - 25 - 15  7 - 25 - 15	J	1535	1	1		$\vdash$				X															X
3	31 F-28-12		1540								X															X
4	F-25-15		1545								X															Y
5	F-31-19.5	V	1550	V	V						X															7
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Relino	uished			-00				111	.01	-		,		X	-	Ad	lde		5/	21	121	. I	D			
Recei	red																									
Relino	uished																									
Received												Data Package: Standard ☐ Level III ☐ Level IV ☐														
Reviewed/Date Reviewed/													Chro	mato	gram	s wit	th fin	al rep	oort [	] El	ectron	nic Dat	ta Deli	verable	s (EDDs	5) 🗌

## APPENDIX F TERRESTRIAL ECOLOGICAL EVALUATION FORM

REMEDIAL INVESTIGATION AND FEASIBILITY STUDY REPORT 18420 68<sup>th</sup> Avenue South Kent, Washington

Farallon PN: 2032-012



# **Voluntary Cleanup Program**

Washington State Department of Ecology Toxics Cleanup Program

# TERRESTRIAL ECOLOGICAL EVALUATION FORM

Under the Model Toxics Control Act (MTCA), a terrestrial ecological evaluation is necessary if hazardous substances are released into the soils at a Site. In the event of such a release, you must take one of the following three actions as part of your investigation and cleanup of the Site:

- 1. Document an exclusion from further evaluation using the criteria in WAC 173-340-7491.
- 2. Conduct a simplified evaluation as set forth in WAC 173-340-7492.
- 3. Conduct a site-specific evaluation as set forth in WAC 173-340-7493.

When requesting a written opinion under the Voluntary Cleanup Program (VCP), you must complete this form and submit it to the Department of Ecology (Ecology). The form documents the type and results of your evaluation.

Completion of this form is not sufficient to document your evaluation. You still need to document your analysis and the basis for your conclusion in your cleanup plan or report.

If you have questions about how to conduct a terrestrial ecological evaluation, please contact the Ecology site manager assigned to your Site. For additional guidance, please refer to <a href="https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Terrestrial-ecological-evaluation">https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Terrestrial-ecological-evaluation</a>.

Step 1: IDENTIFY HAZARDOUS WASTE SITE							
Please identify below the hazardous waste site for which you are documenting an evaluation.							
Facility/Site Name: 68th Avenue South							
Facility/Site Address: 18420 68th Avenue South Kent, Washington							
Facility/Site No: 18965792	VCP Project No.:						

Step 2: IDENTIFY EVALUATOR									
Please identify below the person who conducted the evaluation and their contact information.									
Name: Greg Peters Title:Project Environmental Scientist									
Organization: Farallon Consulting									
Mailing address: 975 5th Ave NW									
City: Issaquah	State: WA	Zip code: 98027							
Phone: 425-677-9521 Fax:	E-mail: gpe	ters@farallonconsulting.com							

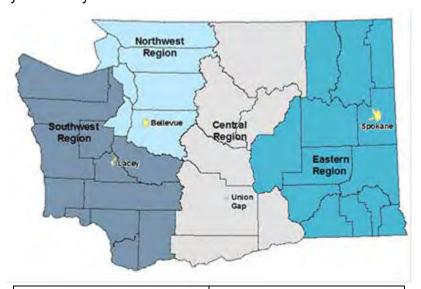
## Step 3: DOCUMENT EVALUATION TYPE AND RESULTS A. Exclusion from further evaluation. 1. Does the Site qualify for an exclusion from further evaluation? If you answered "YES," then answer Question 2. X Yes □No or If you answered "NO" or "UNKNOWN," then skip to Step 3B of this form. Unknown 2. What is the basis for the exclusion? Check all that apply. Then skip to Step 4 of this form. Point of Compliance: WAC 173-340-7491(1)(a) X All soil contamination is, or will be,\* at least 15 feet below the surface. All soil contamination is, or will be,\* at least 6 feet below the surface (or alternative depth if approved by Ecology), and institutional controls are used to manage remaining contamination. Barriers to Exposure: WAC 173-340-7491(1)(b) All contaminated soil, is or will be,\* covered by physical barriers (such as buildings or X paved roads) that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination. Undeveloped Land: WAC 173-340-7491(1)(c) There is less than 0.25 acres of contiguous# undeveloped land on or within 500 feet of any area of the Site and any of the following chemicals is present: chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene. For sites not containing any of the chemicals mentioned above, there is less than 1.5 X acres of contiguous# undeveloped± land on or within 500 feet of any area of the Site. Background Concentrations: WAC 173-340-7491(1)(d) Concentrations of hazardous substances in soil do not exceed natural background levels as described in WAC 173-340-200 and 173-340-709. \* An exclusion based on future land use must have a completion date for future development that is acceptable to Ecology. <sup>±</sup> "Undeveloped land" is land that is not covered by building, roads, paved areas, or other barriers that would prevent wildlife from feeding on plants, earthworms, insects, or other food in or on the soil. # "Contiguous" undeveloped land is an area of undeveloped land that is not divided into smaller areas of highways, extensive paving, or similar structures that are likely to reduce the potential use of the overall area by wildlife.

В.	Simplified e	evaluation.								
1.	. Does the Site qualify for a simplified evaluation?									
	☐ Ye	s If you answered "YES," then answer Question 2 below.								
	☐ No Unkno	IT VOLLANSWERED "NOT" OF "LINKNOVVN" THEN SKIN TO STED SC. OT THIS TORM								
2.	Did you conduct a simplified evaluation?									
	☐ Ye	s If you answered "YES," then answer Question 3 below.								
	☐ No	If you answered "NO," then skip to Step 3C of this form.								
3.	. Was further evaluation necessary?									
	☐ Ye	s If you answered "YES," then answer Question 4 below.								
	☐ No	If you answered "NO," then answer Question 5 below.								
4.	If further ev	aluation was necessary, what did you do?								
		Used the concentrations listed in Table 749-2 as cleanup levels. If so, then skip to <b>Step 4</b> of this form.								
		Conducted a site-specific evaluation. If so, then skip to <b>Step 3C</b> of this form.								
5.	If no further to Step 4 of	evaluation was necessary, what was the reason? Check all that apply. Then skip this form.								
	Exposure Analysis: WAC 173-340-7492(2)(a)									
	Area of soil contamination at the Site is not more than 350 square feet.									
	☐ Cu	urrent or planned land use makes wildlife exposure unlikely. Used Table 749-1.								
	Pathway Analysis: WAC 173-340-7492(2)(b)									
	☐ No potential exposure pathways from soil contamination to ecological receptors.									
	Contaminant Analysis: WAC 173-340-7492(2)(c)									
		No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations that exceed the values listed in Table 749-2.								
		No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations that exceed the values listed in Table 749-2, and institutional controls are used to manage remaining contamination.								
		No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays.								
		No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays, and institutional controls are used to manage remaining contamination.								

C.	<b>C. Site-specific evaluation.</b> A site-specific evaluation process consists of two parts: (1) formulating the problem, and (2) selecting the methods for addressing the identified problem. Both steps require consultation with and approval by Ecology. See WAC 173-340-7493(1)(c).								
1.	I. Was there a problem	<b>1?</b> See WAC 173-340-7493(2).							
	☐ Yes If yo	ou answered "YES," then answer Question 2 below.							
	No If you answered " <b>NO</b> ," then identify the reason here and then skip to <b>Question 5</b> below:								
		No issues were identified during the problem formulation step.							
		While issues were identified, those issues were addressed by the cleanup actions for protecting human health.							
2.	2. What did you do to r	resolve the problem? See WAC 173-340-7493(3).							
		e concentrations listed in Table 749-3 as cleanup levels. <i>If so, then skip to</i> <b>n 5</b> below.							
		e or more of the methods listed in WAC 173-340-7493(3) to evaluate and the identified problem. <i>If so, then answer Questions 3 and 4 below.</i>							
3.	-	ther site-specific evaluations, what methods did you use? See WAC 173-340-7493(3).							
	_	e surveys.							
	☐ Soil bioa	•							
	<u></u>	exposure model.							
	☐ Site-spec	cific field studies.							
	☐ Weight o	f evidence.							
	Other me	ethods approved by Ecology. If so, please specify:							
4.	4. What was the result of those evaluations?								
	Confirme	ed there was no problem.							
	Confirme	ed there was a problem and established site-specific cleanup levels.							
5.	5. Have you already obtained Ecology's approval of both your problem formulation and problem resolution steps?								
	Yes If so, please identify the Ecology staff who approved those steps:								
	☐ No								

## Step 4: SUBMITTAL

Please mail your completed form to the Ecology site manager assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.



Northwest Region: Attn: VCP Coordinator 3190 160<sup>th</sup> Ave. SE Bellevue, WA 98008-5452

Southwest Region: Attn: VCP Coordinator P.O. Box 47775 Olympia, WA 98504-7775 Central Region: Attn: VCP Coordinator

1250 West Alder St.
Union Gap, WA 98903-0009

Eastern Region: Attn: VCP Coordinator N. 4601 Monroe Spokane WA 99205-1295





500-FOOT PROPERTY RADIUS BOUNDARY

PROPERTY BOUNDARY



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## FIGURE 1

500-FOOT PROPERTY RADIUS BOUNDARY FOR TERRESTRIAL ECOLOGICAL EVALUATION 18420 68th AVENUE SOUTH KENT, WASHINGTON

FARALLON PN: 2032-012

NOTES: 1. ALL LOCATIONS ARE APPROXIMATE.

2. FIGURES WERE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.

Date: 4/15/2021 Disc Reference:
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